### IMPACT FACTORS AND THE EVALUATION OF JOURNAL QUALITY

**William M. Timpson, Professor**  
School of Education

As faculty across campus submit their scholarly productivity for annual review or promotion and tenure decisions, many face judgments based on the “Impact Factor” (IF) of the journals in which they have published. It is incumbent upon faculty and administrators to understand the value and the limitations of these numerical calculations. The following review was published in 2005.

#### The "impact factor" revisited

**Peng Dong, Marie Loh and Adrian Mondry**  
Address: Medical Statistics and Epidemiology Group, Bioinformatics Institute, BMRC, A*STAR, Singapore  
online at: [http://www.biolog.com/content/2/1/7](http://www.biolog.com/content/2/1/7)

**Abstract**

The number of scientific journals has become so large that individuals, institutions and institutional libraries cannot completely store their physical content. In order to prioritize the choice of quality information sources, librarians and scientists are in need of reliable decision aids. The "impact factor" (IF) is the most commonly used assessment aid for deciding which journals should receive a scholarly submission or attention from research readership. It is also an often misunderstood tool. This narrative review explains how the IF is calculated, how bias is introduced into the calculation, which questions the IF can or cannot answer, and how different professional groups can benefit from IF use.

### GUNS ON CAMPUS—SERIOUSLY?

**Ray Hogler, Professor Management**

The National Rifle Association (NRA) offers suggestions about safety in schools that should be considered by institutions of higher education in this state. How should we address the issues raised by the NRA? Here are the NRA’s basic rules and their implications for armed students and employees on our campuses.

**Rule 1:** “Psychotic killers attack ‘gun free zones’ like schools.” The Colorado legislature has authorized concealed carry permits in our institutions of higher education, a law which continues in effect until the legislature adopts a new rule and the Governor signs it.

Assuming the presence of guns will deter psychotic killers, administrators should access the available data bases of concealed carry holders and cross-reference the list with students, staff and faculty at all universities, colleges and community colleges.

The list should be posted on a website open to any person. According to the NRA’s reasoning, when the location of firearms is made public, the less likely an attack will be and psychotic killers will know what classrooms and offices to stay away from.

**Rule 2:** “Only a good guy with a gun can stop a bad guy with a gun.” Again, there are probably enough guns already floating around campuses to stop bad guys, so the problem is knowing who the good guy is and who is the bad guy. Most students look pretty
Differences across research fields and subject areas

Different citing behavior across subject field imposes a bias on the IF. Articles in rapidly growing areas tend to cite much more recent references than more traditional research fields, in particular theoretical and mathematical areas [13]. This diversity leads to the wide variance of IFs across subject categories. The IF of underrepresented fields is affected negatively [13].

The wide use of the IF, combined with obvious flaws, has motivated researchers in scientometrics to try to improve the algorithm for the calculation of the IF or to develop alternative journal citation measures altogether.

What questions does the impact factor not answer?

The IF cannot assess the quality of individual articles, due to the qualitative variety of citations distributed in a journal [13,31,32]. A small proportion of articles count for a large percentage of citations. This means that a typical article in a high IF journal may not be cited more frequently than an average article in a relative low IF journal. As a result, IF alone is not able to judge the individual article's or author's performance.

What question does the impact factor answer?

Strictly speaking, the journal IF only measures the average citation rate of all the "citable" articles (research articles, technical notes and reviews) in a journal. As such, IF is not a perfect tool to measure the journal quality. However, in most much the same — young and personable, like James Holmes.

Following on with the rationale of rule 1, we need to openly identify who’s carrying a gun at any given time. If we publicly announce that Janie Jones has a permit and brings her Glock to class, then we will know she is a “good guy.”

If gunfire erupts, one of Janie’s classmates won’t try to disarm her and possibly get killed or kill her in the process. When Jared Loughner shot Gabrielle Gifford and others in an Arizona shopping mall, armed onlookers were unable to decide who should be fired on, and unarmed citizens stopped Loughner from further mayhem.

Rule 3: “Schools need armed security guards for protection.” We can all agree that the only effective defense against a heavily-armed psychotic killer is a better-armed and better-trained killer. Institutions should implement a tuition increase to fund armed guards for classrooms and offices where guns aren’t readily available.

The security guards should wear appropriate body armor and carry an assault rifle with high-capacity magazines and a large caliber sidearm. Students should be happy to pay a little extra money for their guaranteed personal safety.

In addition to safety, there are other benefits to implementing the NRA plan. Along with making sure Second Amendment rights are protected, the plan would also guarantee First Amendment rights because any serious disagreement could end in gunplay.

If students were assured that any attempted violence to silence them could be met with deadly force, they would enjoy the full freedom promised by the NRA: freedom
cases, it performs what it promises when various flaws are taken into active consideration. Ready accessibility and regular updates of the ISI IF provides the best available indicator for journal quality, accepted widely within the scientific community.

Journals with the highest IF in each discipline are usually the most prestigious ones [8]. It can be considered as a general guideline that helps librarians determine which journals to purchase, helps authors to decide which journal to submit their work to, helps editors and publishers to assess their journals, and helps the funding agencies to shortlist applicants.

Garfield [11] points out the IF's surrogate function as a measure of potential future impact of very recent publications, and as a safeguard against hiding ineffective research where funding may have been obtained through political connections rather than research quality. In Garfield's words: "impact simply reflects the ability of journals and editors to attract the best papers available" [53].

**

Conclusion

The present narrative review gives an introduction to the scientometrics of the ISI IF to non-specialist librarians, researchers and administrators. It describes the IF as a bibliometric tool with limited explanatory power. The IF must be used with full knowledge of its limitations and can then serve as an indirect affiliated indicator of research quality. More precise information can be gained if some of the described alternative measures are appropriately used.

Visit the AAUP-CSU website: http://aaupcsu.org/

from fear of being attacked.

In short, we should take the NRA’s recommendations seriously and discuss what they mean to us as a nation. One result is that we might begin to understand what kind of society we live in.

**

History Professor Mark Fiege: “I am wondering if AAUP or our AAUP-CSU chapter has a policy regarding the concealed carry law and weapons in general. I believe it is within my rights that my classroom not have firearms in it. Even more fundamentally, I believe that it is my right to require that my office—which is my personal, locked, restricted intellectual space, filled with my books, notes, and other intellectual products and private property—be free of firearms, save for unusual circumstances that should require the presence of CSU and other police.

“I have placed a telephone call to the CSU Office of the General Counsel to find out what CSU’s official policy is regarding my concerns. I have not yet heard back. I would appreciate any advice you, the chapter, and AAUP might be able to give me on this matter.

“Yes, please send it out or put it in a newsletter. I would appreciate it if you would include as well the question about CSU policy and procedure in the event of a mass shooting. Again, my daughter’s high school has regular drills, but CSU to my knowledge has offered no advice or training about what we should do. I think it’s fair for CSU to respond to these kinds of concerns.”

**
BENEFITS

From the AAUP website

Guidebooks and Newsletters: Navigating Faculty Appointments: Questions and Answers

This guidebook leads readers through questions about employment offers, evaluations and reviews, academic freedom, tenure requirements, and other topics. It is designed to assist both new and experienced faculty members as well as department chairs, deans, and senior administrators. Based on standards of sound academic practice that the AAUP commends to the higher education community, the guide draws on the Association’s long history of implementing such standards in specific situations.
Download (.pdf).

Did You Know? CSU Retirement Benefits Leave Faculty Vulnerable

Gamze Cavdar, Associate Professor, Pol. Sci.

University professors across the country have witnessed their 401-K accounts shrink during the latest economic downturn. However, CSU employees who are hired after 1994 find themselves in a particularly vulnerable situation: CSU faculty, like others in higher education in Colorado (except the faculty of CU Boulder) are not only forced into 401-K only plans (Defined Contribution Plans-DC), but also the employer’s contribution to the existing 401 (k) plan is among the lowest compared to both out of state and in-state peer institutions.

FY12 year-end report of the Benefits Committee reveals that among the out of state peer institutions, CSU is the only university that fails to offer its employees (those who were hired after

Join the AAUP

Joining the AAUP says that you’re concerned about academic freedom, and about the way that basic freedom protects your teaching and research. It says that participating in faculty governance is important to you, and that you are concerned about career issues, tenure, and the overuse of contingent faculty. By joining, faculty members, academic professionals, and graduate students help to shape the future of our profession and proclaim their dedication to the education community. In addition, there are many practical benefits--discounts, insurance programs, financial incentives--available to AAUP members. Join your colleagues today to promote and protect your profession.

Go to the AAUP website and you can join online using their secure electronic form.

At CSU you can contact the following AAUP members for more information

Bill Timpson
William.Timpson@ColoState.edu
491-7630

Steve Mumme
Stephen.Mumme@ColoState.EDU
491-7428

Ray Hogler
Ray.Hogler@business.colostate.edu
491-5221

Sue Doe
Sue.Doe@ColoState.EDU
491-6839

For additional information and more AAUP State conference news:
http://aaupcolorado.org/
1994) the option of a Defined Contribution (DB) retirement plan. DBs are the type of retirement plans that do not fluctuate according to the market, but, rather promises steady benefits to its members as agreed at the outset.

Plus, DBs often come with additional benefits, such as the survivor’s benefits of the Social Security, and the healthcare benefits of PERA. Defined Contribution (DC) plans, on the other hand, fluctuate according to the market conditions and they are not adjusted to cost of living or inflation. These plans are best if used as supplemental plans rather than substitute.

A comparison of retirement plans of 13 universities by the BC discovered that out of state peer institutions fall into one of the three categories: 1) Those who offer Social Security along with a DC plan; 2) those who offer a state level DB plan (like PERA) along with a DC plan; or 3) those who offer two DB plans (Social Security and a state-level plan) along with a DC plan.

Moreover, the report states that CSU ranks 12th out of 13 institutions when it comes to the employer’s contribution. CSU’s retirement plan also lags behind the other Colorado institutions, which are also outside the Social Security and PERA systems with the exception of CU Boulder.

Colorado was never part of Social Security since PERA had been founded earlier and then considered a better alternative. All public employees were included in PERA until 1994 when a state legislation forced the then-employees to choose between PERA and DC-only plans.

Those who were hired after that have not been given the option to choose between the options. As of December 2010, 3310 out of 3744 CSU faculty are in the DC-only retirement plans.

**

---

Visit the AAUP-CSU website: [http://aaupcsu.org/](http://aaupcsu.org/)

**CONTINGENT FACULTY**

A new report from the Campaign for the Future of Higher Education (of which the AAUP is a member) focuses on problems faced by contingent faculty and their students at the start of the academic term. The report, based on a survey of five hundred faculty members in contingent positions conducted by the New Faculty Majority, finds that many have, “at best, inadequate access to sample course syllabi, curriculum guidelines, library resources, clerical support, and the like.” They also “often have only limited, if any, access to personal offices, telephones, computers and associated software, and technological tools and training.” Read the full report at [http://futureofhighered.org/uploads/ProfStaffFinal.pdf](http://futureofhighered.org/uploads/ProfStaffFinal.pdf)

**The Inclusion in Governance of Faculty Members Holding Contingent Appointments**

As the AAUP has documented time and again, the proportion of faculty appointments that are “contingent”—lacking the benefits and protections of tenure and a planned long-term relationship with an institution—has increased dramatically over the past few decades and continues to increase.

While awareness of the problem is also growing, its magnitude is obscured by institutional practices that assign teachers and researchers to many different employment statuses, some of which do not use the word “faculty”: lecturers, senior lecturers, adjuncts,
**LETTERS AND PERSONNEL FILES**

*From letters to AAUP*

I believe that letters have been placed in my personnel file that are defamatory, and I want to read them. Can I be denied access to my own personnel file?

Many colleges and universities still do not allow faculty members to have access to their personnel files. Perhaps the strongest argument advanced in support of this practice is that prohibiting access is the only way to ensure complete candor in the evaluation of candidates for appointment, reappointment, promotion, and tenure.

Honest evaluations are at the core of personnel decisions and are indispensable to the quality of an academic institution. Some have therefore argued that access to one’s personnel file would result in revealing the identity of evaluators and their comments, which would lead to evaluations that are less candid, reliable, and useful.

For the AAUP, however, the argument in favor of openness—that faculty members should have access to their own files, including unredacted letters, both internal and external—is more compelling.

A key consideration is that access promotes care and accuracy in evaluations. It also provides affected faculty members a fair opportunity to learn of and respond to critical letters and evaluations. Such access is therefore likely to discourage evaluations that are based upon improper bias.

The identity of the writer should be known, because the importance of evaluative comments may often be intensified by the scholarly credentials of the evaluator—or diluted or altogether discredited by that individual’s known professional or personal biases.

Moreover, an individual who is considering whether to appeal an adverse personnel decision instructors, non-tenure-track faculty, non-senate faculty, unranked faculty, postdocs, visiting faculty, professors of practice, research assistants, teaching assistants, co-adjutants, affiliates, specialists, clinical faculty, and so on.

Using a broad definition of faculty that includes graduate-student employees as well as full- and part-time instructors regardless of title, the AAUP has calculated that by 2009—the latest year for which national data are available—75.6 percent of US faculty appointments were off the tenure track and 60.5 percent of US faculty appointments were part-time appointments off the tenure track, including graduate-student-employee appointments.

These figures underrepresent postdoctoral fellows, a growing category of appointment on some campuses and in some disciplines. Though many people inside and outside of higher education think of tenure-track appointments as the norm, in reality tenure-track faculty are a dwindling minority on American campuses: while in 1975, tenure-track faculty accounted for 45.1 percent of the instructional staff, by 2009 they accounted for only 24.4 percent.

The Association’s 2003 statement *Contingent Appointments and the Academic Profession* thoroughly discussed the many ill effects of contingent appointments generally, ranging from sharply diminished protections for academic freedom to exploitative working conditions to the lack of a consistent faculty presence for students.

The effect of contingency on governance is to cut off many faculty members from participation in an integral part of faculty work. The fact that a large percentage of faculty do not participate in governance activities is alarming in the context of a
will be at a disadvantage in determining whether a basis exists for appeal unless he or she knows the stated reason for the decision; the substance of letters and evaluations, internal and external; and the identity of their authors. In sum, you should not be denied access to your personnel file.

Endnotes:

1. See the AAUP’s “Statement on Procedural Standards in the Renewal or Nonrenewal of Faculty Appointments” in Policy Documents and Reports.

2. The arguments for and against access to one’s own faculty personnel file are covered in greater detail in “Access to Faculty Personnel Files” in Policy Documents and Reports.

See the URL: http://www.aaup.org/i-need-help/workplace-issues/evaluations-and-reviews

The Society for Values in Higher Education is a fellowship of teachers and others who care deeply about ethical issues—such as integrity, diversity, social justice and civic responsibility—facing higher education and the wider society. We believe that such values call for study, reflection, discussion, and action. We pursue these activities through publications, projects, regional gatherings, and an annual national meeting.

2013 Call for Papers

Debt: Obligations that Shape our Lives

July 24-28, 2013, University of Denver

Societies are structured by webs of financial, legal, psychological, moral, and spiritual obligations. All of these involve debt, broadly

larger trend toward “unbundling” faculty work—an extreme instance of which can be seen in online or for-profit institutions that pay one “employee” to design a curriculum and then employ a cadre of part-time “employees” to deliver the material, with little permissible variation or exercise of professional judgment and no job security. Sometimes, tests or other learning assessments are written or administered by yet another part-time “employee.”

The current state of affairs is also problematic because it undermines equity among academic colleagues. The causes and repercussions of a system in which some faculty receive vastly more compensation, privilege, autonomy, evaluation, information, professional support, and respect than others extend far beyond governance. But the routine exclusion of some faculty from department meetings, curricular planning, and other governance activities does much to foster the sense of inequity.

On the other side of the divide, the proportion of full-time or tenure-track faculty appointments in some departments and institutions is dwindling, and those who hold such appointments are overburdened with governance responsibilities as the pool of colleagues eligible to share this work shrinks.

Perhaps most important is that the exclusion of so many faculty from governance activities undercuts the ability of the faculty to carry out its responsibilities in this area. When half or more of the faculty at an institution may not participate in meetings of the faculty senate, when decisions about revisions to a course are made without input from those who teach it, or when the majority of a department’s faculty has no voice in the selection of its chair, something is amiss. While these problems are by no means universal—governance structures vary
construed. From the most mundane, everyday interactions to the complexities of international relations, the language of debt pervades our thinking and discourse. The Society for Values in Higher Education seeks paper and panel proposals to address the concept of debt from a variety of disciplinary perspectives.

- What is the social role of debt?
- How does it enhance or threaten community?
- To whom are we indebted?
- What is the relationship between debt and entitlement?
- What are the religious or spiritual dimensions of debt?
- How do various narratives (historical, literary, etc.) shape our views of debt?
- How does debt threaten the future of higher education? How should higher education address the social and economic consequences of debt?
- How do we teach our students who owes who what? And why?

Participants selected for presentations will receive a reduced registration rate of $50 to the SVHE summer meeting. Two papers or panels will be selected for special recognition and awarded $300. You must be present at the SVHE summer meeting to be considered.

Deadline for submission is April 15, 2013. Proposals should not exceed 1000 words. Submit proposals to Eric Bain-Selbo, Department Head, Philosophy and Religion, Western Kentucky University (bain-selbo@svhe.org). Proposals will be reviewed as they are submitted. Review will continue until all available slots are filled. For more detailed information visit our website www.svhe.org, and click on Call for Papers 2013.

widely both among institutions and among academic units within an institution—they are widespread. And as the percentage of tenure-track faculty at an institution dwindles, any governance system that relies primarily upon them to represent the faculty’s views becomes less representative, less effective, and more easily bypassed.

IV. Conclusion

We recognize that as long as a significant portion of the faculty has virtually no security of employment and many are involuntarily employed part time, the question of how to include all faculty in governance, especially as elected or voting representatives, is one without a fully satisfactory answer. This is especially true in nonunionized situations where no enforceable contract exists that prohibits retaliation for protected activities.

However, faculty members should not be excluded from participation in governance because of the appointment conditions over which they have little control. The inclusion in governance roles of faculty who hold contingent appointments has problematic aspects, but it is crucial to establishing strong faculty governance.

The governance system must be protected by the most rigorous possible commitment in spirit, in writing, and in fact to prevent retaliation against all those who voice opinions in the governance process that may offend those with more power.

Full and meaningful integration of faculty in shared governance is possible only where academic freedom is protected by tenure or tenure-like terms and conditions of employment.
Visit the AAUP-CSU website: [http://aaupcsu.org/](http://aaupcsu.org/)

- Past issues of our newsletters
- AAUP reports
- CSU issues and resources
- Contact information
- How to join AAUP
- Blog site for active, ongoing discussions

Thus, efforts to implement the recommendations put forth through this statement will ideally go hand in hand with efforts to convert contingent faculty appointments into appointments that are tenured or tenure track or that involve eligibility for continuing service, regardless of whether the faculty member’s assignments are full or part time, teaching or research intensive.19

The faculty must be able to exercise its collective voice freely and fully if it is to effectively determine the course of higher education. Toward this goal, democracy and active voluntarism must be combined with a culture of faculty solidarity across all ranks and classifications.