A Quantitative Model for Evaluating Advancement Effectiveness

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Abstract

The measurement of the quality of educational programs continues to be a controversial subject, but one of great interest to trustees, grant makers, and the general public. The field of educational advancement has long had easily measured results related to fund raising, but has not commonly been able to quantify the nature of the overall relationship between an institution and its alumni. The importance of measuring the overall relationship with alumni and the effectiveness of the entire advancement efforts of a school, whether or not administered from a central office of

advancement, has led to the creation of the alumni indices. This case study presents a model of synthesizing a range of data drawn from alumni surveys to create five indices representing the major elements of the overall relationship: the Student Experience Index, the Reputational Index, the Connectivity Index, the Participation Index, and the Donor Index. These indices are used to reflect the nature of the relationship with the overall population as well as any segments, and provide the metrics for a significant portion of the overall advancement goals. The indices provide an integrated quantified model for understanding how well the mission of an advancement operation is being fulfilled.

Keywords:

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Introduction

One of the enduring challenges facing the educational advancement profession has

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been, and continues to be, the effective evaluation of overall advancement operations. Throughout the last few decades, professional organizations, institutions, and individuals have worked to define what advancement success is and how it can be measured. In the 1990s, increased emphasis on quality, cost-effectiveness, and accountability has amplified the pressure on senior advancement administrators to answer these questions.

This article presents a case study for how a series of market research-based indices are being used to understand the effectiveness of advancement activity at a mission level. These indices are used to understand better the holistic relationship between an institution and its external audiences, such as alumni and parents. It has been developed and applied at Queen's University, a public university of 13,500 FTE students in Kingston, Ontario, and Upper Canada College, an independent school of 1,100 boys from senior kindergarten to K12 in Toronto, Ontario. The indices have been developed by groups of colleagues at both institutions and, while the specifics of the model may not apply to all peer institutions, the principles have been designed to be broadly applicable to the field of educational advancement.

Organizational Effectiveness through Measurement

Measurement of organizational effectiveness has been a widely accepted principle in many of the most successful for-profit and not-for-profit organizations in the world. The introduction of quality concepts, initially in Japan in the 1940s and then throughout the world, has been one of the transformational trends in

organizational change. Groups and programs such as the International Organization for Standardization (ISO), The W. Edward Deming Institute and prize, Six Sigma, and the Baldrige National Quality Program have helped promote, support and provide models for how measurement can be applied to affect continuous improvement.

In the education sector, there has been increasing pressure placed on institutions to justify better and be more accountable for their performances. In many jurisdictions, including Ontario, governments have required institutions to report on key performance indicators and/or to create evaluative processes on which to base core and incremental funding decisions.

Annual rankings undertaken by various media groups and research institutes such as *U.S. News & World Report* and *Maclean's Magazine*, have created de facto performance indicators in the minds of some. Not surprisingly for the education sector, which both specializes in research and often revels in the mysterious complexities of its own institutional dynamics, these external measurements are not always popular. Many educators complain that the measures unfairly simplify complex processes into rough numbers, which do not sufficiently reflect the merits of schools. The rankings are, however, clearly of interest to the public.

Where quality models have been embraced by some educational institutions (such as 2001 Malcolm Baldrige Award Winner University of Wisconsin-Stout),¹ measurement has become an important enabler. However, institutions need not formally embrace quality programs in order to make use of better metrics. Measurement is encouraged as a basic tool

to help staff and governance groups understand how well they are doing and to focus them on improving upon areas of weakness. Indicators are formulated to provide both output measures (those that reflect how well major goals/roles are achieved), and in-process measures (those that reflect the effectiveness of more detailed component processes), which all work sequentially or concurrently to achieve the goals. For example, the length of time it takes an organization to issue a correct receipt (an in-process measure), is a step toward achieving higher donor satisfaction (an output measure.)

Measures in Educational Advancement

For generations, advancement functions have been predominantly judged by private giving revenue. This is understandable inasmuch as many senior administrators and governors see the sole justification of advancement as generating revenue. The other aspects of advancement programming (e.g., communications, events, and services) are commonly seen in academic communities as secondary, yet necessary, for the generation of donations. In that context, these activities are tolerated only if the financial bottom line is enhanced. Advancement leaders and, increasingly, institutional leaders such as presidents, principals, vice-presidents, and deans, recognize that private giving is an outcome of effective development operations coupled with strong holistic relationships with key stakeholders such as alumni and parents.

While many development measures are well tracked and understood at most institutions, the same cannot be said for advancement indicators more broadly. Mission statements for offices of

advancement often reference concepts like relationships, goodwill, reputation, resources, and voluntarism. Many advancement professionals track individual programs well, but are unable to consolidate program-specific measures into quantified performance indicators that relate to these concepts.

As an example, many schools report on alumni magazine readership, reunion participation, rates of giving to the annual fund, number of chapter volunteers, and even the total number of event participants or volunteers in a given year. These are good metrics to describe specific aspects of how effectively an advancement office operates, but only serve as proxies for measuring the caliber of the overall relationship with alumni, parents, and others. Moreover, most of these measures do not describe overlap and cause and effect relationships among program-specific indicators. For instance, beyond gut feel and anecdotes, most institutions have a difficult time identifying the overlap among the people who come to reunions, those who read a publication, those who hold an affinity card, those who come to the varsity hockey games, and those who are concerned about a particular issue. From a strategic perspective, it is important to understand whether the same people participate in the school's programs or whether there is broader yet less intense involvement. Finally, it is equally important to understand how these behaviors relate to attitudes and feelings of affinity.

A limitation of program-specific indicators is the fact that alumni, parents, and friends have interactions with the school beyond just advancement-related programs. Perhaps the most significant driver of alumni interaction is the student

experience, and at most colleges and universities, alumni may interact with athletics departments (e.g., attending athletic events), bookstores, departments of continuing education, arts groups (e.g., plays and concerts), and professional educational enrichment programs (e.g., continuing medical education, business executives programs). Of course, if alumni are also parents, their relationships take on a completely different added dimension. Because most advancement performance indicators are based on participation and satisfaction ratings for programs run by central alumni, development and communications offices, they do not make provision for these broader dimensions of interaction. This is often further compounded in organizations where central and decentralized advancement programming is undertaken in a less than fully coordinated fashion.

The optimal advancement output performance measures take into account as many aspects as possible of the sometimes complex and multidimensional relationships between institutions and their key external stakeholders. By necessity, therefore, the measures must not be tied to specific programs, but rather undertaken through broadly based market research.

Case Study

Market research is becoming an increasingly important tool in educational advancement. It is most commonly used to identify—overall and by market segment—the effectiveness and appeal of current and potential programs. This allows organizations to make informed decisions at a strategic level, determining what programs to offer to whom.

Market research is being used increasingly to determine how best, in a detailed sense, to implement programs. This includes using market research to develop detailed profiles of market segments and individuals, the most sophisticated applications of which are mass customization of programs based on these profiles.

Market research can also be used to better understand the broader relationship between an institution and key community groups because it can tie together series of seemingly independent variables. This case study details a series of five indices that have been developed using approximately 25 percent of the 160 data points collected in a comprehensive census of alumni by Upper Canada College in 1999/2000. Conducted in partnership with Kevin Graham of Lookout Management Inc., we delivered this survey twice by standard mail to all mailable alumni, and had a response rate of 33 percent or approximately 2,100 individuals. This was a positive response in light of the length of the survey (it took 40 minutes to complete) as well as the very personal nature of many of the questions (including reflections on their student lives, family income, marital status, etc.); 98.5 percent of respondent identified themselves, providing comprehensive profiles for the delivery of programs and information to these people in the future. We are repeating an abbreviated version of the census in 2002/03 in order to measure changes in the relationship.

Alumni Indices

At Upper Canada College (UCC), the effectiveness of the relationship with key off-campus audiences is evaluated using five indices: Student Experience,

Reputational, Connectivity, Participation, and Donor. Considered together, these indices reflect the health of the overall relationship with each audience segment. Each is calculated based on a series of data drawn from a comprehensive survey of the audience. The first three (Student Experience, Reputational, and Connectivity) are generated using the average ratings of answers to a series of questions related to the overall theme. The last two (Participation and Donor) also merge data from a series of questions, but use Boolean logic to rate where alumni fit into a hierarchy.

Student Experience Index

The Student Experience Index reflects alumni perception of their student experiences. We believe that this serves as the foundation for advancement success, recognizing that it is difficult for advancement professionals to affect changes in the results once students have graduated. We do believe, however, that alumni perceptions of their experiences evolve in time. (We are conducting research to better understand exactly how

this evolves over time.)

This index can be calculated in two ways. The first is done using a weighted mean of answers to a series of questions asking alumni to rate aspects of their student experiences. For all the indices, respondents used a five-point scale where 1 is very low (or strongly disagree) and 5 is very high (or strongly agree). The second method of calculating the Student Experience Index uses only the answer to the first question in the following list:

- Overall student experience (50%)
- Satisfaction with the academic program (10%)
- Satisfaction with the caliber of faculty (10%)
- Satisfaction with the social experience (interaction with staff and other students) (10%)
- Satisfaction with the sense of UCC community (10%)
- Satisfaction with the extracurricular experience (10%).

Figure 1 shows results using the second method of calculation (using only overall

Figure 1: The Student Experience Index

student experience rating). Those who have average responses of 5 are considered to have had excellent experiences, those of 4 good, those of 3 neutral, and those 1 or 2 bad.

The Reputational Index

The Reputational Index reflects how positively or negatively alumni feel about their alma mater today—a measure of the reputation of the institution among the audience. Like the Student Index, it is calculated using weighted averages from a series of questions. In this case, the following questions comprise the calculation (all asked in an agree/disagree format):

- UCC is an excellent educational institution (50%)
- I would recommend UCC to a friend or family member (25%)
- I am proud to say that I attended UCC (25%).

Those who have average responses of at least 4.0 are considered to be ambassadors,

those between 3.0 and 3.9 positive, those between 2.0 and 2.9 negative, and those between 1.0 and 1.9 are detractors.

The Connectivity Index

Like both the Student Experience and Reputational Indices, the Connectivity Index is generated by calculating a weighted average of responses from questions. It reflects the degree to which an audience feels informed about and connected to the school. Unlike the previous indices, the Connectivity Index relates to an active sense of belonging rather than passive attitudes. It is generated by averaging results of the following questions (all asked in an agree/disagree format):

- I feel well informed about UCC today (40%)
- I feel connected to UCC (60%).

In the next iteration of the survey, the index is being adjusted to include reference to ongoing connection with classmates. Those who have average

Figure 2: The Reputational Index

Figure 3: The Connectivity Index

responses of at least 4 are considered to be connected, those between 3 and 4 interested, those between 2 and 3 removed, and those between 1 and 2 detached.

The Participation Index

The Participation Index is a measure of how actively involved in an institution an audience has been. It is calculated on a hierarchical basis. The far right column in

Figure 4 (Engaged) indicates the percentage of respondents who, in the previous five years, have served as a volunteer for the institution. Like all aspects of this index, it relates not just to programs run by the Advancement Office, but by the entire college. For instance, individuals may have served on school governance groups, as a mentor, as a library volunteer, a class or branch

Figure 4: The Participation Index

representative, and so forth. We believe that our alumni do not differentiate strongly among the administrative units that organize events/volunteer roles, but rather, see their involvement as fundamentally tied to the college. It does not matter to us, therefore, whether the Association, the parents organization, the annual giving committee or some other entity involved the person, but rather that the person has been involved in the school. This philosophy also extends to events and other services.

The second column from the right in Figure 4 (Active) indicates the percentage of the respondents who did not serve as a volunteer, but who attended at least one college event over the last five years. The middle column (Involved) indicates the percentage of respondents who neither served as a volunteer nor attended an event in the time frame, but interacted with the school in some way. This includes purchasing a directory or merchandise, signing up for an affinity program, or enrolling in some listservs. The fourth

column from the left (Passive) shows the percentage of respondents who have not interacted with the institution, but who read school publications. The final column on the far left (Uninvolved) represents the portion of respondents who do not participate in any way with the organization.

The Donor Index

The Donor Index, like the Participation Index, is generated using Boolean logic to rank. It represents the degree of philanthropic connection that the audience has with the school. The far right column in Figure 5 (Committed) shows the percentage of respondents who have made at least five gifts in the last five years and who have arranged for a planned gift for the school. The second column from the right (Regular) shows those who have made at least five gifts in the last five years, but who have not arranged a planned gift. The middle column (Occasional) represents the percentage who have made between one and four gifts in the previous five years or

Figure 5: The Donor Index

who have arranged for a planned gift. The Potential column shows the percentage of respondents who have not made a gift in the last five years, but who indicate that they are very likely or somewhat likely to make one in the future. The far left column (Never) illustrates the percentage of respondents who have not made a gift in the last five years and indicate that they are not likely to make one in the future.

Comments on Methodology

This case study models indices drawn from a comprehensive survey of all mailable alumni of Upper Canada College. To determine how representative the response group is of the population as a whole, we compared characteristics of the response group (98.5% of whom identified themselves) against known variables tracked in the advancement database. For the most part, this comparison is usually limited to demographic factors (e.g., geography, age/year of graduation, etc.) or characteristics related to their student experience (e.g., day vs boarding, extracurricular involvements, etc.). Intuition tells us that those people who had poor experiences, those who feel negatively about the school today, and those who do not feel a sense of connection are less likely to respond to a long (i.e., 40 minute) survey. While the holistic nature of the study—dealing with student experiences, issues facing the college, and attitudes, in addition to traditional advancement-related data—clearly enhanced the overall response rate (alumni wanted to speak about their views on the school, not just our advancement programs), there remains a question about whether the indices represent the overall views of alumni.

In this survey, alumni were asked about their past giving, in addition to future intentions. This allowed us to compare each alumnus's perception of his giving against the reality of his giving in the last year, while also allowing us to compare the giving pattern of the response group with that of the entire mailable alumni population. Not unexpectedly, donors had a higher response rate to the survey than did nondonors. In order to determine the degree of impact this skew in response rates has on the indices, and whether the response group's results could reasonably be extrapolated to the entire population, a comparison was done. The five indices were recalculated using reweighted numbers to reflect the actual breakdown of regular donors to occasional donors to nondonors. The reweighted indices, therefore, reflect the same donor profile as the mailable alumni population. The comparison of the reweighted indices to the original response group indices showed that deviations were for the most part negligible. The Student Experience and Reputation Indices had deviations of 0.7 percent and 0.6 percent from the reweighted (overall population) averages; the Connectivity and Participation Indices had deviations of 1.7 and 1.5 percent from the reweighted (overall population) averages; and the Donor Index was 5.8 percent more positive for the total response groups than for the overall population—some of which was attributable to respondents who thought their giving was better than was the case. Comparisons against demographic factors on the database (e.g., graduation year and geography) also pointed to the response group as being representative of the overall mailable universe. The conclusion is that, based on information which we

track on our database, the indices paint a reasonable reflection of the relationship between the mailable alumni population and the school.

Regardless of this result, however, we assume that our lost alumni will largely fall on the left columns of the indices. They are much more likely to have a negative relationship with, and negative attitudes toward, the school. Clearly they are neither participants nor donors.

Even if the data did not support the response group's reflectiveness of the mailable alumni universe, we would have likely been inclined to use it as the basis for indicators of our success. Because our mailable alumni population is small (i.e., 6,300) in the context of educational advancement operations in North America, we are able to conduct censuses rather than surveys on sample groups. As a result, we are comfortable in judging our performance against those alumni who choose to respond, knowing that all have been given the opportunity.

Segmented Analysis

Not only do the indices provide a meaningful reflection of the school's relationship with the overall alumni population, they are also useful in providing an overview into the differences

in relationships between the institution and various segments of the population.

Figure 6 provides a sense of how UCC's relationship with its alumni differs by generation. While the mean values are not comparable among different types of indices (e.g., the mean value for the Participation Index cannot be compared with that for the Connectivity Index), they are comparable across generations for each index (e.g., the Reputational Index for the classes of 1998/99 can be compared with that for the classes of 1958-64).

Without delving into the cross-generational analysis for this project, the correlations between the indices are clear in this example. It illustrates well why a holistic approach to market research will provide cause and effect understandings as well as potential solutions. As an example, while there are some predictable, age-related trends with respect to the level of connectivity and participation of alumni, there are some significant anomalies. For instance, the relatively negative nature of the student experience for some of those students who were at UCC in the 1950s and early 1960s has had a significant causal impact on the Donor, Reputational, and Participation Indices.

The indices can also be used to compare numerous other segmentations,

Figure 6: Comparative indices across generations

by any of the 160 data units collected. Other examples of variables analyzed using the alumni indices included: day/boarding experiences, tenure as a student, whether someone has also been a UCC parent, overall satisfaction with the school, and past/future giving.

Because UCC is a primary and secondary school, we are also focused on the quality of our relationship with our parents. Accordingly, we offer a comparable range of advancement programs aimed at this key constituency, including comprehensive market research. We have developed, based on this information, a similar range of indices that rate this relationship. While there are some differences (e.g., the nature of the relationship is primarily tied to how well we are educating their children), there are also many commonalities between the Alumni and Parent Indices.

Overall Advancement Goals

So what is the implication of this data and these charts? In addition to the wealth of useful strategic and tactical information garnered from the alumni census, it has also provided us with an objective and methodical way of determining whether we are achieving our mission. Like most advancement operations, we have a mission statement: *To nurture and strengthen relationships in order to maximize goodwill and financial support, thereby enabling Upper Canada College to achieve its mission.* In addition, we have a vision statement, themes for how we operate, and a series of 157 strategic objectives or levers to allow us to fulfill our vision. The indices now provide us with the missing elements to quantify how well we “nurture and strengthen relationships” and “maximize goodwill.”

Because of the indices, we now have eight key advancement measures (with specific goals) against which all of our staff are happy to be measured. They reflect for us how well we fulfill our roles as advancement professionals:

1. Total receipted annual revenue measured on a five-year rolling average;
2. Private giving expectations (i.e., deferred gifts and pledges);
3. Donor participation ratings for key constituency groups (alumni, parents, employees);
4. Program satisfaction ratings for each program (publications, events, services, donors);
5. The percentage of Engaged and Active alumni (as drawn from the Participation Index) and parents;
6. The percentage of Ambassador alumni (as drawn from the Reputational Index) and parents;
7. The percentage of Connected alumni (as drawn from the Connectivity Index) and parents;
8. Overall advancement staff satisfaction ratings.

Every three years, when the survey is repeated, performance against the indices-related goals is evaluated and new goals established.

Conclusion

The use of the indices at Upper Canada College provides a quantified, multifaceted view into the nature of the relationship between the institution and its alumni. Many believe that the nature of relationships defies quantifiable measure. Not to try, however, will lead others to judge by anecdote or proxy measures. If we as advancement professionals believe that the quality and intensity of overall

relationships is the most important outcome of our work, we must find a way to measure it beyond receipted giving.

This model is by no means complex. It takes data, most of which is available to institutions that conduct regular market research on their alumni, and synthesizes it in a manner that gives us a mission-level snapshot. It tells us in an easy to understand, meaningful way how well we are achieving our mission. The indices speak to all advancement staff in our institution and provide, as such, an integrated approach to measuring success.

While the specific mathematical model outlined here may not be directly transferable to other institutions (and we will ourselves no doubt continue to fine-tune it), it should serve as a helpful case study as one approach to the enduring question of how we measure overall advancement effectiveness.

Reference

1. See also R. Cornesky, S. McCool, L. Byrnes, and R. Weber (1991), *Implementing Total Quality Management in Higher Education*, Magna Publications, Madison, WI.

Practitioner's Perspective

Innes van Nostrand joins a growing number of colleagues in Canada and the United States who have been developing advancement "metrics." Any number of these studies may have been attempted on our individual campuses; a few notable examples have come to light. In the 1980s, Stanford Alumni Association's Bill Stone made three assiduous (arduous, his staff might have said) efforts to measure alumni relations programs as a management tool for resource allocation. MIT's Bill Hecht managed his volunteer board's efforts not only to measure alumni activity, but to link specific activities (volunteer leadership, event participation, etc.) to donor giving patterns (they identified correlation, but not causation). And Eustace Theodore, at the time chair of CASE's Commission on Alumni Relations, later to become CASE's president, led development of the "Alumni Support Index." The index sought to (a) measure an individual institution's alumni program, (b) compare institutions, and (c) assess "reputation" measurements through minisurveys of alumni.

The Alumni Support Index was, like Mr. van Nostrand's metrical model, a strong effort to combine donor and event participation indices, and both models measure "reputation." Perhaps the best, most ambitious, aspect of van Nostrand's model is the effort to include all of "advancement" by his schools' definitions. It is helpful that he understands the need for "proxy" measures in this business, and we could use more alumni directors who can use Boolean logic. His model also shares some weaknesses of earlier attempts, like the need to make broad assumptions (e.g., that student satisfaction is based 10% upon interaction with staff and other students—one might as well guess 75%) and then collect relevant data. Still, that's what proxies are for.

Measuring all of advancement puts van Nostrand's model in a special class among the types of metrical models we have seen since Stanford's studies of the

1980s. CASE is looking at developing models that address the entire profession too, but where van Nostrand sticks to his own campus, CASE would like a model that might serve institutions of varying types—public, private, large and small, secondary-proprietary, and collegiate. This promises to be a monumental task, taking years and possibly a very large foundation grant.

In the meantime, 148 institutions in the USA and Canada have (in addition to their own metrics work) put moral support behind a promising project. PCUAD, the Private College & University Alumni Directors of 35 tightly defined peer universities, has developed a metrical model for alumni relations that captures and rationalizes the alumni activities of individual campuses, and aims to set a “national standard” for overall alumni programs at medium-sized private universities. The model, after two years of collaborative work, outlines 150 separate metrics in 26 categories of three types. The types are “alumni programs,” “campus and vendor partnerships,” and “resources development,” and categories like “Reunions” or “Electronic Communications” comprise 3–20 particular measurables.

The measurables may be numbers or percentages, or “yes-no” responses: “How many class reunions do you run each year?” “What percentage of your living addressable alumni made a gift to your institution last year?” “Do you offer an online alumni directory to your alumni?” “How many FTE staff serve in your alumni office?” PCUAD expects their metrical model to be online by mid-fall. Another group of alumni directors from small New England colleges has started up a similar project, defining their own types, categories, and metrics. Three possible long-term outcomes for the PCUAD project are (1) PCUAD members will have a flexible, online, continuous benchmarking and planning tool right on the directors’ desktops; (2) other alumni director groups will be able to adapt the same software to their own types of institutions and peers; and (3) CASE may be able to slip the PCUAD model into its overall effort to develop the kind of advancement-wide model that Innes van Nostrand has developed for Queens University and Upper Canada College.

Inquiries about the PCUAD model may be directed to Steven L. Calvert, Ph.D., Executive Director of Alumni Relations, Northeastern University, Boston, MA, USA (s.calvert@neu.edu) or Chris Marshall, Executive Director of Alumni Relations at Lehigh University, Bethlehem, PA, USA (chris.marshall@lehigh.edu). The PCUAD metrical model holds common law copyright, as it goes through beta testing among the members.

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