Abstract

The Gallup approval rating is one of our most important benchmarks for presidential success or failure. How these data are presented has serious consequences for interpretation of trends in approval and comparisons across presidents. The presentation of President Bush's approval ratings in the aftermath of September 11th has consistently distorted the trends, at times making regular decline look like accelerating decline and at other times making substantial changes look small. These almost universal graphical errors have been reflected in the reporting of the trends.

This note demonstrates these effects and provides a simple solution that allows us to look at all presidents with a common perspective so that our comparisons can reflect the actual trends in the data rather than variations in how graphs are laid out. I provide comparisons of all presidents since Franklin Roosevelt and present the approval series for President Bush through the most recent Gallup poll. The constant perspective allows interpretation of current trends in light of the entire Bush presidency and in comparison to others.

Introduction

The Gallup presidential approval rating is the best comparative assessment of presidential performance we have. It goes back to Franklin Roosevelt and, in modern times, is updated every couple of weeks or less. It allows us to compare across presidents and across time. While no guarantee of future success (or failure) these ratings are correctly seen as important benchmarks of presidential performance.

This note provides a corrective to a common problem in presenting presidential approval data and also provides the most up-to-date reading of the approval series in proper historical perspective.

The Problem

When a president's approval rating is presented, it is graphed from the start of the term until the latest reading. This is Gallup's own practice as well as that of the media. Figure 1 shows the Gallup graphs of President George W. Bush's approval ratings at 6, 11 and 18 months after September 11, 2001.1

1Another issue of perspective is that Gallup is inconsistent in the labelling of the axes, sometimes using 1, 2 or 3 lines of labels, which changes the aspect ratio of the graph and leads to different apparent slopes from one graph to the next. Many are quite wide relative to their height which also reduces the apparent trends in the data.
Figure 1: Gallup web site graphs for 6, 11 and 18 months after September 11, 1991.
The post-September 11, 2001 approval series for President Bush demonstrates the problem with this graphical practice. Many commentators noted that Bush's approval rating appeared to be quite steady in the months after September 11 and that his sustained high ratings were an indicator of strong public support. While Bush's standing among Americans certainly remained above 60% for 14 months after September 11, the rate of decline in that rating was in fact quite similar to that of previous presidents, including his father, President George Herbert Walker Bush. By virtue of a graphical misrepresentation, commentary has misunderstood the rate of change in the 43rd President's approval rating.

The problem arises because the number of months plotted on the horizontal axis in graphs of approval changes as more data arrive, that is, as time passes. If the width of a graph is always four inches wide, for example, then when we plot 12 months of data in 4 inches we get a different perspective on change than if we plot 48 months in that same 4 inch space. Figure 2 demonstrates this. I plot a constant rate of change for each of four scenarios: the trend after 6, 12, 24, and 48 months (as one might over a presidential term of office.) To give this some substance, this is what would happen if a president entered office with a 65% approval rating but steadily lost one-half percent approval each month through his first (and probably only) term.

The problem is that when we judge a slope, the perspective matters. If we stretch out 12 months to fill four inches, we get a very different perspective than if we “scrunch” 48 months into the same four inches.

Now look at how this applies to President Bush’s approval ratings after September 11. Figure 3 shows how those ratings appear 2, 4, 8 and 16 months after September 11. The apparent slope increases considerably, yet the actual rate of decline is the same for each panel of the figure.

**The Solution**

The solution to this problem is to bring both political and graphical perspective to bear.

The political perspective is to realize that the right way to look at presidential approval is after an administration is over. If we want to know about President Ronald Reagan’s administration we can now look back and understand the dynamics of his administration. Figure 4 shows this.

Among the things we learn from Figure 4 is that after the initial surge in approval following the assassination attempt, President Reagan's approval dropped over 30 points in about 20 months. This trend bottomed out just after the 1982 midterm and was followed by a year of steady gains. Then a plateau set in until the 1984 election campaign boosted Reagan’s approval to a new peak. This approval level was largely maintained for two years until the Iran-Contra scandal hit just after the 1986 midterm election. Reagan spent his last two years struggling to recover. Only as he was leaving office did his approval rating suddenly rebound to pre-Iran-Contra levels. Rather than a “Teflon President”, Reagan’s long run approval demonstrates that he was subject to much the same effects of economic problems, recovery, sustained growth and scandal as are most presidents.

Of course we don’t want to wait until an administration is over to examine public approval. But this example shows the value of adopting a two-term perspective on administrations. If we are to notice when approval is falling or rising more rapidly or less, then we need to look at the graphs with the same perspective they will have once the end of the administration comes.
Figure 2: Hypothetical approval rating plotted at 6, 12, 24 and 48 months of office. In this example, approval begins at 65% and loses a half-percent each month. Note that the apparent slope of the line changes considerably even though the rate of change in approval is exactly the same in all four figures.
Two months after 9/11

Four months after 9/11

Eight months after 9/11

Sixteen months after 9/11

Figure 3: George W. Bush approval ratings through 16 months after September 11. The rate of decline is constant but the changing scale of the horizontal axis makes the slope look like it is getting much steeper.
Figure 4: Approval of President Reagan throughout his administration. Vertical lines added at midterm and presidential elections.
This makes it easy to compare across presidents but even more importantly it lets us see what trends in approval will look like when we have the luxury of historical perspective.

Such a perspective is easy to achieve if we just scale all approval graphs to the same eight year horizontal axis. By doing this we don’t change the apparent slope of the trend each time a new poll arrives. Instead, we extend the trend continuously to the right, adding to the line until it fills the full eight years (or ends after four.)

The benefits of this should be apparent from examining the Bush approval graphs in Figure 3. The exact same data can look like awesome stability, modest decline or steady decline. Whether approval is falling at an historically gradual rate, or returning to normal levels at normal rates, is extremely hard to tell if we are constantly changing the scale of the horizontal axis.

The solution to gaining political and graphical perspective is as simple as adopting a standard eight year perspective and scale the horizontal axis accordingly.

The advantages of this become apparent in Figure 5, which plots the approval ratings of all presidents from Franklin Roosevelt through George W. Bush. With this constant perspective, it is now easy to judge trends in any president’s approval rating, including the current one. In this light, it becomes clear that George W. Bush’s approval declined at almost exactly the same rate as did that of his father following the start of the Gulf War. It is also clear that the onset of the Iraq war produced a substantial increase in his approval. Now that all scales are the same it is also easy to compare the effect of crisis events with those of any other president.
Figure 5: Presidential Approval from 1937 to the present. All presidents are plotted on the same scale so that trends and changes in approval are directly comparable across any president or time period. Vertical lines mark midterm and presidential elections.
Current Approval of President Bush

Figure 6 shows the latest polling for President George W. Bush in perspective. Approval erodes steadily from the peak following September 11, 2001 through the start of the war with Iraq in March of 2003. The rate of decline during this period is in fact closely comparable to that of the first President Bush in the wake of the Gulf War in 1991. Both approval series decline at a rate of 1.9 percent per month following the respective crisis events. For the senior President Bush this rate of decline held steady until September of 1991 when it suddenly accelerated as the economic recession came to dominate public concern. With the current President Bush, the 1.9 percent per month decline continued unabated until the onset of hostilities in the Iraq War.

In contrast to the many analyses that interpreted the post-September 11, 2001 trend in approval for President Bush as exhibiting remarkably sustained high levels of support, the data show that in fact the trend downward was practically identical to that of the earlier President Bush. What is unusual about the approval trend from September 2001 until March 2003 is that support reached unprecedented levels in the wake of the September 11th attacks after which it subsided with clock-work regularity until the start of the Iraq War. That rate of decline was not at all unusual, as the comparison with the first President Bush demonstrates.

The surge in support that followed the start of the war in the 3/22-23/2003 Gallup poll held steady at around 70% approval until early May. In the 5/5-7/2003 Gallup poll approval remained at 69% but in the next poll taken 5/19-21/2003 support began to fall until June when it stabilized at around 59-62% from 6/9-10/2003 through 8/25-26/2003. The perspective of Figure 6 however shows how brief this plateau was in light of a longer timeframe.

September 2003 saw a sharp decline in approval, to 52% in the 9/8-10/2003 poll and then to 50% in the 9/19-21/2003 survey. The latter is the first time President Bush’s approval has fallen below his pre-September 11 ratings (which reached a low of 51% approval on September 10, 2001.) However, the next two Gallup polls found a rebound to 55% and 56% as of 10/12/2003.
Figure 6: Gallup Approval Series for George W. Bush updated through 10/12/2003. Vertical lines represent midterm and presidential elections.
Postscript

While constant shifts in perspective dominated the post-September 11 reporting of President Bush’s approval trends, the problem persists. Figure 7 shows the Gallup web site illustration of Bush approval from January 2003 through mid-September 2003. While this may appear an appropriate “zooming in” on recent trends, the perspective afforded by nine months on the horizontal axis has the effect of dramatically flattening the trends in the figure, giving the appearance of much greater stability than is seen when the entire series of approval ratings are seen in the perspective of a two term presidency, as in Figure 6.

Figure 7: Gallup web site graph for January through mid-September 2003. By altering the horizontal axis to reflect only nine months of data, the graph flattens all trends and provides limited perspective on those trends.
Appendix: Technical details concerning the graphs

All these graphs start relative to inaugural day of the first term. One term presidents are plotted on the same scale as two term president, only half as long. The vice-presidents who became president during their predecessor’s term (Truman, Johnson, Ford) begin their series in their own panel in the figure but at the date of their predecessors term on which they assumed office. Thus Johnson begins in month 35 and continues through month 96.

Months in office here is not literally calendar month. It is based on the number of days served when the poll is taken. Thus values of 1.5, 3.8 and so on are perfectly valid. And all are measured relative to the president’s January 20 inauguration day, so month 2 begins on February 22 and the administration ends on January 19, the day before their successor is sworn in. Calling these “months in office” is simply counting time on a standard political clock based on time in office rather than the calendar. A month here is calculated as \( \frac{365.25 \times 8}{96} \), or average days per year times eight years divided by 96 months in a two term presidency.

The Gallup poll started measuring public approval of the president in 1937, early in Roosevelt’s second term. Therefore the FDR panel of Figure 5 is for his second and third term. There were no Gallup approval ratings in his fourth term before his death. Therefore Roosevelt is also plotted on the same eight year scale as the other presidents.

Figure 5 includes over 1200 Gallup poll ratings of presidents.