Target Analytics™
a Blackbaud Company

McMaster University
Inspiring Innovation and Discovery

Garbage in, Garbage out

Best Practices for Future Data Analysis

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Agenda

I. Why care about your data?
   a. The Art and Science of Data
II. The Data Challenge
III. Data mining versus data modeling
IV. Data that matters
V. Over manipulating versus Under manipulating
VI. Examples from McMaster University's recent statistical modeling project
VII. Data Assessment
   a. Best Practices to keep your data clean
VIII. Organizational Readiness

Why care about your data?

- One of your greatest assets
- The lens through which you view your donors
- Impacts how your donors view your organization
- Effects your ability to allocate scarce resources
- Like other assets, requires maintenance
- Can be easily mismanaged

The Art and Science

- Capacity and donor affinity are the keys to transformational giving
- Donor Affinity is the great unknown
- So, what “affinity” data is vital for you to track, code and report on?
- What data is hiding in your database that can be used today?
- What are best practices for querying and eventually analyzing this data?

The Art and Science

The Data Challenge

- The data is frequently messy or missing
- Incomplete data
- “We don’t have any place to enter those fields”
- “We’d never get the users to key it in”
- That information is managed by a different department and stored in their database
- What’s important to one department may not be important to another

How much is each piece of data worth?

Definitions

- Data Mining

  Investigating and discovering trends within a constituent database using computer or manual search methods. Simple trend analysis.

- Predictive (Statistical) Modeling

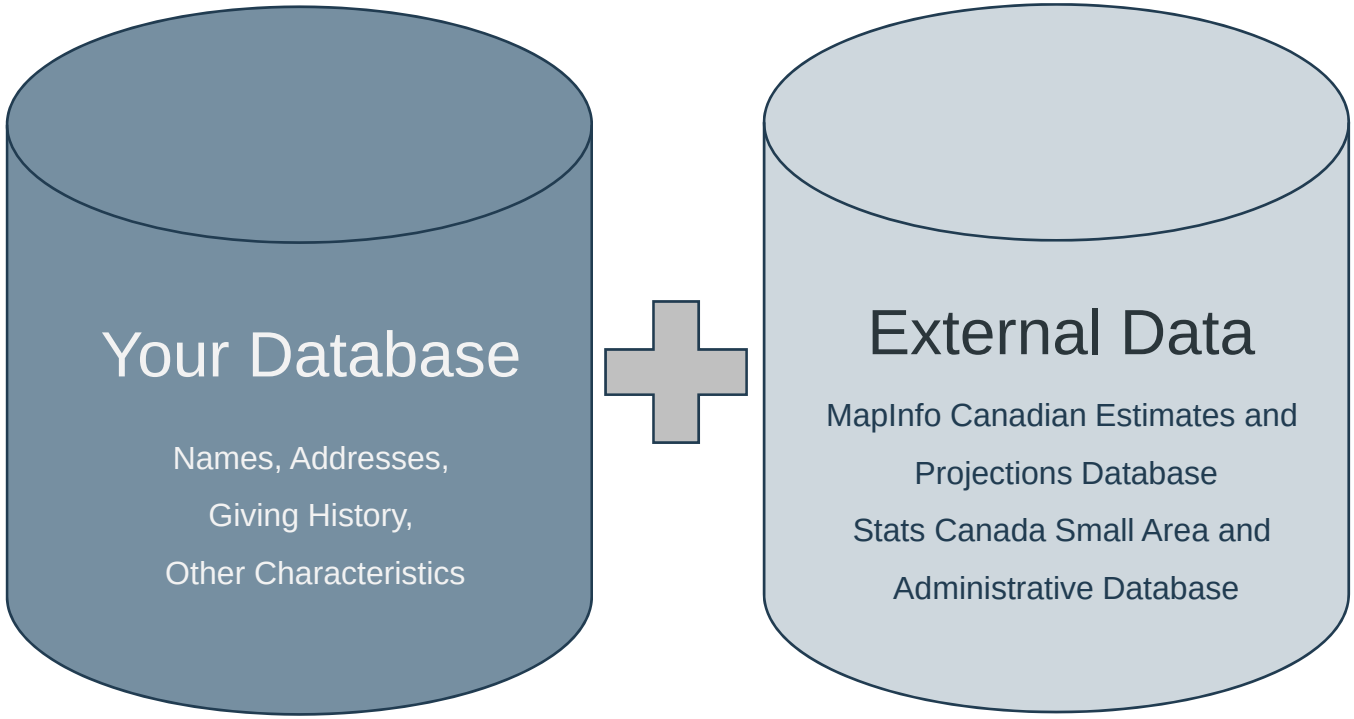
  Discovery of underlying meaningful relationships and patterns from historical and current information within a database; using these findings to predict individual behavior

Data Mining

Analyze & summarize data in useful ways to increase funds/cut costs

- RFM (recency, frequency, monetary value)
- Common data points and constituency codes

Data Modeling



Donor Data that Matters

- Data that goes beyond gift transactions
- Data offered up by the donor – have you been listening?
- Data that is hard coded – storing it all in the “notes” field doesn’t count
- Data that indicates loyalty or affinity for your mission over other organizations
- Extraordinary behavior – hand-written notes, calls of praise, etc.
- Data that captures donor engagement

Without Naming Names . . . Learning from other TA clients

I. Data that matters
   a. Constituency Codes
   b. Source of Gift
   c. Address Coding
   d. Event Participation

Without Naming Names . . . Learning from other TA clients

Constituency Codes

- Alumni
- Degree
- Major
- Faculty
- Class Year
- Alumni Non-Grad
- Current or Former Parent
- Board Member
- Friend
- Volunteer
- Subscriber
- Employee
- Professor
- Committee Member
- Ticket buyer - Performance or Athletics
- Event Participation
- Online Community Membership
- Number of Campus Affiliations
- Number of Student Activities
- Number of Alumni Activities
- Number of Reunions Attended
- Marital Status
- Birth Date
- Occupation
- Requests for Information
- Number of Communications
- Quality of Communications
- Portfolio Assignments

Without Naming Names . . . Learning from other TA clients

Source of Gift

- Appeal Tracking
- Stock Gifts
- Online Giving
- Mail Response Giving
- Event Giving
- Payroll deduction
- Event or Ticket Sales, Registration Fees
- Individual giving and Household giving
- Foundation giving versus Individual giving
- Corporate giving versus Individual giving
- Honor/Memorial giving
- Planned Gifts

Personal Experience . . . McMaster University

Source of Gift

- Under what solicitation “state” has last three years of giving been?
  - Campaign versus annual/operational

Without Naming Names . . . Learning from other TA clients

Source of Gift

Client Example:

- Donors who gave to 2 or more funds in one year were worth $71 more than donors who gave to a single fund ($297 vs. $368).
- When donors gave to three funds over a 4-year period, they were more likely to be actively giving and giving more generously in the fourth year.

Without Naming Names . . . Learning from other TA clients

Address Coding

- Mailing address
  - Home Address versus Business Address
  - Change offered by donor versus vendor-purchased addresses
- Individual or household solicitation
- Email address
  - Change offered by donor versus vendor-purchased addresses
- Phone number
  - Change offered by donor versus vendor-purchased phone number

Personal Experience . . . McMaster University

Event Participation

- Event attendance versus type of event
  - Major giving prospects attended a major giving event
  - Does their attendance predict their likelihood to make a major gift?
  - Were they prior donors or new cultivation prospects?

Without Naming Names . . . Learning from other TA clients

Event Participation

- Donor A – Event data lives outside main database
  – Attends an annual event for a $100 ticket price
  – Single interaction with your organization each year

- Donor B – Event data lives inside main database
  – Attends the same annual event as Donor A
  – Participates in Alumni Reunion every year
  – Gives over $1,000 level and upgrades giving every year
  – Has given 2 telemarketing gifts
  – Called the call center twice

Pairing event data up with other donor interactions helps you distinguish average donors from extraordinary donors

Personal Experience . . . McMaster University

- Will a particular constituency code skew the value of a variable because of the way you have placed new emphasis on the code?
  - Example:
    - McMaster University was in the midst of a campaign and had been coding that donors were attending events. There were more events than normal due to the campaign mode and so the “best” donors were also invited to a large number of special events.
    - Result: Over-valued the importance of attending events

      Separate out if it was
      a) Alumni Event
      b) Campaign Event
      c) Cabinet-Only Events
      d) Staff Attended Events – as part of their job

Donor Data that Matters

Over-manipulating versus under-manipulating

We are modeling a select group of older donors who gave in the last year and attended a sports event

We are modeling all people in the database but we haven't kept relationship records and frankly don't know if they've given in the last few years or why they're on the database to begin with

Exclude deceased and those with no address or a foreign address

Exclude people marked "inactive" unless you solicit inactive

Exclude those flagged as "no valid address" if you feel they have not been solicited recently

Personal Experience . . . McMaster University

I. Basic requirements to begin a modeling project
II. Frequency of Gift slide
III. Major Gift Likelihood

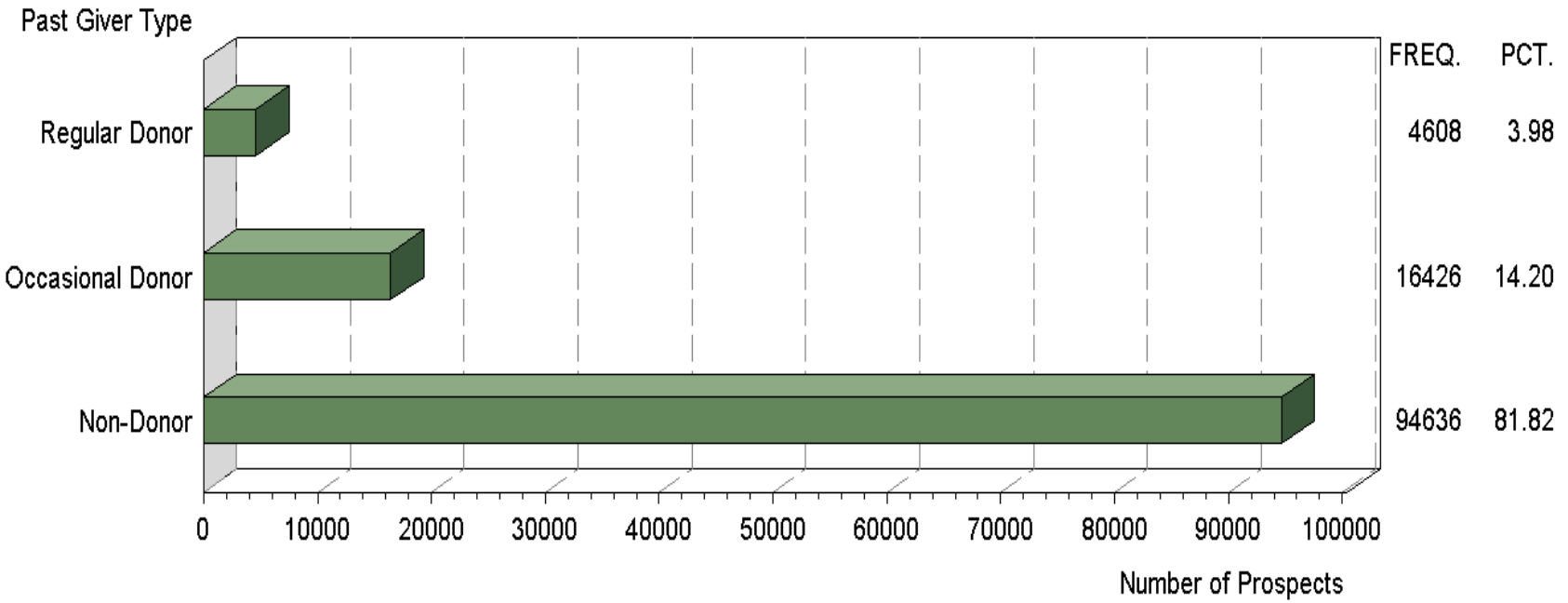
Requirements: Target Analytics Statistical Models

- Must have at least 200 examples of gifts in the last year at a particular dollar level for valid statistics
- Do not include gifts from corporations or foundations – only individuals
- Exclude “do not solicit” - unless you code major donors with this
  - For instance, some clients do not solicit staff members, or there may be students or minor children who are not solicited

Behavior You Might Like to Model

- Annual Giving
- Major Giving
- Gift Size
- Planned Giving
  - Bequests
  - Annuities
  - Trusts
- Monthly Giving
- Mail Response
- Phone Donors
- Mail Donors
- Electronic Donors

McMaster Frequency Distributions

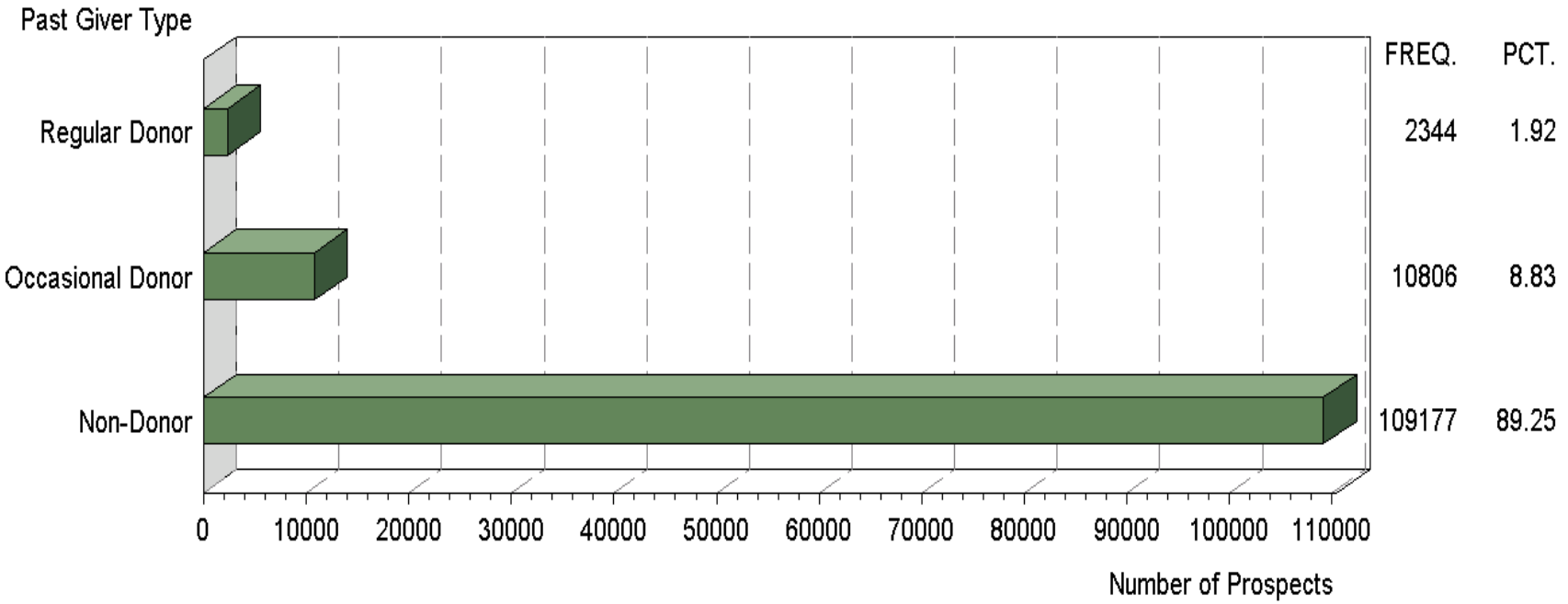


Regular donor: a minimum of one gift in each of the past three years

Occasional donor: one or two gifts in the past three years

Non-donor: no gifts in the past three years; could be lapsed donor

Past Giver Type – another Canadian Client



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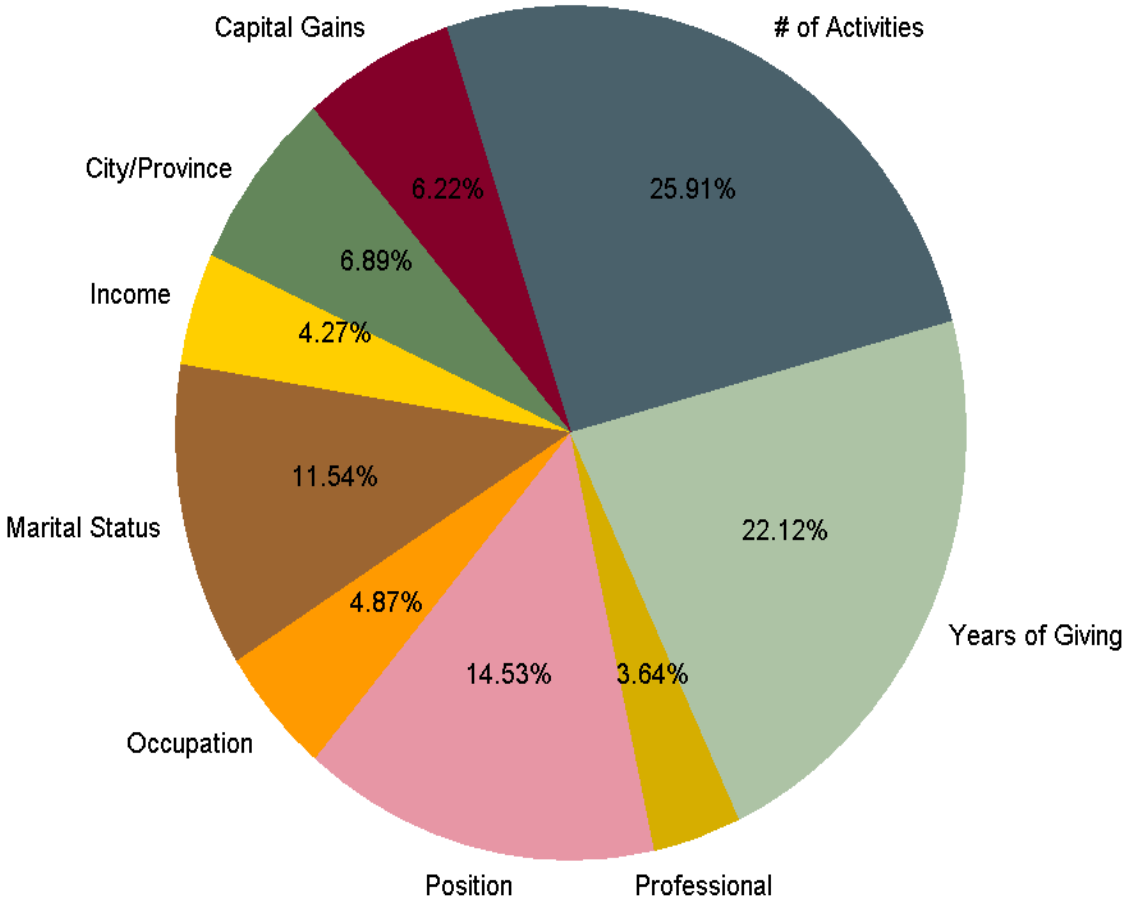
McMaster MGL Variable examples

- Years of Consecutive Giving (+)
- Number of Activities Participated In (+)
- Professional Degree (+)
- Business Position (See Chart)
- Average Per Capita Income (+)
- Occupations in Social Sciences, Education, Government (+)
- City and Province (See chart)
- Marital Status (See chart)
- Percentage of Tax Filers Reporting Capital Gains (+)

McMaster major gift model



Major Giving Likelihood – another Canadian Client

Past Giver Type (+)

Doctorate Degree (+)

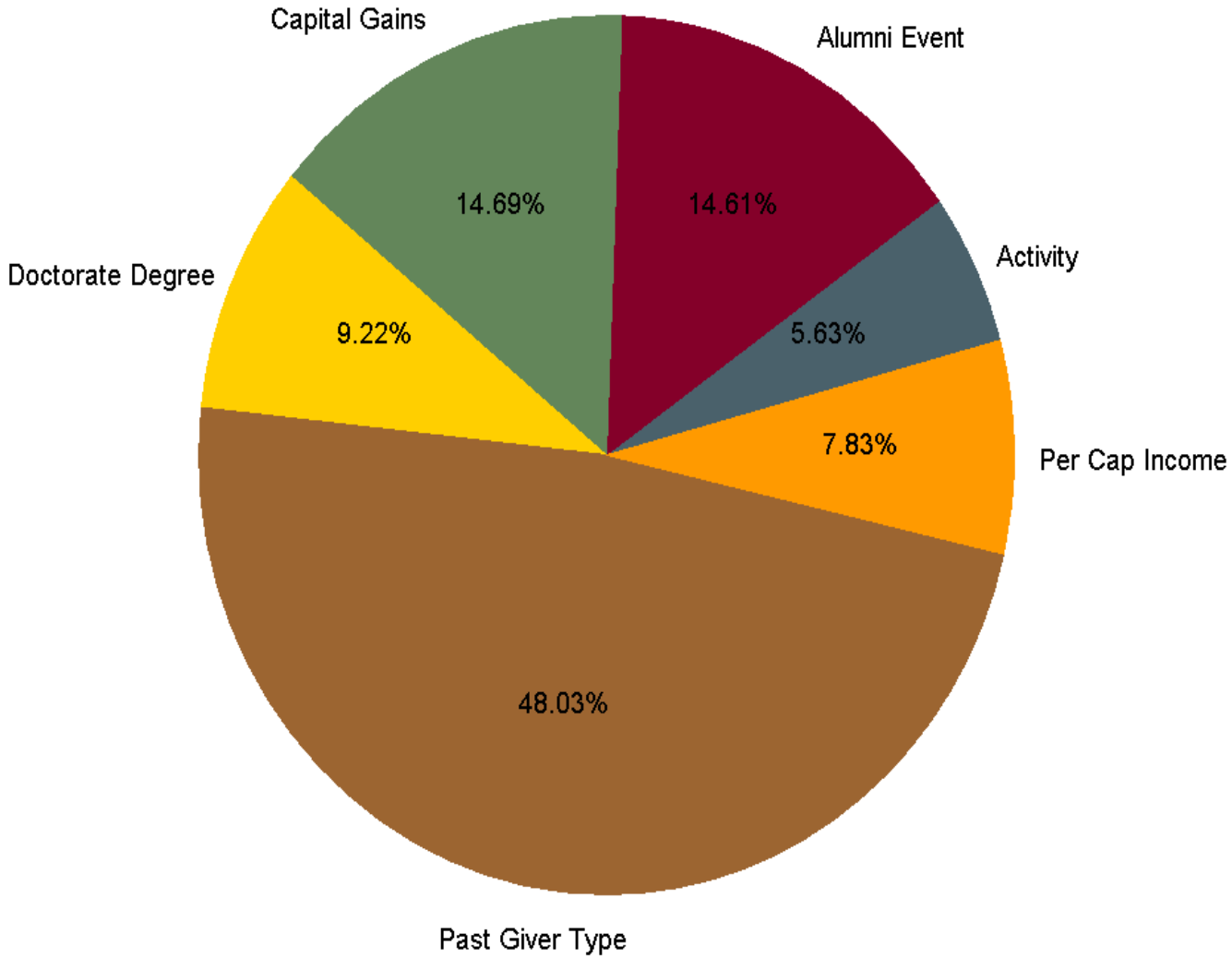
Attended an Alumni Event (+)

Activity Participation (+)

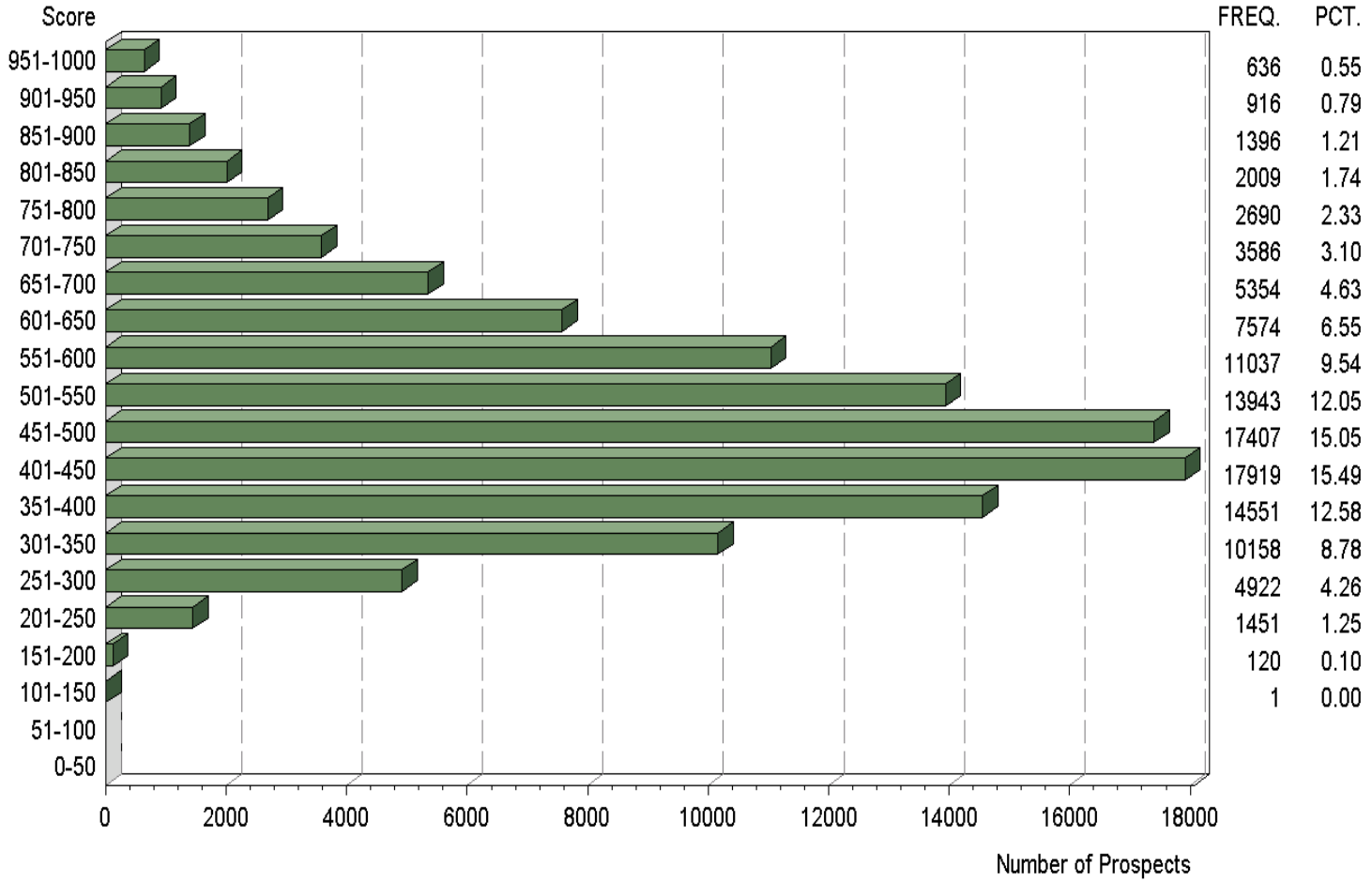
Average Per Capita Income (+)

Percentage of Tax Filers Reporting Capital Gains (+)

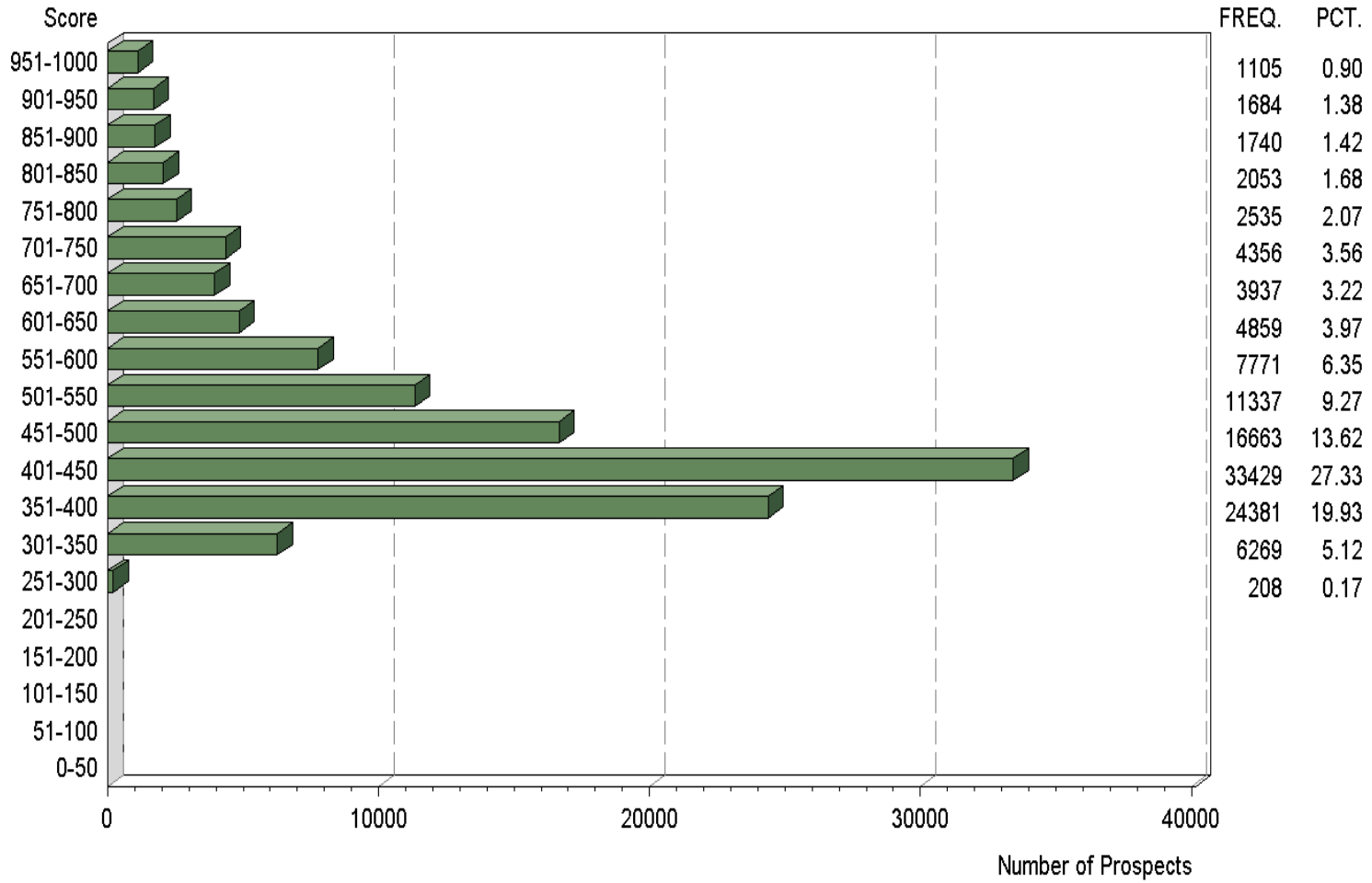
Major Giving Likelihood – another Canadian Client



McMaster MGL Distribution of Scores



Major Giving Likelihood – another Canadian Client



McMaster TGR Variable examples

- Years of Consecutive Giving (+)
- Number of Activities Participated In (+)
- Parent (+)
- Major (See chart)
- Age (+)
- Business Position (See chart)
- Percentage of Tax Filers Reporting Capital Gains (+)
- Average Per Capita Income (+)
- Professional (+)

Target Gift Range – another Canadian Client

Years of Consecutive Giving (+)

Attended an Alumni Event (+)

Activity Participation (+)

School Name (See chart)

Age (+)

Average Per Capita Income (+)

Percentage of Tax Filers Reporting Capital Gains (+)

First Three Digits of Postal Code (See chart)

Variable examples

- TGR:

  - Those most likely to make a larger donation to SCHOOL are around the ages 55 to 72.
  - They remain closely connected to the school by participating in multiple alumni activities
  - They have attended at least one reunion
  - They have larger incomes
  - They live in areas where more people report to have investment gains
  - They hold top positions (President, Vice President, and Director)
  - They hold positions in certain business areas (Investment Management, Administration, and Finance).
  - Those who give larger gifts to the SCHOOL give consistently.

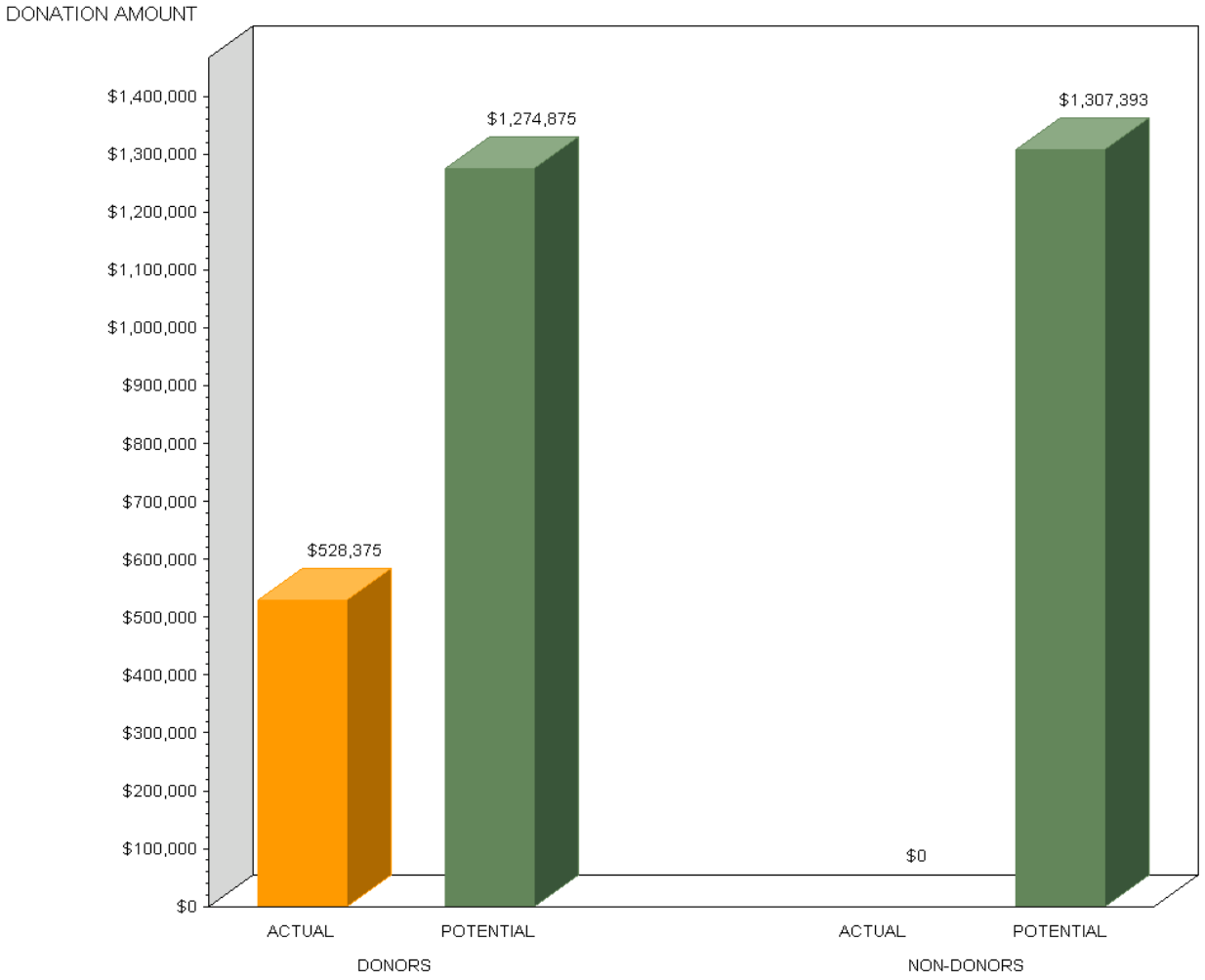
McMaster Cross tabulation of likelihood and capacity

	OVERALL	TGR (6,7) $1,001-$5,000	TGR (8) $5,001-$10,000	TGR (9) $10,001-$25,000	TGR (10-15) >$25,001
MGL>=701 (Excellent)	11,337	2,636	567	262	385
MGL 601-700 (Very Good)	13,086	418	23	15	10
MGL 526-600 (Good)	17,684	181	5	9	7

Major Giving Matrix – another Canadian Client

	OVERALL	TGR (6,7) $1,001-$5,000	TGR (8) $5,001-$10,000	TGR (9) $10,001-$25,000	TGR (10-15) >$25,000
MGL>=701 (Excellent)	12,493	2,140	368	159	96
MGL 551-700 (Very Good)	19,565	382	7	15	12
MGL 451-550 (Good)	24,030	29	2	4	6

McMaster Potential Donations



Actual - Individual giving in most recent 12 months, Potential - Lowest end of TGR score

Data Assessment

What do you know about your donors?

- Donors who love your mission share information with you all the time – don't let this valuable data hide in your database!

  - Donation History
  - Interests
  - Preferences
  - Acquisition Method
  - Affinity
  - Non Financial Interactions

Recommendation

Monitor your data quality regularly

- Identify 100 donors randomly, each year, and thoroughly review their data
  - Incorrect data (typos, moved, married, dead)
  - Duplicate records
  - Missing information
  - Correct treatment (clubs, tracks, expire dates)

Data Assessment – Check Your Inventory!

1. How are you interacting with your constituents?
   - Are these touch points captured in your database?

2. How are constituents interacting with your organization?
   - Are these touch points captured in your database?

Can you handle the data?

Organizational readiness

- Be realistic about the “personal solicitation capacity” of staff and volunteers
  - How many prospects can each person handle?
  - Use solicitation capacity to determine “depth” in prospect scores
  - How will pipeline be replenished?
  - How will prospects be managed?

Remember, prospect screening is a tool.
There is no substitute for personal contact.

Can you handle the data?

Organizational readiness

- Be sure the proper staff members are on the phone when the data is exported

  - Different members of a team have different priorities
    - Vice President may not fully understand how Research will use the scores
    - Research may not fully understand how the Vice President envisions the pipeline
    - Systems may have interpreted the question differently from either of them
    - Who is the target audience for the end result?

  Some codes may be irrelevant internally to members of team or project

Take-aways

- Know the real value of your data
- Care for your data better
- Use your data more effectively