



USING DATA ANALYTICS TO IMPROVE PLANNED GIFT PROSPECTING

PG CALC WEBINAR

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I. INTRODUCTION

Common wisdom has been that the best prospect for a planned gift is a consistent, loyal donor who has given many years consecutively. At the University of Texas, we took that hypothesis, tested it, ran statistics on many angles, and improved on it, to get a better understanding of “loyalty.” We found that:

- Recent consistent giving is more significant giving than prior habits. The raw number of consecutive years given isn’t important. (It’s nobody’s fault if the donor misses a year now and then.)
- Dollar amounts given do matter: donors who have given more are more likely to continue that with a bequest. The \$100-per-year annual fund donor does not often memorialize that gift.
- Donors who have given to more causes and designations across the institution are more likely culminate their giving with a planned gift to some particular cause. Put backwards, single-minded loyalty to the graduate’s own college is not the best predictor of a future planned gift.

Consecutive giving was a good but over-simplified rule of thumb. We’ve written a formula that improves on it. Then we score our constituents according to the formula, and sort them to bring the cream to the top. It doesn’t mean that every record with a high score is in fact a good planned gift prospect. Analytics doesn’t produce gifts. Only gift officers produce gifts. On any day, a planned giving officer can request a list of anybody with a score in the top 10% in a given metropolitan area who is not already assigned. But analytics gets officers into the right vicinity most of the time. Analytics can’t pick winners, but it’s very efficient at weeding out losers.

Analytics helps us to test our insights and theories, improve on them, and follow them more efficiently, and sometimes point us in new directions. Over the past decade, philanthropic organizations have been developing analytics and data mining to assist in fundraising. Early projects have mostly focused on annual giving and on major gift prospect identification, but more recently there has been more attention given to Gift Planning. In this presentation we’ll consider where Analytics can fit into Gift Planning, and the insights it can provide.

Wealth and market behavior data from external sources can be very helpful in screening donors and understanding their interests. The research and analytics team works with gift officers to find new sources of information containing clues that suggest donor interests and inclinations. That’s the purpose of Analytics: to help the professionals understand their constituents, and work strategically and efficiently. Of course there’s a lot of number-crunching behind the scenes, but the essential functions of analytics are simple enough:

- Identify and evaluate prospects faster,
- Provide insights into constituent behavior,
- Compare groups within your constituent population, and establish segmentations
- When you experience success with a particular audience, try to expand the audience,
- Evaluate strategy and results

You don't need a lot of data to begin. The journey begins wherever you are today with the information you have today. Although no two organizations are the same, the pathways into analytics are generally similar. We'll begin with a brief history of how the University of Texas got into analytics, and I'll take you through a variety of analytics projects, some of them more oriented toward major gifts, and some specifically about planned gifts, to give you an idea of the various uses of analytics, and the approaches it can take.

II. IN THE BEGINNING, THERE WAS COUNTING

I was an IT manager in Development and first got into analytics, of a sort, around 1999, when I was asked the question, "How many female donors do we have, and can you tell me something about them?" Seemingly a simple question, but our software and reporting systems had been designed to maintain addresses and post gifts to records. It could also select and spit out mailing lists, if you knew that you wanted, say, female alumni of the Chemistry department. But it wasn't good at telling how many donors there were in each department, without pulling each list by department. That was simply the state of the art.

But I had a mindset, and some tools of my own, for counting things, and I was able to show that we had more female donors than most people realized, that many of them had significant gift totals, and I could show that they were concentrated in certain cities, and had graduated from certain majors. And as they got more answers, they asked more interesting questions. My nose grew more pointy and I developed a Transylvanian accent as I morphed into the role of the Count von Count. And that was when Big Data started to become available and we started to find interesting correlations.

It wouldn't surprise you that people with big houses are more likely to give, but it was a surprise that, here in Texas at least, people with hunting licenses are more likely to give than their non-hunting counterparts. Fishing licenses didn't indicate as much. Is there some hidden explanation here to be discovered? Is it the culture of hunters that they are passing down certain traditions, including philanthropy? Or is it just an indicator that it takes money to have the guns and deer lease to go hunting? Or do hunters have the killer instinct that drives them to success?

I couldn't answer that question for certain, but those are the kinds of questions that may give us insight into donors, their motivations, and their goals and that may give us an edge in reaching out and cultivating them. I spent more time exploring those threads, and pretty soon senior management realized that I was more useful as a counter than as an IT manager, and I retreated to the secret laboratory of my castle to practice counting, and other alchemy.

III. BIG DATA, MORE ANALYSIS, MORE USES

In the old days, a development office pretty much worked with its own data. In higher education, the registrar would supply us the names and addresses of the graduates, but from there we were on our own. The alumni association or development office updated addresses, recorded marriages, posted gifts and membership, recorded attendance at reunions and other activities.

Other non-profit organizations had to do all the same, except without an alumni base as a foundation.

BIG DATA means, more or less, all the electronic stuff that we can now get our hands on and that didn't originate within our own walls. At the University of Texas, our first step into Big Data was in 2002. From a national credit reporting agency, we acquired estimated incomes and home values of our alumni, indicators for the ages of children in the household, estimates of square footage of the house and lot, markers for certain magazines the constituents subscribed to, markers for likely membership in and gifts to various types of causes, as well as hunting and fishing licenses, and other bits of public records.

We first got into this because we were trying to improve the efficiency of our Annual Giving program. Critics within the university were concerned with the cost to raise a dollar. Could we raise the same dollars while bringing down the costs of mailing and phone calls, if we spent more time targeting the right alumni, and quit wasting our breath on those who never give? Among alumni who had never given to us before, were there clues that would tell us that some were more likely than others to respond? That's where we met up with the hunters. Since then we've continued to look for data that tells stories about people. We've acquired more information on consumer behavior, about habits and hobbies that correlate positively with philanthropic giving, and some that are bad indicators.

But mostly our data acquisition has focused on more direct indicators of wealth, such as:

- Home values
- Estimated household incomes
- Employment
- Philanthropic giving elsewhere

IV. SEGMENTATION – THE STEALTH MODEL

In 2004, we began planning for a capital campaign, which launched in 2006. Before our previous campaign, we had a consultant screen our constituent base. This time we were ready to do it ourselves. Those of you who have been around a few years will remember the old Marts & Lundy PPR (Philanthropic Propensity Rating) score. It ran from 1 to 33, with 1 through 4 being the very best prospects, and 5 through 10 being worth taking a look at. It was based on some combination of identifiable wealth, and of reported charitable giving. Those in the 1-4 range pretty clearly had resources, and were willing to give to various causes, but even if they were our alumni, they weren't necessarily giving to us.

Back before we hoarded our own data, the PPR score was a useful starting point, but it would be the job of Research to rediscover the wealth that the consultant had apparently detected, and then hand off the research report for prospect assignment. Could we get through that process more quickly on our own? Of course we could. And one of the first things we said to ourselves was that the linear PPR score was combining two things that are quite distinct: the actual wealth, and the tendency to give. And in our case, we were naturally most interested in the prospect's

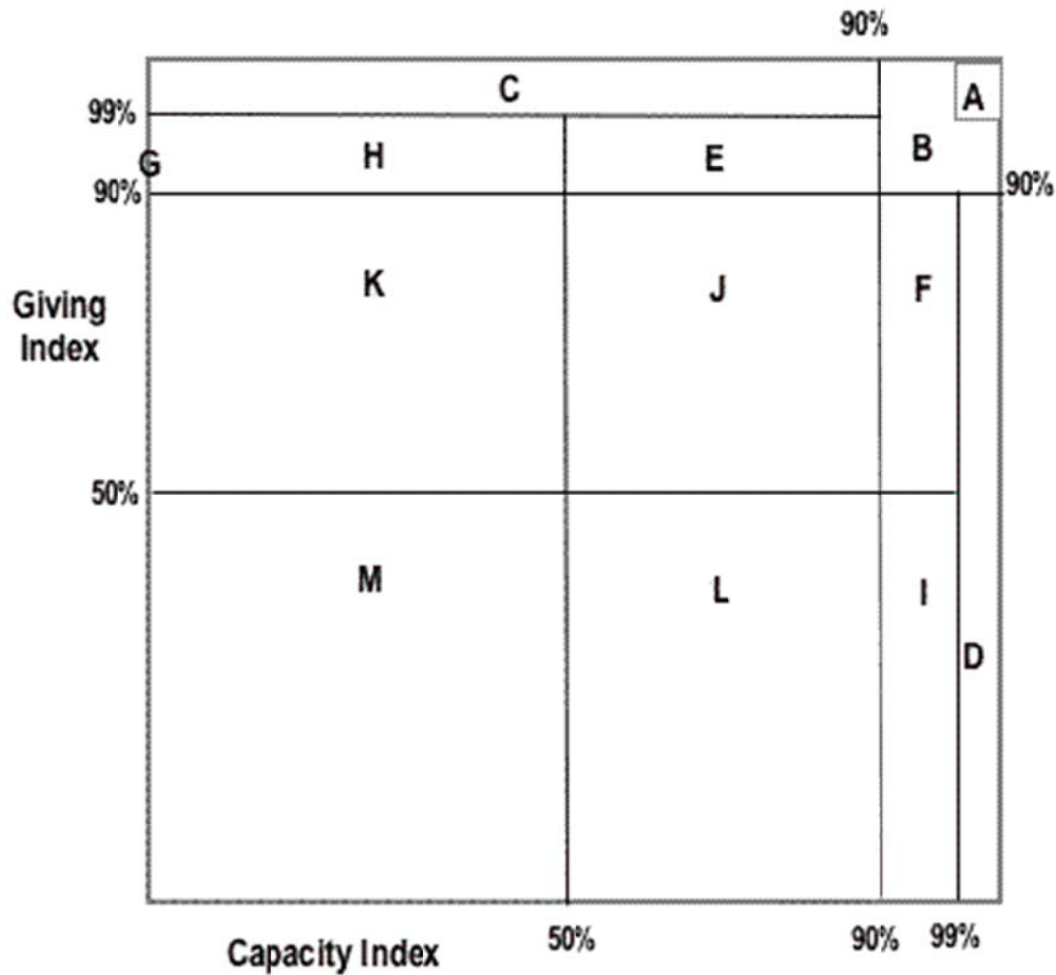
tendency to give to this institution. So we decided to develop two separate scores, one for gift history, and one for capacity.

Who's your best donor? One who gave you an 8-figure gift 10 years ago? One who has frequently responded to major appeals? One who has recently started to make a mark and is still in mid-career? Many factors could go into a definition of "good donor", and we could have argued for many days. Einstein advised that "explanations should be as simple as possible, but no simpler." We chose to use three factors, the size of the household's single largest gift, their total number of gift transactions, lifetime, and a weighting for recency, and to give those three factors roughly equal weight. Those were arbitrary decisions, but we had to start somewhere. We used some statistical wizardry to score all the donors and line them up in order. We reviewed the top 100 and their ordering compared to each other, and agreed that it passed the sniff test. We looked at donors further down the list, and agreed that those in the 95th percentile looked consistently better than those in the 90th percentile, and so on. We had ourselves a giving score. Score them, sort them, identify the top 1%, the top 10%, and the top 50%.

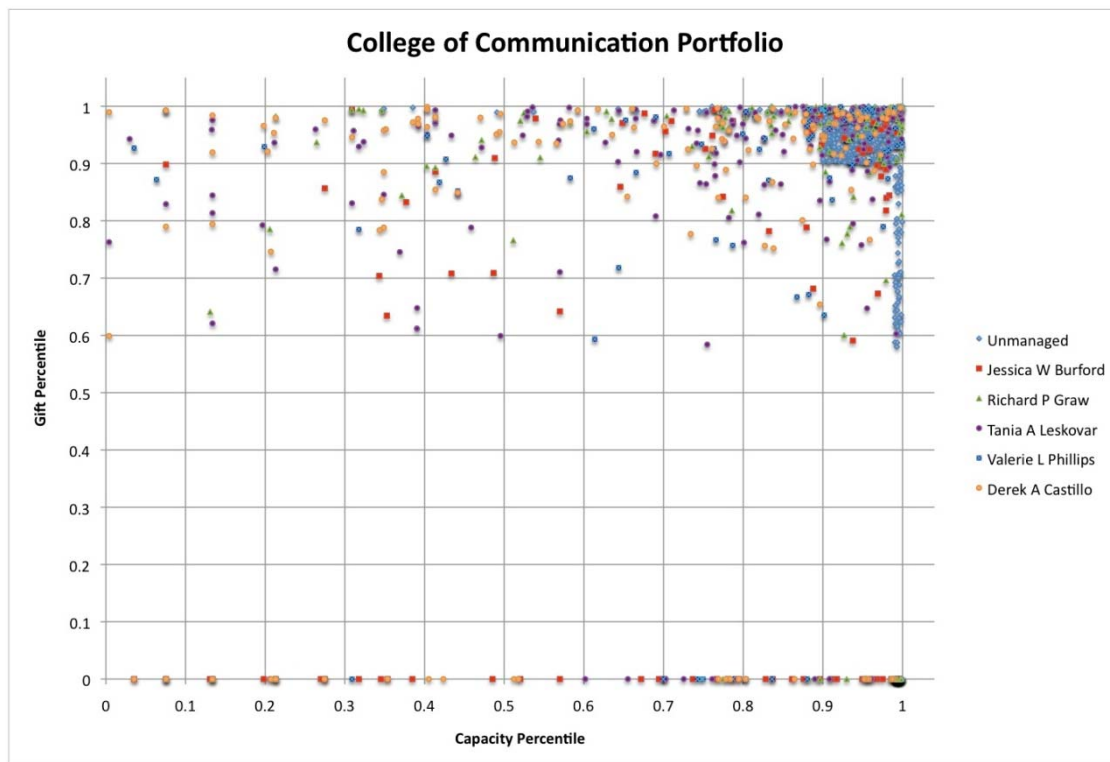
How can one measure gift capacity? There are a number of standard rules of thumb used by prospect researchers, such as 25% of home value, or 10% of identified securities holdings (when securities are \$10,000,000 or more), or 5% of all identified assets, or several other possible combinations. After the researcher has assembled all the available information, he or she chooses the one formula that feels most appropriate. In our data acquisition, we almost always got an estimated household income. For homeowners, we usually get a home value, but not always, and there are some situations where home values are misleading or not trustworthy. From some of our data sources, we have an estimated net worth. On records that have been researched individually, we have more potential data points. What do we use? We use whatever we have available, and take the average. It's not rocket science. Score them, sort them, tag them as top 1%, top 10%, top 50%.

We plot the constituents by their two scores into the grid shown below, and label them by sector, with a letter. A few hundred households who are in the top 1% for both gift history and capacity are clearly our best prospects and constitute group A. There are about 5,000 households (roughly one percent of our total constituent base) in group B, who are 90th percentile or above on both scores. They have, and they give, and they are definitely worth our attention. In group C, we have very loyal donors who don't necessarily have extra capacity, but may be good planned giving prospects. In group D, we have very wealthy individuals who may have shown little affinity for the university, but who are perhaps worth checking out. In E, we have historically good donors with above average capacity. In group F, we have wealthy people who have given us at least some support in the past. Any of these types could fit well in a portfolio, if there's some fit between the prospect's interests and the officer's projects.

When we looked at the diagram below, on the diagonal, we see A in front, and C and D as the wingtips, we recognized it as a Stealth aircraft, so we call it the Stealth Model.



Of course every gift officer wants to build a portfolio packed with highly likely high-dollar donors. But that takes time, and in the meantime, management tends to believe that most officers should have portfolios with a mixture of high-dollar long-shots and highly likely mid-range donors. It's easy to do a scatterplot of portfolios. Below we have, from a few years ago, the portfolios of five development officers in the College of Communication, with a lot of prospects on the left wingtip, but quite a few below the edge and well toward the left, suggesting that they are inconsistent donors with low capacity. And the upper right is filled with purple dots, representing unassigned alumni with high capacity and good history. This provides management a good opportunity for a conversation about re-evaluating those other prospects, and perhaps replacing them with prospects from the better segment.



V. CHILDREN, AND CHILDLESS PLANNED GIVING PROSPECTS

There is considerable evidence that individuals who do not have children tend to leave far more to charities than individuals who do. In an analysis of data from a large health and retirement study, for example, Texas Tech Professor Russell James found that only 7% of individuals with grandchildren and 13% of individuals with children included charity in their estate plans. In contrast, he found that 27% of unmarried individuals without children and a full 45% of married individuals without children included charity in their estate plans. For more discussion of Prof. James' analysis see this recent entry on the [Planned Giving Blog](http://plannedgivingadvisors.com/tag/russell-james/) (<http://plannedgivingadvisors.com/tag/russell-james/>). Do we know where the children are, or, more importantly, where they are not?

Our biographical data of course contains cross-references from alumni and donors to children, if the children are also constituents. It used to be that alumni were added to the database when they graduated. In recent years, we've become more proactive in adding students to our own database, as soon as they apply for admission. As a matter of policy, the Admissions office does not want to know about legacies. Our development officers certainly do want to know when a major gift prospect has a child applying and waiting for an admission decision. We match the applicants by last name and address to find the family connections. We especially take note of third and fourth generation families.

Earlier, I mentioned that in our typical data acquisition, there are markers for the presence of children in the household, in age ranges. A single snapshot showing a 55-year-old couple with no children at home doesn't tell us whether they are empty nesters paying college tuition, or are

trying to find time to visit grandchildren, or if they have been childless all along. But we've been picking up this data every few years since 2002. Fifty years-old and no children in the house for twelve years? And no detected cross-references to applicants? A likely indicator that the couple has no children.

Also, in the consumer behavior data we acquire, there's usually a marker called "grandparents." Whatever sorts of stuff grandparents typically buy to indulge their grandchildren, these are captured at point of sale. Maybe I was buying a gift for my niece's new baby. In all of the consumer data, there can be false positives. But when we in research and analytics have looked at our own records, and seen what the marketers know about us, it's scary how accurate it is. We'll never develop an action plan based on just a few bits of consumer data, but it can provide helpful confirmation of other information.

VI. A KEYWORD HERE AND A KEYWORD THERE

Our school of music is considering an initiative to become an All-Steinway school. Over half of our pianos are Steinways, but to earn the "All-Steinway" designation, we need to reach 90 percent. We need to upgrade quite a few old pianos; we need to find donors who love pianos. Where do we begin? There are at least three places I might look:

- Music school alumni, especially those who took courses in Piano
- Concert-goers, especially to Piano performances
- People who have mentioned a Piano in a conversation with a gift officer, as recorded in a contact report.

The first one we can do, because the Development Office has access to student records and course registration, which are electronic back to 1972. It took some work over the years to establish a trusted relationship with student affairs. They now understand that fundraising is a true institutional function, not just a frill, and that we are as committed to data security as they are. Within your own institution, outside of Advancement and Alumni Relations, there may be lots of pools of useful information, if you can build the bridges to them. In this case, we've been tapping student registration data for a few years, and can find anybody who took courses in a particular field. We can also identify alumni who took a course with beloved Professor Q, who is now retiring, and who will be honored with an endowment in his name.

The second approach, the concert-goers, unfortunately we can't do yet. We do not have routine access to the performing arts ticket database. We're still building that relationship with them. Next year, maybe.

And yes, the contact reports, we index them to make the texts searchable. We can look for pianos. We can look for names of people. We can also look for "estate", "bequest", "annuity" or "planned", to find the case where one of these came up in a conversation with a major gift officer, but it maybe wasn't referred to Gift Planning.

VII. THE PLANNED GIFT MODEL

We started out this presentation with the planned gift model we developed here. Now it's time to open the hood and see what's inside. First of all, if we want to understand our planned gift donors, we're not so much interested in describing them today as we are in describing what they looked like when they wrote their wills or made their commitments. If we have the date of the document, that's the best; otherwise we can use the date when we first learned of the document. Then we construct their gift history up to that point in time, calculate their age at that time, and keep that snapshot. The gift history is summarized as total giving in each year leading up to the planned gift.

Meanwhile, our objective is to compare these planned gift donors to other constituents who do not have a planned gift on file. We build a similar snapshot of anybody over age 40. For people who are age 65 or older, we use a snapshot of them at age 65. For those under 65, we'll take the snapshot as of today. For everybody, as of the snapshot date, we look at their gift history. Coming into this, I don't presume to know what parts of the history are important. I'm going to count and measure many ways, with different possible weights. The statistical method I'll use is called Logistic Regression, with Stepwise Selection. Comparing the population of planned gift donors to non-donors, it's going to test all of the variables I offer it, and select those that are the most useful in predicting the likelihood that an individual is a donor. For consideration, I toss in:

- The largest single-year gift total
- Total giving in the last five years, and for the past ten years
- Average annual giving in those years when there was a gift, for the past five and past ten years
- Number of years given in the past five, in the past ten, in the past fifteen
- Last gift amount and first gift amount
- Banners celebrating five consecutive years, ten consecutive years, fifteen consecutive years
- A 'pyramid score' for the past fifteen years, with 15 points for any gift last year, 14 for a gift the year before, 13 for any gift the year before that, etc.
- Number of distinct designations supported

I don't want or expect all of these to be used. Among measures that are pretty similar, such as the total for five years vs. the average for five years, the statistical method will select the stronger one, see that the alternative adds very little, and discard it. I put the kettle on, let it simmer, and see what rises to the top. When I take it off the stove, I find that the automatic chef selected, in this order:

1. The maximum single year gift
2. Adjusted downward for average giving in the past five years
3. The number of distinct designations
4. The marker for giving in the past five years consecutively
5. The fifteen year pyramid score

Step number 2 is interesting, but not surprising. The person who is still giving as strongly as ever may not be ready to set up a planned gift. The best prospect may be a person who made a

mark in the past, is still giving consistently but not at the same level, and who wants to make a final impression. Wasn't that your hunch all along? And aren't you happy to have your instincts confirmed? Better yet, though, now we have a formula, and I can take all the constituents in your pool, score them, and serve you the best of them.

VIII. BEQUESTS, OTHER INSTRUMENTS, REALIZATION

The analysis is mostly based on our experience with and data about bequests. After all, they are the main business of almost any gift planning office, and the Will is the typical starting point for a conversation about planned giving. For other specific types of planned gifts, we don't have enough observations to produce a firm statistical profile of, for example, who would be most likely to set up a Charitable Remainder Unitrust. The observations that follow are merely impressions drawn from numbers and demographics, and from reading contact reports and notes. At UT Austin bequests make up about two-thirds of all our recorded planned giving instruments. Some other types of planned gifts, especially Charitable Gift Annuities, typically follow after a bequest has already been recorded. Other common initial entry vehicles, as the first thing the donor informs us of, include life insurance policies, and gifts of IRA's and other retirement plans.

In the statistics here, age is calculated based on the donor's age as of the date on the gift instrument. Our mean age for bequests is around 66, though we have them running from 21 to 100. The 25th percentile is 58, and the 75th percentile is 76. This doesn't mean that the middle of the pack are starting their estate planning between age 58 and 77; it suggests they last revised it, and informed us, in that period. Three quarters of the bequests we book are the only planned gift we record for that individual. For most other types of planned gift, the instrument is likely to be a part of a more complex plan. Charitable Gift Annuities, especially, tend to follow after bequests. They may be, in effect, pre-payments made toward the bequest commitment, so that an endowment goal can be met, and a recipient named, while the donor can see it unfold. The mean age for a CGA donor is 80; the amount of the CGA is typically 10%-20% of the originally stated bequest provision.

A male is recorded as the principal on 68% of our planned gifts. This holds across almost all ages, except among those under 40, and those over 90 and above. There may be some bias from how we record planned gifts from alumni couples, which might only be on the husband's record. Unfortunately we're not able to reconstruct marital status as of the document date, without reading contact reports and notes.

Age at time of bequest:

	Female	Male	Male pct
20-29	1	1	50%
30-39	11	17	61%
40-49	9	30	77%
50-54	24	40	63%
55-59	27	58	68%
60-64	44	77	64%
65-69	31	84	73%
70-74	21	76	78%
75-79	30	54	64%
80-84	16	52	76%
85-89	10	21	68%
90+	12	13	52%
All	236	515	69%

Our median bequest is \$100,000. While we have received bequests of 8 and 9 figures, our larger planned gifts are often set up as Charitable Remainder Trusts. The mean age for establishing a CRT is 70, with the 25th percentile at 64 and 75th percentile at 82. The CRT donors may or may not have other planned gifts in place (60% do.) What they have in common is that most were previously known to us as major donors with identifiable resources, whereas many of our bequests, including large ones, come from individuals who were largely unknown to us. Viewed from another perspective, the CRT is likely to be a capstone gift culminating a long relationship.

Gift values, by instrument

	25th percentile	Median	75th percentile	90th percentile
Bequests	25,000	100,000	500,000	1,075,000
Charitable Gift Annuities	25,000	50,000	100,000	200,000
Charitable Remainder Trusts	66,100	240,000	600,000	1,900,000
IRA's and other Retirement Plans	27,000	100,000	400,000	700,000

Age when establishing gift, by instrument

	25th percentile	Median	75th percentile	90th percentile
Bequests	58	66	76	83
Charitable Gift Annuities	75	81	86	90
Charitable Remainder Trusts	64	70	82	88
IRA's and Qualified Retirement Plans	59	65	72	76

In 2009, Prof. Russell James analyzed results of a longitudinal survey, the 1995-2004 Health and Retirement Study, in which panelists were interviewed every two years concerning their health, wealth, and, among other questions, intent to leave a charitable bequest. For survey participants who subsequently died, family were then interviewed, and the expressed intentions could be compared to the actual terms of the estate. He offers several notable findings:

- The Final Will, and its provisions, are usually quite recent, often within the time since the last survey wave.
- Where the deceased had indicated an Inter Vivos trust with charitable provisions, in 56% of cases, the estate did yield a charitable bequest.
- Where the deceased had indicated only a will and not a trust, only 35% yielded a charitable bequest.

Of course the survey was a rather soft instrument, and saying ‘yes’ to its questions didn’t require providing specific info. There are a number of sound reasons, from estate diminution and debts, to contingent beneficiaries, why a suggested bequest might not be realized. The takeaways for the Planned Giving officer, though, are clear. There’s no substitute for good stewardship, and it’s worthwhile to recommend trusts and CGA’s.

IX. DATA SOURCES

The data I’ve mentioned we’ve gathered from lots of places. Much of it just takes the work to find it and haul it, and a place to keep it. Much of it is opportunistic. A gift officer spots the list of the top 50 young realtors in Dallas, and asks me if any of them are our alumni. Or she downloads the directory of students and parents at a prominent private school. My task is to match them, by name and any other information, to our database, and if I find them, tag them and hand them off for further research.

Or we have a peculiar gift initiative – I mentioned the Steinway School challenge. To qualify, 90% of our pianos need to be Steinways. Today only 50% are, so we need to upgrade a bunch. We get together and scratch our heads, and wonder how to look for piano lovers. Wouldn’t it be nice if we had the ticket sales for the piano concerts. In this case, the School of Music and the Performing Arts Center aren’t quite together yet, but it will get them talking, and that works better than me, coming from Development, and asking for the ticketing data. Especially if that channel to Performing Arts is likely to help with other challenges, we keep pecking at it. Summarizing where we might find useful information:

- Our own development data
- Commercial partners who support our phone-a-thon, email, directory, and other services
- Institutional data from outside of development
- Public data such as state licenses and certifications
- Wealth and behavioral information collected and aggregated by providers

Development activities – we leave a lot of fingerprints as we work. We track our mailings and emails sent. We track phone results. We write contact reports. It's not formatted for ease of analysis. It's free, except for the hard labor to interpret it.

We contract out for phonathon management, bulk email, and credit card processing. They give us back results, in the shapes and places that are easiest for them. Some vendors are more helpful than others in helping us with our analytic needs.

There's a lot of interesting information around your institution, current and historical. HR records – wouldn't you, as a planned giving officer, like to identify retired senior management? The information is probably in HR, if you can make your case for it, and make it easy for them to provide it. Student records are protected by the Federal Educational Rights and Privacy Act (FERPA), but they can be used for legitimate institutional purposes. Is Development an Institutional purpose? Yes, but we have to push the case through Legal, and convince everyone that we, in Development, are as concerned with privacy as Student Affairs is. Only then could we get access to class registration histories, to find the Piano students, or the former students of a particular racket-ball instructor. Medical institutions can negotiate around HIPAA restrictions.

Public information:

- Election contributions reported to state or federal committees. Typically the data include names and zip code of the contributor, enough for pretty good matching to your database.
- Professional licenses and registrations for doctors, engineers, teachers, nurses, social workers, etc. are a very good way to keep contact information up to date.
- Websites of nonprofits, listings of their advisors and contributors. For specific projects, a downloaded list may be very helpful, and we match it to the database.

Commercial Data – this is the big one. How much can you use, and what should you pay?

- Wealth information – home value, estimated household income, etc. The first sources are the three national credit agencies, Equifax, Experian and Trans Union. University of Texas has worked with the first two.
- Consumer behavior information bundled by market research firms: Acxiom, Claritas, Infogroup (formerly RH Donnelly of Yellow Pages). Acxiom's Personix and Claritas Prizm segment according to age, location (urban, suburban rural), wealth, ages of children. A handy characterization of what a household might buy, but only a rough indicator of wealth and philanthropy.
- NOZA – now an exclusive service of Blackbaud, collects philanthropic contributions scraped from organizational websites.
- ZoomInfo – grabs organizational directories from the Web.
- HEP – the experts on employment at companies that match gifts.
- Alumni Finder, Harris Connect, Truegivers – Services oriented to the philanthropic sector, rebundling some of the services above, licensed at favorable pricing for non-profits.

- Prices for all of these service are cheaper by the dozen, and even cheaper by the half million.

X. CONSUMER CURIOSITIES

As I've churned through truckloads of consumer behavior markers derived from point-of-sale data, and compared it to giving habits, I've found a few curiosities:

- People with cats give more to the arts and people with dogs give more to athletics, but in the end they give about equally to the institution.
- People who invest in home entertainment and sound systems may live in their cocoons and not support outside causes.
- Premium credit cards, upscale fashion purchases and home furnishings purchases do correlate with wealth, but aren't predictive of giving one way or the other.
- People identified as Runners increase their giving over time. Those identified as recreational or aerobic walkers, just keep on walking. (At Dell Computer headquarters, outside of Austin, it's said that if you see Michael Dell running, he's having a good day. On a bad day, he's trapped inside. The Dell Family has given in the 9-figures back to the Austin area. Michael, keep on running!)