

ADMINISTRATIVE LAW REVIEW



Does OIRA Review Improve the Quality of Regulatory Impact Analysis? Evidence from the Final Year of the Bush II Administration

Patrick A. McLaughlin & Jerry Ellig

Reprinted from
Administrative Law Review
Volume 63, Special Edition 2011

Cite as
63 ADMIN. L. REV. (SPECIAL EDITION) 179 (2011).

Reproduced with permission. All rights reserved. This information or any portion thereof may not be copied or disseminated in any form or by any means or downloaded or stored in an electronic database or retrieval system without the express written consent of the American Bar Association.

DOES OIRA REVIEW IMPROVE
THE QUALITY OF REGULATORY
IMPACT ANALYSIS?
EVIDENCE FROM THE FINAL YEAR OF
THE BUSH II ADMINISTRATION

PATRICK A. McLAUGHLIN* & JERRY ELLIG**

TABLE OF CONTENTS

Introduction.....	180
I. OIRA’s Impact on Regulatory Impact Analysis.....	183
A. Deadlines.....	185
B. Transfer Regulations.....	187
C. Midnight Regulations.....	188
1. Cinderella Constraint.....	189
2. Temporary Surge.....	190
II. Data and Analysis.....	191
A. OIRA Review Time and Quality of Analysis.....	194

* Senior Economist, Federal Railroad Administration, U.S. Department of Transportation; Visiting Scholar, The George Washington University’s Regulatory Studies Program. E-mail: econpatrick@gmail.com. Ph.D., Economics, Clemson University, 2008; M.A., Economics, Clemson University, 2004; B.A., Language and International Trade, Clemson University, 2000. The Authors thank Omar Al-Ubaydli, Bentley Coffey, Susan Dudley, Art Fraas, John Morrall, Kurt Rotthoff, and Richard Williams for helpful comments. The views and opinions expressed by the Authors do not necessarily state or reflect those of the United States Government, the U.S. Department of Transportation, or the Federal Railroad Administration, and shall not be used for advertising or product endorsement purposes. Any mistakes are solely the Authors’ responsibility.

** Senior Research Fellow, Mercatus Center at George Mason University, 3351 N. Fairfax Dr., 4th Floor, Arlington, VA 22201; Phone: 703-993-4925; Fax: 703-993-4935; E-mail: jellig@gmu.edu. Ph.D., Economics, George Mason University, 1988; M.A., Economics, George Mason University, 1986; A.B., Economics, Xavier University, 1984.

B. Review Time and Regulation Characteristics	195
C. Differences in Quality and Use of Analysis	197
Conclusion	200
Appendix: Regulatory Analysis Assessment Criteria	201

INTRODUCTION

Since 1974, executive orders have required executive branch regulatory agencies to produce some form of economic analysis when promulgating significant regulations.¹ However, both case study research and regulatory analysis “scorecards” find that the quality of regulatory analysis varies considerably across and within agencies.² Executive Order 12,866 gives the Office of Information and Regulatory Affairs (OIRA) authority to review agency regulations and the accompanying analysis and return regulations to agencies if the analysis is insufficient.³ Using data from the Mercatus Center’s Regulatory Report Card project⁴ and statistics on OIRA review time from www.reginfo.gov, we examine whether the quality and use of regulatory analysis vary consistently with OIRA actions.

1. Most recently, see Exec. Order No. 13,563, 76 Fed. Reg. 3821, 3821–23 (Jan. 21, 2011). For a brief history of presidential regulatory review, see Jerry Ellig & Jerry Brito, *Toward a More Perfect Union: Regulatory Analysis and Performance Management*, 8 FLA. ST. U. BUS. REV. 1 (2009).

2. For case studies, see RESOURCES FOR THE FUTURE, REFORMING REGULATORY IMPACT ANALYSIS (Winston Harrington et al. eds., 2009) (examining Environmental Protection Agency (EPA) regulations on interstate clean air, mercury, and cooling-water intake structures); RESOURCES FOR THE FUTURE, ECONOMIC ANALYSES AT EPA: ASSESSING REGULATORY IMPACT (Richard D. Morgenstern ed., 1997) (reviewing twelve major EPA regulations between 1987 and 1997); THOMAS O. MCGARITY, REINVENTING RATIONALITY: THE ROLE OF REGULATORY ANALYSIS IN THE FEDERAL BUREAUCRACY 29–174 (1991); Arthur Fraas, *The Role of Economic Analysis in Shaping Environmental Policy*, LAW & CONTEMP. PROBS., Autumn 1991, at 113, 120–25 (studying the EPA’s bans on leaded gasoline and asbestos). For scorecards, see Jerry Ellig & Patrick McLaughlin, *The Quality and Use of Regulatory Analysis in 2008* (Mercatus Ctr. at George Mason Univ., Working Paper No. 10-34, 2010), available at <http://ssrn.com/abstract=1639747> (using government criteria to score regulatory analyses on an effectiveness scale); Stuart Shapiro & John Morrall, *The Triumph of Regulatory Politics: BCA and Political Salience* (2011) (unpublished working paper) (on file with the Mercatus Ctr. at George Mason Univ.); Robert W. Hahn & Patrick M. Dudley, *How Well Does the U.S. Government Do Benefit–Cost Analysis?*, 1 REV. ENVTL. ECON. & POL’Y 192, 198 (2007) (documenting wide discrepancies between agencies in cost–benefit analyses even within the same administration); Robert W. Hahn et al., *Assessing Regulatory Impact Analyses: The Failure of Agencies to Comply with Executive Order 12,866*, 23 HARV. J.L. & PUB. POL’Y 859, 879–80 (2000).

3. Exec. Order No. 12,866, 3 C.F.R. 638 (1994), *reprinted as amended* in 5 U.S.C. § 601 app. at 745 (2006).

4. Ellig & McLaughlin, *supra* note 2, at 2 n.3 (describing a project assessing the quality of federal agencies’ proposed economically significant regulations since 2008).

First, we examine regulations with statutory deadlines. Prior scholarship suggests that when faced with deadlines agencies issue regulations that have less thorough analysis and are less cost-effective.⁵ Employing quality ratings for an entire year's worth of economically significant proposed regulations, we find that statutory deadlines are indeed associated with lower quality regulatory analysis. Statutory deadlines also seem to prompt shorter review times at OIRA, suggesting that these deadlines diminish OIRA's quality-control function. Both of these findings may stem from an observed tendency for statutory deadlines to apply to transfer regulations in our sample.⁶

Second, we examine differences in OIRA review time and quality of analysis for "transfer" regulations that implement federal spending or revenue collection laws. Transfer regulations are apparently treated differently by OIRA than traditional "prescriptive" regulations, with less focus on traditional regulatory impact analysis and more focus on the budgetary impact.⁷ By testing for differences between transfer regulations and other regulations, we seek to ascertain whether the difference in OIRA treatment of transfer regulations leads to differences in the quality or use of regulatory analysis. We find the average quality of analysis for transfer regulations scores about 47% lower than the average quality of analysis for prescriptive regulations. Additionally, the transfer regulations in our sample underwent about 48% shorter reviews on average at OIRA, compared to prescriptive regulations.

Finally, we consider "midnight regulations"—regulations implemented during the end of an outgoing president's term.⁸ The outgoing Bush

5. Jacob E. Gersen & Anne Joseph O'Connell, *Deadlines in Administrative Law*, 156 U. PA. L. REV. 923, 977–78 (2008) (finding that deadline-imposed regulations disproportionately consume agency resources, result in more court challenges, and exclude democratic participation); Alden F. Abbott, *The Case Against Federal Statutory and Judicial Deadlines: A Cost-Benefit Appraisal*, 39 ADMIN. L. REV. 171, 171–72 (1987) [hereinafter Abbott, *A Cost-Benefit Appraisal*] (documenting agency misallocation of resources and regulatory cost inefficiencies associated with deadlines in rulemaking); Alden F. Abbott, *Case Studies on the Costs of Federal Statutory and Judicial Deadlines*, 39 ADMIN. L. REV. 467, 487 (1987) [hereinafter Abbott, *Case Studies*] (describing cases of "regulatory inefficiency costs" associated with deadlines in rulemaking).

6. We also considered a similar analysis of regulations with judicial deadlines, but since only three regulations in our sample had judicial deadlines, we found no significant results.

7. Eric A. Posner, *Transfer Regulations and Cost-Effectiveness Analysis*, 53 DUKE L.J. 1067, 1069 (2003) (finding transfer regulations are not suitable to cost-benefit analysis and arguing for cost-effectiveness analysis).

8. See generally Jerry Brito & Veronique de Rugy, *Midnight Regulations and Regulatory Review*, 61 ADMIN. L. REV. 163, 163–64 (2009) (defining *midnight regulations*); Veronique de Rugy & Antony Davies, *Midnight Regulations and the Cinderella Effect*, 38 J. SOCIO-ECON. 886

Administration's OIRA Administrator in 2008, Susan Dudley, was a vocal critic of the Clinton Administration's midnight regulations.⁹ Probably not coincidentally, the Bush Administration explicitly sought to curtail midnight regulations.¹⁰ One documented criticism of midnight regulations is that they may suffer in quality because they are rushed both during their creation at the promulgating agency and throughout the review process.¹¹ Between January 1994 and January 2009, midnight regulations received shorter reviews at OIRA.¹² By testing for differences between midnight versus "daylight" regulations in our sample, we can ascertain whether efforts to limit midnight regulations allow more thorough OIRA review and improve the quality and use of regulatory analysis. Because of the drastically lower quality and shorter review times associated with transfer regulations, we also examine prescriptive midnight regulations separately from transfer regulations.

Prescriptive midnight regulations tend to receive lower quality analysis than other regulations. The average prescriptive midnight regulation scores about 23% below the mean score for all 2008 daylight regulations. However, prescriptive midnight regulations in our sample do not receive shorter review times at OIRA, at least under the conventional definition of midnight regulations. This result counters the notion that the rush to finish these regulations quickly impaired OIRA's ability to exercise quality

(2009) (reviewing data on midnight regulations from 1975–2006); William G. Howell & Kenneth R. Mayer, *The Last One Hundred Days*, 35 PRESIDENTIAL STUD. Q. 533, 534–35 (2005) (providing an overview of the history of midnight presidential actions); Jay Cochran, III, *The Cinderella Constraint: Why Regulations Increase Significantly During Post-Election Quarters* (March 8, 2001) (unpublished paper) (on file with the Mercatus Ctr. at George Mason Univ.) (finding general tendency for regulations to increase in post-election quarters).

9. See Susan E. Dudley, *Reversing Midnight Regulations*, REGULATION, Spring 2001, at 9, 9 (describing the "flurry" of regulations published during the final months of President Clinton's presidency).

10. Susan E. Dudley, *Regulatory Activity in the Bush Administration at the Stroke of Midnight*, ENGAGE, July 2009, at 27, 27 (describing a memorandum from President Bush's Chief of Staff requiring regulations be published no later than November 1, 2008).

11. See Jerry Brito & Patrick McLaughlin, *OIRA at Midnight*, REGULATION, Fall 2008, at 11, 11 (noting that increased regulation can overwhelm the system that is meant to ensure they are sensible and justified); Brito & de Rugy, *supra* note 8, at 164 (arguing that midnight regulations overwhelm the typical review process for cost-effectiveness analysis); see also Andrew P. Morriss et al., *Between a Hard Rock and a Hard Place: Politics, Midnight Regulations and Mining*, 55 ADMIN. L. REV. 551, 553 (2003) (evaluating Clinton-era midnight regulations on hard-rock mining); Dudley, *supra* note 9, at 9 (stating Clinton-era regulations were hurried into effect without usual checks and balances).

12. Patrick A. McLaughlin, *The Consequences of Midnight Regulations and Other Surges in Regulatory Activity*, 147 PUB. CHOICE 395, 398 (2011) (finding that, on average, review time was twenty-five days shorter during the midnight period).

control. Some factor other than truncated OIRA review must explain the lower quality of the analysis associated with these regulations.

Our findings suggest that there is a critical relationship between political pressure, deadlines, and the quality of regulatory analysis that warrants further investigation. Statutory deadlines appear to accelerate OIRA review to the detriment of quality analysis. Similarly, agencies seem to feel free to perform lower quality analysis for transfer regulations because OIRA treats these regulations differently. Both of these findings imply that OIRA actions do make a difference in the quality of regulatory analysis.

Our results for midnight regulations also imply that OIRA actions affected the quality of regulatory analysis, but in a more indirect way than for regulations with deadlines or transfer regulations. Midnight regulations first proposed in 2008 did not receive shorter OIRA reviews at the proposal stage. However, the quality of analysis for prescriptive midnight regulations was lower. This suggests that midnight regulation is indeed a problem. It also suggests that the Administration's initiative to curb midnight regulations may have improved the quality of analysis by prompting agencies to complete their work on more proposed regulations earlier, when the analysis would not be as rushed.

I. OIRA'S IMPACT ON REGULATORY IMPACT ANALYSIS

Executive Order 12,866 on "Regulatory Planning and Review" requires agencies to do a number of specific things when proposing regulations:

- Identify the problem the regulation is supposed to address (such as a market failure or failure of government institutions) and assess the significance of the problem.¹³
- Identify and assess alternatives to regulation (such as providing information to inform individual choices)¹⁴ and alternative forms of regulation (such as performance objectives).¹⁵
- Assess the benefits and costs of the proposed regulation.¹⁶
- Tailor regulations to be cost-effective and impose the least burden on society necessary to achieve the regulation's objectives.¹⁷
- "[P]ropose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify

13. Exec. Order No. 12,866, § 1(b)(1), 3 C.F.R. 638 (1994), *reprinted as amended in* 5 U.S.C. § 601 app. at 745, 745 (2006).

14. *Id.* § 1(b)(3), 3 C.F.R. at 639.

15. *Id.* § 1(b)(8), 3 C.F.R. at 639.

16. *Id.* § 1(b)(6), 3 C.F.R. at 639.

17. *Id.* § 1(b)(5), (11) 3 C.F.R. at 639–40.

its costs.” The agency can include unquantified benefits and costs in this determination.¹⁸

- Maintain a program for periodic retrospective review of existing regulations to determine if they should be modified or eliminated and to identify legislative mandates that require regulations the agency believes are unnecessary.¹⁹

The most extensive analytical requirements in Executive Order 12,866 apply to “economically significant” regulations, which are usually those anticipated to have an effect on the economy of \$100 million or more.²⁰ The definition of “economically significant” also includes regulations that “adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities”²¹ Agencies must assess the benefits and costs of economically significant regulations, quantifying the benefits and costs when feasible. They must also assess the benefits and costs of alternatives and explain why the proposed regulation is preferable to the alternatives.²²

Executive Order 12,866 has guided regulatory analysis since President Clinton signed it in 1993. The Office of Management and Budget (OMB) periodically issues “best practices” documents that provide agencies with more detailed guidance on conducting regulatory analysis. The most recent is OMB Circular A-4, issued during the George W. Bush Administration in 2003.²³

Shortly after President Obama took office, his Chief of Staff directed federal agencies to pull back and reconsider any Bush Administration regulations that had not yet been published in the *Federal Register*.²⁴ He also directed the OMB Administrator to solicit public comments on how Executive Order 12,866 should be revised.²⁵ In November 2010, OMB issued a regulatory impact analysis checklist that mirrored the requirements

18. *Id.* § 1(b)(6), 3 C.F.R. at 639.

19. *Id.* § 5(a), 3 C.F.R. at 644.

20. *Id.* § 3(f)(1), 3 C.F.R. at 641.

21. *Id.*

22. *Id.* § 6(a)(3)(C)(i), 3 C.F.R. at 645.

23. OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, CIRCULAR A-4 ON REGULATORY ANALYSIS (2003), <http://www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a004/a-4.pdf>.

24. Memorandum from Rahm Emanuel, White House Chief of Staff, to the Heads of Exec. Dep’ts and Agencies (Jan. 20, 2009), http://www.whitehouse.gov/sites/default/files/omb/assets/information_and_regulatory_affairs/regulatory_review_012009.pdf.

25. See Federal Regulatory Review, 74 Fed. Reg. 8819, 8819 (Feb. 26, 2009) (request for comments).

in Executive Order 12,866 for economically significant regulations.²⁶ President Obama reaffirmed the principles and review processes in Executive Order 12,866 when he issued Executive Order 13,563 on January 18, 2011.²⁷

OIRA reviews “significant” proposed and final regulations and the accompanying analyses before agencies can publish them in the *Federal Register*.²⁸ OIRA review seeks to ensure that agency regulations are consistent with the relevant law, presidential priorities, other agencies’ policies, and the principles enunciated in Executive Order 12,866.²⁹ OIRA normally has ninety days to review a proposed regulation and the agency’s analysis.³⁰ The Administrator of OIRA can extend this review period by thirty days, and the agency head can also request an extension.³¹ If OIRA has objections to the regulation that cannot be worked out with the agency, the administrator can return the regulation to the agency with a written explanation of how the regulation is inconsistent with some provision of Executive Order 12,866.³² On occasion, OIRA administrators have allowed agencies to proceed with regulations but issued a public letter identifying deficiencies in the regulation or the analysis that OIRA hopes the agency will resolve before issuing a final regulation.³³ Unresolved disagreements can be appealed, with the vice president usually making the final decision.³⁴

To assess OIRA’s impact on regulatory impact analysis, we focus on three distinct types of regulations: regulations with legal deadlines, transfer regulations, and midnight regulations.

A. Deadlines

A small but informative body of legal literature assesses the effects of deadlines on the quality of regulations. A pair of articles by Alden Abbott

26. OFFICE OF INFO. & REGULATORY AFFAIRS, OFFICE OF MGMT. & BUDGET, AGENCY CHECKLIST: REGULATORY IMPACT ANALYSIS (2010) http://www.whitehouse.gov/sites/default/files/omb/inforeg/regpol/RIA_Checklist.pdf.

27. Exec. Order No. 13,563, 76 Fed. Reg. 3821 (Jan. 21, 2011).

28. Exec. Order No. 12,866 §§ 2(b), 6(b)(1), 3 C.F.R. 638, 640, 646 (1994), *reprinted as amended in* 5 U.S.C. § 601 app. at 745, 746, 748 (2006).

29. *Id.* § 2(b), 3 C.F.R. at 640.

30. *Id.* § 6(b)(2)(B), 3 C.F.R. at 647.

31. *Id.* § 6(b)(2)(C), 3 C.F.R. at 647.

32. *Id.* § 6(b)(3), 3 C.F.R. at 647. These “return letters” are available at <http://www.reginfo.gov/public/do/eoReturnLetters> (last visited Oct. 1, 2011).

33. Exec. Order No. 12,866 § 6(b)(3), 3 C.F.R. at 647. These “review letters” are available at <http://www.reginfo.gov/public/jsp/EO/postReviewLetters.jsp> (last visited Oct. 1, 2011).

34. Exec. Order No. 12,866 § 7, 3 C.F.R. at 648.

support the intuitively sensible suspicion that “haste makes waste” in the development of regulations. “Statutory and judicial deadlines,” Abbott argued, “give rise to additional regulatory inefficiency costs to the extent they induce agencies to act hastily and promulgate cost-inefficient regulations.”³⁵ He cited several examples of deadlines that induced agencies to forego data or analysis that would have helped determine the extent of risks to humans or the environment.³⁶ In other cases, agencies had to make decisions before risk assessments or economic regulatory analyses were completed.³⁷ More recently, Belcore and Ellig assessed the quality of regulatory analysis for economically significant regulations issued by the Department of Homeland Security during its first five years of existence. They found that interim final rules, which always had either legislative deadlines or legislative language urging the Department to act expeditiously, had much lower quality regulatory analysis than final rules that had gone through the normal notice-and-comment process.³⁸

Gersen and O’Connell presented the most systematic, data-intensive study of administrative deadlines for regulatory agencies.³⁹ They examined the use of deadlines between April 1983 and October 2003, as reported by agencies in the *Unified Agenda of Federal Regulatory and Deregulatory Actions*. They found no obvious trend in the use of deadlines over time. In most years, more than 70% of deadlines were statutory rather than judicial.⁴⁰ About 8% of regulations had statutory deadlines, 1% had judicial deadlines, and 0.25% had both.⁴¹ Significant regulatory actions were more likely to have deadlines.⁴² Most of the deadlines applied to just six agencies: the Environmental Protection Agency (1,342), and the Departments of Commerce (962), Interior (488), Transportation (359), Agriculture (353), and Health and Human Services (335).⁴³

Perhaps more relevant to our study, Gersen and O’Connell found that deadlines do indeed shorten agency rulemakings. The average duration of significant rulemakings with deadlines was 427 days, versus 528 days for

35. Abbott, *A Cost-Benefit Appraisal*, *supra* note 5, at 195.

36. *E.g., id.* at 197 (discussing EPA Hazardous and Solid Waste Regulations); Abbott, *Case Studies*, *supra* note 5, at 474–75 (discussing EPA Pesticide Regulations).

37. Abbott, *A Cost-Benefit Appraisal*, *supra* note 5, at 197–99 (documenting EPA’s inability to complete risk assessment prior to publication of a proposed rule).

38. Jamie Belcore & Jerry Ellig, *Homeland Security and Regulatory Analysis: Are We Safe Yet?*, 40 RUTGERS L.J. 1, 35–36 (2008).

39. Gersen & O’Connell, *supra* note 5, at 977–78.

40. *Id.* at 939.

41. *Id.* at 941.

42. *Id.* at 942.

43. *Id.* at 981.

significant rulemakings without deadlines.⁴⁴ They also found that deadlines reduce the number of comment periods on significant regulations, thus reducing public input and the amount of agency process.⁴⁵ Rules with deadlines are more likely to be issued as interim final rules, which are not preceded by comments on a proposed rule.⁴⁶

Gersen and O’Connell explicitly argued that deadlines—particularly statutory deadlines—can inhibit OIRA’s ability to effectively review regulations:

If OIRA slows the average pace of agency action, and if Congress cares about the duration of agency processes, then Congress might rely on deadlines to control an ever-increasing array of regulation. In the process, statutory deadlines could undermine the prospects for effective OIRA review. The Executive Orders establish a detailed timetable for the presentation and review of proposed agency actions; meeting statutory deadlines may mean failing to meet the President’s requirements.⁴⁷

They even raise the possibility that legislative deadlines might violate the separation of powers by interfering with the President’s ability to manage executive agencies.⁴⁸

Deadlines could lessen OIRA’s ability to affect the quality of regulatory analysis in several ways. If the deadline is very short, it can impinge on the sixty days that OIRA normally has to review a regulation. Even if the deadline extends well beyond OIRA’s review window, it reduces the threat that OIRA could return the regulation because the agency must issue the regulation. By systematically comparing the quality of analysis for proposed regulations that have statutory deadlines against regulations that do not have such deadlines, we can determine whether deadlines systematically affect OIRA review time and the thoroughness of agency regulatory analysis.

B. Transfer Regulations

A transfer regulation is a regulation that defines how the federal government will spend or collect money.⁴⁹ The Department of Health and Human Services, for example, annually issues numerous regulations that recalculate Medicare payment rates for doctors, hospitals, hospices, and

44. *Id.* at 945.

45. *Id.* at 944–45.

46. *Id.* at 943–44.

47. *Id.* at 968 (footnote omitted).

48. *Id.* at 969.

49. Posner, *supra* note 7, at 1073.

other healthcare providers.⁵⁰ Since these recalculations usually redistribute hundreds of millions of dollars, these regulations are economically significant. Economists familiar with the concept of transfers but unfamiliar with these regulations may be tempted to dismiss them as “mere transfers” that alter the distribution of wealth without generating other economic effects. OIRA, however, observes that transfer regulations generate social costs via mandates, prohibitions, and price distortions, even though agencies do not usually estimate the social benefits and costs of transfer regulations.⁵¹

Case studies by Eric Posner also suggest that transfer regulations receive lower quality analysis: “Although agencies do, usually, say something about the costs of a regulation, their comments are rarely illuminating and often incoherent.”⁵² Posner observes that OMB rarely appears to subject transfer regulations to strict review, but he offers no behavioral hypothesis explaining why.⁵³

It is difficult to find documented evidence showing how OIRA treats transfer regulations differently from other regulations, but knowledgeable insiders have suggested privately that this is in fact the case. Several former OIRA officials have told us that most OMB review of transfer regulations is conducted by budget analysts, whose main concern is ensuring that agencies correctly estimated the effects on the federal budget, rather than focusing on the economic analysis. OIRA analysts try to prevent agencies from using transfer regulations as a vehicle for imposing other regulations unrelated to the expenditures, but they rarely have time to press agencies to analyze the price distortions and changes in human behavior created by the spending. Since we can identify which regulations are transfer regulations, we can assess whether OIRA review time and the quality of analysis differs for transfer regulations.

C. *Midnight Regulations*

Regulations proposed in 2008 are of special interest for two reasons. First, 2008 was the last year of the second George W. Bush Administration, making regulations proposed or finalized toward the end of that year

50. *See infra* Table 1.

51. OFFICE OF INFO. & REGULATORY AFFAIRS, OFFICE OF MGMT. & BUDGET, 2009 REPORT TO CONGRESS ON THE BENEFITS AND COSTS OF FEDERAL REGULATIONS AND UNFUNDED MANDATES ON STATE, LOCAL, AND TRIBAL ENTITIES 18 (2009), http://www.whitehouse.gov/sites/default/files/omb/assets/legislative_reports/2009_final_BC_Report_01272010.pdf.

52. Posner, *supra* note 7, at 1071.

53. *Id.*

midnight regulations. Second, the Bush Administration attempted to curtail midnight regulations. The OIRA Administrator at the time, Susan Dudley, had previously headed a research project that documented and analyzed the Clinton Administration's midnight regulations.⁵⁴ A memorandum from White House Chief of Staff Joshua Bolten issued on May 9, 2008, instructed executive agencies that "regulations to be finalized in this Administration should be proposed no later than June 1, 2008"⁵⁵ OIRA interpreted the memorandum to mean that OIRA's review of regulations scheduled to be issued by the end of the Administration should be finished by June 1, even if the proposed regulation was not published in the *Federal Register* until some date thereafter.⁵⁶

In addition to the general effect of deadlines described above, there are two additional reasons one might expect that midnight regulations would have lower quality analysis or might be less likely to use the analysis that is produced. These different reasons could be termed the "Cinderella Constraint" and the "Temporary Surge."

1. Cinderella Constraint

Toward the end of a lame duck administration, the President and his political appointees have less accountability to the voting public. The President can no longer be re-elected, and the appointees do not plan to be reappointed. Cochran terms this the "Cinderella Constraint"; officeholders rush to get their regulations promulgated before they turn back into ordinary citizens at the stroke of noon on Inauguration Day.⁵⁷ Career agency officials may also be eager to finish up regulations they have been working on before the new administration takes office, if nothing else because they would like to have some accomplishments to show for their efforts. A new group of political appointees would likely create delays and policy changes.⁵⁸

Accountability hits a low point during the period between Election Day and Inauguration Day. Since the election is already over, the President and his appointees are no longer even constrained by the possibility that their

54. Dudley, *supra* note 9.

55. Memorandum from Joshua B. Bolten, White House Chief of Staff, to the Heads of Exec. Dep'ts and Agencies 1 (May 9, 2008), <http://www.ombwatch.org/files/regs/PDFs/BoltenMemo050908.pdf>.

56. E-mail from Susan Dudley, former Office of Information and Regulatory Affairs (OIRA) Administrator, to Author (Mar. 29, 2010) (on file with Author).

57. Cochran, *supra* note 8, at 4.

58. Susan E. Dudley, *Lessons Learned, Challenges Ahead*, REGULATION, Summer 2009, at 6, 9-10.

actions would harm the prospects of their own political party. Appointees who run regulatory agencies may therefore feel free to indulge their own ideological or political preferences, regardless of the merits of their favored regulations.⁵⁹

Agency staff who prepare regulatory analysis often feel pressure to “fudge” the analysis so that it supports the regulation the decisionmakers want to issue,⁶⁰ and there is little reason to think that this pressure abates during the midnight period. Even if agency economists and other analysts do their level best to “call them as they see them,” they may find their analysis ignored by appointees rushing to get their favored regulations implemented before their time runs out.

2. *Temporary Surge*

Whatever its cause, the last-minute rush to implement new regulations creates a temporary surge of regulatory activity.⁶¹ Dudley, for example, calculated that the amount of regulatory activity in the Clinton Administration’s post-election quarter was 51% greater than during the same quarter in the previous three years.⁶² Cochran estimated that complete turnover of the President’s cabinet—which usually occurs when a president of one party replaces a president of the other party—increases the number of regulations by 17%–27% in the post-election quarter.⁶³ Similarly, de Ruyg and Davies find that the number of *Federal Register* pages increases 17% in post-election quarters when control of the White House switches parties.⁶⁴ The proportion of economically significant regulations reviewed during midnight periods also increases.⁶⁵ These observations about regulation are consistent with scholarship that documents surges in

59. See Brito & de Ruyg, *supra* note 8, at 174 (noting that agencies are more likely to pursue controversial regulations during this time period).

60. Richard Williams, *The Influence of Regulatory Economists in Federal Health and Safety Agencies* (Mercatus Ctr. at George Mason Univ., Working Paper No. 08-15, 2008), <http://mercatus.org/publication/influence-regulatory-economists-federal-health-and-safety-agencies>.

61. Brito & de Ruyg, *supra* note 8, at 185–86 (marking spikes in regulation during the midnight periods for George W.H. Bush and Bill Clinton); De Ruyg & Davies, *supra* note 8, at 889 (noting a large increase in regulation in the last three months following an election where the party switches power).

62. Dudley, *supra* note 9, at 9.

63. Cochran, *supra* note 8, at 3.

64. De Ruyg & Davies, *supra* note 8, at 889.

65. McLaughlin, *supra* note 12, at 410 (citing statistical regressions using data from both February of 1981 through January of 2009, and January of 1994 through January of 2009).

many types of unilateral presidential activity in post-election quarters, especially when the incoming President is from the opposite party.⁶⁶

OIRA, however, receives no extra budget or staff to deal with the surge. Indeed, OIRA budget and staff have generally trended downward since 1981.⁶⁷ As a result, OIRA review time per regulation falls in midnight periods. Indeed, McLaughlin finds that average review times for midnight rules promulgated between 1994 and 2009 were about twenty-five days shorter than the review times of other rules. McLaughlin speculates that this likely occurs because of political pressure on OIRA to quickly approve submitted rules:

Knowing that a new administration could replace the incumbent administration's appointees throughout the government with its own appointees, the incumbent administration and appointees at submitting agencies may pressure OIRA staffers, either explicitly or tacitly, to approve midnight regulations quickly. Otherwise, if the rules linger at OIRA into the next administration, the odds of the rules being rejected outright (i.e., returned to the agency) may increase.⁶⁸

II. DATA AND ANALYSIS

We analyze the relationship between OIRA activity and quality using our previous systematic assessment of the quality and use of regulatory analysis for forty-five economically significant regulations proposed in 2008.⁶⁹ This assessment assigned qualitative scores to regulations on twelve criteria drawn from Executive Order 12,866 and OMB Circular A-4. Each regulation could earn between zero and five points on each of twelve criteria, for a maximum possible score of sixty.⁷⁰ Table 1 summarizes the scores. The criteria and evaluation questions are listed in Appendix I.

66. Howell & Mayer, *supra* note 8, at 550 (discussing “last-minute presidential actions” that commonly occur when a president—or a president’s party—is not reelected).

67. Brito & de Rugy, *supra* note 8, at 184 (showing a decrease in the number of OIRA full-time employees from ninety-five in 1981 to fifty in 2009).

68. McLaughlin, *supra* note 12, at 411.

69. Ellig & McLaughlin, *supra* note 2, at 33–35 (describing the qualitative framework for evaluation of regulatory analysis). The forty-five regulations represent virtually all of the economically significant regulations reviewed by OIRA and ultimately published in the *Federal Register*. Three additional regulations were omitted because the Regulatory Impact Analyses could not be located.

70. Four of the twelve criteria assess whether the agency used regulatory analysis to inform decisions on the regulation. *Id.* When we performed the analysis below using only the eight criteria that explicitly measure quality, the results were virtually the same. This is not surprising, because the previous report found scores on use criteria were positively correlated with scores on the quality criteria. *Id.* at 32.

Table 1: Quality of Regulatory Analyses of Proposed Regulations in 2008

Proposed Rule	Department	Score
*Passenger Car and Light Truck Corporate Average Fuel Economy 2011–2015	DOT	43
**National Ambient Air Quality Standards for Lead	EPA	42
Real Estate Settlement Procedures Act	HUD	41
Class Exemption for Provision of Investment Advice, Proposed Rule	Labor	40
Congestion Management Rule for LaGuardia Airport	DOT	39
US VISIT Biometric Exist System	DHS	38
Large Aircraft Security Program	DHS	38
**Effluent Limitations Guidelines and Standards for Construction and Development	EPA	37
Fiduciary Requirements for Disclosure in Participant-Directed Individual Account Plans	Labor	37
Notice of Proposed Class Exemption for Provision of Investment Advice	Labor	37
Electronic Prescriptions for Controlled Substances	DOJ	36
Migratory Bird Hunting; 2008 to 2009 Migratory Game Bird Hunting Regulations	Interior	35
Nondiscrimination on the Basis of Disability in State and Local Government Services	DOJ	35
Nondiscrimination on the Basis of Disability by Public Accommodations/Commercial Facilities	DOJ	34
*Improving the Safety of Railroad Tank Car Transportation of Hazardous Materials	DOT	33
Family and Medical Leave Act of 1993	Labor	33
HIPAA Code Sets	HHS	33
Cranes and Derricks in Construction	Labor	30
Congestion Management Rule for John F. Kennedy Airport and Newark Airport	DOT	30
Integrity Management Program for Gas Distribution Pipelines	DOT	28
*Refuge Alternatives for Underground Coal Mines	Labor	28

Special Edition • Volume 63 • 2011 • American Bar Association • Administrative Law Review
 “Does OIRA Review Improve the Quality of Regulatory Impact Analysis? Evidence from the
 Final Year of the Bush II Administration” by Patrick A. McLaughlin & Jerry Ellig,
 Administrative Law Review, Volume 63, Special Edition, 2011.

© 2011 by the American Bar Association. Reproduced by permission. All rights reserved.

This information or any portion thereof may not be copied or disseminated in any form or by any means or stored in an electronic database or retrieval system without the express written consent of the American Bar Association.

Special Areas; State-Specific Inventoried Roadless Area Management	USDA	28
<i>*Proposed Changes to the Outpatient Prospective Payment System</i>	HHS	27
<i>*Changes to the Hospital Inpatient Prospective Payment Systems and FY 2009 Rates</i>	HHS	27
Alternative Energy Production and Alternate Uses of Existing Facilities on the OCS	Interior	27
**Energy Conservation Standards for Fluorescent Lamps	Energy	27
Standardized Risk-Based Capital Rules (Basel II: Standardized Option)	Treasury	27
Oil Shale Management – General	Interior	26
HIPAA Electronic Transaction Standards	HHS	25
<i>Teacher Education Assistance for College and Higher Education Grant Program</i>	ED	23
<i>Federal Perkins Loan Program</i>	ED	21
Employment Eligibility Verification	FAR	21
Standards for Maximum Allowable Operating Pressure for Gas Transmission Pipelines	DOT	21
Abandoned Mine Land Program	Interior	21
<i>Revisions to the Medicare Advantage and Prescription Drug Benefit Programs</i>	HHS	19
<i>*Medicaid Program Premiums and Cost Sharing</i>	HHS	17
<i>*Prospective Payment System for Long-Term Care Hospitals</i>	HHS	17
<i>*Medicare Program: Revisions to Physician Fee Schedules</i>	HHS	17
<i>*State Flexibility for Medicaid Benefit Packages</i>	HHS	16
<i>*Proposed Hospice Wage Index for Fiscal Year 2009</i>	HHS	16
<i>*Prospective Payment System and Consolidated Billing for Skilled Nursing Facilities</i>	HHS	14
<i>Schedule of Fees for Consular Services</i>	State	13
<i>CHAMPUS/TRICARE</i>	Defense	12
<i>*Post-9/11 GI Bill</i>	VA	10
<i>Setting the Time and Place for a Hearing before an Administrative Law Judge</i>	SSA	7
Average		27.27

*Statutory deadlines. **Judicial deadlines.

Regulations in italics are budget or transfer regulations.

Special Edition • Volume 63 • 2011 • American Bar Association • Administrative Law Review
 “Does OIRA Review Improve the Quality of Regulatory Impact Analysis? Evidence from the
 Final Year of the Bush II Administration” by Patrick A. McLaughlin & Jerry Ellig,
 Administrative Law Review, Volume 63, Special Edition, 2011.

© 2011 by the American Bar Association. Reproduced by permission. All rights reserved.

This information or any portion thereof may not be copied or disseminated in any form or by any means or stored in an electronic database or retrieval system without the express written consent of the American Bar Association.

A. OIRA Review Time and Quality of Analysis

McLaughlin suggests that shorter regulatory review by OIRA may cause a decrease in quality of both regulations and the accompanying regulatory analyses.⁷¹ Figure 1 implies just such a relationship between proposed regulations and the quality of analysis in 2008. It shows that the quality of economic analysis appears to increase as the length of review at OIRA increases. Our measure of quality is the score from Table 1. Data on review time for each regulation is from www.reginfo.gov, which tracks the progress of regulations through the OIRA review process.

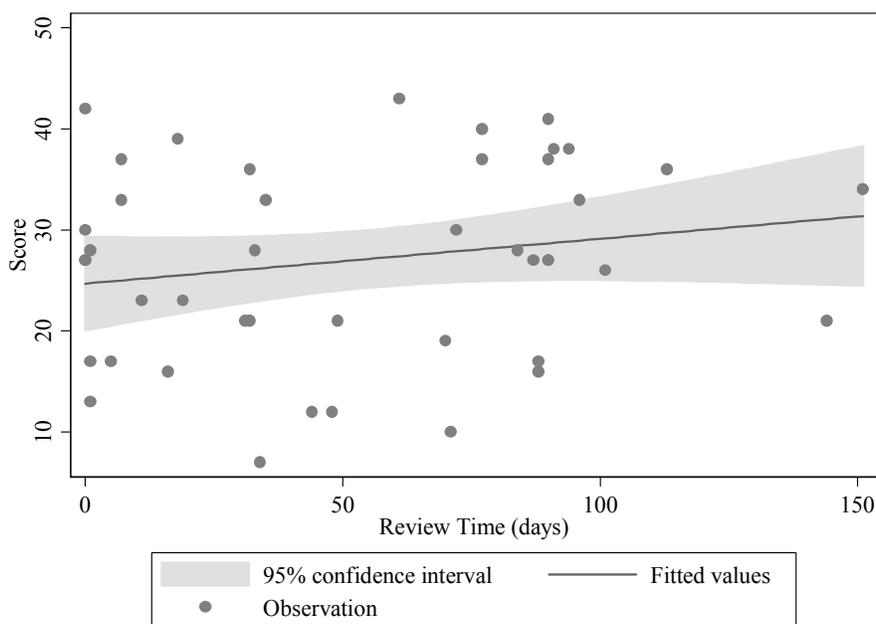


Figure 1: Quality (Score) and Review Time

If particular types of regulations have lower quality analysis, shorter review times may explain the difference. We acknowledge, however, that measures of review time at OIRA could be a noisy signal of the quality of OIRA review for two reasons. First, there may be some days when a regulation is not actively being reviewed, even though the regulation is technically at OIRA for review. A regulation that sits on someone's desk at OIRA for thirty days and is reviewed for one day would appear to have been reviewed for thirty-one days to an outside observer using the

71. McLaughlin, *supra* note 12, at 410 (discussing the effects of midnight regulations on OIRA's regulatory analysis procedure).

www.reginfo.gov data. Second, at least during the George W. Bush Administration, OIRA would often provide feedback to promulgating agencies regarding a regulation or economic analysis prior to actually beginning formal review. This policy explains, in part, why some regulations are reviewed for less than one day (according to www.reginfo.gov), even though they may be quite lengthy and accompanied by hundreds of pages of formal and technical economic analysis.⁷² Nevertheless, we focus on review time because it remains our sole measure of the attention OIRA gives to particular regulations and because it has been shown to vary systematically with the quantity of regulations sent to OIRA for review.⁷³

A multitude of other hypotheses could explain why the Regulatory Impact Analyses for certain types of regulations would differ in quality from others. For example, political pressure could cause the promulgating agency to rush its regulatory analysis, thereby diminishing quality, or a regulation may be limited in scope or method by statute, causing the economic analysis to only pay short shrift to some regulatory options. Alternatively, in the case of midnight regulations, perhaps those government employees who could have helped improve the quality of regulations are too busy dealing with the impending administrative transition to deal with regulations, so those regulations are instead written or vetted by second-best regulators. Our purpose here, though, is not to explain all possible influences, but rather to explore (with a limited data set) whether OIRA itself affects the quality of regulatory analysis. The positive relationship seen in Figure 1 between OIRA review time and quality is suggestive.

B. Review Time and Regulation Characteristics

Our next step is to ascertain whether OIRA review time varies systematically with the particular characteristics of interest for the regulations. Table 2 shows how OIRA review times differ for regulations with statutory deadlines versus regulations without such deadlines,

72. It is possible that OIRA may be prevented from reviewing some regulations in great depth for political reasons.

73. See McLaughlin, *supra* note 12, at 411 (hypothesizing why review time may decrease at OIRA). Furthermore, it seems reasonable to assume any noise introduced into the variable *review time* is random with respect to the quality of the regulatory analysis performed by the promulgating agency. Indeed, Figure 1 shows that the proposed regulations that received either zero- or one-day reviews span a wide range of quality, implying at least that the provision of advanced feedback was not concentrated on only regulations of a certain quality.

midnight versus daylight regulations, and transfer versus prescriptive regulations.

Table 2: Mean Review Time by Category of Regulation

Category	Obs.	Mean Review Time (days)	Std. Err.
All	45	55.6	6.5
Midnight	7	62.1	19.1
Daylight	38	54.3	7.0
Statutory Deadline	12	38.3*	7.7
No Statutory Deadline	33	61.8	11.4

Asterisks denote statistical significance in t-tests of difference of means.

** significant at 10% level; ** significant at 5% level; *** significant at 1% level.*

We find that statutory deadlines led to shorter review times at OIRA in 2008. We performed t-tests of the difference in mean review time for each regulation category compared to its counterpart (e.g., regulations with statutory deadlines versus those without statutory deadlines). As Table 2 shows, these tests confirmed that the shorter review times of each regulation category with a legal deadline are statistically significant. The magnitude of diminution of review times is substantial, ranging from 38% to 90% shorter for regulations with deadlines.

Midnight regulations, in contrast, appear not to receive shorter review times. The difference in mean review times between midnight and daylight regulations is not statistically significant, although the relatively high standard error suggests that review times were quite variable. The term *midnight regulation* usually refers to regulations that become final between Election Day and Inauguration Day when an administration is leaving office. Because the data set in Table 1 consists of proposed regulations rather than final regulations, we developed a definition of midnight regulations that fits the circumstances surrounding proposed regulations. The Bolten memorandum established a deadline of June 1 for proposed regulations to clear OIRA if they were to be finalized before the end of the Administration.⁷⁴ We thus define a “midnight *proposal*” as any proposed regulation that had its OIRA review completed after June 1, in accordance with the Bolten memorandum, *and* that became a final rule during the period between Election Day and Inauguration Day, in accordance with the traditional definition of *midnight regulations*.

74. Bolten, *supra* note 55, at 1.

We find that transfer regulations receive particularly short OIRA reviews. Table 3 shows the mean review time for transfer regulations in the sample was about 40% lower than the sample mean overall and about 48% lower than prescriptive regulations.⁷⁵ The difference in the means of transfer and prescriptive regulations is significant at the 5% level.

Table 3: Mean Review Times for Transfer and Prescriptive

Category	Obs.	Mean Review Time (days)	Std. Err.
All	45	55.6	6.5
Transfer	15	34.5**	8.4
Prescriptive	30	66.1	8.3

Asterisks denote statistical significance in t-tests of difference of means.

** significant at 10% level; ** significant at 5% level; *** significant at 1% level.*

C. Differences in Quality and Use of Analysis

Table 4 shows how different categories of regulations performed in the 2010 Ellig and McLaughlin evaluation. Two of the three categories of regulations score statistically lower means in terms of quality of the regulatory impact analysis: transfer regulations and regulations with a statutory deadline. Of the two, transfer regulations stand out as singularly low scoring, with a mean value of about 17.1 points, versus 27.3 points for the entire sample and 32.4 for prescriptive regulations. Regulations with statutory deadlines also have a somewhat lower mean score of 22.1 points. Midnight regulations appear not to be statistically different from daylight regulations in terms of quality of regulatory impact analysis—a result that we examine further below.

75. The term *prescriptive regulations* comes from Posner, *supra* note 7.

Table 4: Mean Quality by Category of Regulation

Category	Obs.	Mean Quality	Std. Err.
All	45	27.3	1.4
Transfer	15	17.1***	1.1
Prescriptive	30	32.4	1.1
Midnight	7	24.9	1.9
Daylight	38	27.8	1.7
Statutory Deadline	12	22.1**	2.8
No Statutory Deadline	33	29.2	1.5

Asterisks denote statistical significance in t-tests of difference of means.

** significant at 10% level; ** significant at 5% level; *** significant at 1% level.*

Because transfer regulations appear to be a different sort of animal in terms of both quality and review time, we separately examined the quality of only the prescriptive regulations in our sample. The results are summarized in Table 5. When compared against prescriptive daylight regulations, prescriptive midnight regulations had lower quality analysis in 2008. The mean quality of prescriptive midnight rules is 26.2, compared with 34 for prescriptive daylight rules. On the other hand, the difference in quality of rules with statutory deadlines versus rules without such deadlines disappears when examining only prescriptive rules. This latter finding likely is a result of the fact that nine out of twelve transfer rules have statutory deadlines, but only three prescriptive regulations have statutory deadlines.

Table 5: Mean Quality of Prescriptive Regulations by Category of Regulation

Category	Obs.	Mean Quality	Std. Err.
All	30	32.4	1.1
Midnight	6	26.2**	1.7
Daylight	24	34	1.2
Statutory Deadline	3	34.7	4.4
No Statutory Deadline	27	32.2	1.2

Asterisks denote statistical significance in t-tests of difference of means.

** significant at 10% level; ** significant at 5% level; *** significant at 1% level.*

The regulation scores reported in Table 1 are totals for eight evaluation criteria related to the transparency and thoroughness of an agency's regulatory analysis, and four criteria that assess whether the agency used the analysis in its decisions or indicated that it will use the results of analysis to reevaluate the regulation sometime in the future. By separating the first eight quality criteria from the use criteria, we can present a more fine-grained analysis. Table 6 shows that the mean scores differ in all the same ways when considering only the first eight quality criteria—rating transparency and thoroughness—as when considering all twelve quality and use criteria. This implies, perhaps unsurprisingly, that quality and use of regulatory impact analyses are highly correlated regardless of the type of regulation. Table 7 limits the data set to prescriptive regulations. As in Table 5, midnight regulations have lower quality analysis.

Table 6: Mean Transparency and Thoroughness by Category of Regulation

Category	Obs.	Mean Transparency and Thoroughness	Std. Err.
All	45	19.6	1
Transfer	15	12.9***	1.4
Prescriptive	30	22.9	0.92
Midnight	7	17	1.2
Daylight	38	20.1	1.2
Statutory Deadline	12	15.9**	2
No Statutory Deadline	33	20.9	1.1

Asterisks denote statistical significance in t-tests of difference of means.

** significant at 10% level; ** significant at 5% level; *** significant at 1% level.*

Table 7: Mean Transparency and Thoroughness by Category of Prescriptive Regulation

Category	Obs.	Mean Transparency and Thoroughness, Criteria 1-8	Std. Err.
All	30	22.9	0.92
Midnight	6	17.5***	1.3
Daylight	24	24.25	0.92
Statutory Deadline	3	24.7	3.3
No Statutory Deadline	27	22.7	0.97

Asterisks denote statistical significance in t-tests of difference of means.

** significant at 10% level; ** significant at 5% level; *** significant at 1% level.*

CONCLUSION

Using a comprehensive data set that assesses the quality of regulatory analysis for all economically significant proposed regulations, we have found that OIRA actions are correlated with the quality of regulatory

analysis. Regulations with statutory deadlines receive shorter review times at OIRA, and they have lower quality analysis. Transfer regulations receive shorter review, and they have lower quality analysis. At the proposal stage, midnight regulations appear to receive the same length of review as daylight regulations. Nevertheless, *prescriptive* midnight regulations have lower quality analysis. This suggests that OIRA's efforts to limit midnight regulations in 2008 can be justified as an attempt to improve the quality of analysis by forcing agencies to get their regulatory proposals finished before the midnight rush.

This paper shows that certain types of regulations tend to receive lower quality economic analysis. It seems quite possible that those regulations are themselves of lower quality, but several challenges must be overcome in order to test that. The first challenge would be defining and measuring the quality of regulations. An economist might define quality in terms of cost-effectiveness or the spread between benefits and costs, but of course other definitions are possible based on policy criteria other than economic efficiency. Another challenge would involve rigorous retrospective analysis of the actual results caused by the regulations after they were adopted. At best, the Regulatory Impact Analyses prepared when regulations are proposed measure the effects the agency's economists believe will occur, not the results that actually do occur. If these challenges could be overcome, then it would be possible to assess whether higher quality analysis leads to better results. We would then have a better idea of how OIRA actions affect the quality of regulations, rather than just the quality of regulatory analysis.

APPENDIX: REGULATORY ANALYSIS ASSESSMENT CRITERIA⁷⁶

Openness

1. Accessibility: How easily were the regulatory impact analysis, the proposed rule, and any supplementary materials found online?
2. Data Documentation: How verifiable are the data used in the analysis?
3. Model Documentation: How verifiable are the models and assumptions used in the analysis?
4. Clarity: Was the regulatory impact analysis comprehensible to an informed layperson?

76. Ellig & McLaughlin, *supra* note 2, at 33–35.

Analysis

5. Outcomes: How well does the analysis identify the desired benefits or other outcomes and demonstrate that the regulation will achieve them?
6. Systemic Problem: How well does the analysis identify and demonstrate the existence of a market failure or other systemic problem the regulation is supposed to solve?
7. Alternatives: How well does the analysis assess the effectiveness of alternative approaches?
8. Benefit–Cost Analysis: How well does the analysis assess costs and benefits?

Use

9. Use of Analysis: Does the proposed rule or the regulatory impact analysis present evidence that the agency used the regulatory impact analysis?
10. Net Benefits: Did the agency maximize net benefits or explain why it chose another option?
11. Measures and Goals: Does the proposed rule establish measures and goals that can be used to track the regulation’s results in the future?
12. Retrospective Data: Did the agency indicate what data it will use to assess the regulation’s performance in the future and establish provisions for doing so?