FINDING PREDICTORS OF FUTURE MAJOR GIVERS

By Peter B. Wylie and John Sammis

For years a bunch of committed data miners (we're just a couple of them) have been pushing, cajoling, exhorting, and nudging folks in higher education advancement to do one thing: *Look as hard at their internal predictors of major giving as they look at outside predictors (like social media and wealth screenings*). It seems all that drum beating has been having an effect. If you want some evidence of that, take a gander at the preconference presentations that will be given this August in Minneapolis at the APRA 25th Annual International Conference. It's an impressive list.

So…what if you count yourself among the converted? That is, you're convinced that looking at internal predictors of major giving is a good idea. How do you do that? How do you do that, especially if you're ***not*** a member of that small group of folks who:

- have a solid knowledge of applied statistics as used in both the behavioral sciences and "business intelligence?"
- know a good bit about topics like multiple regression, logistic regression, factor analysis, and cluster analysis?
- are practiced in the use of at least one stats application whether it's SPSS, SAS, Data Desk, or R or some other open source option?
- are actively doing data mining and predictive modeling on a weekly, if not daily basis?

The answer, of course, is that there is no single, right and easy way to look for predictors of major giving. What you'll see in the rest of this piece is just one way we've come up with – one we hope you'll find helpful.

Specifically, we'll be covering two topics:

- The fact that the big giving in most schools does not begin until people are well into their fifties, if not their sixties
- A method for looking at variables in an alumni database that may point to younger alums who will eventually become very generous senior alums

Where The Big Money Starts

Here we'll take you through the steps we followed to show that the big giving in most schools does not begin until alums are well into their middle years.

Step 1: The Schools We Used

We chose six very different schools (public and private, large and small) spread out across North America. For five of the schools, we had the entire alumni database to work with. With one school we had a random sample of more than 20,000 records.

Step 2: Assigning An Age to Every Alumni Record

Using Preferred class year, we computed an estimate of each alum's age with this formula:

Age = 2012 – preferred class year + 22

Given the fact that many students graduate after the age of 22, it's safe to assume that the ages we assigned to these alums are slight to moderate *underestimates* of their true ages.

Step 3: Computing The Percentage of The Sum of Lifetime Dollars Contributed by Each Alum

For all the records in each database, we computed each alum's percentage of the sum of lifetime dollars contributed by all solicitable alums (those who are living and reachable). To do this computation, we divided each alum's lifetime giving by the sum of lifetime giving for the entire database and converted that value to a percentage.

For example, let's assume that the sum of lifetime giving for the solicitable alums in a hypothetical database is $50 million. Table 1 shows both the lifetime giving and the percent of the sum of lifetime giving for three different records:

Table 1: Lifetime Giving and Pecentage of The Sum of All Lifetime Giving for Three Hypothetical Alums

RECORD #	LIFETIME GIVING AMOUNT	PERCENTAGE OF SUM GIVEN
A	$0	0.000%
C	$39,500	0.079%
D	$140,000	0.280%

Just to be clear:

- Record A has given no money at all to the school. That alum's percentage is obviously 0.
- Record B has given $39,500 to the school. That alum's percentage is 0.079% of $50 million.
- Record C has given $140,500 to the school. That alum's percentage is 0.280% of $50 million.

Step 4: Computing The Percentage and The Cumulative Percentage of The Sum of Lifetime Dollars Contributed by Each of 15 Equal-Sized Age Groups of Alums

For each of the six schools, we divided all alums into 15 roughly equal-sized age goups. These groups ranged from alums in their early twenties to those who had achieved or passed the century mark.

To make this all clear we have used School A (whose alums have given a sum of $164,215,000) as an example. Table 2 shows the:

- total amount of lifetime dollars contributed by each of these age groups in School A
- the percentage of the $164,215,000 contributed by these groups
- the *cumulative* percentage of the $164,215,000 contributed by alums up to and including a certain age group

Table 2: Lifetime Giving, Percent of Sum of Lifetime Giving, and Cumulative Percent of Sum of Lifetime Giving for Fifteen Equal-Size Age Groups In School A

AGE	LIFETIME GIVING	PERCENT OF SUM OF LIFETIME GIVING	CUMULATIVE PERCENT OF SUM OF LIFETIME GIVING
21-25	$32,272	0.02%	0.02%
26-28	$457,823	0.28%	0.30%
29-30	$114,858	0.07%	0.37%
31-33	$223,652	0.14%	0.51%
34-36	$315,494	0.19%	0.80%
37-40	$1,170,910	0.71%	1.51%
41-43	$1,671,470	1.02%	2.53%
44-46	$1,750,300	1.07%	3.60%
47-49	$5,861,160	3.57%	7.17%
50-52	$12,293,500	7.49%	14.66%
53-56	$10,826,900	6.59%	21.25%
57-61	$13,904,200	8.47%	29.72%
62-68	$19,965,700	12.16%	41.88%
69-77	$40,735,400	24.81%	66.69%
78-103	$54,891,800	33.43%	100.00%

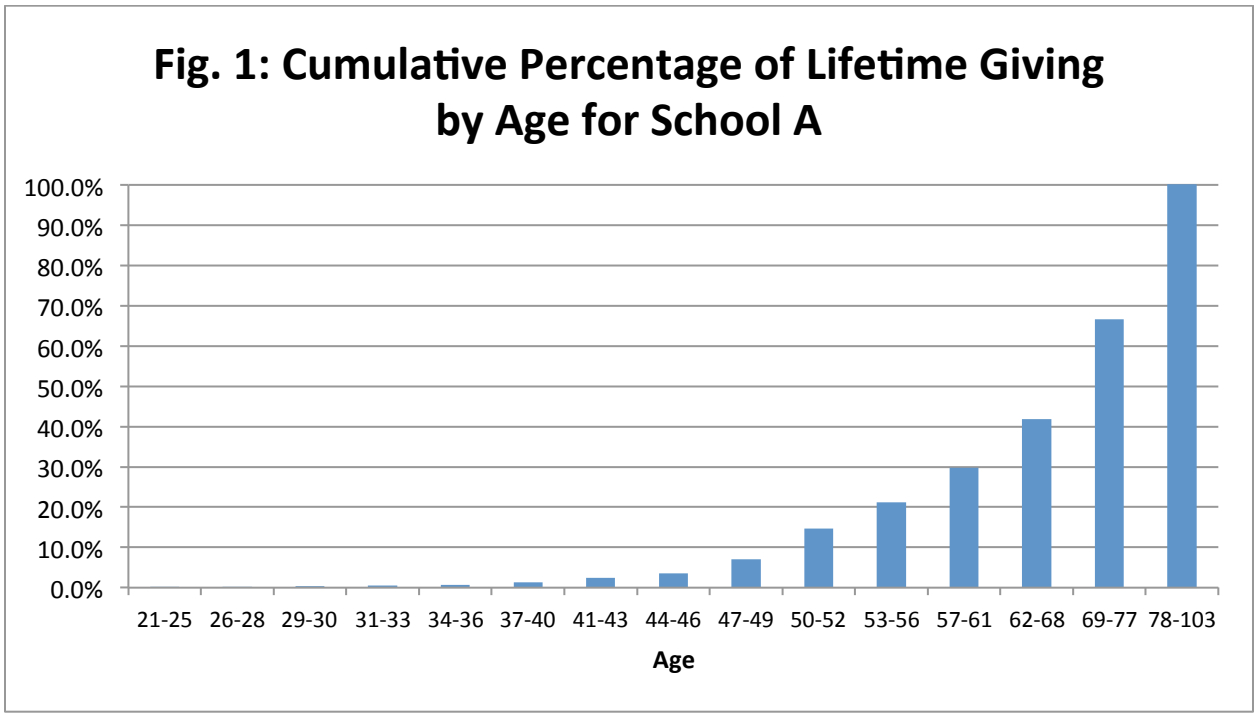
Here are some things that stand out for us in this table:

- All alums 36 and younger have contributed less than 1% of the sum of lifetime givng.
- For all alums under age 50 the cumulative amount given is just over 7% of the sum of lifetime givng.
- For all alums under age 62 the cumulative amount given is less than 30% of the sum of lifetime givng.
- For all alums under age 69 the cumulative amount given is slightly more than 40% of the sum of lifetime givng.
- Well over 55% of the sum of lifetime givng has come in from alums who are 69 and older.

The big news in this table, of course, is that the lion's share of money in School A has come in from alums who have long since passed the age of eligibility for collecting Social Security. Not a scintilla of doubt about that.

But what about all the schools we've looked at? Do they show a similar pattern of giving by age? To help you decide, we've constructed Figues 1 – 6 that provide the same information as you see in the rightmost column of Table 2: The *cumulative* percentage of all lifetime giving contributed by alums up to and including a certain age group.

Since Figure 1 below captures the same information you see in the rightmost column of Table 2, you don't need to spend a lot of time looking at it.



But we'd recommend taking your time looking at Figures 2-6. Once you've done that, we'll tell you what we see.

Fig. 2: Cumulative Percentage of Lifetime Giving by Age for School B

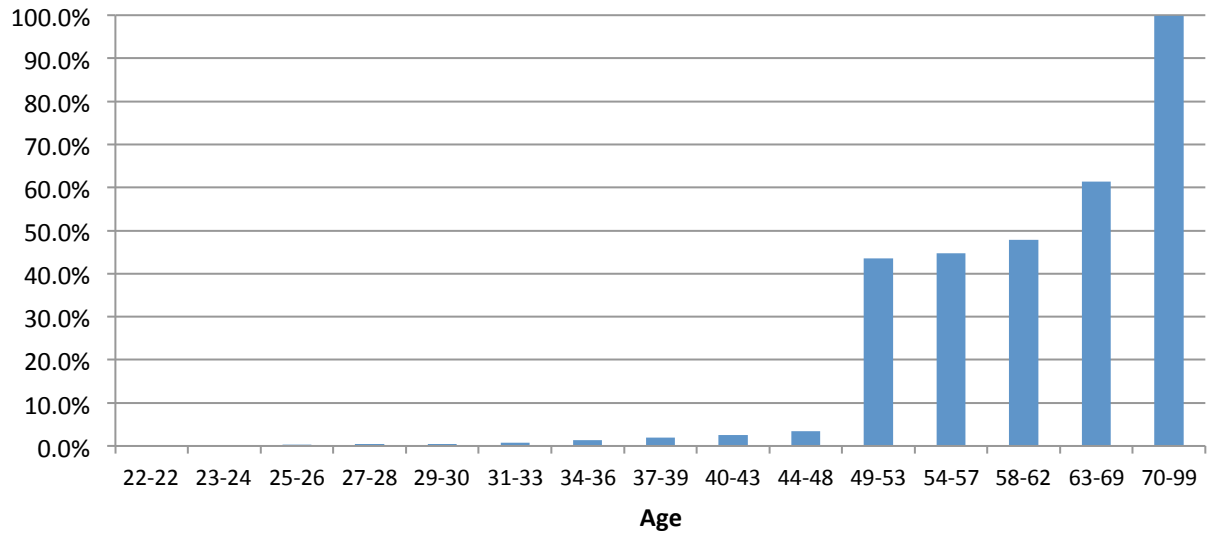


Fig. 3: Cumulative Percentage of Lifetime Giving by Age for School C

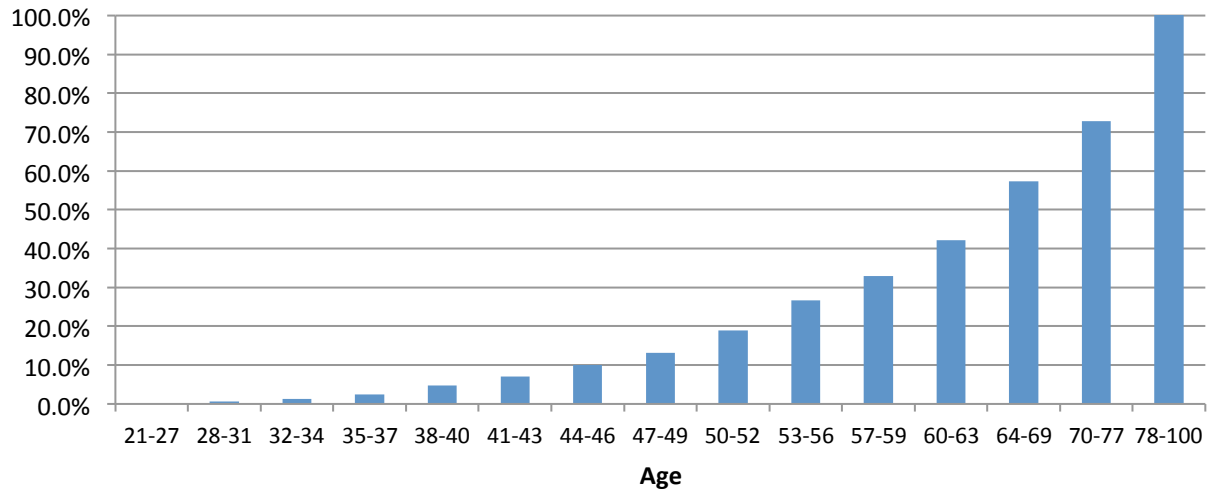


Fig. 4: Cumulative Percentage of Lifetime Giving by Age for School D

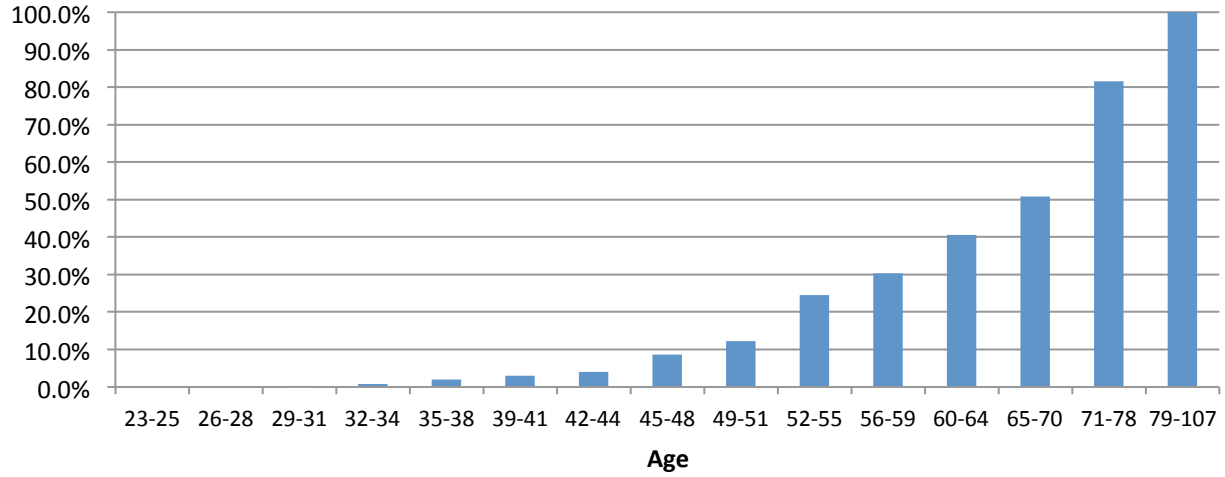
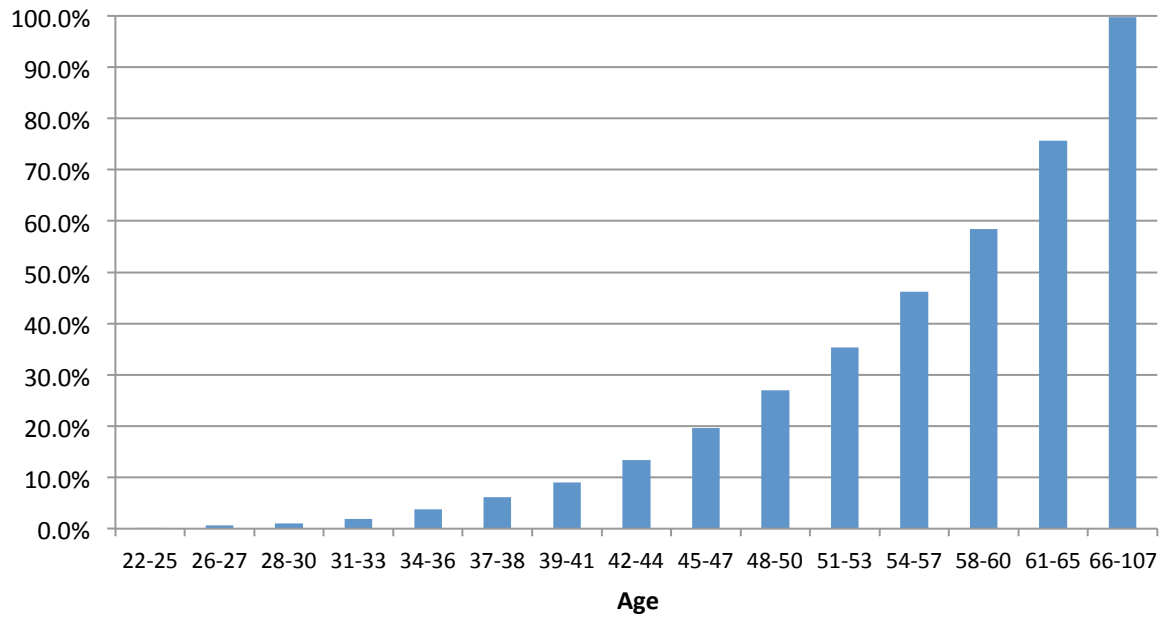
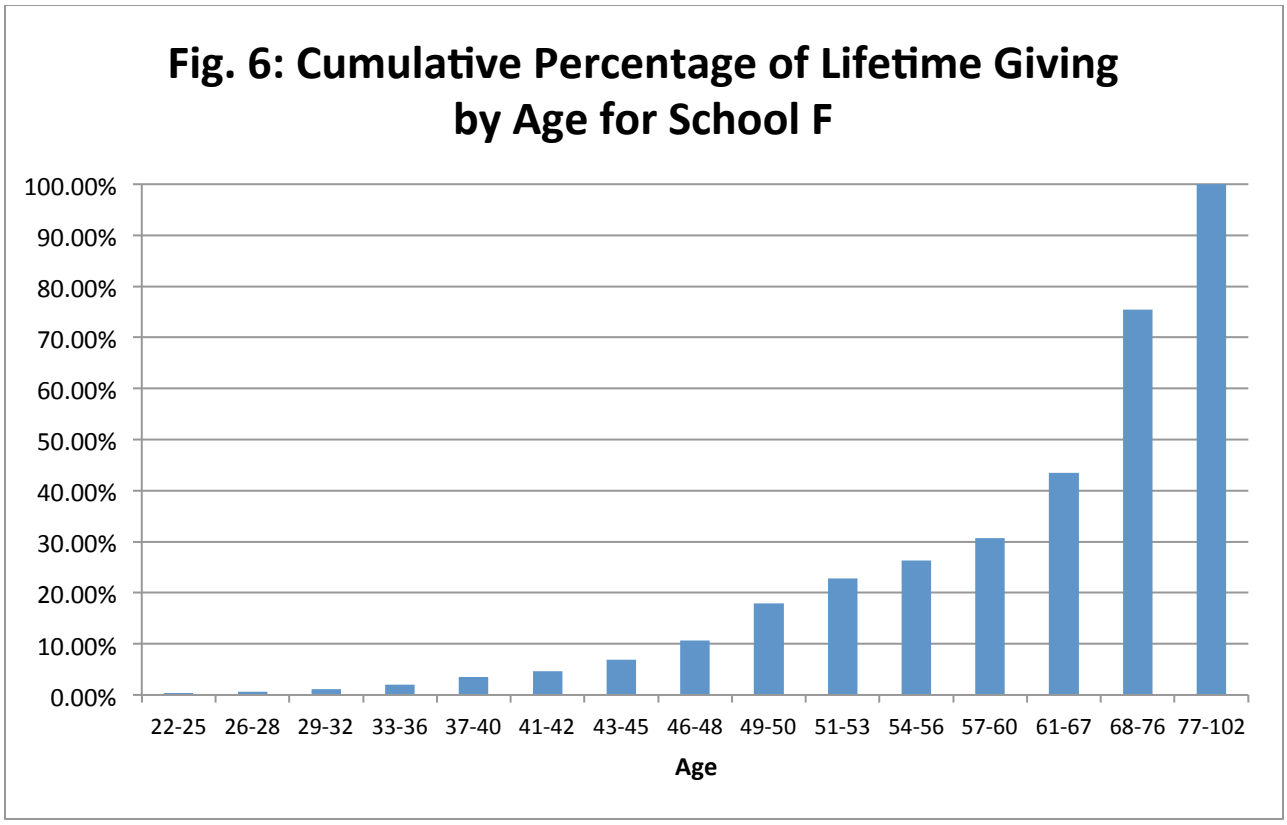


Fig. 5: Cumulative Percentage of Lifetime Giving by Age for School E





These are the details of what we see for Schools B-F:

- **School B**: Alums 48 and younger have contributed less than 5% of the sum of lifetime giving. Alums 70 and older have contributed almost 40% of the sum.
- **School C**: Alums 52 and younger have contributed less than 5% of the sum. Alums 70 and older have contributed more than 40% of the sum.
- **School D**: Alums 55 and younger have contributed less than 30% of the sum. Alums 70 and older have contributed almost 45% of the sum.
- **School E**: Alums 50 and younger have contributed less than 30% of the sum. Alums 61 and older have contributed more than 40% of the sum.
- **School F**: Alums 50 and younger have contributed less than 20% of the sum. Alums 68 and older have contributed well over 50% of the sum.

The big picture? It's the same phenomenon we saw with School A: The big money has come in from alums who are in the "third third" of their lives.

One Simple Way To Find Possible Predictors of The Big Givers on The Horizon

Up to this point we've either made our case or not that the big bucks don't start coming in from alumni until they reach their late fifties or sixties. Great, but how do we go about identifying those alums in their forties and early fifties who are likely to turn into those very generous older alums?

It's a tough question. In our opinion, the most rigorous scientific way to answer the question is to set up a longitudinal study that would involve:

1. Identifying all the alums in a number of different schools who are in the forties and early fifties category.
2. Collecting all kinds of data on these folks including giving history, wealth screening and other gift capacity information, biographic information, as well as a host of fields that are included in the databases of these schools like contact information, undergraduate activities, and on and on the list would go.
3. Waiting about ten or fifteen years until these "youngsters" become "oldsters" and see which of all that data collected on them ends up predicting the big givers from everybody else.

Well, you're probably saying something like, "Gentlemen, surely you jest. Who the heck is gonna wait ten or fifteen years to get the answers? Answers that may be woefully outdated given how fast society has been changing in the last twenty-five years?"

Yes, of course. So what's a reasonable alternative? The idea we've come up with goes something like this: If we can find variables that differentiate current, very generous older alums from less generous alums, then we can use those same variables to find younger alums who "look like" the older generous alums in terms of those variables.

To bring this idea alive, we chose one school of the six that has particularly good data on their alums. Then we took these steps:

We divided alums 57 and older into ten roughly equal size groups (deciles) by their amount of lifetime giving. Figure 7 shows the median lifetime giving for these deciles.

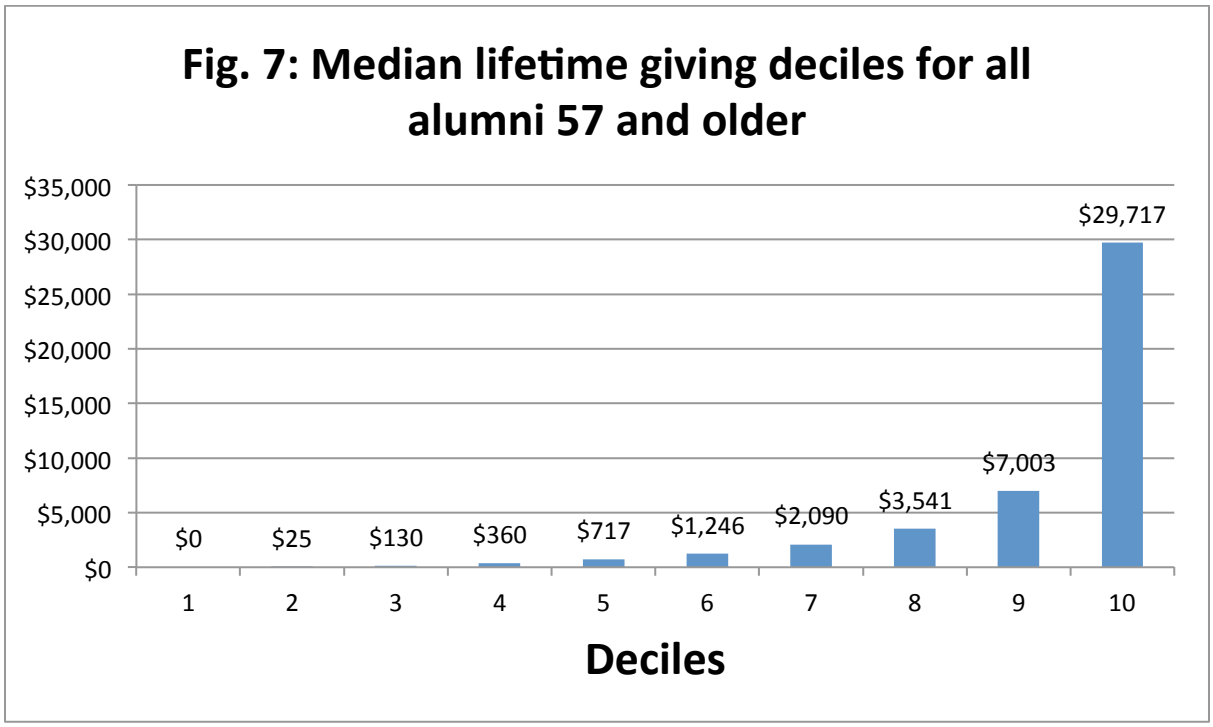


Table 3 gives a bit more detailed information about the giving levels of these deciles, especially the total amount of lifetime giving.

Table 3: Sum of Lifetime Dollars and Median Lifetime Dollars for 10 Equal Sized Groups of Alums 57 and Older

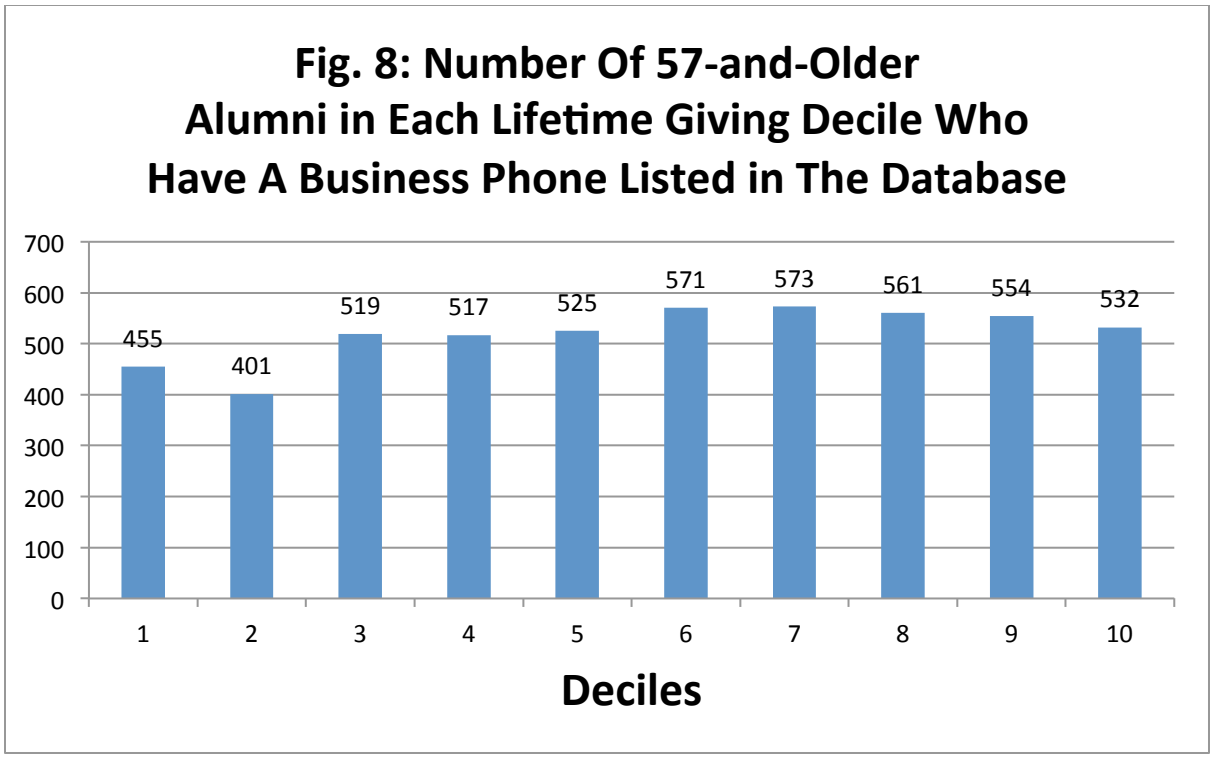
Decile	Sum of Lifetime Dollars	Median lifetime Dollars
1	$0	$0
2	$31,776	$25
3	$176,799	$130
4	$466,623	$360
5	$932,000	$717
6	$1,603,260	$1,246
7	$2,707,310	$2,090
8	$4,625,460	$3,541
9	$9,579,340	$7,003
10	$190,645,000	$29,717

We picked these eight variables to compare across the deciles:

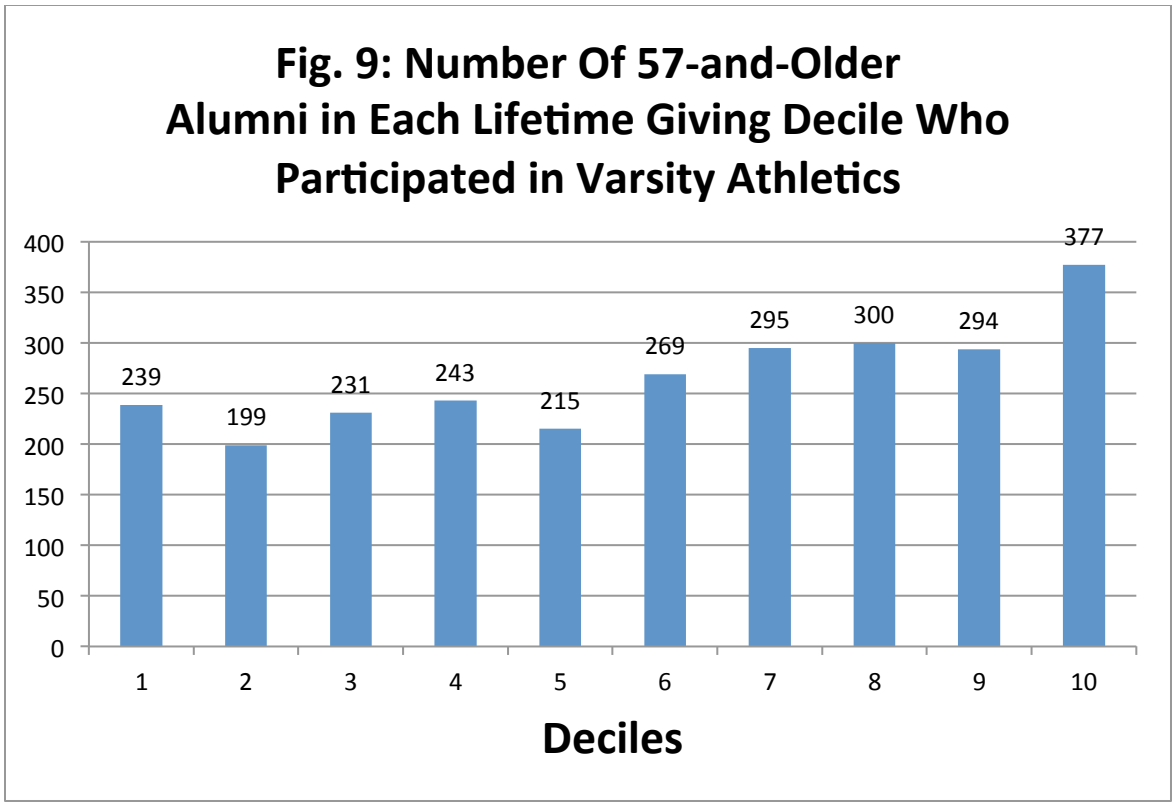
- number of alums who have a business phone listed in the database
- number of alums who participated in varsity athletics
- number of alums who were a member of a greek organization as an undergraduate
- number of alums who have an email address listed in the database
- number of logins
- number of reunions attended
- number of years of volunteering
- number of events attended

Before we take you through Figures 8-14, we should say that the method we've chosen to compare the deciles on these variables is ***not*** the way a stats professor nor an experinced data miner/modeler would recommend you do the comparisons. That's okay. We were aiming for clarity here.

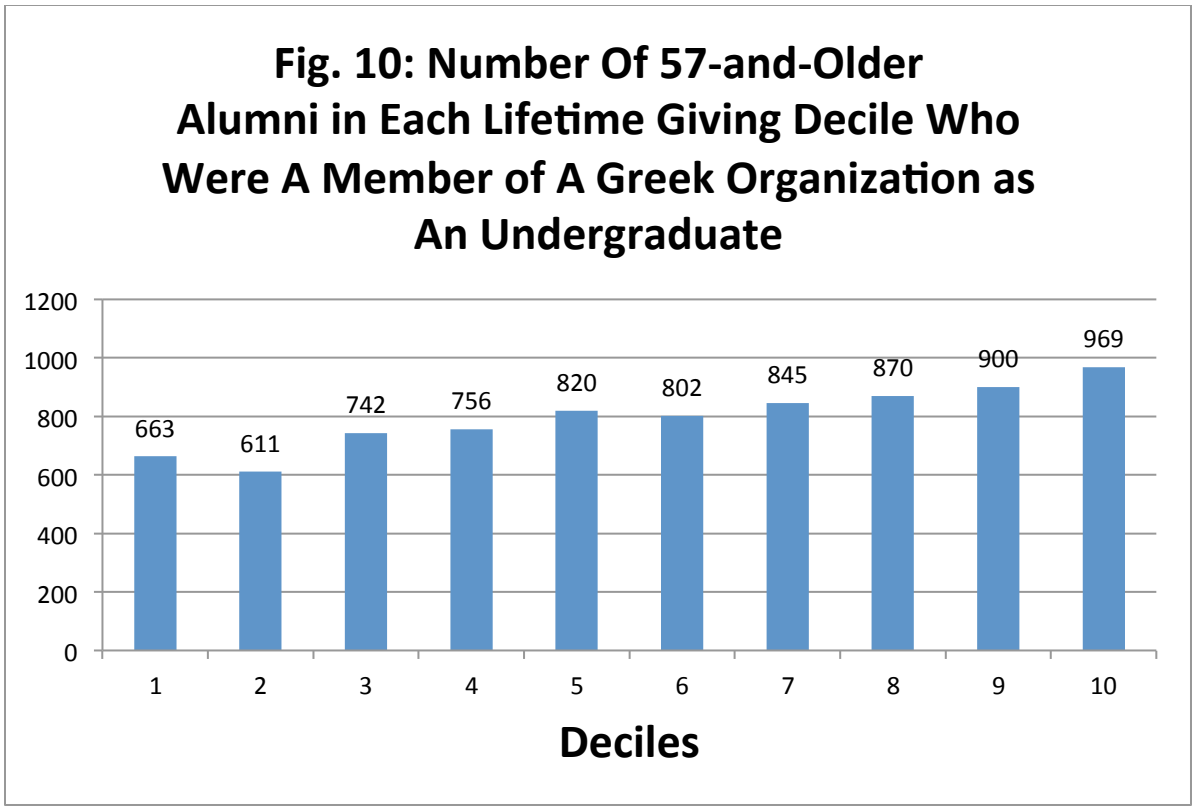
Let's go through the figures. We've laid them out in order from "not so hot" variables to "pretty darn good" good variables.



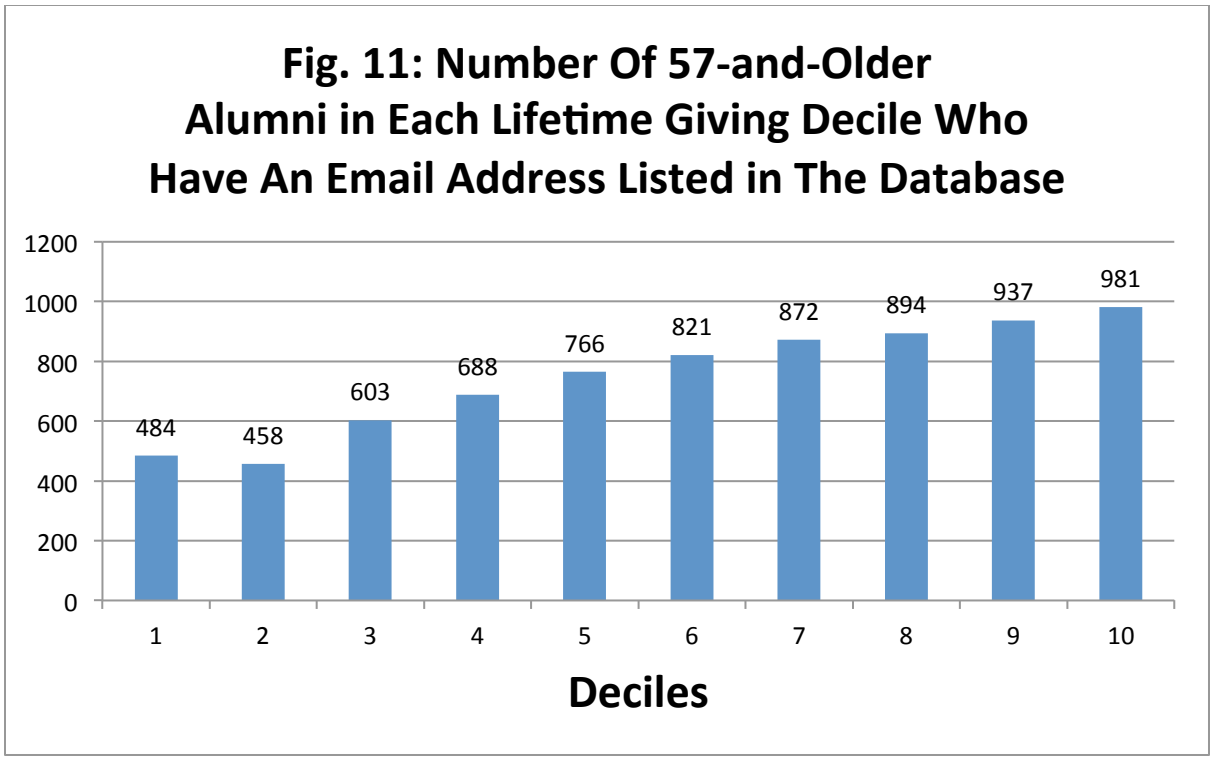
It's pretty obvious when you look at Fig. 8 that bigger givers, for the most part, are no more likely to have a business phone listed in the database than are poorer givers.



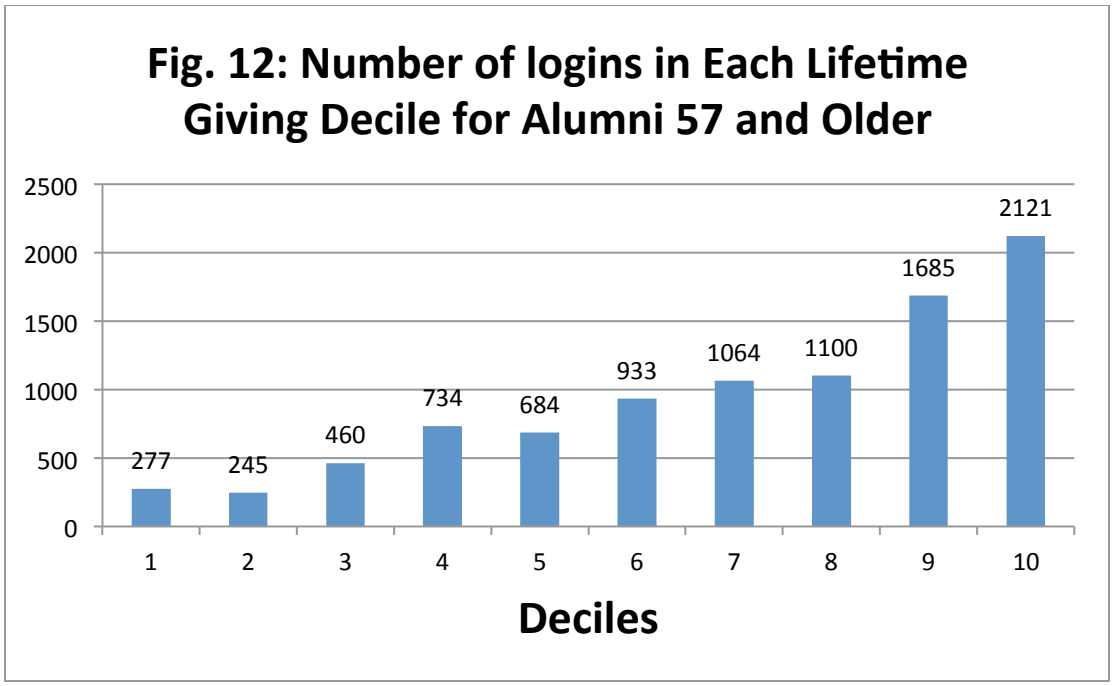
Varsity athletics? Yes, there's a little bit of a trend here, but it's not a very consistent trend. We're not impressed.



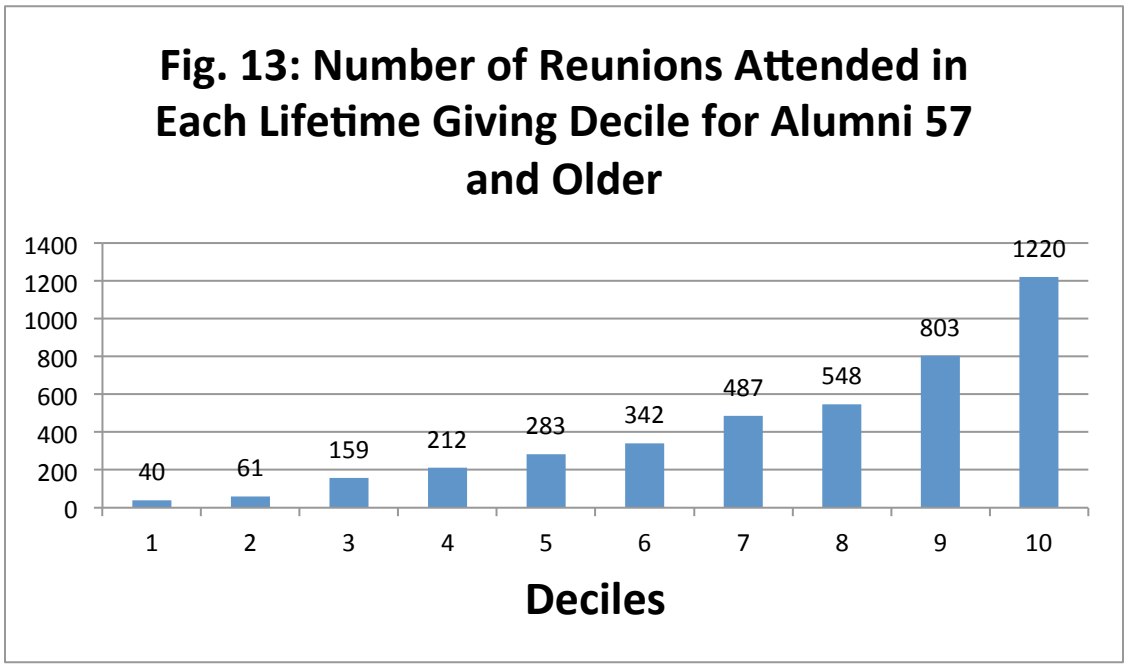
This trend is somewhat encouraging. Good givers are more likely to have been a member of a Greek organization as an undergraduate than not so good givers. But we would not rate this one as a real good predictor.



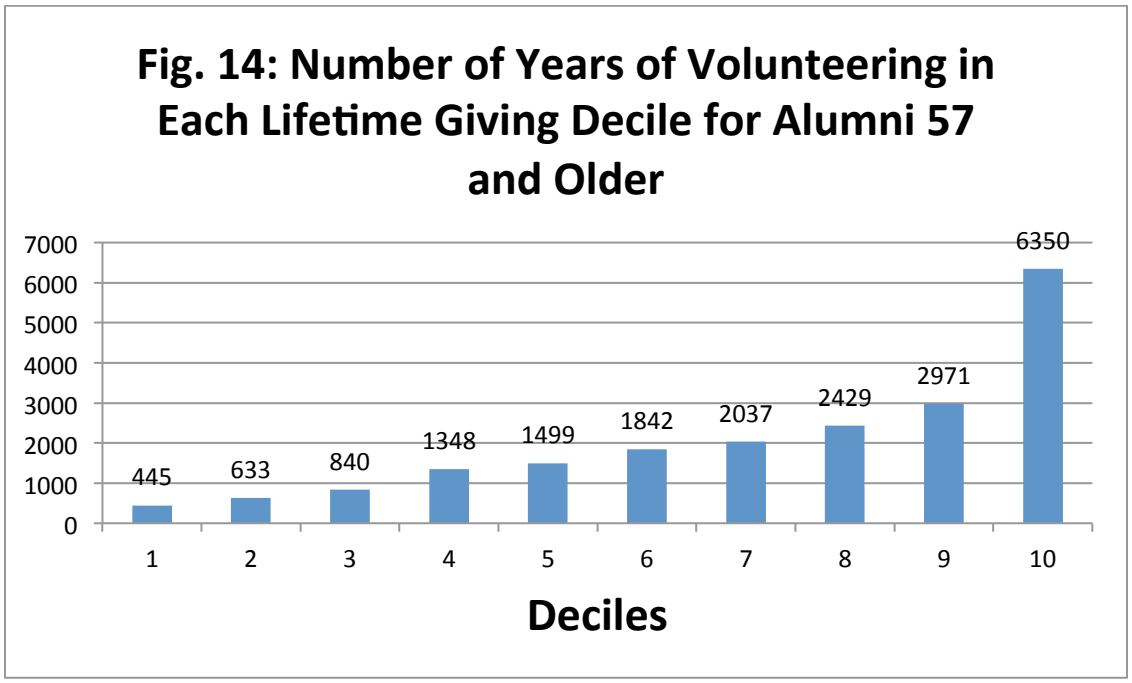
Now we're getting somewhere. Better givers are clearly more likely to have an e-mail address listed in the database than are poorer givers.



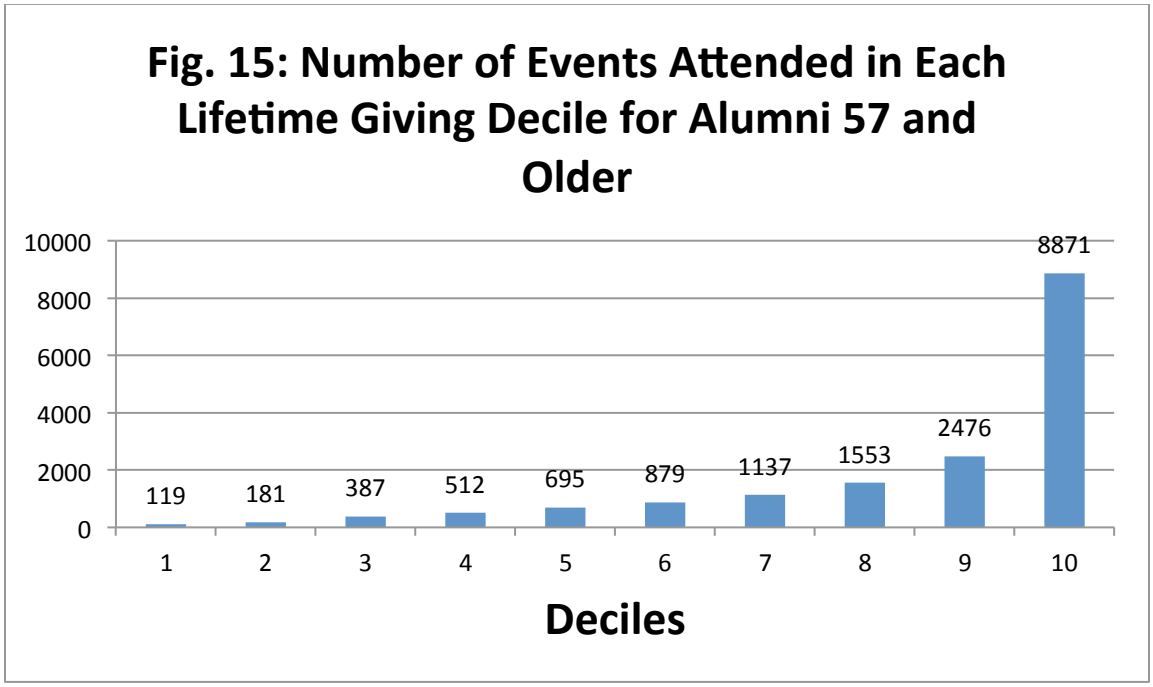
This one gets our attention. We're particularly impressed with the difference in the number of logins for Decile 10 (really big givers) versus the number of logins for the lowest two deciles. At this school they should be paying attention to this variable (and they are).



This figure is pretty consistent with what we've found across many, many schools. It's a good example of why we are always encouraging higher ed institutions to store reunion data and pay attention to it.



This one's a no-brainer.



And this one's a ***super*** no-brainer.

Where to Go from Here

After you read something like this piece, it's natural to raise the question: "What should I do with this information?" Some thoughts:

- Remember, we're not assuming that you're a sophisticated data miner/modeler. But we are assuming that you're interested in looking at your data to help make better decisions about raising money.
- Without using any fancy stats software and with a little help from your advancement services folks, you can do the same kind of analysis with your own alumni data as we've done here. You'll run into a few roadblocks, but you can do it. We're convinced of that.
- Once you've done this kind of an analysis you can start looking at some of your alums who are in their forties and early fifties who haven't yet jumped up to a high level of giving. The ones who look like their older counterparts with respect to logins, or reunion attendance, or volunteering (or whatever good variables you've found)? They're the ones worth taking a closer look at.
- You can take your analysis and show it to someone at a higher decision-making level than your own. You can say, "Right now, I don't know how to turn all this stuff into a predictive model. But I'd like to learn how to do that." Or you can say, "We need to get someone in here who has the skills to turn this kind of information into a tool for finding these people who are getting ready to pop up to a much higher level of giving."
- And after you have become comfortable with these initial explorations of your data we encourage you to consider the next step – predictive modeling based on those statistics terms we mentioned earlier. It is not that hard. Find someone to help you – your school has lots of smart people – and give it a try. The resulting scores will go a long way toward identifying your future big givers.

As always: We'd love to get your thoughts and reactions to all this.