Maltzman, Sigelman and Binder (1996), in what we regard as monumental work, have reinvigorated the study of death in office. But their data analysis is incomplete. First, they fail to project realistically the trends in actual and expected congressional deaths illustrated in Figure 1 of their paper. Second, like many congressional scholars, they do not pay sufficient attention to the Senate. We provide new evidence that the U.S. Senate may offer the solution to mankind's oldest quest, the fountain of youth (Gilgamesh n.d.; de Leon 1460–1521).³

Table 1 presents data on the proportion of U.S. Senators who died in office, by decade, from 1910 to 1990 (CQ 1999). We plotted the senatorial mortality rate data reported in Table 1 versus year (for data grouped by decade) as shown in Figure 1.

The \( r^2 \) for the regression of mortality rates on time is an astonishingly large .87.² Rarely have we seen such a clear time trend. Senators are increasingly not dying in office.

However, as our colleague, Bernard Grofman, pointed out to us (personal communication, April 2, 1995), projecting this equation past 1990 would give us negative estimates of mortality rates as early as the year 2000. Given the strength of our empirical results and the scholarly commitment we share with Gelman and King (1990) to investigating incumbency effects without a priori bias, we do not reject the idea of reenactments out of hand.⁴ Nonetheless, to obtain a mortality function with the more commonly accepted lower bound of zero, we have re-estimated the data with a logarithmic specification, by regressing the log odds of senatorial mortality versus time.⁵

Here we obtain

\[
Y = 7.38 - 3.70E-3 \cdot X; \quad R^2 = .87
\]

### TABLE 1

<table>
<thead>
<tr>
<th>Decade</th>
<th>Proportion of Senators Who Die While in Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>1910–1919</td>
<td>.30</td>
</tr>
<tr>
<td>1920–1929</td>
<td>.25</td>
</tr>
<tr>
<td>1930–1939</td>
<td>.24</td>
</tr>
<tr>
<td>1940–1949</td>
<td>.28</td>
</tr>
<tr>
<td>1950–1959</td>
<td>.20</td>
</tr>
<tr>
<td>1960–1969</td>
<td>.15</td>
</tr>
<tr>
<td>1970–1979</td>
<td>.08</td>
</tr>
<tr>
<td>1980–1989</td>
<td>.03</td>
</tr>
</tbody>
</table>

### FIGURE 1

Plot of Mortality of Sitting Senators versus Year.

\( Y = 7.38 - 3.70E-3 \cdot X; \quad R^2 = .87 \)

(2) Mortality Rate

\[
\text{Mortality Rate} = \frac{e^{61.78-0.033 \cdot \text{YEAR}}}{1 + e^{61.78-0.033 \cdot \text{YEAR}}}
\]

Substituting in the value 2000 for YEAR, we find that senatorial mortality rate for that year is estimated to be about 2 percent. By 2050, estimated Senate mortality will be under one percent. By the year 3000, it will be virtually indistinguishable from zero.

### Discussion

The sophisticated logarithmic regression above provides clear and compelling evidence that, in the modern era, Senators who manage to retain office will be nearly immortal.⁶ Moreover, we may rule out a selection bias effect as the explanation for this phenomenon in that there is equally clear and compelling...
congress," UC Riverside, Winter Quarter, 1995. Nonetheless it was handed out there. The listing of authors is alphabetical by first name.

2. Our own work on this topic was written before we had the benefit of Maltzman, Sigelman and Binder’s (1996) remarkable insights, but we have found no reason to change anything we had previously written.

3. Even the adjusted $r^2$ is still a whopping .84.


5. If we let $M$ denote mortality rate, what we have done is to regress log odds MORTALITY RATE ($= \ln(M/1-M)$) versus YEAR, for data grouped by decade.

6. See, e.g., Strom Thurmond.

7. Witness Hubert Humphrey or Lyndon Johnson, for example. Thus, we may reject the selection-bias inspired hypothesis that senators do not die in office only because immorals (or near immorals) are elected to that office.

8. Even Cain’s mind-boggling review of 666 (mutually contradictory) hypotheses about the effects of term limits (Cain, 1996) omits this one.

9. Stone (1995) compares and contrasts the Wuffeauldian paradigm (see, e.g., Wuffle, 1979, 1982, 1984, 1988, 1989, 1992, 1993, forthcoming) to other work in the continental tradition. Stone’s one sentence summary of the Wuffeauldian approach to the scientific method—“Truth is like a truffle; to find it we must dig around a lot—and then somehow get rid of all the dirt”—has not yet been improved upon.

10. Christopher Zorn, Ohio State University (personal communication, March 25, 1995) has suggested a similar pattern obtains for the U.S. Supreme Court.

11. In this context, consider the joke about the scorpion and the lawyer, the punchline to which is: “professional courtesy.”

References


Maltzman, Forrest, Lee Sigelman and Sarah


About the Authors

A Wuffle is a permanent assistant to professor, School of Social Sciences, University of California-Irvine, a position he has held since 1990. He has published more than anyone would wish, including such unjustly neglected classics of post-rationalist theory as “A Corollary to the Third Axiom of General Semantics,” Journal of Theoretical Politics, 1993 and “Should You Brush Your Teeth on November 6, 1984?”, PS, 1984.

Thomas Brunell and William Koetle are innocent (but very well-trained) political science graduate students at University of California-Irvine, whose empirical research the senior author of this paper is exploiting in accord with the best traditions of European scholarship. The two of them also wrote “Lipreading, Draft-Dodging and Perot-Noia: Party Campaigns in Editorial Cartoons.” Harvard International Journal of Peace and Conflict, Vol 1 No. 4 (1995): 94–115, and already have a number of other singly authored and multiply authored articles currently under submission.

Notes

1. This paper was not prepared for delivery in Barbara Sinclair’s class on the “U.S.