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# Do Alumni of Online Programs Give More Than Alumni of On-campus Programs?

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## Abstract

This multi-institutional study examined the giving patterns of alumni of online degree programs as compared to alumni of campus-based degree programs. Similarities and differences were statistically examined relative to the act of giving as well as the amount given to the respective institution by alumni within three years of the most recent degree conferred.

Five institutions participated in this study. Results suggest that alumni of online degree programs tended to donate early after graduation. In the case of one institution, alumni of online programs donated up to 12 percent more than alumni of on-campus programs within the first three years of most recent degree earned at the institution. In contrast, alumni of on-campus degree programs tended to donate over a longer period time than did alumni of online programs.

Five institutions expressed interest in participating in the study but were unable to participate due to lack of data segmentation. One recommendation of this study is that institutions develop effective ways to identify students in online programs so that alumni relations and development officers can effectively track those students as alumni after they graduate.

## Introduction

In 2015, nearly twenty million students enrolled in higher education, and 14.4% of them were studying exclusively online (U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2018). In 2002, fewer than 10% of college students were enrolled in at least one online course; in 2015, close to 30% of college students were enrolled in at least one online course (Allen and Seaman, 2017, p. 11). As online programs grow in number and variety, so too will the number of alumni of such programs. Alumni of online degree programs donate—sometimes significantly—to the institutions from which they receive degrees (Morrison, 2013).

The majority of research on alumni behavior has focused on alumni of on-campus degree programs (Massey, 2017). There is very little empirical data available about the giving patterns of alumni of online programs. Given the growth of student engagement in online courses and programs, it is in the best interest of institutions of higher education—especially those that rely heavily on alumni giving—to better understand the impact of program modality on alumni behavior. In an effort to begin to address this issue, this multi-institutional study explored similarities and differences in the act of giving and amounts given across alumni in similar programs offered online and on-campus.

The main research question was this: What similarities and/or differences are there in the giving patterns of alumni of online degree programs as compared to the giving patterns of alumni of primarily campus-based programs? The study's sub-questions were as follows:

1. Is there a significant difference in the percentage of alumni of online programs compared to alumni of campus-based programs who make a gift within the first, second, and third years from graduation?
2. Are the monetary amounts of post-graduation fiscal gifts on the part of alumni within the first, second, and third years from graduation significantly different between graduates of online programs and graduates of campus-based programs?

In this study, online education was defined as an academic program where 100% of the program is online and can only be completed online. On-campus education was defined as a program where a student completed most of his/her program's requirements in face-to-face classes that occurred on-campus. Comparisons were made across a variety of disciplines provided the institution offered the program (or a comparable program) both online and on-campus.

## Literature Review

What encourages an alumnus/a to give to the institution from which he or she earns a degree? Charitable giving is complex, with a variety of factors influencing participation (Van Slyke and Brooks, 2005) or lack thereof (Wastyn, 2009). In terms of alumni giving across higher education, factors often associated with philanthropy on the part of alumni include loyalty to the alumnus's/alumna's alma mater, long-lasting relationships formed while matriculating, a desire to express gratitude, and interest in helping others, to name a few (Morgan, 2014). While limited in scope, research pertaining to alumni of online degree programs indicates that the factors motivating them to donate to their respective institutions are similar to—although not entirely the same as—alumni of on-campus programs. While a general affinity for the institution (Hendrick, 2017) can be fostered even if a student doesn't attend classes on campus, distinct features of giving on the part of online alumni include lasting relationships established with peers during their respective online programs (Ketter, 2013), teaching presence (Moore, 2014), and the opportunity to target their donations to specific—rather than general—projects or entities on campus (Morrison, 2013).

While there is scant research on the giving patterns of alumni of online degree programs—let alone in comparison with on-campus alumni of similar programs—the research there suggests that alumni of online degree programs contribute to annual and, especially, to targeted campaigns of the institutions from which they graduated at both undergraduate (Hendrick, 2017) and graduate (Ketter, 2013) degree levels. Research also suggests that segmenting data to enable appropriate outreach to alumni of online degree programs is not common across colleges and universities (Berger, 2016; Durango-Cohen and Balasubramanian, 2015; Hennessy, 2016). In order to cultivate alumni of online degree programs, institutions may need to reconsider the ways they manage their databases and alumni engagement activities.

Concerns about the giving patterns of alumni given the rise of distance and online education have been known for many years (Lesht and Schejbal, 2002). However, most research exploring the relationship between online alumni giving compared to on-campus alumni giving has generally been limited in nature and scope (Berger, 2016; Hendrick, 2017; Hennessy, 2016; Ketter, 2013; Whitby, 2014). The authors of this multi-institutional study sought to shed further light on the giving patterns of alumni of online degree programs compared to the giving patterns of on-campus degree programs. The specific focus of this study was on alumni of programs that are offered by an institution in both online and on campus formats. The timeframe of giving activity focused on the first three years after a student graduates from a program.

## **Methodology**

### **Participants**

Participation was voluntary. A convenience sample (colleagues at various institutions interested in this research topic) was contacted by the co-authors of this work; of 16 colleagues contacted, five campuses met the study's requirements and were willing to participate. Requirements included the following:

- Offering online degree programs where 100% of the program was offered online and could only be completed online as well as offering comparable on-campus programs where most of the degree program's requirements were completed on-campus
- Offering the relevant programs for at least a few years
- Segregating online alumni data from on-campus alumni data
- Completing a standardized data collection template (devoid of any confidential information on donors) regarding alumni giving participation, which included the following information: Title of degrees conferred, levels of degrees conferred, dates of degrees conferred, amounts and dates of giving per alumnus/a, and demographic characteristics of alumni.
- Completing a twelve-question survey related to the ways alumni data were gathered

### **Statistical Methods**

Multiple logistic regressions were applied to quantitative data modelling whether alumni gave or not within specified time frames after graduation (within one year, within two years, and within three years after graduation). Among just those alumni who donated, multiple regressions modelled the amount given within the same set of post-graduation time frames. Survey data collected on each participating institution's alumni/development office practices were analyzed qualitatively in order to discern any possible outlier practices and/or advantages on the part of an institution which could alternatively explain patterns in alumni giving.

## **Results**

### **Profile of Participating Institutions**

Five institutions contacted to participate in this study were unable to do so due to lack of segmentation by degree modality of their alumni data. As they were not able to identify alumni of online versus on-campus programs from their databases, they did not qualify to participate. Among the institutions that segmented their alumni data by degree modality, and were thus eligible to participate, five contributed data for the study. The following is a brief description of each participating institution:

- A public land-grant institution established in 1839 with an overall enrollment of over 30,000 students. For this article it is referred to as the "smaller land-grant university."
- A public land-grant institution established in 1855 with 24 campuses and an overall enrollment of over 90,000 students. For this article it is referred to as the "largest land-grant university."
- A public urban university established in 1956 with an overall enrollment of over 25,000 students (part of a larger system). For this article it is referred to as the "public urban university."
- A private research university established in 1851 with an overall enrollment of over 20,000 students. For this article it is referred to as the "private (non-profit) university."
- A public land-grant institution established in 1868 with an overall enrollment of over 31,000 students. For this article it is referred to as the "suburban land-grant university."

### **Participating Institutional Dataset Caveats**

There was variability among the provided data sets that resulted in some data not being included, e.g., unclear degree program names or no online programs comparable to on-campus programs submitted. Further, three institutions submitted incomplete demographic information (see Table 3). However, the statistical analysis was by institution and limited to data that were comparable based on the requirements of the study.

### **Descriptive Statistics on Percentages of Alumni Who Donated and Online Degrees**

In terms of the act of making a donation within the first three years from the most recent degree received—regardless of whether an alumnus/a earned his or her degree online or on-campus—there was variability across the five participating institutions. For example, within the first year after the most recent degree, approximately 19.6% of alumni donated at the largest land-grant university. At the private (non-profit) institution, the percentage of alumni donors within the study was 8.4% within that first year from the most recent degree. At the smaller land-grant university, 1.8% gave within the first year from the most recent degree. Among alumni at the suburban land-grant institution, 2.08% gave within the first year of their most recent degree. In addition, at the public urban university, 0.64% (or a just over half of one percent) gave during that first year from graduation. The act of making a gift increased moderately over the three-year period under study (see Table 1).

Table 1

*Act of Making a Donation on the Part of Alumni in This Study*

Year	Largest Land-grant University	Private (Non-profit) University	Smaller Land-grant University	Public Urban University	Suburban Land-grant University
Within First Year	19.6%	8.4%	1.8%	0.64%	2.08%
Within Second Year	22.8%	13.05%	2.4%	1.00%	3.04%
Within Third Year	24.2%	15.39%	2.6%	1.30%	3.21%

Six to 38 percent of degrees conferred in this sample (across institutions) were in online programs. Two of the five participating institutions (the private non-profit university and the suburban land-grant university) had over a quarter of their most recent degrees conferred in the online modality. The remaining three participating institutions ranged from six to 12 percent of the most recent degrees conferred in online programs. Based on total number of degrees awarded, a smaller number of alumni of online programs are represented in the study. See Table 2 for detail.

Table 2

*Percentage of Most Recent Degrees Awarded in the Online Modality by Institution*

Institution	Percentage of Most Recent Degrees in the Online Modality
Private (Non-profit) University	38%
Suburban Land-grant University	29%
Public Urban University	12%
Smaller Land-grant University	11%
Largest Land-grant University	6%

**Timing of Giving**

Direct multiple logistic regression was conducted to evaluate several factors thought to influence the likelihood of donating to a postsecondary institution. Models were run for each institution separately with up to nine independent variables, depending on the availability of the data provided by each institution. Table 3 provides a brief description of the nine independent variables and their availability by participating institution.

Table 3

*Variables in Regression Models and Their Availability by Institution*

Variables: “Yes” = Institution Provided the Variable “NA” = Variable Not Available from Institution	Largest Land-grant	Private (Non-profit)	Smaller Land-grant	Public Urban	Suburban Land-grant
Level (Undergrad Degree or Graduate Degree)	Yes	Yes	NA	Yes	Yes
Home-state Resident (Yes or No)	Yes	Yes	Yes	Yes	Yes
Degree Mode (Online or On-campus)	Yes	Yes	Yes	Yes	Yes
Made a Prior Donation Before Latest Degree? (Yes or No)	Yes	Yes	Yes	Yes	Yes
Has Multiple Degrees from the Same Institution? (Yes or No)	Yes	Yes	Yes	Yes	Yes
Gender (Male/Unknown or Female)	Yes	Yes	Yes	NA	Yes
Race (Alumnus of Color or White/Unknown)	Yes	NA	Yes	NA	Yes
Hispanic/Latino Origin (Yes or No)	Yes	NA	Yes	NA	Yes
Age 19 to 29 [Compared to 41 & Older (Yes or No)]	Yes	Yes	Yes	NA	Yes
Age 30 to 40 [Compared to 41 & Older (Yes or No)]	Yes	Yes	Yes	NA	Yes
Age 21 to 25 [Compared to 31 & Older (Yes or No)]	-	-	-	-	Yes
Age 26 to 30 [Compared to 31 & Older (Yes or No)]	-	-	-	-	Yes

Degree modality, the key variable of interest, was assessed for its effect on the likelihood of giving, while controlling for the contributions of other auxiliary variables also likely to influence giving.

**The Effect of Degree Modality on Timing of Giving**

Variability across institutions was seen when comparing on-campus alumni giving to online alumni giving. At the public urban university, alumni of online programs were twice as likely to donate within one year from the most recent degree conferred as were their on-campus counterparts. After the first year there was not a significant difference between the groups in terms of timing of donations. However, at the largest land-grant institution, the suburban land-grant institution, and the private (non-profit) institution, on-campus alumni were more likely to give within the first three years of the

most recent degree. Among these institutions, the inverse odds of on-campus alumni giving within the first three years ranged from as little as 1.3 times that of online alumni to four times that of online alumni. Significant logistic regression results specific to the relationship between degree modality and timing of giving are shown in Table 4.

At the smaller land-grant institution, no significant difference in giving patterns emerged between modality and the timing of donations.

Table 4

*Relevant Multiple Logistic Regression Results on the Relationship Between Degree Modality and Timing of Giving*

Institution	Model: Donating Within . . .	Full Model $\chi^2$ Statistic	Degree Modality (0 = On-campus, 1 = Online)			
			B	$p$ value on Wald Statistic	Odds Ratio	Inverse of Odds Ratio
Public Urban University	1 Year of Most Recent Degree	$\chi^2(5, N = 12,216) = 152.27, p < .001$	0.717	0.033	2.047	-
Largest Land-grant University	1 Year of Most Recent Degree	$\chi^2(10, N = 287,297) = 20,993.42, p < .001$	-1.390	<0.001	0.249	4.015
	2 Years of Most Recent Degree	$\chi^2(10, N = 287,297) = 20,489.35, p < .001$	-1.362	<0.001	0.256	3.903
	3 Years of Most Recent Degree	$\chi^2(10, N = 287,297) = 20,700.96, p < .001$	-1.348	<0.001	0.260	3.848
Private (Non-profit) University	2 Years of Most Recent Degree	$\chi^2(8, N = 4,919) = 143.11, p < .001$	-0.271	0.012	0.763	1.311
	3 Years of Most Recent Degree	$\chi^2(8, N = 4,919) = 161.00, p < .001$	-0.403	<0.001	0.668	1.496
Suburban Land-grant University	1 Year of Most Recent Degree	$\chi^2(10, N = 8,498) = 158.10, p < .001$	-1.251	0.004	0.286	3.492
	2 Years of Most Recent Degree	$\chi^2(10, N = 8,498) = 54.24, p < .001$	-0.396	0.031	0.673	1.486
	3 Years of Most Recent Degree	$\chi^2(10, N = 8,498) = 54.28, p < .001$	-0.359	0.042	0.698	1.432

### The Effect of Degree Modality on Amounts Donated

Donations given within one year, two years, or three years of graduation were not normally distributed. That is, the distribution of donations was not “bell-shaped.” Donations instead were distributed much like the “curved L” shown in Figure 1. The effect is many smaller donations tapering to much fewer larger donations within the three-year period reviewed.

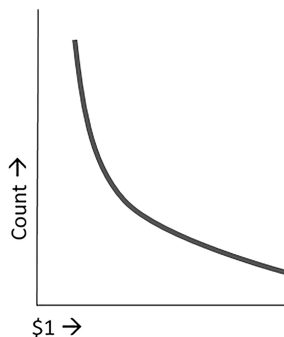


Figure 1: Example of how donations tend to be distributed

In the cases of the public urban university, the largest land-grant university, the private (non-profit) university, and the smaller land-grant university, donations given within one year, two years, or three years of graduation were transformed via a natural logarithmic function (ln) in order to better prepare donations to serve as dependent variables in multiple ordinary least squares (OLS) regressions. However, in the case of the suburban land-grant university’s data, the natural logarithmic transformation of donated amount did not effectively lead to normally distributed residuals in OLS regressions; additionally, the OLS regressions violated the assumption of homoscedasticity. As a result, in order to test the relationship between donated amount and modality while controlling for auxiliary variables, multiple logistic regression was used for the suburban land-grant university’s

data, modelling the difference between those who gave between \$1 and \$25 versus those who gave over \$25. The choice of \$25 as a cutoff for the dichotomous dependent variable in the suburban land-grant university data was based on the \$25 donation being the modal value in the distribution.

Depending on the institutional dataset (see Table 3), up to nine variables were assessed for their influence on the amount donated, with the key variable of interest being degree modality.

Multiple regressions on amount donated limited observations to only the alumni who gave some amount of money to their alma mater, excluding alumni who had not donated. As a result, only three of the five institutional data sets were large enough to run full multiple regression analyses on the amount donated for all three years under review: the largest land-grant university, the private (non-profit) university, and the suburban land-grant university.

At the largest land-grant institution, alumni of online programs gave up to 10% more within the first year of the most current degree earned than did their on-campus counterparts. In the second and third years from the most recent degree, online alumni also gave more than alumni of on-campus programs gave, and by approximately the same percentage difference as the first year (by +12% in the second year and by +9% in the third year). However, at the private (non-profit) university and the suburban land-grant university there was no statistical relationship between amount given and modality, controlling for the effects of auxiliary variables.

By the third year after the most recent degree there were enough data to run multiple regressions on data sets provided by the public urban institution and the smaller land-grant institution, but no significant differences were found in terms of amounts donated by online or on-campus alumni.

Significant multiple regression results specific to the relationship between degree modality and (ln) amount donated are shown in Table 5.

Table 5

*Relevant Multiple Regression Results on the Relationship between Degree Modality and (ln) Amount Donated*

Institution	Model: Amount Donated Within . . .	Full Model Statistics	Degree Modality (0 = On-campus, 1 = Online)		
			B	p value on t Statistic	% Increase or Decrease
Largest Land-grant University	1 Year of Most Recent Degree	$F(10, 53,247) = 601.587$ , $p < .001$ ; $R^2 = 10\%$	0.098	<0.001	+10%
	2 Years of Most Recent Degree	$F(10, 61,764) = 633.119$ , $p < .001$ ; $R^2 = 9\%$	0.113	<0.001	+12%
	3 Years of Most Recent Degree	$F(10, 65,528) = 474.202$ , $p < .001$ ; $R^2 = 7\%$	0.086	<0.001	+9%

## The 12-question Survey

In addition to the data collection template on which the majority of results were based, each participating institution completed a 12-question survey. Alumni office procedures, frequency of updating alumni addresses, and accuracy of alumni contacts were self-rated by administrative staff of the participating institutions. Across the five institutions the procedures were found to be very similar. The conclusion from the qualitative analysis is that differences in alumni procedures and practices among the participating institutions were minimal and likely not contributing to patterns in the timing of alumni giving or the size of donations given by alumni within the datasets.

## Other Findings

The strongest predictor of alumni giving in this sample—regardless of modality—was having made a donation to the institution prior to earning the most recent degree. Those who had made prior donations were much more likely to give in the future—and in larger amounts—than were alumni making their first donation after earning their most recent degree.

**The effect of prior donations on timing of giving.** Out of the nine variables tested (see Table 3) for their relationship to the act of giving (i.e., donating versus not donating) within one year, within two years, and within three years of the most recent degree conferred, a single variable consistently predicted greater odds of giving across all five participating institutions. Making a donation to the institution prior to earning the most recent degree significantly increased the odds of making a subsequent donation. Alumni who donated prior to earning the most recent degree were three to 26 times more likely to give than those who did not make a prior donation.

The striking aspects of this finding that set it apart from all other findings in this study are as follows:

1. It was statistically significant for all five participating institutions.
2. It was significant for all three timeframes tested (within 1 year, within 2 years, and within 3 years of the most recent degree).
3. The direction of effect was consistent; that is, alumni who made donations prior to earning the most recent degree were more likely to give after getting the most recent degree at all five participating institutions.
4. This was the only variable tested out of nine predictors that satisfied points 1, 2, and 3 above.

If there is potentially a finding generalizable to higher education that is emerging from the early results of this research (based on five participating institutions), it is that prior donations greatly increase the likelihood of future donations. The early results suggest this may apply despite the sector of the institution (public or private), the size of the institution (large enrollment or smaller enrollment), the institution's setting (urban versus suburban or rural), admissions characteristics (lower transfer-in versus higher transfer-in), the overall enrollment profile of the institution (majority undergraduate versus majority graduate), and the modality of the degree (online or on-campus).

Significant logistic regression results specific to the relationship between making a prior donation before the latest degree and timing of giving are shown in Table 6.

Table 6

*Relevant Multiple Logistic Regression Results on the Relationship between Degree Modality and Timing of Giving*

Institution	Model: Donating Within . . .	Full Model $\chi^2$ Statistic	Made A Prior Donation Before Latest Degree (0 = No, 1 = Yes)		
			B	p value on Wald Statistic	Odds Ratio
Largest Land-grant University	1 Year of Most Recent Degree	$\chi^2(10, N=287,297)$ = 20,993.42, p <.001	1.133	<0.001	3.105
	2 Years of Most Recent Degree	$\chi^2(10, N=287,297)$ = 20,489.35, p <.001	1.167	<0.001	3.212
	3 Years of Most Recent Degree	$\chi^2(10, N = 287,297)$ = 20700.96, p <.001	1.190	<0.001	3.286
Private (Non-profit) University	1 Year of Most Recent Degree	$\chi^2(8, N = 4919)$ = 102.90, p <.001	1.306	<0.001	3.690
	2 Years of Most Recent Degree	$\chi^2(8, N = 4919)$ = 143.11, p <.001	1.105	<0.001	3.018
	3 Years of Most Recent Degree	$\chi^2(8, N = 4919)$ = 161.00, p <.001	1.054	<0.001	2.869
Smaller Land-grant University	1 Year of Most Recent Degree	$\chi^2(9, N = 2,238)$ = 23.04, p =.01	1.422	<0.001	4.147
	2 Years of Most Recent Degree	$\chi^2(9, N=2,238)$ = 30.09, p <.001	1.575	<0.001	4.829
	3 Years of Most Recent Degree	$\chi^2(9, N=2,238)$ = 26.93, p =.001	1.435	<0.001	4.199

Table 6

*Relevant Multiple Logistic Regression Results on the Relationship between Degree Modality and Timing of Giving (continued)*

Institution	Model: Donating Within . . .	Full Model $\chi^2$ Statistic	Made A Prior Donation Before Latest Degree (0 = No, 1 = Yes)		
			B	p value on Wald Statistic	Odds Ratio
Public Urban University	1 Year of Most Recent Degree	$\chi^2(5, N = 12,216)$ = 152.27, p <.001	3.241	<0.001	25.561
	2 Years of Most Recent Degree	$\chi^2(5, N = 12,216)$ = 138.19, p <.001	2.731	<0.001	15.350
	3 Years of Most Recent Degree	$\chi^2(5, N = 12,216)$ = 170.16, p <.001	2.834	<0.001	17.018
Suburban Land-grant University	1 Year of Most Recent Degree	$\chi^2(10, N = 8,498)$ = 158.10, p <.001	2.698	<0.001	14.855
	2 Years of Most Recent Degree	$\chi^2(10, N = 8,498)$ = 54.24, p <.001	1.650	<0.001	5.208
	3 Years of Most Recent Degree	$\chi^2(10, N = 8,498)$ = 54.28, p <.001	1.623	<0.001	5.068

**The effect of prior donations on amount of giving**

At the public urban university, alumni who donated to the institution prior to earning the most recent degree donated 65% more within three years of receiving their most recent degree compared to alumni who had not made a prior donation. At the largest land-grant university, those who made a prior donation were 16% more to 24% more likely to give in higher amounts in the first three years after receiving their most recent degree. Significant OLS multiple regression results specific to the relationship between donating to the institution prior to earning the most recent degree and (ln) amount donated are shown in Table 7.

Table 7

*Relevant Multiple OLS Regression Results on the Relationship between Making a Donation to the Institution Prior to Earning the Most Recent Degree and (ln) Amount Donated*

Institution	Model: Amount Donated Within . . .	Full Model Statistics	Made A Prior Donation Before Latest Degree (0=No, 1 = Yes)		
			B	p value on t Statistic	% Increase or Decrease
Public Urban University	3 Years of Most Recent Degree	$F(5, 142) = 1.704$ , $p = .137$ ; $R^2 = 6\%$	0.502	0.027	+65%
Largest Land-grant University	1 Year of Most Recent Degree	$F(10, 53,247) = 601.587$ , $p < .001$ ; $R^2 = 10\%$	0.144	<0.001	+16%
	2 Years of Most Recent Degree	$F(10, 53,247) = 601.587$ , $p < .001$ ; $R^2 = 10\%$	0.217	<0.001	+24%
	3 Years of Most Recent Degree	$F(10, 53,247) = 601.587$ , $p < .001$ ; $R^2 = 10\%$	0.209	<0.001	+23%

Results at the suburban land-grant university showed that alumni who donated to the institution prior to their most recent degree were three to four times more likely to donate in amounts higher than \$25 than alumni who had not made a prior donation. Significant multiple logistic regression results specific to the relationship between donating to the institution prior to earning the most recent degree and donations of \$25 or less versus donations in excess of \$25 are shown in Table 8.

Table 8

*Relevant Multiple Logistic Regression Results on the Relationship between Donating to the Institution Prior to Earning the Most Recent Degree and Donated Amounts \$25 or Less vs. Amounts in Excess of \$25*

Institution	Model: Donating Within . . .	Full Model $\chi^2$ Statistic	Made A Prior Donation Before Latest Degree (0 = No, 1 = Yes)		
			B	p value on Wald Statistic	Odds Ratio
Suburban Land-grant University	1 Year of Most Recent Degree	$\chi^2(10, N = 177) = 18.75$ , $p = .04$	1.454	0.006	4.278
	2 Years of Most Recent Degree	$\chi^2(10, N = 258) = 15.99$ , $p = .10$	0.983	0.033	2.672

Overall, at three of the five participating institutions, results showed that having made a donation prior to earning the most recent degree increased the likelihood that those donations would be in higher monetary amounts compared to alumni who had not made a donation prior to earning their most recent degree.

#### Other significant variables related to the timing and/or amount of giving.

Additionally, gender, age, and residency (and lack thereof) are a few other variables that emerged in the data sets that may influence alumni giving. However, in contrast to degree modality and making a donation to the institution prior to earning the most recent degree, a consistent pattern of results among the multiple institutions did not occur for the other variables (e.g., gender, age, and residency).

#### Discussion

As suggested by prior research (Berger, 2016), alumni of both on-campus and online degree programs participate in making donations to the institutions from which they have earned degrees. In the public urban institution, alumni of online programs participated in the act of giving more than did their on-campus counterparts. However, that was most pronounced within the first year of graduation. At the largest land-grant, private (non-profit), and suburban land-grant institutions, on-campus alumni were more likely to participate in the act of giving compared to their online counterparts. In terms of amount given, there was only one significant finding related to modality. At the largest land-grant institution in the study, and within the first three years, alumni of online programs donated up to 10%, 12%, and 9%, respectively, more than alumni of on-campus programs. The significant findings between the online modality and patterns of giving reinforce earlier research demonstrating that alumni of online programs do make significant gifts (Morrison, 2013). Further, this study adds to existing research the finding that alumni of online degree programs may be more apt to donate to a college or university very soon after earning their degrees. In total, however, the results of this research suggest that the relationship between degree modality and alumni giving patterns may be highly institution-specific.

Across the institutions surveyed, alumni who donated prior to earning their most recent degree (i.e., those who had earned an earlier degree at the institution) had a higher likelihood of giving in the future than did those who had not given to the institution prior to the most recent degree earned. If students return to the same institution to continue their education, their prior educational experience reinforces both continued enrollment at the



institution and further fiscal giving to the institution. This finding reinforces literature on alumni development that points to the quality of one's undergraduate experience online and on-campus (Baker, 2010; Hoyt, 2004; LaBarbera, 2013) as a building block for affinity towards an institution after graduation.

One finding prior to data collection is worth noting. This study's researchers contacted sixteen colleagues at various institutions across the country. Most were eager to participate (although a few declined due to lack of data or lack of data security). However, five were not able to do so because they had not segmented their data on graduates according to whether the students had been in online or on-campus programs. Consequently, while willing, those institutions could not participate. More importantly, institutions that don't segment their data by on-campus and online alumni may be missing an opportunity to tailor their alumni engagement efforts. As noted in earlier research (Berger, 2016; Durango-Cohen and Balasubramanian, 2015), there is a real need for institutions to pay attention to alumni of online degree programs, including through data segmentation; data segmentation is key to identifying the appropriate group, i.e., online or on-campus.

This study suggests that outreach to alumni of online programs soon after—or even prior to—degree conferral is important in encouraging them to donate to the institution. Related literature suggests outreach to alumni of online programs can also enhance engagement, including networking and mentoring on the part of those alumni.

Moreover, this study's results suggest that alumni of online programs need to be approached with messaging that appeals to and is consistent with their university experience.

## Summary

In terms of the overarching question of similarities and differences between giving patterns of alumni of online degree programs as compared to alumni of campus-based programs, the following trends emerged:

- Alumni of both online and on-campus programs donate to their respective institutions.
- Alumni of some online degree programs contribute more funds than alumni of on-campus programs within the first three years from degree conferred (ranging from 9% to 12% more at one institution in the study).
- At three of the five institutions of this study within the first three years from the most recent degree conferred, alumni of on-campus programs participated in the act of giving more so than did alumni of online programs. However, in a fourth institution, modality didn't emerge as related to timing of giving. Furthermore, in a fifth institution, alumni of online programs participated sooner than did alumni of on-campus programs, but after the first year there was no difference in propensity to give between the two groups of alumni.
- Giving prior to the most recent degree was significantly associated with future giving.
- In order to report patterns of alumni giving in terms of online or on-campus programs, institutions benefit from segmenting their data.
- To recap, questions were as follows:
  - Are alumni of online programs more likely to give than alumni of on-campus programs?
  - Among alumni who donate, do alumni of online programs give more than alumni of on-campus programs?
- The answer to both questions appears to be, "It depends." In some cases, yes, and in others, not necessarily. (In fact, in some cases, modality wasn't related to giving on the part of alumni.) Further research is recommended to better understand the giving patterns of alumni of online programs. Factors related to type of institution, student demographics, and degree program attributes may also be playing a role in the relationship between degree modality and patterns of alumni giving.

## Limitations of the Study

The relatively small number of institutions participating in this study made difficult a deeper analysis of the giving-pattern differences between the two alumni groups under examination. As noted in the results section, there were a few irregularities in the data received that meant some data could not be analyzed. Also, the 12-question survey instrument did not include information on size of operations, number of development staff members, average number of alumni assigned to a development officer, and other information that might have helped further compare data received for the study. Furthermore, while it would have been ideal to include many auxiliary aspects potentially related to giving within the data request template, a more simple but thoroughly defined template was eventually utilized that requested the participant's most recent alumni giving data (preferably over the last 10 years). This decision was intended to encourage participation, facilitate the accurate completion of the data template, achieve better management of data from multiple institutions, and allow the maximum number of higher education institutions to participate.

However, the single most important limitation had to do with the small sample size of participating institutions, which was largely due to the fact that a number of universities interested in participating could not do so as they did not segment their alumni data into on-campus and online groups.

## Future Research

Given the growth in online degree programs, the potential alumni of those programs, and the reliance of higher education on alumni donations, a larger, national study comparing the giving patterns of alumni in comparable online to on-campus degree programs is recommended. Additional research exploring program characteristics that may lend further insight into factors influencing giving behavior on the part of alumni of online as well as on-campus programs could also be useful. In addition, individual institutions might want to explore further the giving patterns of their own alumni relative to the modality of the programs from which those alumni graduated.

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