

# Winning and Giving: Football Results and Alumni Giving at Selective Private Colleges and Universities\*

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*Objective.* Our central question is how changes in an institution's football success affect giving behavior. Also, we consider whether former varsity athletes are more or less sensitive in their giving behavior than other alumni to the competitive success of their school and whether such effects differ by type of institution. *Methods.* Using micro data from 15 academically selective private colleges and universities, the analysis presents fixed-effects estimates of how football winning percentages affect giving behavior. *Results.* General giving rates are unaffected by won-lost records at the high-profile Division IA schools and at the Ivy League schools. Increases in winning percentages yield modest positive increases in giving rates, particularly among former athletes, at the lower-profile Division III liberal arts colleges. *Conclusions.* While there is a modest positive effect at Division III colleges, our results do not support the notion that winning and giving go hand-in-hand at the selective private universities that play big-time football.

Intercollegiate athletics is expensive, especially at universities that support big-time programs. Notre Dame and Stanford reported total expenditures ranging from \$30 to \$36 million for fiscal year 1997–1998. Even in the Ivy League, where no athletic scholarships are given, annual expenditures on intercollegiate athletics generally exceed \$10 million; Division III liberal arts colleges such as Kenyon and Williams spend between \$2 and \$3 million fielding intercollegiate teams.<sup>1</sup> There are other kinds of “costs” as well, including both the effects of scandals and alleged abuses on institutional

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<sup>1</sup> The figures for Notre Dame and Stanford are taken directly from reports filed by the schools under the Equity in Athletics Disclosure Act (EADA). Figures for the smaller programs are our estimates based on the EADA reports and other information. These figures underestimate true costs in that they ignore most if not all of the capital costs invested in athletic facilities.

reputations and the opportunity cost involved in admitting recruited athletes in lieu of other applicants who might take fuller advantage of the academic opportunities offered by the schools. The offsetting benefits that are thought to justify these costs include large presumed financial returns to the most successful football and basketball programs; the pleasure of competing; positive effects on school spirit; stronger ties to alumni as well as local communities; and increased visibility for the school. Increasingly, however, scholars and critics have raised questions about whether these programs are worth what they cost.<sup>2</sup>

An important element of this debate focuses on the effects of intercollegiate athletics on support by alumni, who are a critically important constituency at these schools, even though they are not the only source of donations. In particular, it is important to know if what Noll (1999) refers to as “the high cost of winning” can be justified simply in terms of increased donations from alumni. Although there have been perhaps a dozen studies of this question, the behavioral evidence has been limited by the availability of data and the difficulty in identifying exogenous changes in giving behavior. With access to a rich new database (described below) that provides a wealth of information about individual schools and the actual or potential donors who attended these schools, we are in a position to answer some very basic queries more definitively than has been possible before. Our claim, then, is not that we are posing an entirely new set of questions, but that we are able to provide some new answers as a result of new evidence.

The principal questions that we explore are (1) Do variations in the won-lost records of the most visible athletic teams affect the percentage of graduates who make general gifts (the “general giving rate”)? (2) Does variation in won-lost records affect the amount that donors contribute for general purposes? (3) How are “athletic giving rates” (percentages of graduates who make gifts specifically for athletics) and the amounts given to athletics affected by won-lost records? In addition to these standard questions, we also explore two new questions: (4) In their giving behavior, are former varsity athletes more or less sensitive than other former students to the competitive success of their school? (5) Are graduates of schools that sponsor big-time, Division IA programs more or less sensitive to won-lost records than graduates of schools with the lower-profile programs found in the Ivy League and Division III liberal arts colleges?

Access to the College and Beyond<sup>3</sup> database provides considerable new information to address these questions. In particular, these data allow us to

<sup>2</sup>One recent full-length study is Zimbalist (1999); see also Noll (1999). Sperber (2001) focuses on the problems of Division I athletics.

<sup>3</sup>The College and Beyond database is a restricted access database that was built by the Andrew W. Mellon Foundation to facilitate study of various outcomes of the undergraduate education provided by academically selective colleges and universities. The database contains records of approximately 90,000 students who matriculated at 34 colleges and universities in

“tag” former athletes, that is, to look at their giving patterns separately from the giving patterns of other graduates. Data for 15 private institutions that compete at three very different levels of athletic intensity permit direct comparisons of “winning and giving” relationships at these different levels of athletic intensity. Five of the 15 are universities that compete actively in big-time collegiate sports at the NCAA Division IA level (Duke, Notre Dame, Northwestern, Rice, and Vanderbilt); four are members of the NCAA Division IAA Ivy League (Columbia, University of Pennsylvania, Princeton, and Yale); the remaining six are liberal arts colleges that compete in NCAA Division III (Denison, Hamilton, Oberlin, Swarthmore, Wesleyan, and Williams).

To be sure, these 15 institutions are far from representative of higher education, in that all of them are both private and academically selective. Different patterns might well be found at other types of institutions. Also, some might argue that intercollegiate athletics matter much less at the Ivies and the Division III colleges than they do at the “big-time” schools. But recent experiences and a new study rebut this proposition. The high-decibel controversy at Swarthmore sparked by that school’s decision to drop football illustrates vividly the powerful emotions associated with athletics at even this highly “academic” liberal arts college. More generally, the widely quoted empirical findings in Shulman and Bowen (2001) demonstrate that athletics has a more important overall impact on many of the smaller colleges than it does on an institution such as the University of Michigan.<sup>4</sup> An additional reason for studying these schools is that alumni giving is a particularly compelling subject in schools where alumni-driven private philanthropy subsidizes a substantial share of total costs. Such schools have reason to be highly sensitive to factors affecting their overall level of private support and to be aware that a dollar given to support the football team could be a dollar that otherwise might have gone to the library.

In focusing solely on donations by individual alumni, we miss effects of winning athletic programs on contributions by “boosters” and other non-alumni. This omission is in large measure unavoidable, in that there are no systematic data on these other sources of donations. In any case, anecdotal evidence suggests that “boosters” are rarely major sources of donations for general purposes and are often less important to athletic programs than one might suspect.<sup>5</sup>

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the fall of 1951, 1976, and 1989. The *College and Beyond* database was first used extensively in Bowen and Bok (1998), and it is described at length in Appendix A of that book. In this study we have also used supplementary data on giving histories supplied by the participating schools.

<sup>4</sup> Menand’s (2001) review of Shulman and Bowen (2001) makes this point emphatically.

<sup>5</sup> The EADA forms lump all sources of voluntary support together, and an extended search reveals no other sources. Nonalumni “booster” revenues are exceedingly modest at the Ivies and the Division III liberal arts colleges. Donations from booster groups are more important at Division IA schools such as Notre Dame and Duke, but even there they pale in relation to

### Why Might Winning Affect Giving?

Economists and other social scientists tend to begin with the basic question of why success (or failure) on the playing field should be expected to affect alumni giving. One explanation, following earlier work on enrollment and application behavior, is that success on the playing field creates exceptionally good publicity for the college or university (McCormick and Tinsley, 1987). This “advertising effect” might be thought to raise the profile of a college or university relative to other potential candidates for charitable giving, thus increasing the likelihood that alumni read and respond to solicitations from the college or university. Individuals may also see success on the playing field as a direct reflection of the extent to which administrators and trustees are preserving the “quality” of their alma mater. Whereas alumni may lose track of changes in the faculty, the state of the core curriculum, or the amenities in college dorm rooms, scores and standings permeate the media. For some graduates, these results may be the subject of idle conversation; for others, a losing season may stimulate intense reactions, including even threats to “never make another gift.” The sign of such effects is not, however, unambiguously clear. Some individuals might see success on the athletic field (especially if it is associated with scandals of one kind or another) as a degradation of a school’s academic reputation, whereas others may see athletic success as a straightforward indication of institutional “competence” and ability to achieve results in every kind of arena.

Another explanation considers the role played by the ancillary “benefits” of giving—such as preferred seats in the football stadium, opportunities to hobnob with coaches, or parking privileges at basketball games—all of which become more valuable as a consequence of winning. In this context, “giving” is really a form of “consuming,” and the effects of a change in athletic fortunes might be particularly evident in giving that is restricted to athletics (e.g., donations to varsity clubs and the like).

Winning seasons could also affect giving behavior indirectly through what might be called the “bundling” programs of schools. That is, schools often schedule a variety of events on the same weekends that home football games are played. The prospect of a strong showing on the football field may encourage alumni to come back to campus and participate in a variety of programs, some initiated or sponsored by the fund-raising office.

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alumni contributions. Booster donations tend (not surprisingly) to be directed primarily to support of athletic budgets. A story in *USA Today* (2001) reports that the University of Louisville’s athletic department has received \$850,000 in donations since Rick Pitino was hired as basketball coach; according to the story: “The money has come from basketball season ticket holders, who must increase their donations to get the best seats in Freedom Hall next season.”

## Results from Other Research

Far more has been written about the purported link between athletic success and alumni giving than is justified by the available empirical evidence. A wide array of researchers, including both economists and others, have examined the question, and they have reported empirical results that, on the whole, are far from conclusive. An earlier summary of the available research by Frey (1985) notes six studies of alumni giving showing no effects of athletic performance and three identifying a positive relationship.

Among the studies widely cited in this literature are the studies of giving behavior at Division IA schools by Sigelman and Carter (1979), Brooker and Klastorin (1981), and Sigelman and Bookheimer (1983). Sigelman and Carter (1979) examined a series of repeated cross-sectional regressions and found little relation between athletic success and giving. Brooker and Klastorin (1981) estimated regressions pooled over time and found a positive and significant relationship between football success and alumni giving, particularly in private schools. Sigelman and Bookheimer (1983) revisited the question with a particular focus on athletic giving at 57 big-time programs and concluded that football success is a strong determinant of voluntary contributions to athletic programs. However, Sigelman and Bookheimer (1983), as well as Coughlin and Erikson (1985), are unable to distinguish between contributions made by alumni to athletics and those made by others without connections to the institutions.

This body of research is limited in several respects. First, as noted by Baade and Sundberg (1996a), the focus on Division IA schools presents an incomplete picture of the relationship between winning and giving, as other types of colleges and universities make substantial investments in athletic programs, particularly football. Moreover, many of the previous empirical analyses are methodologically suspect because of their overreliance on cross-sectional variation—differences in football performance across institutions at a point in time—to identify the parameter of interest. Although it is possible to include a set of explanatory variables to control for observed differences in the academic standing and athletic emphasis of institutions, there are substantial differences in the general willingness of alumni to give that remain unmeasured. To the extent that these unmeasured or omitted factors may be correlated with athletic performance, estimates relying on cross-sectional variation may be biased and inconsistent.

## Data Used in This Study

The individual-level data used in this analysis include alumni giving records compiled for 15,351 full-time students who entered the 15 colleges and universities in this study (listed earlier) in the fall of 1976. Data were provided by each school, and gifts were divided into two categories: those restricted to athletics (“athletic giving”) and all other gifts (which we group

together as “general giving”). The giving data span the 10-year period beginning in the 1988–89 academic year and ending with 1997–1998.<sup>6</sup> Won-lost records provided by sports information offices were matched to individual giving records for each of these years. That is, the 1997 fall football winning percentage was matched to giving during the 1997–1998 fiscal year, for example.

Although we were able to collect detailed won-lost records for both football and men’s basketball, we use only the won-lost records for the football teams in the final regressions presented below. At the majority of schools in the study, alumni are most likely to be aware of the success (or failure) of the football team. Duke, with its highly successful basketball program, is clearly an exception. Recognizing that success in basketball as well as football is important at a number of institutions, we included won-lost records for both football and men’s basketball in earlier work. The results were unaffected, however, by adding basketball, and so we elected to simplify the exposition by presenting the results for football only.

The actual and potential donors included in the study consist of all members of the 1976 entering cohorts at the 15 schools in the College and Beyond database participating in this study. We have focused our analysis on the 1976 entering cohort primarily because roughly 20 years have passed since this cohort graduated from college. Thus, a sufficiently long time has passed for them to have settled into jobs and established giving patterns, which we are able to observe over the 10 years for which we have giving records.

This unusual data set, comprised of extensive micro data, offers several notable advantages over the more commonly used institutional aggregates. First, we are able to examine the behavior of a well-defined cohort of same-age contributors rather than a changing mix of “old” and “young” classes. Second, identifying gifts with individual donors allows us to avoid the commingling of individual gifts with gifts from corporate or foundation sources that often confounds the interpretation of institutional aggregates. Third, as already noted, these data allow us to distinguish general giving from athletic giving, thus permitting us to determine if athletic giving is more (or less) sensitive to competitive success than giving in general. Finally, the detailed demographic information that is in the database allows us to see if the giving of particular types of individuals (such as former athletes) is especially responsive to changes in athletic performance.

<sup>6</sup>Giving data correspond to July–June fiscal years at 12 of the 15 institutions. Data from three schools (Notre Dame, Oberlin, Williams) correspond to calendar years.

TABLE 1  
Means of Winning and Giving Variables

	Division IA (Universities)			Division IAA (Ivy)			Division III (Colleges)		
	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>
<b>Men</b>									
Football W%	50	0.44	0.27	40	0.54	0.26	52	0.43	0.31
General participation (%)	38,948	0.28	0.45	31,024	0.26	0.44	13,455	0.32	0.47
Athletic giving participation (%)		0.02	0.12		0.03	0.17		0.01	0.11
Average general giving (\$)		96	5764		131	3690		100	1051
Average athletic giving (\$)		10	193		17	837		1	18
<b>Women</b>									
Football W%	50	0.44	0.27	29	0.64	0.22	52	0.43	0.31
General participation (%)	24,805	0.25	0.43	13,654	0.30	0.46	11,535	0.33	0.47
Athletic giving participation (%)		0.01	0.09		0.02	0.12		0.00	0.07
Average general giving (\$)		166	17828		67	434		54	289
Average athletic giving (\$)		6	361		2	67		0	4

NOTES: The tabulations reflect data from 15 colleges and universities over 10 years (or as indicated), playing in three football divisions. In Division IA, we observe Duke University (89–98), University of Notre Dame (89–97), Northwestern University (89–97), Rice University (89–96), and Vanderbilt University (91–97). In Division IAA, we observe Columbia University (89–98), University of Pennsylvania (89–94, 96–98), Princeton University (89–98), and Yale University (89–96). In Division III, we observe Denison University (89–96), Hamilton College (95–98), Oberlin College (89–98), Swarthmore College (90–98), Wesleyan University (92–98), and Williams College (89–96).

**Framing the Analysis**

To examine the relationship between athletic success and the giving behavior of alumni, it is desirable to observe variation in athletic fortunes over time, not just across institutions at a point in time. Fortunately, from the standpoint of the objectives of this study, the degree of athletic success at

nearly all of the schools that we observe has in fact varied substantially over the 10 years for which we have giving data. For example, one season in which the football program at the University of Pennsylvania won only 2 of 10 games is balanced by several perfect seasons. Even teams with widely known histories of athletic success, such as the Notre Dame football program, experienced relative ups and downs over this interval, with Notre Dame football experiencing both a perfect season and a season in which it won only slightly more than half its games.

Giving behavior is less one-dimensional than won-lost records. Development officers are concerned with both participation rates—the share of any group of former students who make contributions—and the total amount of dollars contributed. Participation rates are often thought to be important indicators of “connection” to the university or college and also as important precursors of giving patterns later in life. In this regard, young alumni are sometimes encouraged to make token gifts (e.g., \$19.99 for those graduating in 1999) so that they may begin a habit of giving back. Thus, we look at both giving rates and the overall level of giving.<sup>7</sup>

General giving rates are not so different across the three athletic divisions included in our study. The Division III liberal arts colleges did modestly better as a group (with 32 percent of men and 33 percent of women making contributions) than either the Ivies (26 percent for men and 30 percent for women) or the Division IA private universities (28 percent for men and 25 percent for women). Average athletic giving rates are low everywhere but slightly higher in the Ivies than in the other divisions; overall, women graduates are as likely to be general givers as their male classmates (though usually making somewhat smaller gifts), but they are less likely to give to athletics. Table 1 summarizes average giving rates (general and athletic) and average dollar levels of giving (again, both general and athletic), by division, and separately for men and women graduates. Average won-lost percentages for football are also shown in this table.

The empirical analysis presents fixed-effects estimates of how football winning percentages affect the aggregate giving behavior for each group of institutions, as well as for subsets of students within each group. Explicitly, with  $y_{it}$  as the measure of giving behavior at institution  $i$  in year  $t$ , we estimate the relationship:

$$y_{it} = \mu_i + \lambda_t + \sum_k \beta_k D_k F_{it} + \varepsilon_{it}$$

where the  $\mu_i$  are the institution fixed effects,  $\lambda_t$  are year-specific effects, and the parameters  $\beta_k$  indicate the relationship between football performance

<sup>7</sup> Giving rates are defined here as the average annual percentage of individuals in a category who made a gift. Thus, if 50 percent never gave and the other 50 percent averaged one gift every two years, the average giving rate would be 25 percent. Giving levels are defined analogously to giving rates: as the average annual gift made by individuals in a defined category.



( $F$ ) and giving behavior for a school in athletic division  $k$ , where  $D_k$  are dummy variables indicating the division in which a school's football program competes. The institution-specific fixed effects capture dimensions of institutional culture and resources that are unlikely to vary appreciably over time. Football performance ( $F_{it}$ ) is measured by the percentage of games a team won in a given season. We distinguish the effects of athletic success according to the level of NCAA competition by including interactions between winning percentage and dummy variables ( $D_k$ ) indicating division of competition (Division IA, Division IAA, or Division III). This approach yields what are, in effect, separate measures of the sensitivity of giving to winning by division.

Regression analysis with a straightforward fixed-effects model (which is computationally equivalent to including a dummy variable for each of the 15 institutions) provides a formal test of the underlying relationship between winning and giving. Year-to-year changes in the winning percentage of an institution's football team are used to predict changes in aggregate measures of giving behavior. In addition, we include a full set of year-specific dummy variables that are intended to pick up the effects of any broad events that might have affected all institutions in a particular year (such as the timing of major reunions, which were the same for members of the 1976 entering cohorts at all of our schools). We also include a "Campaign" dummy variable that indicates whether an institution was conducting a major fund-raising campaign during the year in question, and we have experimented with other measures varying over time within institutions that might plausibly affect contributions.<sup>8</sup>

We focus this analysis on variations over time within specified institutions, because the effects of unobserved variables are particularly likely to plague cross-sectional regressions. In seeking to analyze differences in contributions across colleges and universities at a single point in time, it may be very difficult to separate the effects of differences in athletic performance from the effects of other institution-specific factors that are correlated with athletic success and difficult for researchers to observe. The direction of causation can also be hard to discern: Do schools with winning athletic programs attract students who go on to be highly successful in their professions and therefore generous to the school, or do schools with generous alumni have more successful athletic programs in part because of the wealth and influence of their graduates? Even in studying giving behavior over time within the confines of a single institution, it may be difficult to disentangle the effects of changes in won-lost records from changes in other external

<sup>8</sup>We are grateful to Susan Anderson for her efforts in collecting the campaign data by contacting individual institutions. We have also considered the impact of changes in the *U.S. News and World Report* college rankings (compiled by Ron Ehrenberg and James Monks) on giving behavior and do not find any significant relationship between these rankings and giving behavior.

factors, but at least more things are reasonably constant (Notre Dame is still Notre Dame). Our central question is how changes in an institution's athletic fortunes affect giving behavior, not the more general subject of the relationship between individual characteristics and giving behavior, which is studied more appropriately using cross-sectional analysis.

## Findings

Contrary to much of the mythology about winning and giving, we find no relationship of any kind between won-lost records in football and general giving rates at either the Division IA universities that operate high-profile programs or among the Ivies (Table 2, column 1). The general giving coefficient for the Division III schools, on the other hand, is positive and statistically significant. The apparent impact of even a substantial change in competitive results would be described by some as relatively modest. The coefficient of .050 implies that an increase in the winning percentage of .5 (moving from a 50-50 record to an unbeaten season) is associated with an increase in the general giving rate of 2.5 percentage points—which is, however, equivalent to roughly an 8 percent increase in the share of graduates making a donation. We believe we understand why—contrary to what one might have expected to find—football victories are more consequential for giving rates in Division III than elsewhere, but we defer a discussion of the forces at work until later in the article.

Changes in won-lost records at the Division IA schools and in the Ivies also have no discernible effect on athletic giving rates (Table 2, column 2). In the case of the Division III colleges, there appears to be a negative association between changes in won-lost records and (athletic) giving rates, but the overall frequency of athletic giving at these colleges is so low (with only 1 percent of all members of the 1976 cohort making an athletic gift in a typical year) that we do not attach any real meaning to this relationship.

When we do a parallel analysis and focus not on giving rates but on the amounts given, there is only one significant result that deserves consideration (Table 2, column 3). Improvements in Division IA football performance are associated with an average *decline* of more than \$200 per person in general giving.<sup>9</sup> There is not, however, an offsetting increase in athletic contributions; we observe no significant association at any level of competition between won-lost records and athletic contributions (Table 2, column 4).

The patterns just described can be understood much better when we interact changes in football won-lost records with a key variable available to us

<sup>9</sup>The magnitude of this coefficient is affected by the presence of an unusually large (multimillion-dollar) contribution to an institution during an “off” football year. We do not eliminate such outliers, precisely because they do not appear to be related to athletic performance.

TABLE 2

Fixed Effects Estimates of the Effect of Football Performance on Giving, College and Beyond Data, 1976 Cohort and Giving Years 1989–1998

	Giving Rate		Giving Level	
	General (1)	Athletic (2)	General (3)	Athletic (4)
Football (% W)*Div IA	-0.01 (0.02)	0.00 (0.00)	-270.00** (79.91)	-2.90 (5.09)
Football (% W)*Div IAA	0.01 (0.02)	0.01 (0.00)	-26.05 (81.95)	-1.48 (5.22)
Football (% W)*Div III	0.05* (0.03)	-0.01** (0.00)	56.26 (98.62)	1.88 (6.28)
Campaign dummy	0.02** (0.01)	0.00 (0.00)	19.36 (22.20)	2.65* (1.41)
$R^2$	.15	.13	.22	.16

NOTES: Each regression includes 125 institution-year observations, representing 15 institutions; see Table 1 for data availability. Each regression includes a constant and fixed effects for individual institutions and years. The reported  $R^2$  measures reflect the share of the within-institution variation over the time explained in the model.

\* indicates significance at the 10% level; \*\* indicates significance at the 5% level.

from the College and Beyond database: whether the potential donor did or did not play on an intercollegiate team in college (which we refer to simply as prior athletic participation).

Although it is common to think of football as a “men’s” sport, gender plays virtually no role in determining giving participation or amount.<sup>10</sup> On the other hand, giving behavior is definitely influenced by status as a former athlete. The athletic-participation component of the systematic variation of giving behavior and football performance is shown in Table 3. Improvements in the performance of the football team clearly increase the propensity to give for those who participated in varsity athletics as undergraduates. Among former athletes from the Ivy League schools and Division III colleges, participation in general giving increases. Among Division IA athletes, on the other hand, it is participation in athletic giving that increases, with former athletes from Division IAA also responding positively to athletic success.

<sup>10</sup> The effects of football performance on general giving behavior are not significantly different for men and women. An interesting question raised by one reviewer concerns the extent to which giving behavior of women has changed as their participation in athletics increased in the aftermath of the enforcement of Title IX requirements. To address this question, a researcher would need panel data on the giving of multiple cohorts of students.

TABLE 3  
 Fixed Effects Estimates of the Effect of Football Performance on Giving by Athletes and Other Students, College and Beyond Data, 1976 Cohort and Giving Years 1989–1998

	General Level		Giving Level	
	General (1)	Athletic (2)	General (3)	Athletic (4)
Football (% W)*Athlete*Div IA	-0.02 (0.03)	0.06** (0.03)	-117.63** (54.51)	33.60** (17.05)
Football (% W)* Athlete*Div IAA	0.06** (0.03)	0.10** (0.03)	10.96 (55.39)	39.26 (17.32)
Football (% W)* Athlete*Div III	0.15** (0.03)	0.00 (0.03)	41.87 (65.73)	6.88 (20.55)
Football (% W)*Not Ath*Div IA	-0.02 (0.03)	-0.05 (0.03)	-144.09** (54.51)	-2.11 (17.05)
Football (% W)*Not Ath*Div IAA	-0.01 (0.03)	-0.07** (0.03)	-50.77 (55.39)	-17.21 (17.32)
Football (% W)*Not Ath*Div III	0.01 (0.03)	-0.03 (0.03)	18.27 (65.73)	6.20 (20.55)
Campaign dummy	0.02** (0.01)	0.01 (0.01)	17.29 (14.24)	8.70** (4.45)
<i>R</i> <sup>2</sup>	.34	.41	.12	.21

NOTES: Each regression includes 250 institution-year athletic status observations, representing 15 institutions; see Table 1 for data availability. Each regression includes a constant and fixed effects for individual institutions and year. The reported *R*<sup>2</sup> measures reflect the share of the within-institution variation over the time explained in the model.

\* indicates significance at the 10% level; \*\* indicates significance at the 5% level.

A key finding: There is no statistically significant association between football won-lost records and the general giving rates for *any* group of nonathletes—those members of the cohort who did not play on intercollegiate teams, regardless of gender or the division in which they competed (Table 3, column 1). The positive relationship between winning and giving rates found in the data for Division III does not appear among the nonathletes who attended these schools.

Our interpretation of this clear pattern is that the athletes at the Division III liberal arts colleges identify most strongly with their schools, following success and failure on the playing field more closely than students from other types of institutions. As such, these alumni are more inclined to adjust their general gifts to success and failure than are the former athletes who participated in the big-time programs at the Division IA schools and the men who played sports in the Ivy League.<sup>11</sup> It is also true that former ath-

<sup>11</sup> This finding and this interpretation are consistent with extensive cross-sectional evidence about the giving behavior of the various groups and their attitudes toward intercollegiate athletics (Shulman and Bowen, 2001:chap. 10). The Shulman and Bowen data also

letes, men and women, comprise *much* higher proportions of the student bodies of the Division III liberal arts colleges than they do of the student bodies at the Division IA schools. Harkening back to the overall relationship between winning and giving at the Division III colleges that we described earlier, we now see that it is the former athletes who drive these results. Their giving behavior has a strong impact because of the combination of their greater sensitivity to won-lost records and their much larger presence in the student bodies of these colleges.

Improving won-lost records *depressed* general giving levels among nonathletes at Division IA schools; the coefficients are significant and far from trivial in size. Some graduates may assume (erroneously, in almost all instances) that winning football teams generate so much revenue that they don't need to make as large a gift as they would have made otherwise. We know from other data that nonathletes at these schools believe that intercollegiate athletics is, if anything, overemphasized (Shulman and Bowen, 2001:204), and it is possible that better results by the football team feed this impression and then lead to resentment and to reduced giving. A related possibility is that some nonathletes may have taken genuine pride in the fact that their school was *not* an athletic power and may then have interpreted greater success on the field as an indication that values have changed and that their school is not the same place that they attended. Whatever the underlying explanation, it is the behavior of these nonathletes that is driving the negative coefficient for the amount of giving at the Division IA schools that we reported in Table 2.

The second aspect of these results is the negative impact of winning on general giving levels among the male athletes who attended Division IA schools. A different explanation for this relationship is required, and it may be found in Table 3 (column 4), which focuses on levels of *athletic* giving. Whereas winning has no impact on the average amount given to athletics by nonathletes, it has a clearly positive effect on the size of athletic gifts made by former athletes from Division IA schools (men and women alike). The combination of these positive effects of winning on the size of athletic gifts and the negative effects on the size of general gifts is consistent with the view that some shifting of gifts is occurring. That is, the reduced level of general giving by former Division IA athletes may be explained, at least in part, by their increased support of athletics (Table 3, columns 3 and 4).<sup>12</sup>

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show that men who played the high-profile sports of football, basketball, and hockey in the Ivy League are less inclined to make general gifts than are those who played other sports.

<sup>12</sup> There are, of course, other variables that may explain some part of the relationship between winning and giving. For example, we found that the giving of those graduates who continued to live in the state where their school is located was more likely than that of graduates living out of state to be affected positively by winning football records. Adding this "residence" variable does not, however, change any of the other results and, because of space constraints, we do not present the regressions including the location variable. They are avail-

## Conclusions

In assessing the arguments for and against the large investments in intercollegiate athletics generally thought to be necessary in order to produce winning teams, there is no evidence to suggest that “paybacks” will come in the form of enhanced generosity by alumni. It is, of course, entirely possible that the relationship between alumni giving and success on the football field follows a more complex dynamic path than the simple model we are able to explore with our data. Although we have experimented with the introduction of simple lag structures (and obtained no different results), we are not able to explore questions such as whether a decade of poor performance on the gridiron would have a larger effect on alumni support than intermittent years of poor performance. Nonetheless, the evidence presented in this article seems sufficiently robust to put to rest the notion that winning and giving go hand in hand at the selective private universities that play big-time football. Our results suggest that, in fact, there is a stronger positive relationship between football performance and giving among Division III colleges.

At the most competitive level (NCAA Division IA), our data suggest an even stronger conclusion: winning appears to have, if anything, a *negative* effect on the overall level of alumni support. The giving behavior of the great majority of the former students at these schools who were not themselves varsity athletes suggests that, overall, these graduates are likely to give less, not more, when the football team does better. And the graduates who were intercollegiate athletes as undergraduates show some tendency to substitute larger athletic gifts for general gifts when the won-lost record improves. Of course, as we have said, this analysis does not take account of gifts from local boosters and corporate sponsors. We would expect winning in big-time programs to lead to greater revenue from these sources.

An even more interesting story, at least from our perspective, is the very different picture that emerges from the winning and giving patterns at the Division III liberal arts colleges. Anyone tempted to downplay the role of intercollegiate athletics at the Division III level should ponder the evidence presented here. From the perspective of the frequency of alumni donations, winning actually turns out to be more important at these schools than at their much higher-profile counterparts. This result is really not so surprising when one thinks of both the institutional “bonding” effect of athletics, which is likely to be especially strong in these schools (leading many students who play sports to feel a closer identity to their schools than they would feel otherwise) and the relatively large number of undergraduates who play intercollegiate sports at the leading liberal arts colleges.

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able from the authors on request. Groen and White (2001) probe the question of academic performance and location choice in more detail.

The positive relationship between winning and giving in the liberal arts colleges suggests that successful athletic programs may well encourage more of the former athletes who attended these schools to contribute. But there could also be a downside to this set of findings. The recruited athlete of today is the alumnus of tomorrow, and if this large group of potential donors regard winning as important, the pressures to continue to win may be very great. This might be fine if the school could respond to such pressures without incurring costs of various kinds, of which dollar costs may be the least important. But that is not the case.

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