Just Weight!
The Case for Dynamic Party Identification Weighting

Weighting survey data based on social background characteristics such as age, education, gender, and race is a standard practice in public opinion polling. By adjusting the composition of their samples to conform to known demographic characteristics of the population, pollsters greatly increase the accuracy of their results. However, with the exception of the Zogby Poll, most major polling organizations, including the Gallup Poll, have strongly opposed weighting their data based on party identification. This opposition is understandable. Party identification is not a fixed characteristic of the electorate. It is a political attitude that can vary over time. As a result, most pollsters believe that there is no way of accurately determining the underlying distribution of party identification in the population for weighting purposes.

Although party identification is an attitude and not a fixed characteristic, political scientists have long recognized that it is a very stable attitude. Gradual shifts in the balance of party loyalties in the electorate are not unusual—Republicans have gained ground in relation to Democrats in recent years, for example. However, dramatic changes over a short period of time are quite rare. This conclusion is supported by decades of research on partisanship in the American electorate and has been confirmed recently by the work of Green, Palmquist, and Schickler. In *Partisan Hearts and Minds* (Yale, 2004), they demonstrate that party identification is largely immune to changes in economic conditions, presidential popularity, and other short-term events.

While the resistance of most polling organizations to the use of party identification weighting is understandable, evidence from recent Gallup Polls indicates that allowing the proportions of Democrats, Republicans, and independents to vary from sample to sample without any constraint produces unrealistically large swings in estimates of party identification and other attitudes that are strongly influenced by party identification such as presidential approval. I propose a solution to this problem that does not require making a rigid assumption about the underlying partisan composition of the electorate: dynamic party identification weighting based on estimates of the partisan composition of the electorate from a series of polls done over several weeks.

Between January 1 and August 7, 2005, the Gallup Poll conducted 24 separate national surveys in which respondents were questioned about their party identification. Figure 1 displays the trend in the Democratic-Republican party identification
differential—the percentage of Democratic identifiers and leaners minus the percentage of Republican identifiers and leaners—in these 24 surveys.

Figure 1. D-R Party Id Differential in 24 Gallup Polls, January 1-August 7, 2005

The most striking feature of this graph is its volatility. Across all 24 polls, there was an average Democratic advantage of 3 percentage points. This was identical to the average for all Gallup Polls conducted during 2004, indicating that there has been little or no change in the underlying party loyalties of the American electorate. Among these 24 polls, however, the party identification differential ranged from an 11 point Republican advantage on February 4-6 to a 14 point Democratic advantage on June 29-30, a 25 point swing. In some cases, moreover, there were dramatic shifts within just a few days. Between February 4-6 and February 7-10, an 11 point Republican advantage became a 6 point Democratic advantage. Similarly, between March 18-20 and March 21-23, a 5 point Republican advantage became an 8 point Democratic advantage. The extraordinary volatility of this series can be seen in Figure 2, which displays the poll to poll change in party identification differential.
In these 24 surveys, there were five poll-to-poll shifts of 10 points or more in party identification differential. Moreover, a large shift in one direction was almost always followed by a large shift in the opposite direction in the next poll. This pattern strongly suggests that much of the poll-to-poll variation was due to sampling error rather than real change in the partisan loyalties of the electorate.

Because party identification is strongly related to political attitudes such as presidential approval, large swings in the proportions of Democrats and Republicans between surveys can produce large swings in estimates of these other attitudes. For example, between February 4-6 and February 7-10 there was a swing from an 11 point Republican advantage to a 6 point Democratic advantage in party identification. At the same time, President Bush’s approval rating fell from 57 percent to 49 percent. Similarly, between March 18-20 and March 21-23, there was a swing from a 5 point Republican advantage to an 8 point Democratic advantage in party identification and President Bush’s approval rating fell from 52 percent to 45 percent. Rather than reflecting any real change in the public’s evaluation of the President’s job performance, these shifts were probably caused by random variation in the partisan composition of the Gallup sample. Such random variation becomes even more problematic before a presidential election because it can affect estimates of voting intentions which, like
presidential approval, are strongly related to party identification.

A potential solution to the problem of excessive variation in the partisan composition of individual samples is to estimate the underlying proportions of Democrats and Republicans in the electorate by combing the results of surveys conducted over several weeks. This estimate can then be used to weight the proportions of Democrats and Republicans in each sample. By combining several surveys, random variation due to sampling error can be greatly reduced.

Figure 3 displays the estimated party identification differential in the Gallup Poll based on a 10-poll moving average. Thus, instead of estimating the proportions of Democrats and Republicans in the electorate based on individual samples of approximately 1000 respondents, we are estimating the proportions of Democrats and Republicans based on combined samples of approximately 10,000 respondents.

**Figure 3. Ten-Poll Moving Average of D–R Party Id Differential in 24 Gallup Polls, January 3–August 7, 2005**
The results in Figure 3 are dramatically different from those in Figure 1, and are much more consistent with the findings of political science research on the nature of party identification in the American electorate: party identification is a stable orientation that changes slowly in response to changes in the political environment. Over the past several months, for a variety of reasons, that political environment has become more favorable for Democrats and it appears that between April and July of 2005 there was a modest increase in the proportion of Democratic identifiers relative to the proportion of Republican identifiers. Because extraneous noise caused by sampling error has been largely removed, this trend is much more evident in Figure 3 than in Figure 1. Overall, these results provide strong support for the use of dynamic party identification weighting in public opinion polling.