WORKING PAPER

MIDNIGHT REGULATIONS: An Update

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Introduction:

The ability of a lame-duck president to achieve anything in the last months of his presidency is "like a balloon with a slow leak that shrinks with each passing week until it hits the ground."[1] Nonetheless in his last days in office, President Bill Clinton managed to rush through an unprecedented number of "midnight regulations," ranging from tightened water quality rules to increased mandatory minimum energy efficiency standards for air conditioning, heat pumps, and washing machines.

Virtually every modern president has made some regulatory change in the final days of their administrations, but it was not until the regulatory outburst of President Jimmy Carter's final days that the term "midnight regulation" was coined. At the time, the Carter administration set the record for number of pages printed in the *Federal Register* during the midnight period—the three months between Election Day and Inauguration Day—with 24,531 pages.[2]

Clinton's unprecedented passage of midnight regulations in late 2000 sparked a renewed interest in the use of presidential power in the period between an election and a new administration. During its last three months in office, the Clinton administration published more than 26,542 pages in the *Federal Register*.[3] According to Susan Dudley, the regulatory activity in Clinton's post-election quarter represented a 51 percent increase over the average number of pages published during the same quarter of the previous three years of Clinton's second term.[4]

This sudden outburst of regulatory activity is not just a characteristic of Democratic administrations. President George H.W. Bush's administration had instituted a regulatory moratorium, but in its waning months it issued a large number of regulations, including a proposal loosening the rules on how long truck drivers could stay on the road between breaks.[5]

In 2001, former Mercatus Center scholar Jay Cochran examined the number of pages in the *Federal Register*, as a proxy for regulatory activity. Cochran went back a far as 1948 and found that when the occupation of the White House switches to the party formerly out of power, the volume of regulation in the outgoing administration's final quarter-year averaged 17 percent higher than the volume of rules issued during the same period in non-election years.[6] These pages include executive orders, proclamations, administrative directives, and regulatory documents (from notices of proposed rulemaking to final rules). According the analysis, the sudden outbursts are systemic and cross party lines.[7]

Cochran's paper correctly explains how the mix of what he calls the Cinderella constraint—cabinet officers and agency heads often turn over after a successful re-election and must turn over after two terms in office—and individual preference combine to produce an outburst of regulatory activity, know as midnight regulations. As Cochran explains "Simply put, as the clock runs out of on the administration's term in office, would-be Cinderellas—including the president, cabinet officers, and agency heads—work assiduously to promulgate regulations before they turn back into ordinary citizens at the stroke of midnight."[8]

Our paper takes a second look at the existence of the midnight regulation phenomenon and seeks to improve on Cochran's working paper in several ways. First, our data set spans a longer period (1975 through 2006 versus 1975 through 1999) and has a higher frequency (monthly data versus quarterly data). That being said, when applying our data to Cochran's model, we found the same qualitative and quantitative results as he did.

Second, Cochran's model contains some technical flaws. For instance, non-stationarity in his data makes his results unreliable.[9] Non-stationarity, or the presence of "time trends" in the data, has two statistical implications:

(1) the mean of the data—meaning the sum of the observations divided by the number of observations, which describes the central location of the data—is undefined, and

(2) the variance of the data—a measure that captures the spread of the data—approaches infinity as time progresses.

Non-stationary data leads to "spurious" regression results that look strongly significant, but are in fact often meaningless. In our analysis, we performed the standard corrections for non-stationarity, and so our results do not suffer from spuriousness.[10]

Another difference can also be found in the way in which we measure the extent of regulatory outburst. Cochran used the log of pages published in the *Federal Register*. We use the number of *Federal Register* pages published in the current month as a percentage of the total pages published during the calendar year. This change allows us to capture the increase in regulation activities during the post-election months for a given administration relative to the administration's baseline annual output.

Applying our model to our data, we found that, with one exception, our results are consistent with Cochran's results. We confirm a positive relationship between post-election months and regulatory output. We also find that the legislature is a significant contributor to the

existence of midnight regulations. In other words, the more days Congress is in session the month before the start of the midnight period, the more regulations will be promulgated. In addition, our data show a positive relationship between the rate of cabinet turnover and regulatory output. The higher the rate of the executive branch turnover—for example, when the entire cabinet is about to be replaced because the incumbent president has lost reelection, the more regulations will be issued during the midnight period. As the rate of the executive branch turnover diminishes—such as following a successful re-election—fewer regulations will be issued.

Section 2: Model and Results.

Our proposition is simple: presidential transitions should be accompanied by outbursts in regulatory activity, especially when power switches from one party to the other.

Figure 1: Pages Added to the Federal Register in Each Quarter as a Fraction of Pages Added for the Calender Year

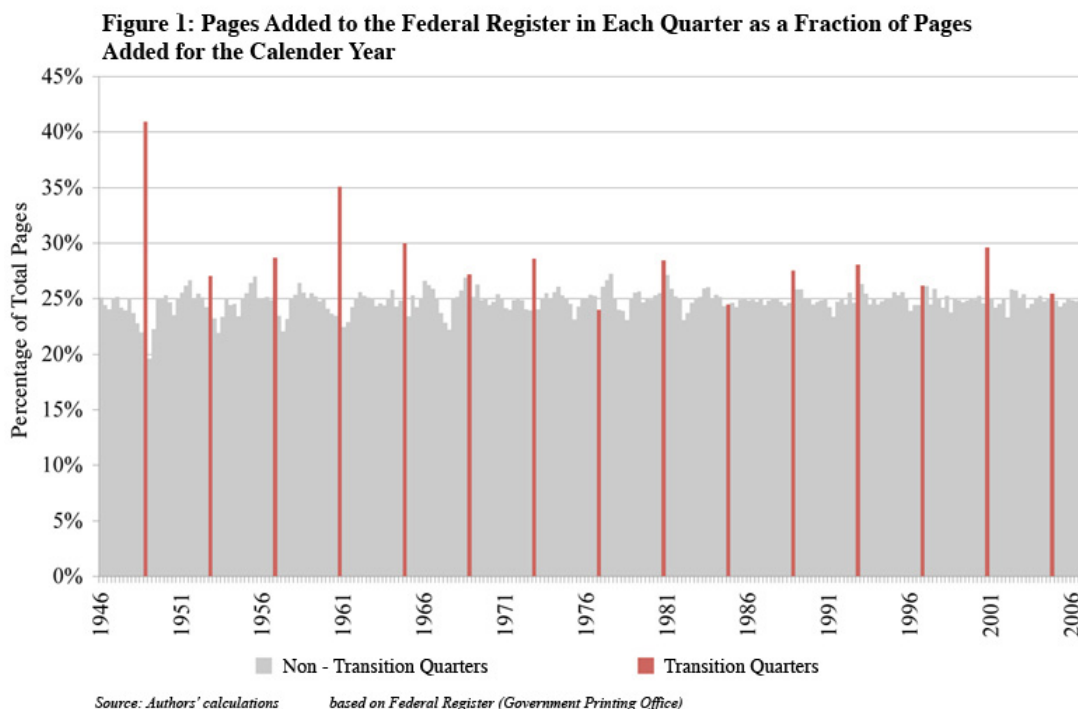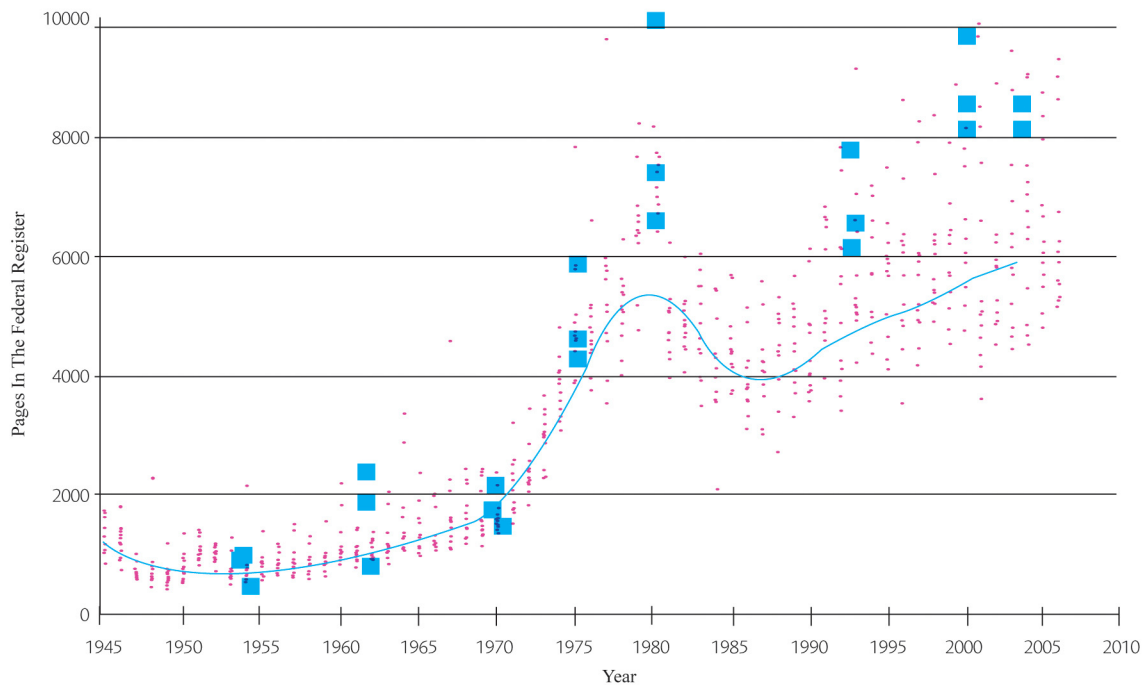Source: Authors' calculations   based on Federal Register (Government Printing Office)

Figure 1 shows the number of pages added to the *Federal Register* between 1946 and 2006 during the last three months of a calendar year as a fraction of total pages added for the entire year (the 3 month moving average). Figure 1 contrasts the growth during the non-transition quarters—the quarters in which no presidential election occurs—and the growth in the transition quarters—the quarters in which a presidential election does occur.

We find that, under normal circumstances, the number of pages added to the *Federal Register* during the course of a year is added at a constant rate—it is spread equally through the year. In other words, 25 percent of the pages added to the *Federal Register* during a calendar year will be added each quarter. However, we found that, for quarters in which a presidential election occurred, the number of pages added exceed the 25 percent baseline 13 out of 15 times. The two exceptions were following the elections of 1976 (Carter defeated Ford) and 1984 (Reagan elected to a second term).

Figure 2 also illustrates the midnight regulation phenomenon. It shows the number of pages in the *Federal Register*. The pink dots represent the number of pages added in a given month, and the blue squares highlight the number of pages added to the *Federal Register* during the months of a transition period. The solid line represents a nonlinear smoother line that reveals underlying trends in the data. Figure 2 shows that the number of pages of the *Federal Register* grew slowly between 1945 and 1970. After 1970, the number of pages started to grow rapidly before it decreased slightly in the 1980s. In the 90s, it starts increasing again—but at a slower pace than in the 70s.

Figure 2: Number Of Pages Added To The Federal Register From 1946 To 2006

Source: Federal Register (Government Printing Office)

■ Pages added in the transition period

⋮ Pages added in a non transition period

On this graph, a square marks the pages added to the *Federal Register* during the transition periods. These observations are located well above our reference line, lending a first round of support to the theory that outgoing administrations and heads of agencies will significantly increase their regulatory activities in the months following a presidential election— especially if parties are changing. As we can see, after 1970 the number of pages added to the *Federal Register* increases drastically after an election, especially when there is a switch in party such as 1980 and 2000. We can see a smaller increase after elections where there was no switch in the party in power such as 1984, 1989 and 2004.

Finally, we subject the *Federal Register* time series to a more thorough test. We find the same trend in multiple regression models (i.e., models that use more than one independent variable). After correcting the time series for its non-stationarity, we performed standard time-series regressions. We estimate the following model:

Monthly data from 1975 through 2006
Y_t = Pages added to the *Federal Register* in month t as a fraction
     of all pages added to the *Federal Register* in the calendar year.
E_t = Dummy variable that is 1 if month t is a November in which
     a presidential election was held, or is the December immediately
     following a presidential election; 0 otherwise.
P_t = Dummy variable that is 1 if month $E_t = 1$, and the sitting president
     was not re-elected; 0 otherwise.
R_t = Dummy variable that is 1 if month $E_t = 1$, and the sitting president's
     party was not re-elected to the White House; 0 otherwise.
S_t = Days in which Congress was in session during month t.
C_t = Percentage of cabinet officers who were replaced in month t.
N_t = Dummy variable that is 1 if month t is November or December;
     0 otherwise.

Our results show a significant increase in pages (relative to the rest of the year) during the months of November and December of a presidential election year. After accounting for the impact of other factors, during the months of November and December following a presidential election the *Federal Register* grows 1.4 percentage points faster than throughout the previous

eight months. If the pages were added at a constant rate over the calendar year, then 8.3 percent would be added each month. Comparing the 1.4 percentage point increase to the 8.3 percent baseline, we have (0.083 + 0.014) / 0.083 = 1.168. That's a 17 percent increase in the number of pages in the *Federal Register* in the midnight regulation period compared to the rest of the year.

As mentioned above, presidential transitions witness a significant surge in regulatory activities during the midnight period. When the office switches party though, the impact is slightly greater. According to political scientists William Howell and Kenneth Mayer (2005), midnight regulation occurs when "political uncertainty shifts to political certitude."[11] They explain that during the last 100 days of his administration, a president knows exactly who will succeed him—his policy decisions, his legislative priorities, and the level of partisan support he will enjoy within the new Congress. If the sitting president (or his party) lost the election, he has every reason to promulgate last-minute regulations to tie his successor's hands. And even if the president or his party did not lose the election, midnight regulations attempt to extend the outgoing president's influence beyond the day he leaves office.

As expected, the months of November and December have no discernable impact on the number of pages published in the *Federal Register* except when they follow a presidential election, confirming the impact of the Cinderella constraint. Finally, the results show a slightly (though not statistically different) greater impact on pages during the months of November and December following a presidential election in which the incumbent party loses the election.

This is consistent with the expectation of a positive relationship between the rate of cabinet turnover and regulatory output. The higher the rate of the executive branch turnover—for example, when the entire cabinet is about to be replaced because the incumbent president has lost reelection, the more regulations will be issued during the midnight period. As the rate of the executive branch turnover diminishes—such as following a successful reelection—fewer regulations will be issued. For example, the regulatory outburst following the 2000 election when the Democrats lost the White House to the Republicans was much bigger than after the 1996 election, when President Clinton won reelection.

Our results also show a positive relationship between the number of session days (in the previous month) and regulatory output. In other words, the legislature is a significant contributor to the existence of midnight regulations. The more days Congress is in session the month before the start of the midnight period, the more regulations will be promulgated.

There are of course considerably more factors that contribute to the midnight regulation outburst. For instance, some scholars have suggested that the state of the economy contributes to midnight regulations.[12] However, our data doesn't show a relationship between Real Gross Domestic Product and regulatory output.

Conclusion:

At its core, this article confirms Jay Cochran's findings that presidents do not relinquish their powers the moment the country's electorate votes them out of office. Instead, in the last three months following an election—especially one that sees a switch in powers from one party to the other, the administration and heads of agencies issue all sorts of rules and regulations. As noted by Howell and Mayer (2005), "While the legislative processes may lay dormant at the end of a presidential term, the production of unilateral directives kicks into high gear."

In fact, we find that, going back to 1948, when the White House switches parties, the number of pages in the *Federal Register* increases on average by 17 percent in the three months following an election, or what we have called here the midnight regulation period. The increase is slightly higher if the president in office has lost the election.

To be sure, some of the regulatory issues during the midnight period have nothing to do with presidents trying to rush through last-minute regulations that they couldn't, or wouldn't, push during the first part of the year. However, the systematic outburst during the midnight period suggests a consistent effort on the part of administration to hurry regulation through before they leave office.

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[1] Carl Cannon, "The Long Goodbye," *National Journal*, January 2001.
[2] Susan Dudley, "Midnight Regulations at All Time High," *Intellectual Ammunition*, Heartland Institute, March 2001, http://www.heartland.org/Article.cfm?artId=99.
[3] Ibid.
[4] Ibid.
[5] Anne Joseph O'Connell, "Political Cycles of Rulemaking: An Empirical Portrait of Modern Administrative State," (Law and Economic Workshop, Paper 2, 2007), p. 1.
[6] Jay Cochran, "The Cinderella Constraint: Why Regulations Increase Significantly during Post-Election Quarters," (working paper, Mercatus Center at George Mason University, 2001).
[7] Ibid., 15.
[8] Ibid., 4.
[9] For similar critiques of Cochran's model and qualitative confirmation of Cochran's results, see William G. Howell and Kenneth R. Mayer, "The Last One Hundred Days," *Presidential Studies Quarterly*, 35(3), 2005: 533–53.

[10] Note the following exception: A regression can contain non-stationary data provided the non-stationary data are cointegrated. With cointegration, the non-stationarity of the dependent variable is cancelled by identical non-stationarity in one or more independent variables. Cochran's data was non-stationary, but not cointegrated.

[11] Howell and Mayer, p. 533.

[12] Cochran, "The Cinderella Constraint" and William Howell, *Power without Persuasion: the Politics of Direct Presidential Action* (Princeton, NJ: Princeton University Press, 2003).