



2018

Arts Education: A Philanthropic Priority?

Clare Murray
Colby College

Follow this and additional works at: <https://digitalcommons.colby.edu/honorstheses>



Part of the [Art Education Commons](#), [Arts Management Commons](#), [Nonprofit Administration and Management Commons](#), and the [Organizational Behavior and Theory Commons](#)

Colby College theses are protected by copyright. They may be viewed or downloaded from this site for the purposes of research and scholarship. Reproduction or distribution for commercial purposes is prohibited without written permission of the author.

Recommended Citation

Murray, Clare, "Arts Education: A Philanthropic Priority?" (2018). *Honors Theses*. Paper 886.
<https://digitalcommons.colby.edu/honorstheses/886>

This Honors Thesis (Open Access) is brought to you for free and open access by the Student Research at Digital Commons @ Colby. It has been accepted for inclusion in Honors Theses by an authorized administrator of Digital Commons @ Colby.



Arts Education: A Philanthropic Priority?

Clare Murray
Colby College

Senior Honors Thesis
Colby College
Department of Economics

Advisor: Professor Michael Donihue
Second Reader: Professor Samara Gunter

© 2018

Arts Education: A Philanthropic Priority?

Abstract

Through restricted donations, donors to private, independent not-for-profit US art museums are able to affect the prioritization of museum activities. Using annual data from museums' Form 990s and AAMD survey responses, I test whether restricted giving affects a museum's educational programming by analyzing the effect of restricted assets on education department performance indicators. I find that a percentage point increase in permanently restricted assets as a proportion of total assets is associated with a 0.1876 percentage point increase in education expenses as a share of total expenses. Through qualitative informational interviews, I recognize this impact as evidence that arts education is central to the purpose of museums in the twenty-first century.

I am especially grateful for Professor Michael Donihue's support of this project. I would like to express additional gratitude for Professor Samara Gunter's guidance through the honors research process, Professor Dan LaFave's programming and coding assistance, the Colby College Museum of Art's entertaining of my museum curiosities, Ashley Early's help facilitating data compilation, the Colby College Division of Student and College Advancement's funding support of my data collection through GuideStar, the Colby College Center for the Arts and Humanities' funding support of my data processing, Provost Margaret McFadden's funding support of my travel to conduct informational interviews with museum educators, the Colby College Department of Library Services' financial assistance in securing access to IRS tax documents, AAMD Executive Director Alison Wade's generosity in offering me access to rich AAMD annual survey data, Bill Layton's insight into the development needs of not-for-profit institutions, Rebekah Beaulieu's objective advice, Professor Amy Whitaker's expertise at the intersection between art and business, Professor David Yermack's encouragement to research the not-for-profit sector, and museum staff from across the Northeast who generously shared their time and knowledge with me.

I. Introduction

Until now, research on how donors influence not-for-profit activities has focused on the financial reporting practices and spending decisions of not-for-profit institutions when constrained by restricted gifts. The existing literature has added to the debate surrounding whether temporarily and permanently restricted assets help not-for-profit institutions better balance their budgets and fulfill their missions. Though David Yermack (2017 p.217) argues that restricted donations constrain operating flexibility and focus art museum expenses to activities with measurable metrics, like program services, Mensah and Werner (2003 p.319-320) and Yetman and Yetman (2012 p.1062-3) find that a greater amount of restricted assets improves cost-efficiency and financial reporting for a broad sample of not-for-profit institutions. In that same vein, although Li et al. (2012 p.112) show that restricted donations encourage donors to give, restricted donations also limit the freedom of not-for-profit institutions to allocate funds freely, without donor input. While many private, independent not-for-profit US art museums (hereafter referred to as ‘museums’) complain about increased restrictions, they may prove helpful by encouraging donors to be more engaged and by holding museums accountable for providing society with meaningful experiences, as determined by the donors. Though the philanthropic community has a long history of supporting arts education, I research whether restricted gifts affect a museum’s educational programming in the twenty-first century. More concretely, this paper addresses the question: does restricted giving improve museum education department performance in terms of their budgets and how many students they serve?

As long as museums and their donors value arts education, restricted donations can help ensure that museums continue to inspire intercultural dialogue, learning, and creative expression through their educational programs. Because influential philanthropists, like Agnes Gund, who

was one of the first arts education advocates to begin donating to museum education initiatives, have begun focusing their attention on concerns like social justice, the future of arts education advocacy is uncertain; though there is no concrete evidence that indicates that philanthropists or museums are substituting away from focusing on arts education and toward social justice causes, art museum education departments may face increased competition for donation dollars in the years to come.¹

At a time when nearly all museums mention “education” in their institutional missions, arts education *appears* incredibly important in the twenty-first century, at least on the surface. As this research finds, over the past nine years the quality of museum educational programming has improved tremendously, with museums dedicating more of their total expenses to education and narrowing their education audiences given greater proportions of total assets being restricted. Specifically, for the 129 museums in my sample, a unit increase in permanently restricted assets as a proportion of total assets corresponds with a 0.1876 percentage point increase in education expenses as a share of total expenses but a decrease in the number of school districts served by educational programs, all else equal. Though the introduction of restricted giving has resulted in the museum becoming a system that is tasked with managing multiple individuals’ interests, as indicated by this research, arts education takes priority and is in many ways responsible for defining a museum’s success.² More precisely, museums benefit from having metrics that demonstrate the quality of a museum’s educational programming because such metrics have allowed them to not only solicit philanthropic support, but also demonstrate grant success and attract visitors.

¹ As evidenced by the recent funds established by individuals like Agnes Gund, social justice is becoming a major focus of the philanthropic community (Pogrebin 2017).

² The idea behind the museum being a system is founded in research presented by Donella Meadows in her book *Thinking in Systems* (Meadows 2008).

Just as this research helps museums reflect on how restricted giving has affected their institutional goals, it also prompts future research with regards to modeling donor behavior and influence. Because the nature of restricted donations is unobserved and often not disclosed in public reports, case studies may help to understand what exactly is driving the increase in museum education department budgets – either donor gifts are being restricted specifically to educational purposes or restricted gifts are crowding out museum spending in the donors’ areas of priority and, in response, museums are shifting their general operating funds toward educational programs. In this way, future research can ascertain whether arts education is a donor priority, a museum priority, or a priority of both. This will be relevant to many not-for-profit institutions as they anticipate potential changes in philanthropic interests, which could very well influence their established goals. Other not-for-profit institutions can use this research and future research to understand the evolving relationship between themselves and their donors.

The remainder of this paper is organized as follows. In section 2 I describe why museum education values. In section 3 I demonstrate how the emergence of restricted giving has affected museums by reviewing prior literature. In section 4 I use theory to understand how the practice of restricted giving has required museums to commit to prioritizing donor interests like arts education. After presenting my unique data in section 5, I explain my qualitative analysis approach in section 6. In section 7 I describe my empirical strategy and discuss my findings in regards to the prevalence of philanthropic concern for arts education in the twenty-first century. Section 8 concludes.

II. Why Does Museum Education Matter?

At their core, museums are community resources. After the US government cut spending on arts education in the public schools in the 1970s, museums, being responsible for providing arts education to the public, recognized the need to develop education departments with specialized educational programs (Bodilly 2008 p.9-10). Since then, museum education has evolved and there has been no shortage of research to demonstrate its long-term effects on learning and cross-cultural understanding.³ Acknowledging that the museum must also serve as an educator, in 1992 the American Association of Museums published a report in which they declared that “the public dimensions of museums leads them to perform the public service of education—a term that in its broadest sense includes exploration, study, observation, critical thinking, contemplation and dialogue” (*A Report from the American Association of Museums* 1992 p.9), and thereby confirmed that museum educational programs are inherently investments in society’s advancement. Today, museum educational programs offer “memorable, immersive learning experiences, provoke imagination, introduce unknown worlds and subject matter, and offer unique environments for quality time with family” (Gross 2014).

To understand the role of museum education in the twenty-first century, I asked educators at a sample of museums in the Northeast to share their perspectives on the value of museum education. In the words of some of the museum educators interviewed:

“Arts education in the broadest of terms brings a sense of creativity and joy, and a sense of aesthetic understanding. Art making and experiences looking at art can bring people together in a very human way. They can bring out the best in people and bring people into the moment.” – Bruce McColl, Director of Art Education, Currier Museum of Art

³ Case studies at the Crystal Bridges Museum of American Art and the Smithsonian Institution’s Early Enrichment Center are two prominent examples of the research into the long-term impact of museum education (Kisida 2013; Munley 2012).

“All educational programming in the arts has the potential to allow people to tell their own stories and find their places in the world” – Rachel Rosen, Director of Education, American Folk Art Museum

“What I can create for people of all ages is an intimate and safe environment that gives them the opportunity to feel actively engaged and curious to observe various perspectives, express themselves, make connections, and listen to others” – Aimee Good, Director of Education and Community Programs, The Drawing Center

“I like to think of the museum as a sanctuary that is different for every person. Through museum education each of us can learn something about and even relate to a different culture.” – Ann Butler Rice, Georgette Auerbach Koopman Director of Education, Wadsworth Atheneum

“The value of museum education is opportunity. It provides people access to creative experiences and varied modes of learning. It provides us the ability to learn to speak to things culturally relevant and to see ourselves and our experiences reflected back in them.” – Shanta Lawson, Education Director, The Studio Museum in Harlem

“Though the arts have been cut out of schools and the new federal budget suggests the same, the arts can do what the core subjects cannot. The arts can connect people with themselves and others in deep ways, which is especially important now.” – Wendy Woon, The Edward John Noble Foundation Deputy Director for Education, MoMA

Above all else, museum education departments in the twenty-first century are devoted to their communities. For most of the educators I spoke with, this focus on connection with the community is at the heart of their work and has been for the past ten years, when many museum education departments set an intention to reevaluate their specific communities’ needs and thereafter tailor their programs to meet those needs. Evolving alongside their communities, museum education departments are committed to being relevant, and of value.

III. A Review of the Financial Constraints on Museums

The Introduction of Restricted Giving

Since their inception, museums have had their roots in the resources, both in terms of art and money, of wealthy individuals. While museums began to seek diversified funding portfolios in the nineteenth and twentieth centuries, it became necessary that they balance the interests of

wealthy patrons with those of government agencies, foundations, and corporations. As I demonstrate later in my quantitative analysis, at the turn of the twenty-first century, museums began to lose the unrestricted financial support they had grown accustomed to from their donors, who had grown skeptical of self-interested museum managers and frustrated with the lack of growth from their grant-funded programs year after year. As a result of their skepticism and frustration, art museum donors increasingly began to place restrictions on their donations.

Originally created as a means of preventing staff from indulging in excessive compensation or benefits at the cost of the collection, restricted gifts have become the industry's most important source of permanent capital. Donors recognize restricting their gifts as a way of attaining greater involvement in the governance of museums and being promised tangible results. In fact, in 2012, Li et al (p.112) found that since donors have been allowed to place restrictions on the use of their gifts, not-for-profit organizations have seen an increase in new donations.

By allowing donors the option to place restrictions on their gifts, museums find themselves balancing three types of assets – those that are unrestricted, those that are temporarily restricted, and those that are permanently restricted. Museums often favor unrestricted net assets because they allow for management flexibility in deciding how to spend resources. Not surprisingly, unrestricted net assets consist of assets that are not subject to restrictions by donors. They include unrealized gains in endowment funds not subject to restrictions and unrestricted funds generated during the year that are set aside by the board of trustees into quasi-endowment funds. On the other hand, net assets that are restricted to specific uses either temporarily or permanently place constraints on museums. Net assets that are temporarily restricted provisionally restrain a museum from using them until a donor's stipulations are met. Those net assets that are

permanently restricted have a “corpus [that must] be maintained indefinitely by the institution” (Mensah and Werner 2003 p.295).

Does Restricted Giving Help or Hurt Not-for-Profit Institutions?

Although Yermack (2017 p.217) demonstrates that temporarily and permanently restricted donations offer stability, affect a higher rate of savings, and encourage additional giving, he also recognizes that they also consequently constrain operating flexibility. On the one hand, critics of restricted giving believe not-for-profits lose flexibility when dependent primarily on restricted donations. Critics cite Yermack (2017 p.217) as evidence of restricted donations indicating a loss in operating flexibility as Yermack finds that although museums with great amounts of restricted donor capital exhibit stability in year-to-year operating margins, those margins are so low that museums must limit their operations to fit their tight budgets. Art museum managers, especially, remain resistant to restricted donations; the Association of Art Museum Directors (AAMD), an organization representing the most culturally significant art institutions in the US, actually states that “gifts and bequests [of all member institutions] should be unrestricted whenever possible” (Yermack 2017 p.217). On the other hand, proponents of restricted giving believe that not-for-profits do not misuse funds when dependent primarily on restricted donations. Proponents cite Mensah and Werner (2003 p.319-320) as evidence that cost-efficiency declines with an increase in unrestricted net assets for not-for-profit universities. Proponents also highlight that when donors begin to demand better disclosure through the use of restricted donations, financial reporting improves, according to Yetman and Yetman (2012 p.1059). At the core of their research, Yetman and Yetman (2012 p.1062-3) find that donors not only discount not-for-profits’ reported program ratios when considering how much to donate, but also require better financial reporting. Demanding more accurate financial reporting, especially, helps donors prevent the

misreporting tendencies of not-for-profits. Ultimately, though museums continue to complain about restrictions, as they infringe upon their freedom to prioritize expenses as they wish, I argue that restrictions encourage donors to be more informed and engaged with the museums that they champion.

For most of their already bumpy history, museums clung to the ideal that they were entitled to choose what types of cultural exposures beyond everyday experiences they wanted to provide to a wide public. Because donors have begun to gain control over how museums allocate their budgets and thus prioritize their activities, museums have needed to revise that basic tenet; in the face of restricted giving that ideal is now subtly changing. As Yermack (2017 p.232) finds, while museums reported receiving increasingly more restricted donations since 1999, their cost structures have shifted. Specifically, he finds that museums with greater restricted assets seem to be required to spend more on programming and less on administration than their counterparts (Yermack 2017 p.232). While Yermack (2017 p.232) does not find that temporarily restricted assets have a statistically significant impact on a museum's cost structure, he does find that permanently restricted assets have a large, statistically significant impact. Explicitly he finds that a 1 percentage point increase in total assets that are permanently restricted is associated with a decrease of 9.1 percentage points in the amount of total expenses directed toward administration but an increase of 8.5 percentage points in the amount directed toward program services. This suggests that donors are significantly limiting the misuse of funds by administration and encouraging museums to focus on expanding program services through their permanently restricted gifts.

How Museums Compensate for Scarce Unrestricted Support

Coupled with the entrance of debt following recent economic crises and museum expansions, the increase in restricted donations industry-wide has left museums with less financial flexibility and operating discretion. Typically funded by a combination of four sources – donations and other gifts, revenue from admissions, revenue from related businesses like museum gift shops and cafes, and endowment earnings – museums find that two of their primary revenue streams, which include revenues from attendance and charitable donations, are discretionary expenses for museum patrons. Because revenues from attendance are limited, museums' art exhibits are in many ways public goods, and the competitive market price of museum attendance is close to zero, museums are heavily reliant on discretionary revenues from charitable donations (Temin 1991 p.180). As Coslor (2016 p.4) finds, such discretionary expenses are subject to economic volatility. While revenues can increase in good economic times, the reverse is true during times of economic downturn. When there is economic downturn, not only do donations fall dramatically as wealthy patrons give less, but also there is a negative multiplier effect for the local economy, in which one dollar less spent at a museum results in less direct and indirect spending in the local economy. Even the fact that museum attendance, which varies counter-cyclically with the business cycle as the positive substitution effect outweighs the income effect on demand, cannot totally offset the decrease in museum revenue, as found by Skinner et al. (2009 p.503, 507-8).

To counteract the negative multiplier effect prompted by low donation levels, museums have tried to reduce some expenses and subsidize some operations by expanding for-profit affiliated operations like cafes and shops. In addition to purchasing less artwork and cutting back on staff, many museums, especially large ones, have also tried to turn to their endowments when

donations are low. Though Coslor (2016 p.5) claims that a museum's financial sustainability continues in large part thanks to the investment strategy of the endowment, with the decline in unrestricted assets, general operating expenses cannot always be covered by restricted endowment earnings, which tend to be meant only for specific activities. To add to that impediment, all endowment earnings are also vulnerable to stock market fluctuations because most endowments are invested in a combination of bonds, stocks, and index funds. For instance, despite having the highest endowment of all US museums, the Los Angeles Getty Museum saw its portfolio drop by 25% following the economic recession in 2008 (Coslor 2016 p.6).

When expanding for-profit operations, reducing expenses, and pulling from the endowment is not enough, some museums decide to deaccession art in their collections. Museums that treat their art as an asset in this way are often presented with challenges such as uncertain returns and public concerns about whether artwork should be reduced to a financial asset.⁴ For those reasons, deaccessioning to cover operating expenses is strongly prohibited in most museum's and museum associations' codes of ethics. In fact, prestigious organizations like the AAMD mandate that their member museums do not deaccession works of art to cover their operating expenses; to the AAMD, works of art in a museum's collection should be counted as fixed, or constant, in terms of a museum's assets. The AAMD's philosophy on deaccessioning has been challenged on a case-by-case basis. The Berkshire Museum's warranted sale of art to address the Museum's financial crisis is one recent example of a deaccessioning scandal hotly debated and intriguing to museum professionals (Moynihan 2017; "Summary..." 2018). Generally museums do refrain

⁴ Art is not considered a source of revenue in any museum's income statement, however it is a form of investment. In this way, when art is deaccessioned the separation between operations and investments becomes blurred.

from treating art as a financial asset to retain stakeholder trust and thereby attract more donations, as noted by Coslor (2016 p.1).⁵

Despite these efforts to expand museums' funding bases and counter "donation risk," as not-for-profits, museums remain faced with the reality that the majority of their revenue is and will always be obtained through charitable donations. Being discretionary in their nature, charitable donations cannot be raised simply by spending more on fundraising, as Weisbrod (1986 p.95) and Okten (2000 p.266-7) highlight. Okten (2000) even suggests that, based on his research, the marginal return to fundraising for individual not-for-profit organizations is exceeded by the marginal cost across all seven not-for-profit industries – higher education, hospitals, museums, scientific research organizations, libraries, organizations providing services to the handicapped, and those providing services to the poor (2000 p.265-6). Because museums do not have control over when, how, or even whether they receive charitable donations, they have tried to entice donors to give by seeking as many restricted donations as possible.⁶ Clearly, for museums to continue to thrive today and in the future they must focus on how they can best serve their donors and their donors' interests, or in other words "the museum is [now] *for* somebody rather than *about* something" (Weil 2002 p.43).

The Impact of Philanthropic Interests

Because the interests of the philanthropic community that supports museums can change over time, museums are even more financially vulnerable. At different times, museums have benefited and suffered from the reactive nature of philanthropic giving. For example, according to

⁵ For the sake of this investigation, I will assume all museums in my sample (who belong to AAMD) avoid deaccessioning.

⁶ In Okten (2000), restricted government grants did not seem to crowd out private donations (2000 p.265-6).

statistical evidence from the Baltimore Museum of Art, the “arts and culture museums may be in trouble” now more than ever before, as evidenced by the sharp decline in investment in cultural institutions and museum attendance nationwide (Rodney 2018). Moreover, during periods of political tension, the philanthropic community may focus its charitable giving to causes that promote certain political ideologies; charitable giving to the arts understandably would then fall to the wayside.⁷ At other times, though, the philanthropic community may prioritize the arts. For example, at least some philanthropic concern for the future of arts education continues to exist in the twenty-first century, as evidenced by the founding of Young Audiences, a non-profit organization with branches in New York City, Connecticut, New Jersey, and Eastern Pennsylvania dedicated to providing youth with powerful experiences in the arts (Scutari 2014).

Wishing to have an observable impact on the lives of society’s most disadvantaged, and recognizing like Temin (1991 p.180) that education in the arts has great externality effects, many individuals and foundations within the philanthropic community have demonstrated an interest in funding art museum educational programs. In fact, after individual philanthropists like Agnes Gund began funneling much money to the arts in response to the 1970s public cuts to arts education in schools, many museums were able to create entire museum education departments. Recognized as one of the primary faces of arts education advocacy, Agnes Gund, has inspired countless individuals, institutions, and corporations to target their charitable gifts toward

⁷ Counter to this engrained tendency, the Director of the Center for the Future of Museums, Elizabeth Merritt, argues that “‘museums help create society’...[they are] space[s] where we as citizens of a community come together to extend and deepen our knowledge and capacities,” and as such museums should continue to be supported even in times of demanding political attention (Rodney 2018).

educational opportunities in the arts since founding Studio in a School.⁸ In the same spirit, exactly forty years later, the Windgate Foundation established the Windgate Educational Excellence Through the Arts Endowed Fund at the Crystal Bridges Museum of American Art with the goal of inspiring “quality education, arts access, learning readiness, and workforce skills with an emphasis on underrepresented and lower socioeconomic youth” (Scutari 2017). Art museum educational programs are especially well structured for restricted giving from government agencies, foundations, corporations, and individuals because they must be planned, executed, and evaluated to demonstrate programmatic success. Despite the philanthropic support that museum education departments have received, museum education departments still exist conditional on philanthropic support according to museum educators interviewed as part of my qualitative research in January 2018.

As political tension again arises and new interests in technology and social justice emerge amongst philanthropists in the twenty-first century, it is imperative that research is conducted to understand whether the philanthropic community values arts education. Through close analysis of trends in restricted giving, I investigate whether restricted donations affect museum educational programming. This analysis is the first of its kind to offer quantitative evidence of the degree to which arts education continues to be valued by museums and the philanthropic community.

IV. Theoretical Underpinnings

By restricting their donations to support only certain programs or activities, donors have tried to prevent museums from spending their donations on activities that the donors did not specify.

⁸ Gund’s Studio in a School has brought the arts to life in New York City since 1977 by serving more than 800,000 New York City school children and demonstrating the power and importance of arts education (Sheets 2013).

Because museums and donors may prioritize activities differently, without restrictions on donations, museums may spend the donation revenue in their own interests and donors may observe a lack of growth in the grant-funded programs year after year and may be skeptical that funds are being misused by administration. When restrictions are placed on donations, museums are expected to prioritize the activities indicated by their donors. To cultivate additional restricted sources of funding, museums must focus on pleasing their donors and presenting measurable and observable impacts of donor-funded programs and activities on society. In this way, restricted donations can be understood as mechanisms through which donors (the principals) can exert greater control over the governance of a museum (the agent) by incentivizing specific behaviors.

In donating to museums, charitable donors feel rewarded by their donations, especially when their agents prioritize the activities that they value. All donors gain utility not only from consuming their own private goods but also from knowing that the museums they champion are providing the services that they value. When museums offer services to their communities that donors believe are important, donor utility increases and donors feel compelled to donate more. By placing a temporary or permanent restriction on their gift and demanding program evaluations to ensure certain services are provided by the museum they champion, a donor can guarantee himself or herself utility. Specifically through evaluation, a donor's marginal cost of contributing decreases because the restriction on the donation is able to control for agent divergence, which echoes the key finding in Hölmstrom (1979 p.74) that casual observation of agent actions by donors can help to address the problem of moral hazard inherent in the principal-agent relationship. Implicitly, this means that when donors are able to guarantee that museums prioritize the activities they value, their payoff from donating (p_{a_i}), which is the

difference between the value added by the museum (y) and the donation they made (d_i), increases.

$$p_{d_i} = y - d_i \quad (1)$$

For museums, the restricted donation contract requires them to exert greater efforts to continue receiving philanthropic support. With donors hesitant to donate unrestricted funds, museums have found themselves forced to generate more restricted donations. To remain competitive institutions, museums have had to undertake any and all measures to at least maintain the total amount of donations they receive ($\sum_{i=1}^{n_1+n_2}(d_i)$); as the amount of unrestricted donations ($\sum_{i=1}^{n_1}(d_{u_i})$) has fallen, museums have had to focus their efforts to attract more temporarily and permanently restricted donations ($\sum_{i=1}^{n_2}(d_{t_i} + d_{p_i})$). Without unrestricted donations, the total amount of donations that museums receive ($\sum_{i=1}^{n_1+n_2}(d_i)$) mirrors trends in restricted giving ($\sum_{i=1}^{n_2}(d_{t_i} + d_{p_i})$). In this way, to retain restricted support, museums have had to adjust their activities and cost structures to match the interests of their donors.

$$\sum_{i=1}^{n_1+n_2}(d_i) = \sum_{i=1}^{n_1}(d_{u_i}) + \sum_{i=1}^{n_2}(d_{t_i} + d_{p_i}) \quad (2)$$

In trying to attract more restricted donations, museums have tried to engineer ways of balancing their own desires with those of their donors. After soliciting contributions from ($n_1 + n_2$) donors, who, for simplicity, have homogeneous preferences and gain utility from museums providing their public services to society, museums are expected to spend all of their received contributions on providing the public services that their donors value.⁹ For each donation (d_i), a museum must spend a given amount on providing the public services that each

⁹ I assume museum managers do not steal or misuse their received funds.

donor values. The given amount that a museum must spend is determined by a cost function ($c_i(a)$), which accounts for the opportunity costs that the museum incurs when acting in ways favorable to their donors. Because the modern museum is dependent on restricted donations, it does not have the luxury to spend restricted donations freely to cover the costs of activities other than those outlined in the restriction contract, even if those other activities are more important to museum staff. In this way, the payoff to a museum from an individual donation (p_{m_i}), which is equal to the difference between the donation received (d_i) and the cost of the behavior and subsequent actions taken ($c_i(a)$), is often less than the actual donation amount and could even be negative. When trying to maximize their ability to spend their resources on activities that they value (which may differ from the activities that their donors value in some cases), museums want to maintain some payoff (p_{m_i}), which means they must ensure that $c_i(a) < d_i$.

$$p_{m_i} = d_i - c_i(a) \tag{3}$$

In the presence of restricted donations, the difference between aggregate contributions and the amount a museum spends on providing the public services that their donors value shrinks. As a result, donors, knowing that for a given donation amount, d_i , the likelihood of their interests being adopted by the museums they champion increases, are more encouraged to donate. Museums benefit from greater aggregate contributions but must accept that they must prioritize their donors' interests to a greater degree in the presence of restricted donations. Less able to spend their resources freely without donor input, museums incur reduced payoffs in the presence of restricted donations, but the provision of public services valuable to the philanthropic community reaches a more welfare-maximizing level, at least according to the philanthropic community.

Ultimately the recent innovation by donors to place restrictions on how their gifts can be used by museums has had a significant effect on both donor and museum behavior. Donors have benefitted from being assured that museums prioritize the activities that they value while museums have needed to commit to putting their donors' interests first. Should donors value arts education in the twenty-first century, I expect that restricted donations will increase museum education department budgets. As long as museums also value arts education, both the donors and the museums that they champion should maintain positive payoffs from restricted donations. Using a robust panel data, I analyze whether restricted donations improve museum education department performance indicators. In the sections that follow I test whether restricted giving increases museum education department budgets and whether museum education departments serve more students as a result.

V. Data

To analyze the affect of restricted donations on museum education department performance indicators, I collect data from two sources: annual survey responses collected by the Association of Art Museum Directors (AAMD) and financial information from museums' annual Form 990s filed with the Internal Revenue Service (IRS). Of the 242 member institutions of the AAMD, which represent the most culturally significant art museums in the US, only 129 also file complete Form 990s with the IRS as private, independent not-for-profit US art museums. Those 129 museums comprise my sample.¹⁰

¹⁰ Because my sample looks at just private, independent not-for-profit US art museums part of the AAMD there is selection bias. Only museums that have an educational mission with regularly scheduled programs and exhibitions, and a professional staff and board are eligible for AAMD membership.

The inclusion of museum characteristics detailed in AAMD survey responses allows me to investigate trends in internal museum activities and makes my research the first empirical study to use AAMD data. I gather responses to the AAMD survey from the years in which the survey was successfully administered and results were organized: 2003-2006, 2008, and 2013-2016. The AAMD survey questions that I am concerned with include details regarding a museum's board, staff, acquisitions, exhibitions, public and educational programs, and expenses, among other specific topics. Because data fields changed slightly in different years, specific fields lack observations. Table 1 (column 1) presents key summary statistics of the type of museums that responded to the AAMD's annual surveys. The data indicate that the average US art museum has seen 292,146 visitors each year since 2003. On average, US art museums purchase roughly 169 pieces of art each year, or \$2.3 million in art assets. The museums that responded to the AAMD's annual surveys offered a wide variety of 561 public programs annually since 2003, on average. Since 2003, AAMD member institutions on average have served 332 schools, including 570 school groups and 112 school districts each year.

Subtle differences seem to arise between museums in my sample and other AAMD member institutions. Roughly 26% of all AAMD respondents declared some sort of affiliation with a college or university and 15% mentioned having an art school component to their institution. While the majority of all respondents did not belong to a larger, parent organization, 18% belonged to a college or university, 11% belonged to the government, and 6% belonged to some other non-museum not-for-profit organization. Of the 129 museums in my sample (Table 2 column 2), only 1% belonged to a government entity and 3% to another non-museum not-for-profit organization. The museums in my sample disclosed no affiliations with colleges or universities on average (Table 1, column 2) and only 7.66% indicated having some sort of art

school component to their institution since 2003. The AAMD member institutions excluded from my sample did not similarly file tax documents independently with the IRS. Over 51% of those institutions divulged an affiliation with a college or university (Table 1, column 3) and over 22% affirmed having an art school component. Furthermore, those member institutions not included in my sample were much more likely to belong to a college or university, a government entity, or another non-museum not-for-profit organization (Table 2, column 3), which would explain why they have not filed tax documents independently with the IRS.

Table 1

	1		2		3	
	All AAMD Members		My Sample		Those Excluded from My Sample	
	Mean	N	Mean	N	Mean	N
Total Operating Budget (in millions of USD)	15.4	650	19.9	325	10.9	325
Total Operating Expenses (in millions of USD)	15.0	1530	20.0	732	10.5	798
Total Endowment Income (in millions of USD)	3.60	1335	4.71	680	2.44	655
Staff Expenses (in millions of USD)	7.26	1515	9.79	730	4.92	785
Art Acquisitions by Donation (in millions of USD)	5.12	1077	4.45	517	5.74	560
Art Acquisitions Purchased (in millions of USD)	2.33	1304	2.66	642	2.00	662
Art Acquisitions by Bequest (#)	371	1339	301	652	437	687
Art Acquisitions Purchased (#)	169	1314	147	639	190	675
Public Programs	561	810	638	412	480	398
School Groups Served	570	830	642	418	498	412
School Districts Served	112	756	188	382	35	374
Total K-12 Schools Served	332	404	486	203	176	201
Total K-12 Students Served	16589	955	21245	482	11845	473
Total Education Space (square feet)	14946	471	18230	221	12043	250
Total Reported Attendance	292146	1524	366385	734	223169	790
College/University Affiliated	0.2599	654	0.0031	325	0.5137	329
Art School Component	0.1485	855	0.0766	431	0.2217	424

Table 1 shows descriptive statistics of a sample of US art museums between 2003 and 2016. Column 1 summarizes observations for all AAMD member museums. Column 2 summarizes observations for 129 of the AAMD member museums that are private and independently run and that comprise my sample. Column 3 summarizes observations for the AAMD member museums not private or independently run. Key museum characteristics related to museum educational programming, acquisitions of art, and basic financial indicators are highlighted. This data was obtained, as available, from the AAMD's annual survey reports since 2003.

Table 2

	1	2	3
	All AAMD Members	My Sample	Those Excluded from My Sample
None	0.62	0.91	0.32
College/University	0.18	0.00	0.36
Government Entity	0.11	0.01	0.20
Other non-museum nonprofit organization	0.06	0.03	0.08
Other	0.04	0.04	0.04

Table 2 presents a breakdown of the type of parent organizations of AAMD member museums between 2003 and 2016. The values are presented as decimals. Column 1 summarizes observations for all AAMD member museums. Column 2 summarizes observations for the 129 of the AAMD member museums that are private and independently run and that comprise my sample. Column 3 summarizes observations for the AAMD member museums not part of my sample. This data was obtained, as available, from the AAMD's annual survey reports since 2003.

The behavior of the museums belonging to my sample appears to deviate from the behavior of those that are more likely to report to larger, parent organizations. As evidenced in Table 3 (column 1), all AAMD respondents have dedicated 25.48% of their total operating expenses to administration, 14.97% to curatorial projects, 12.58% to collections care and management, 9.86% to development work, 7.25% to education, 5.83% to benefit events, 4.88% to membership, and 2.98% to other on average since 2003. For those museums that also file tax documents independently with the IRS, reporting higher dedication amounts to all museum departments is common (Table 3, column 2). In fact, despite their higher mean total operating budgets and total operating expenses (Table 1, Column 2), the sum of the average dedication proportions to administration, curatorial, collections care and management, development, education, benefit events, and membership departments suggests that my sample of museums may double-count reported expenses on an annual basis. Conversely, the member institutions not included in my sample report lower dedication proportions than those included in the sub-sample in nearly every museum department (Table 3, column 3).

Table 3

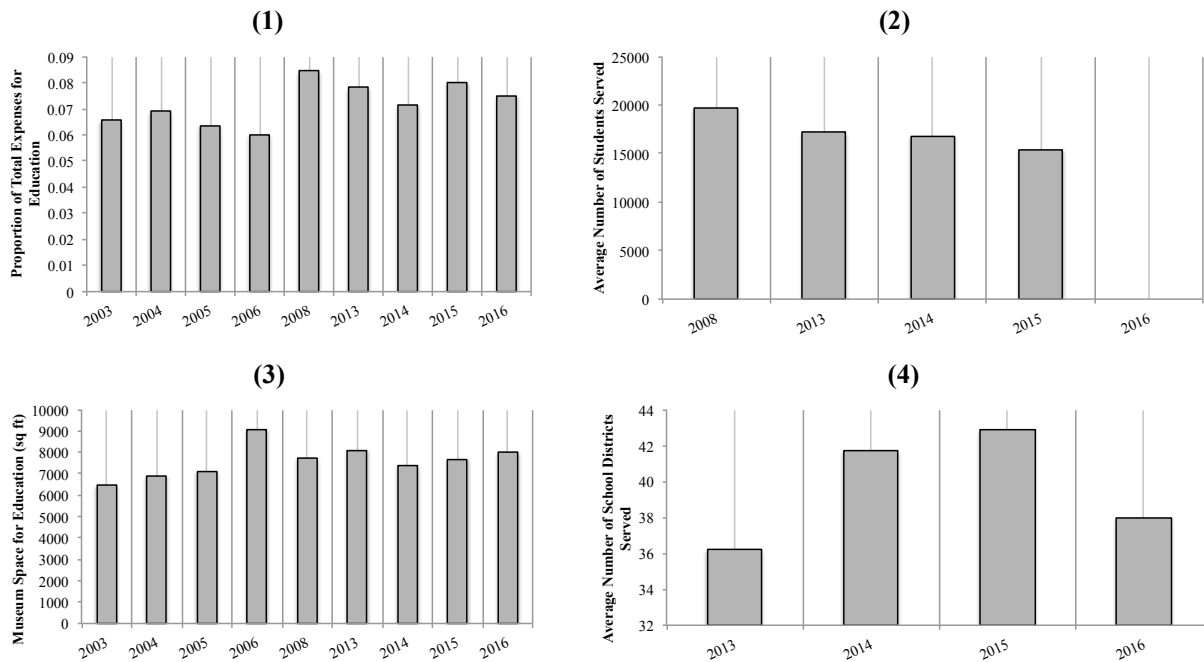
	1		2		3	
	All AAMD Members		My Sample		Those Excluded from My Sample	
	Mean	N	Mean	N	Mean	N
Administration	0.2548	1509	0.3301	731	0.1841	778
Curatorial	0.1497	1468	0.1919	713	0.1099	755
Collections Care and Management	0.1258	1432	0.1789	694	0.0759	738
Development	0.0986	1431	0.1420	722	0.0544	709
Education	0.0725	1499	0.0719	727	0.0730	772
Benefit Events	0.0583	1041	0.0799	596	0.0294	445
Membership	0.0488	1282	0.0742	652	0.0225	630
Other	0.0298	853	-0.2848	502	0.4798	351

Table 3 shows the mean proportion of departmental expenses relative to total expenses for AAMD member museums between 2003 and 2016. Column 1 summarizes observations for all AAMD member museums. Column 2 summarizes observations for 129 of the AAMD member museums that are private and independently run. Column 3 summarizes observations for the AAMD member museums not private or independently run. This data was obtained, as available, from the AAMD's annual survey reports since 2003.

I hypothesize that the museums included in my sample tend to have higher operating budgets, expenses, and revenues than their peer institutions within the AAMD because my sample includes nearly every well-known independent museum in the US such as the Art Institute of Chicago, the Museum of Fine Arts in Boston, and the Metropolitan Museum of Art in New York, as they tend to file their tax documents independently with the IRS. In other words, my sample generally characterizes the superstar museums of the US. Despite being comprised of superstars that are unaffiliated with higher education institutions, the museums included in my sample appear to value educational programming slightly more than their peers within the AAMD (Table 1, Column 2).

As evidenced by Figures 1-4, museum education department performance for the museums in my sample has not changed linearly over time, which suggests that other factors besides time influence museum education department performance. All of this will be important to keep in mind in when analyzing how donor restrictions influence museum education department performance indicators, which include the proportion of total expenses dedicated to education, the number of students served by educational programs, the number of school districts served by educational programs, and the amount of museum space reserved for education.

Figures 1-4



Figures 1-4 show the change in average museum education department performance over time for 129 museums. Museum education department performance indicators include: the proportion of total expenses dedicated to education, the number of students served by educational programs, the number of school districts served by educational programs, and the amount of museum space reserved for education. All data have been obtained from the museums' AAMD survey responses. Missing values indicate years not surveyed.

To understand how restricted donations affect museum activities and museum education department performance, I collect financial data from the Form 990s for the 129 museums in my sample from the Guidestar.org database. I gather annual financial observations since 1999, as possible, and ultimately collect 2,244 museum-year observations for the sample overall. The missing values in this dataset are the result of museums failing to complete all required fields in the Form 990. Table 4 presents summary statistics for basic financial information for the museums in my sample. Museums in my sample appear to balance their budgets on average; the mean value of total revenue, 27.1 million dollars, exceeds the mean value of total expenses, 20.7 million dollars. The data also indicate that museums are largely financed by contributions and grants. In fact, on average the museums in my sample receive nearly 62% of their annual revenue

from donations while they receive only 12% from fees paid by museum visitors and participants in program services.¹¹ This dependence on contributions and grants is not a shared characteristic across the entire not-for-profit sector, however; in 2012, for instance, only 21% of not-for-profit revenue resulted from donations while 72% came from program services (“Quick Facts About Not-for-profits”). Beyond depending on contributions and grants, the 129 museums in my sample rely heavily on *restricted* donations: 26% of their total assets are permanently restricted and 21% are temporarily restricted, on average. The fact that admissions and fees collected from program services provided minimal income for the museums in my sample echoes the sentiment expressed by the AAMD Director, Christine Anagnos, in a 2015 interview when she stated “art museums are very much committed to providing services that go well beyond the actual price of admission, so it’s important for museums to have ... diverse sources of revenue” (Boehm 2015). The diverse sources of revenue that she references include private donations and government support.

¹¹ This would be even greater if the fair market value of donations of artwork was included instead of the acquisition cost, but because such information is not reported in museum Form 990 filings, this relationship is left understated.

Table 4

	Mean	Std. Dev.	Min	Max	N
Total Assets	161	357	0	4000	2174
Total Liabilities	25.2	73.9	0	719	2174
Program Services Revenue	3.9	13.7	0	214	2174
Total Revenue	27.1	58.9	0	763	2174
Fundraising Expenses	1.1	1.8	0	14.7	2174
General Operating Expenses	2.8	5.8	0	58.5	2174
Program Services Expenses	13.1	34.3	0	437	2174
Total Expenses	20.7	43.9	0	500	2174
Leverage	0.1193	0.1553	0	0.99	2158
Program Services Revenue/Total Revenue	0.1166	0.1203	0	0.889	2167
Donation Revenue/Total Revenue	0.6159	0.2302	0	1	1926
Temporarily Restricted Assets/Total Assets	0.2088	0.1936	0	0.9860	2162
Permanently Restricted Assets/Total Assets	0.2609	0.2177	0	0.9350	2166
Fixed Assets/Total Assets	0.3039	0.2226	0	0.9960	2166

Table 4 presents descriptive statistics of important financial indicators for a sample of 129 private, independent not-for-profit US art museums between 1999 and 2016. Leverage equals total liabilities over total assets. All dollar values are recorded in millions of US dollars and all balance sheet data was recorded at the start of each year.

During the 1999-2016 period, though total museum revenue rose modestly at a rate of 2.5% per year, the growth rates of nearly every major revenue stream for the museums in my sample exhibited unpredictable fluctuations annually. To compensate for the uncertain growth rates of their revenue sources, revealed by the high standard deviations of 49.91, 81.55, and 64.98 in Table 5, many museums have tried to secure more restricted assets from donors through temporarily and permanently restricted donations. Also presented in Table 5, because no two museum revenue sources appear highly correlated (each correlation factor is positive but less than 0.5), there is only a slight risk that the poor performance of one revenue stream might be correlated with the poor performance of another revenue stream. As presented in Table 6, however, museum *spending* channels do appear highly correlated. Total expenses are most highly correlated with spending on program services, having a correlation factor of 0.9009. The high correlation factors between all spending channels suggests that when a museum spends

more on its fundraising efforts, for example, it also spends more on all other dimensions and departments.

Table 5

	Obs.	Mean Growth Rate (%)	SD (%)	Correlation with	
				Revenue from program services	Revenue from educational programs
Revenue from program services	1959	4.1616	49.9141		
Revenue from educational programs	261	-2.0120	81.5474	0.4963	
Cash Donations and Grants	1962	4.0469	64.9794	0.3180	0.4999
Total Revenue	2019	2.4962	59.9026		

Table 5 presents annual growth rates (compounded continuously to address concerns of outliers) and correlations among different museum revenue sources for 129 museums. Revenue from program services includes admission charges, memberships, and related costs while revenues from other museum activities come from parking, restaurants, and gift shop purchases. Data have been collected from the museums' IRS Form 990 filings recorded at the beginning of the year and museum responses to annual AAMD surveys.

Table 6

	Correlation with			
	Fundraising Expenses	General Operating Expenses	Program Services Expenses	Total Expenses
Fundraising Expenses	1.0000			
General Operating Expenses	0.8891	1.0000		
Program Services Expenses	0.8400	0.8824	1.0000	
Total Expenses	0.7654	0.8180	0.9009	1.0000

Table 6 presents correlation factors between different museum spending channels for 129 museums. Data have been collected from museum responses to annual AAMD surveys.

VI. Qualitative Approach and Evidence

To complement my quantitative study, over the course of three weeks in January 2018, I spoke with ten museum staff members working at nine of the museums in my sample. All ten museum staff members worked for museums in the Northeast. Each had volunteered their time to share their perspective of the evolution of museum education as it relates to the practice of

restricted giving with me. Because I was limited in travel capability and amount of responses from museum staff members who received my original inquiry email, my January sample of museum staff members is not necessarily representative of all museum staff members included in my sample. Regardless, many of the museum staff members that I interviewed also shared their experiences at other museums across the country with me. I led each informational interview a series of questions detailed in the appendix.

Not only did every museum staff member that I interviewed believe that museum education has become a more central part of the basic museum tenet over the past ten years, but they also recognize that restricted giving has affected the programmatic capacities of their museum education departments in many ways, such as through the development of better evaluation tools and the targeting of programs to meet certain community needs. In the twenty-first century, museums are not just learning *places*, but also learning *organizations* themselves in that they continue to learn from the public, the local community, and other agencies as they seek to provide even more enriching educational experiences with the arts. In the following section I highlight some of the most powerful sentiments shared by museum staff about how restricted giving has affected museum education departments' performance.

VII. Research Methods and Empirical Evidence

To test my hypothesis that museum education department performance improves as a result of more total assets being restricted up to a threshold above which baseline administration can be covered, I construct a fixed effects regression model with robust standard errors, using data reported by 129 museums over nine years. I associate changes in (1) museum activities and (2) museum education department performance indicators, with changes in the proportion of total

assets that are restricted. With this specification, my identifying assumption is that, conditional on the included controls, changes in museum spending priorities are driven only by changes in restricted assets. Because I notice a dramatic decline in unrestricted donations since 1999 for the museums that comprise my sample, as demonstrated by Figure 5, I include fiscal year fixed effects in my specification to rule out any sort of time trend explanation for changes in museum activities and museum education department performance indicators.¹² I also include museum fixed effects in my specification to capture inter-museum differences because museums vary immensely in terms of their missions, finances, boards, and relations with their communities and much of that information is not evident in quantitative reporting. By using museum and fiscal year fixed effects I reduce the likelihood of omitted variable bias; to rule out omitted variable bias I compute coefficients both with and without fixed effects and find the coefficients to be stable. I assume there are no unobserved factors that vary across museums such that they might be correlated with changes in my explanatory variables.

There is one major potential concern with my approach in that I cannot observe the nature of the restricted donations. In other words, when donors restrict their charitable gifts to certain museum activities, museums may shift their general operating funds toward other activities they value if restricted gifts crowd out museum spending on the donors' priorities. As a result I cannot determine from my model whether the effect on museum cost structures of a greater proportion of total assets that are restricted reflects donor priorities, museum priorities, or a mix of both.

¹² Figure 5 demonstrates the evolution of how total capital reported on museum balance sheets has been broken down over the 1999-2016 period. The decrease in unrestricted donations confirms the evidence presented in prior literature like Yermack (2017 p.217). This quantitative evidence (coupled with the recent viral twitter conversation speculating that the Met is finally charging an admission fee to make up for the institution's lack of financial flexibility in having over 45% of its endowment restricted to "donor-defined uses" (Bacharach 2018)) suggests that restricted donations are the most important source of permanent capital in the art museum industry now more than ever.

Figure 5

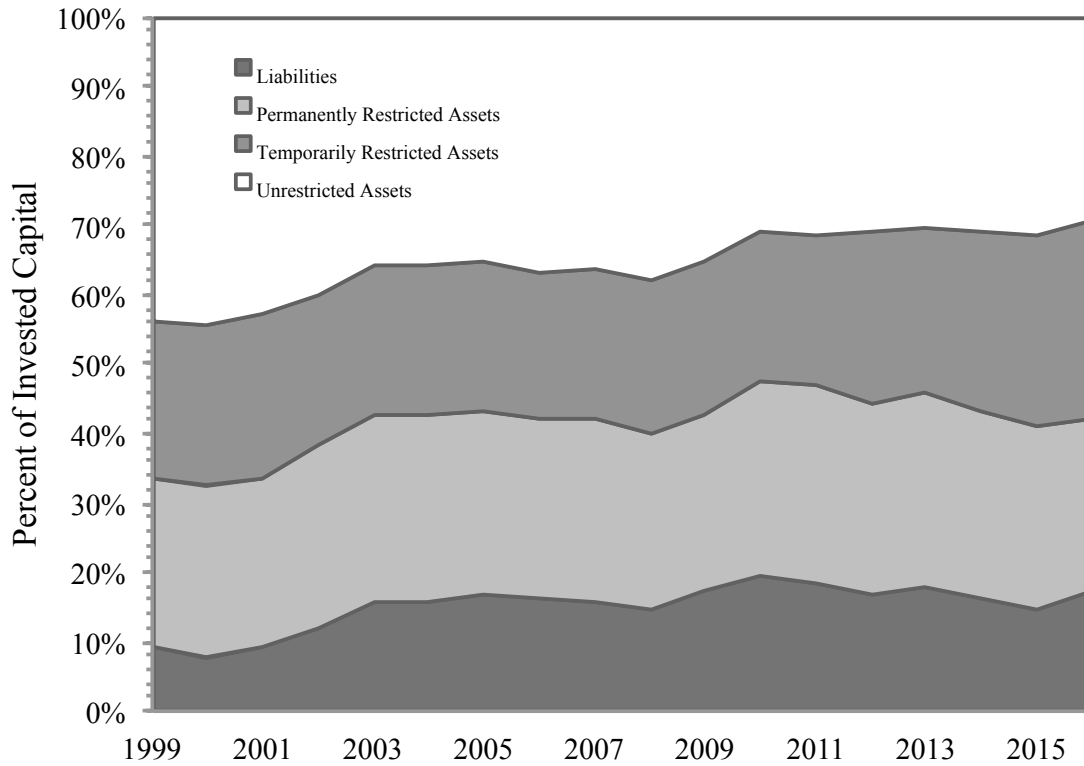


Figure 5 elucidates how the aggregate amount of capital invested by the 129 museums in my sample has changed since 1999. Together, the four categories sum to the museums' total assets. All data have been obtained from the museums' IRS Form 990 filings.

Using my panel data set, I estimate the effect of changes in asset composition on changes three outcomes (y_{it}). My basic model is specified as follows with y_{it} representing the proportion of total expenses dedicated to administration ($AdminProp_{it}$), the proportion of total expenses dedicated to program services ($ProgProp_{it}$), and the proportion of total expenses dedicated to fundraising ($FundProp_{it}$).

$$y_{it} = \beta_0 + \beta_1 temp_{it} + \beta_2 perm_{it} + \beta_3 v_{it} + \alpha_i + \delta_t + \mu_{it} \quad (4)$$

As evidenced in equation 4, I use the same core explanatory variables as Yermack (2017), which include: the proportion of total assets temporarily restricted ($tempp_{it}$), the proportion of total assets permanently restricted ($permp_{it}$), various museum characteristics (comprising: the log of program service revenue as a measure of museum size, the proportion of total assets that are fixed, and leverage) (v_{it}), museum fixed effects (α_i), and fiscal year fixed effects (δ_t). I also add additional explanatory variables to reflect key museum characteristics, including: the total number of board officers and whether or not a museum is dedicated solely to contemporary art, both of which are represented within the vector of museum characteristics (v_{it}) in equation 4. I confirm there is no evidence of multicollinearity among the explanatory variables and I correct for heteroskedasticity by calculating robust standard errors, clustered at the employer identification number (EIN) level.¹³

Using Yermack (2017) as my baseline, I expect that a unit increase in permanently restricted assets as a proportion of total assets ($permp_{it}$) will correspond with an increase in program services expenses as a share of total expenses, all else equal. I anticipate program services will receive proportionately more donor support because their programmatic success can be measured. Administration and fundraising do not lend themselves as well to measurable metrics.

Table 7 shows that my findings echo Yermack's key finding (2017 p.215) that not-for-profit US art museums with greater restrictions tend to adjust their cost structures to bolster their program services. Most clearly, when I replicate Yermack (2017) with additional observations from more recent years, using $ProgProp_{it}$ as my dependent variable (columns (e) and (f)), my coefficient estimates on the proportion of total assets that are restricted permanently share the same signs as those of Yermack (2017) and are statistically significant. This finding confirms my

¹³ Employer Identification Numbers are issued for the purpose of tax administration. I use the EINs to identify the different museums that comprise my sample.

hypothesis that a unit increase in permanently restricted assets as a proportion of total assets corresponds with an increase in program services expenses, all else equal. Specifically, I find that a percentage point increase in permanently restricted assets as a proportion of total assets is associated with a 0.2524 percentage point increase in program services expenses, which is notably higher than the baseline 0.085 percentage point increase found by Yermack (2017). Also evidence of my sample being slightly different than Yermack (2017), when I replicate Yermack (2017) with additional observations from more recent years, using *AdminProp_{it}* as my dependent variable (columns (a) and (b)), my coefficient estimates on the proportion of total assets that are restricted permanently share the same signs as those of Yermack (2017) but they are not statistically significant for my sample period of 1999-2016. When I use *FundProp_{it}* as my dependent variable (columns (i) and (j)), my coefficient estimates on the proportion of total assets that are restricted permanently do not share the same signs as those of Yermack (2017) and are not statistically significant for my sample period of 1999-2016. Even after I limit my observations to those collected between 1999-2013, my results are not identical to Yermack (2017); a difference in data cleaning procedures is likely responsible for the discrepancies.

When I include additional explanatory variables to control for museum characteristics, using *AdminProp_{it}* (column (d)) and *ProgProp_{it}* (column (h)) as my dependent variables, my sample shrinks to observations between 2014-2016, when the AAMD survey asked questions specifically relating to the board size and art focus of a museum. My hypothesis that a unit increase in permanently restricted assets as a proportion of total assets corresponds with a decrease in administrative expenses as a share of total expenses and an increase in program services expenses as a share of total expenses is disproven when my sample period is 2014-2016. When *AdminProp_{it}* (column (d)) is my dependent variable, a percentage point increase in

permanently restricted assets as a proportion of total assets corresponds with a statistically significant 0.242 percentage point increase in administrative expenses as a share of total expenses, *ceteris paribus*. When *ProgProp_{it}* (column (h)) is my dependent variable, a percentage point increase in permanently restricted assets as a proportion of total assets is associated with a statistically significant 0.3581 percentage point decrease in program services expenses as a share of total expenses. When *FundProp_{it}* (columns (k) and (l)) is my dependent variable, a percentage point increase in permanently restricted assets as a proportion of total assets corresponds with an increase in fundraising expenses as a share of total expenses, which is statistically significant at the 10% level with fixed effects (column (l)). I attribute the differences between my coefficient estimates and those of Yermack (2017) when I add the additional explanatory variables to the difference in sample periods. Assuming major financial decisions regarding museums' cost structures may be informed by board members' opinions and museums dedicated to contemporary art are a unique subset of museums, when I analyze how changes in asset composition affect changes in museum spending priorities between 2014-2016, I find that program services were not necessarily a museum or donor priority at that time, which demonstrates that spending priorities do in fact change over time.

Table 7

	Administration/Total Expenses					Program Services/Total Expenses					Fundraising/Total Expenses				
	Yermack (2017)	a	b	c	d	Yermack (2017)	e	f	g	h	Yermack (2017)	i	j	k	l
Temporarily Restricted Assets/Total Assets	-0.026 (0.017)	-0.0023 (0.0273)	0.0125 (0.0344)	-0.0739* (0.0412)	-0.0533 (0.0676)	0.009 (0.018)	0.0169 (0.0510)	0.1330 (0.0872)	0.0298 (0.0662)	-0.0680 (0.1297)	0.005*** (0.002)	0.0374** (0.0156)	0.0339* (0.0190)	0.0474 (0.0534)	0.1212 0.1099
Permanently Restricted Assets/Total Assets	-0.091*** (0.021)	-0.0199 (0.0250)	-0.0223 (0.0361)	0.1214 (0.0871)	0.2420** (0.1079)	0.085*** (0.022)	0.1055*** (0.0393)	0.2524** (0.0967)	-0.1267 (0.0966)	-0.3580** (0.1404)	-0.001 (0.002)	0.0210 (0.0129)	0.0291 (0.0176)	0.0256 (0.0243)	0.1160* (0.0698)
Museum Size (log of program service revenue)	-0.012*** (0.004)	-0.0116*** (0.0030)	-0.0161** (0.0073)	-0.0075* (0.0041)	-0.0041 (0.0069)	0.018*** (0.004)	0.0220*** (0.0033)	0.0051 (0.0153)	0.0165*** (0.0045)	0.0074 (0.0080)	-0.0007* (0.0004)	-0.0065*** (0.0022)	-0.0049 (0.0043)	-0.0086*** (0.0026)	-0.0033 (0.0034)
Fixed Assets/Total Assets	-0.015 (0.018)	0.0641*** (0.0204)	0.0944*** (0.0277)	0.0315 (0.0382)	0.0492 (0.0493)	0.047** (0.019)	0.1764*** (0.0391)	0.4569*** (0.0608)	-0.0638 (0.0482)	-0.0762 (0.0699)	0.005*** (0.002)	0.0479*** (0.0139)	0.0520*** (0.0162)	0.0373* (0.0218)	0.0270 (0.0342)
Leverage	-0.003 (0.020)	-0.0802*** (0.0271)	-0.0845** (0.0347)	0.0322 (0.0411)	0.0998 (0.0867)	-0.001 (0.021)	-0.0471 (0.0477)	-0.1472 (0.0894)	-0.0399 (0.0498)	-0.1052 (0.1174)	-0.001 (0.002)	-0.0174 (0.0130)	-0.0278* (0.0161)	0.0136 (0.0238)	0.0055 (0.0624)
Total Officers				-0.0001 (0.0004)	0.0010 (0.0009)				0.0002 (0.0004)	-0.0012 (0.0011)				-0.0001 (0.0002)	0.0001 (0.0005)
Contemporary				-0.0025 (0.0113)	0.0030 (0.0161)				0.0024 (0.0123)	0.0070 (0.0171)				-0.0006 (0.0068)	-0.0100 (0.0071)
Fixed Effects	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes
R-squared	0.51	0.1051	0.0951	0.0242	0.0006	0.56	0.0810	0.0000	0.1077	0.0000	0.2	0.1469	0.1052	0.1367	0.0017
Number of Observations	1705	2089	2089	261	261	1705	2089	2089	261	261	1705	2089	2089	261	261

Table 7 presents fixed effects regression estimates of the influence of asset size and composition on art museums' cost structures. Data has been obtained from 129 museums' IRS Form 990 filings between 1999 and 2016. Standard errors are in parentheses and significance is denoted: significant at 1% (***), 5% (**), and 10% (*) levels.

Again using my panel data set, I estimate the effect of changes in asset composition on changes three outcomes (y_{it}). My basic model is specified as follows, with y_{it} representing the proportion of total expenses dedicated to education departments ($eduexp_{it}$), the number of students served by museum educational programs ($students_{it}$), the number of school districts served by museum educational programs ($schooldistricts_{it}$), and how much museum space is dedicated to educational purposes ($eduspace_{it}$).

$$y_{it} = \beta_0 + \beta_1 temp_{it} + \beta_2 perm_{it} + \beta_3 v_{it} + \alpha_i + \delta_t + \mu_{it} \quad (5)$$

As evidenced in equation 5, I again use the same core explanatory variables as Yermack (2017), which include: the proportion of total assets temporarily restricted ($temp_{it}$), the proportion of total assets permanently restricted ($perm_{it}$), various museum characteristics (comprising: the log of program service revenue as a measure of museum size, the proportion of total assets that are fixed, and leverage) (v_{it}), museum fixed effects (α_i), and fiscal year fixed effects (δ_t). I add an additional explanatory variable to reflect how much revenue is collected from educational programming offerings because I believe the amount of revenue museums receive from educational programs informs, to some degree, how much they focus on improving and expanding the reach of such programs. This additional explanatory variable is included within the vector of museum characteristics (v_{it}) in equation 5. I again confirm there is no evidence of multicollinearity among the explanatory variables and I use robust standard errors, clustered at the employer identification number (EIN) level.

Based on the perception of the museum staff whom I interviewed that museum education has benefitted from restricted giving over the past ten years, I expect that a unit increase in permanently restricted assets as a proportion of total assets will correspond with an increase in

education expenses as a share of total expenses, all else equal. Similarly I expect that greater restricted assets as a proportion of total assets will prompt museums to be more interested in demonstrating programmatic success to retain and attract donors.¹⁴ To demonstrate such success I expect museum education departments will provide better quality educational programs, though I am unsure whether that means reaching more or fewer students.

Table 8 shows my results. I find that between 1999 and 2016, museums dedicate a larger proportion of their total expenses to educational purposes given greater proportions of total assets being restricted temporarily and permanently on average in columns (c) and (d), where I include the additional explanatory variable. I find that a percentage point increase in temporarily restricted assets as a proportion of total assets corresponds with a statistically significant 0.1584 percentage point increase in education expenses as a share of total expenses, all else equal. A percentage point increase in permanently restricted assets as a proportion of total assets is associated with a statistically significant 0.1876 percentage point increase in education expenses as a share of total expenses. Despite their spending relatively more on education in environments dominated by restricted donations, given a percentage point increase in temporarily restricted assets as a proportion of total assets, museums on average serve 86 school districts fewer through their educational programs, as demonstrated by column (l). Perhaps as a consequence of museums reaching fewer school districts, those museums on average serve fewer students, though not confirmed by statistical significance, as demonstrated by models (e), (f), (g), and (h). When museums face greater proportions of total assets being restricted temporarily and permanently, they also seem to have less museum space dedicated to education, though this is not confirmed by statistical significance, as demonstrated by column (p).

¹⁴ Demonstrating programmatic success is so important because it has an outsize influence: using arts education metrics in grant applications helps to increase the museum budget.

Table 8

	Education Expenses/Total Expenses				Number of Students Served				Number of School Districts Served				Museum-Based Education Space (sq. ft.)			
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
Temporarily Restricted Assets/Total Assets	0.0076 (0.0175)	-0.0159 (0.0321)	0.0950** (0.0386)	0.1584*** (0.0409)	15845.3424 (10676.7661)	12014.6431 (17421.9240)	2883.0669 (7084.3836)	-3781.7798 (6921.0828)	106.5645 (259.0965)	1003.1626 (1253.3029)	-84.3156** (38.9481)	-85.6209** (39.1946)	2394.5797 (2321.0832)	2053.0263 (2362.8142)	1721.8583 (5559.7909)	-25535.0462 (17419.5174)
Permanently Restricted Assets/Total Assets	0.0029 (0.0183)	0.0157 (0.0277)	0.0934** (0.0429)	0.1876*** (0.0558)	-7297.4692 (10539.7977)	-5988.1724 (15522.1166)	-14572.5909 (9180.5463)	-7620.7662 (9204.8079)	934.2896 (900.6955)	1121.8738 (1267.4878)	-97.8572 (68.1301)	-99.9378 (68.3020)	1741.4555 (2655.9319)	31.5902 (4542.9999)	-571.2299 (4427.7645)	-17359.6624 (16958.0975)
Museum Size (log of program service revenue)	-0.0045** (0.0020)	0.0052 (0.0071)	-0.0038 (0.0052)	-0.0064 (0.0065)	5918.6181*** (1279.3758)	-4173.8000 (3683.4080)	3447.3967*** (1311.5176)	701.0181 (1199.7553)	265.8451 (239.7366)	-216.4626 (225.1960)	-10.1496* (5.5958)	-10.3788* (5.6093)	2012.6867*** (650.4264)	665.9291 (830.2381)	2534.9725*** (917.4028)	-644.0815 (1380.8977)
Fixed Assets/Total Assets	-0.0017 (0.0220)	-0.0446 (0.0548)	0.0388 (0.0374)	0.1293** (0.0533)	597.0781 (6012.8298)	18381.9147* (9668.6630)	-25110.3880** (10094.9309)	-14602.7256* (8123.8626)	697.5391 (671.3661)	-67.1738 (280.4474)	-142.2644*** (52.9193)	-143.6382*** (53.1460)	1910.0569 (1895.9050)	6303.5240** (2447.9473)	-2456.2876 (6780.5261)	-37635.0064 (27491.5231)
Leverage	0.0122 (0.0218)	0.0515 (0.0421)	0.0152 (0.0609)	0.0845 (0.1037)	-14164.3196 (17932.4450)	-25310.5112 (32334.9737)	-3510.6729 (11280.0905)	-23093.9795** (11328.4308)	939.4602 (1002.8682)	-1919.8148 (2074.7811)	15.7578 (73.6837)	13.9692 (73.4695)	-2603.2971 (2270.7032)	-3434.1445 (3237.8710)	3788.5817 (7887.3406)	1104.6819 (15989.9928)
Revenue from Education Programs			-0.0000* (0.0000)	-0.0000 (0.0000)			0.0021*** (0.0002)	0.0013*** (0.0001)			0.0000 (0.0000)	0.0000 (0.0000)			-0.0020 (0.0020)	-0.0043*** (0.0012)
Fixed Effects	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
R-squared	0.0357	0.0297	0.0049	0.0004	0.2522	0.1851	0.2522	0.0619	0.0699	0.0364	0.0296	0.0307	0.1762	0.0342	0.0601	0.0530
Number of Observations	643	643	145	145	413	413	143	143	320	320	127	127	640	640	144	144

Table 8 presents fixed effects regression estimates of the influence of asset size and composition on the performance of museum education departments. Data has been obtained from 129 not-for-profit US art museums' IRS Form 990 filings between 1999 and 2016. Standard errors are in parentheses and significance is denoted: significant at 1% (***), 5% (**), and 10% (*) levels.

To understand why museums on average dedicate more of their total expenses to educational purposes but serve less school districts (and thereby students) when faced with greater proportions of total assets being restricted, I reference thoughts shared by museum educators over informational interviews conducted in January, 2018. It is my understanding that, to retain the restricted donations they have grown dependent on, museum education departments have developed impressive evaluation practices to measure the impact of their services and subsequently share that impact with their donors. Shanta Lawson, the Education Director of the Studio Museum in Harlem, recognizes this shift toward greater evaluation as a response to “foundations want[ing] to see the numbers, the impact of their support.” To Lawson this “burden of proof” has become even more substantial over the past ten years. Though private philanthropists may not demand as much evidence of programmatic success as grant-making foundations or government agencies, consulting firms like The Philanthropic Initiative continue to encourage all donors, whether they are foundations, corporations, or individuals, to monitor museum conformance to donor-outlined objectives (“Making a Difference” 2015). For Anne Butler Rice, the Georgette Auerbach Koopman Director of Education at the Wadsworth Atheneum Museum, this focus on evaluation has been a reflection of all “funders becom[ing] more stringent in their requirements.” I postulate that in developing their evaluation practices to demonstrate their programmatic success, museums may choose to narrow their education audiences to those most at need within their communities, though that might also increase associated administrative costs in determining who is most in need.

Evaluation is not only a condition of funding requirements for many museum education departments, but it is also a way through which educators can reflect on how they can best meet

community needs.¹⁵ For Shanta Lawson, the “programs [at The Studio Museum in Harlem] have evolved to continually meet the needs of the community [the Museum] serves,” as evident by the creation of a venue for senior programming about eight years ago in response to a community plea. Lawson adds that, industry-wide “museums are waking up to the reality that to be relevant and get funding they must pay attention” to their communities and try to always increase their accessibility to the public. At MoMA, too, “experimentation and research of people’s interests” has been key to informing programming, according to The Edward John Noble Foundation Deputy Director of Education, Wendy Woon. Optimistically, the Wadsworth Athenaeum Museum’s Anne Butler Rice highlights the Wadsworth’s Community Engagement Initiative of 2009 as great evidence of museums “do[ing] well to respond to community need[s]” already. Butler Rice is cognizant, however, of the fact that museum education departments “have a lot more to do,” which of course reflects the persistent relevancy of museum education.

Despite the positive effects of greater restricted donations, in terms of evaluation and reflection on community needs, I was interested to learn that museum education departments’ dependence on restricted donations worries many staff members. According to Bruno Nouril, the Development Director of The Drawing Center, because educational programs are supported primarily by restricted donations, without those restricted donations they would likely be vulnerable to cuts in unsuccessful general fundraising years. Due to the changing nature of philanthropic interests, this means that educational programs could be replaced by other activities at the whim of museum donors. Lawson echoed this sentiment in recounting how

¹⁵ At a time when museums value creating individualized visitor experiences, museum education departments have been especially tasked with the responsibility of adapting goals to meet the contemporary criteria of visitors “which can include: social interaction (meeting friends for drinks, for example), spiritual sustenance, emotional connection, intellectual challenge, or consumerist indulgence” (Rodney 2016).

incredibly difficult it was to retain financial support from Target to maintain “Target Free Sundays” after the corporation’s interests had shifted to support youth education instead of family access to the arts. For educators like Vas Prabhu, the Education Director of the Farnsworth Art Museum, the reality that philanthropic interests may shift away from arts education is daunting but one necessary of overcoming: “we want longevity so we have to think strategically about how we can continue.” In advocating for the importance of museum education departments, MoMA’s Wendy Woon, reminds us that museum educators are “the experts at bringing together art and people,” even though that “expertise is often overlooked” and donors increasingly demand that their know-how pervades programming. Ultimately contemporary concerns about the uncertain future of arts education advocacy hinge upon one major question – will philanthropic and museum interests in arts education remain strong enough to support museum education departments and their goals of serving an increasingly diverse range of communities? Additional qualitative and quantitative studies will be able to inform art museum staff, donors, and the larger philanthropic community of how philanthropic interests influence, and perhaps even dictate, the priorities of many museums.

VIII. Conclusions

Museums are powerful institutions, “quintessentially hav[ing] the potency to change what people may know or think or feel, to affect what attitudes they may adopt or display, to influence what values they form” (Weil 2002 p.39). In the twenty-first century, though museums continue to play critical roles in society, the philanthropic community that champions those museums is exerting a greater influence over the prioritization of museum activities by placing restrictions on how their donations may be used. Following prior research conducted by Yermack (2017), this

research not only confirms that restricted donations affect museum cost structures, but also indicates that restricted donations help to improve the performance of museum education departments by increasing museum education department budgets and enhancing the *quality* of educational programming.

Ever since the philanthropic efforts to bolster arts education of the 1970s, museums have similarly dedicated themselves to providing society with educational experiences through the arts. The museum education departments that exist today continue to innovate and find ways to best serve their communities and the interests of their donors. As evident by the positive and statistically significant effect of greater permanently restricted gifts on the proportion of total expenses dedicated to educational purposes, an interest in arts education appears to persist in the twenty-first century. Not only do museums dedicate \$18.76 more of total expenses to educational purposes when an additional \$100 of total assets is restricted permanently, but they also appear to focus on providing *quality* over quantity, as evident by the fact that when an additional dollar of total assets is restricted temporarily, museums on average serve fewer school districts through their educational programs.

Though museum education departments at museums are receiving the financial support they need to create quality experiences with the arts to meet their communities' needs in the twenty-first century, the future of arts education advocacy is still largely unknown. Because the nature of restricted donations is not disclosed in public reports, this research cannot quantitatively conclude whether the increase in museum education department budgets when a greater proportion of total assets are permanently restricted is a result of (1) donations being restricted specifically to educational purposes or (2) museums shifting their general operating funds toward

educational programs in response to restricted gifts crowding out museum spending in the donors' areas of priority.

The qualitative feedback that I collected from informational interviews with museum educators across the Northeast suggests that restricted donations seem to be focused primarily toward educational purposes. In fact, according to many museum educators, the goals of their museums' educational programming have been largely dependent on the restricted donations and partnerships with other institutions, schools, corporations, and funders that their museums have cultivated. Most bluntly, Rachel Rosen, the Director of Education at the American Folk Art Museum, even shared that the AFAM's education department simply "couldn't have realized some of their goals without restricted funds." Similarly, not only have museums realized the need to serve their direct communities, but their donors have also focused their philanthropic attention to community needs, with the Target First Saturdays at the Studio Museum in Harlem, which include free admission for all on select Saturdays, paid for by Target, as one poignant example of that. While funders become "more stringent in their requirements," according to Anne Butler Rice, the Georgette Auerbach Koopman Director of Education at the Wadsworth Atheneum Museum, they are able to affect how financial resources are allocated to museum activities.

Ultimately, despite the strong qualitative evidence of donor interests in arts education being responsible for the prioritization of educational programs, future research should consider modeling donor behavior and influence. This will be helpful in understanding to what degree donor interests guide or dominate internal museum interests. Of course, such information will be relevant to many not-for-profit institutions as they anticipate potential changes in philanthropic interests. As important philanthropists begin focusing their attention to concerns like social

justice, not-for-profit institutions may need to reallocate their budgets and reevaluate their missions to align with the budding philanthropic priorities. To continue receiving funding, museum education departments at private, independent not-for-profit US art museums may need to demonstrate their value to society even more.

IX. Acknowledgements

I would like to thank the following museum staff members who so graciously offered their perspectives on the evolution of museum education. Your devotion to making the arts and culture accessible to an ever-widening audience is inspiring.

Margaret Aiken, Linde Family Foundation Coordinator of School and Teacher Programs,
Colby College Museum of Art

Anne Butler Rice, Georgette Auerbach Koopman Director of Education,
Wadsworth Atheneum

Sharon Corwin, Carolyn Muzzy Director,
Colby College Museum of Art

Aimee Good, Director of Education and Community Programs,
The Drawing Center

Shanta Lawson, Education Director,
The Studio Museum in Harlem

Lauren Lessing, Mirken Director of Academic and Public Programs,
Colby College Museum of Art

Alyson Luck, Manager of School, Youth, and Family Programs,
Solomon R. Guggenheim Museum

Megan McCarthy, Director of Major Gifts,
New Museum of Contemporary Art

Bruce McColl, Director of Art Education,
Currier Museum of Art

Liz Menard, Director of Museum Development,
Colby College Museum of Art

Bruno Nouril, Development Director,
The Drawing Center

Vas Prabhu, Education Director,
Farnsworth Museum of Art

Rachel Rosen, Director of Education,
American Folk Art Museum

Wendy Woon, The Edward John Noble Foundation Deputy Director of Education,
MoMA

X. Appendix

Informational Interview Questions

- How do you define educational programming? What types of program services fall under educational programs? What types of program services do not?
- From your perspective, how has museum educational programming evolved over recent years?
- Have you noticed any change to the quantity or quality of your museum's educational programs in the past 10 years? If so, what have those changes been and do you have any idea why those changes were prompted?
- Presently, what types of goals does your museum have for its educational programming? And what were the goals 10 years ago?
- Do you believe your museum's present educational programs have developed in response to a community need, a museum goal, a donor suggestion, or perhaps even a combination of many reasons?
- How does your museum measure how well the goals of its educational programming are being met? Does your museum regularly assess its educational programs? If so, does your museum employ formal techniques (like contracting a professional evaluator, using a sampling method to survey visitors, and timing how long visitors engage in a program), informal techniques (like chatting with guests after a program and jotting down children's reactions as they participate in a program), or a mixture of both to evaluate its educational programs?
- Are your museum's educational programs evaluated as a condition of funding requirements?
- In regards to the financial backing of your museum's educational programming, have you noticed any change in your museum's budget for educational programming in the past 10 years? If so, what was the change and do you have any idea why that change was prompted?
- Do you believe restricted donations have impacted museum educational programming directly or indirectly at your museum (perhaps in quantity, quality, evaluation, etc.)? If so how?
- Can you please share in a few brief words what value museum education programs bring to the community?

References

- A Report from the American Association of Museums*. American Association of Museums, 1992.
- Aggarwal, R., M. E. Evans, and D. Nanda. "Not-for-profit boards: Size, performance, and managerial incentives." *Journal of Accounting and Economics*, 53 (2012): 466–487.
- Alioto, Daisy. "Can Social Tagging Deepen the Museum Experience?" Hyperallergic, November 3, 2017. <https://hyperallergic.com/409854/can-social-tagging-deepen-the-museum-experience/>
- Bacharach, Jacob. "4. So that means that the other part of the endowment, a whopping 45% is 'restricted.'" January 4, 2018, 3:04pm. <https://mobile.twitter.com/jakebackpack/status/949007654315347969>
- Blanchett, D. "Donation risk and optimal endowment portfolio allocations." *Journal of Portfolio Management*, 41, no. 1 (2014): 109–120.
- Bodilly, Susan J., Catherine H. Augustine, and Laura Zakaras. "The Evolving Ecology of Arts Education." In *Revitalizing Arts Education Through Community-Wide Coordination*. RAND Corporation, 2008: 9-10.
- Boehm, Mike. "Report shows art museums rely mainly on kindness, not commerce." Los Angeles Times. January 09, 2015. <http://www.latimes.com/entertainment/arts/culture/la-et-cm-art-museums-financial-survey-getty-lacma-eli-broad-hammer-aamd-20150108-story.html>.
- Burlingame, Dwight F. *Philanthropy in America: A Comprehensive Historical Encyclopedia*. Vol. 3. 3 vols. Santa Barbara, CA: ABC-CLIO, 2004.
- Coslor, Erica. *Art Investment Collections: A New Model for Museum Finance?* University of Chicago. 2016. <http://socialimpactstrategy.org/wp-content/uploads/2016/03/Coslor.pdf>.
- Eldenburg, Leslie, Benjamin E. Hermalin, Michael S. Weisbach, and Marta Wosinska. "Governance, performance objectives and organizational form: Evidence from hospitals." *Journal of Corporate Finance*, 10, no. 4 (2004): 527–548.
- Fox, Daniel. *Engines of Culture: Philanthropy and Art Museums*. Transaction Publishers, 1963.
- Frey, Bruno S., and Stephan Meier. *The Economics of Museums*. Zurich: University of Zurich, 2003.
- Gibbons, Robert. Lecture Note 1: Agency Theory. MIT Sloan School of Management. <http://web.mit.edu/rgibbons/www/903%20LN%201%20S10.pdf>.
- Gross, Rebecca. "The Importance of Taking Children to Museums." Art Works Blog, June 20, 2014. <https://www.arts.gov/art-works/2014/importance-taking-children-museums>

Hallock, K. F. "Managerial pay and governance in American not-for-profits." *Industrial Relations*, 41 (2002): 377–406.

Hölmstrom, Bengt. "Moral Hazard and Observability." *The Bell Journal of Economics*, 10, no. 1 (1979): 74-91.
<http://aida.econ.yale.edu/~dirkb/teach/pdf/holmstrom/1979%20moral%20hazard.pdf>

Katz, Robert A. "Can Principal-Agent Models Help Explain Charitable Gifts and Organizations?" *Wisconsin Law Review*, 1 (2000).

Kisida, Brian, J. P. Greene, and D. H. Bowen. "Art Makes You Smart." *The New York Times*, November 23, 2013. <http://www.nytimes.com/2013/11/24/opinion/sunday/art-makes-you-smart.html>

Li, W., E. McDowell, and M. Hu. "Effects of financial efficiency and choice to restrict contributions on individual donations." *Accounting Horizons*, 26 (2012): 111–123.

"Making a Difference: Evaluating Your Philanthropy." *The Philanthropic Initiative*, 2015.
http://www.tpi.org/sites/default/files/pdf/tpi_evaluating_your_philanthropy_primer.pdf

Manne, Geoffrey A. "Agency Costs and the Oversight of Charitable Organizations." *Wisconsin Law Review*, (1999): 1-63.

Meadows, Donella. *Thinking in Systems*. London: Earthscan, 2008.

Mensah, Y. M., and R. Werner. "Cost efficiency and financial flexibility in institutions of higher education." *Journal of Accounting and Public Policy*, 22 (2003): 293–323.

Moynihan, Colin. "Berkshire Museum's Planned Sale of Art Draws Opposition." *New York Times*, July 25, 2017. https://www.nytimes.com/2017/07/25/arts/design/berkshire-museum-art-auction-criticized.html?_r=0.

Mundy, Bridget, Thomas Dukes, and Kara M. Stewart. *Taxes for the Arts: case studies of San Francisco, Cuyahoga County and Detroit*. Master's thesis. Ohio: The University of Akron.

Munley, Mary Ellen. "Early Learning in Museums: A Review of Literature." Smithsonian Early Enrichment Center, April 2012.
<https://www.si.edu/Content/SEEC/docs/mem%20literature%20review%20early%20learning%20in%20museums%20final%204%2012%202012.pdf>

Newton, A. N. "Executive compensation, organizational performance, and governance quality in the absence of owners." *Journal of Corporate Finance*, 30 (2015): 195–222.

O'Hagan, J. W. "Art Museums: Collections, Deaccessioning and Donations." *Journal of Cultural Economics*, 22 (1998): 197-207.

Okten, C. “Determinants of donations in private not-for-profit markets.” *Journal of Public Economics*, 75 (2000): 255-272.

Oster, S., and W.N. Goetzmann. “Does governance matter? The case of art museums.” Chicago: University of Chicago Press, 2003.

Pogrebin, Robin. “Agnes Gund Sells a Lichtenstein to Start Criminal Justice Fund.” *The New York Times*. June 11, 2017. https://www.nytimes.com/2017/06/11/arts/design/agnes-gund-sells-a-lichtenstein-to-start-criminal-justice-fund.html?_r=0

Professional Practices in Art Museums. Association of Art Museum Directors, 2011.

“Quick Facts About Not-for-profits.” Quick Facts About Not-for-profits | NCCS. Accessed November 14, 2017. <http://nccs.urban.org/data-statistics/quick-facts-about-not-for-profits>

Rodney, Seth. “How Atlanta’s High Museum Attracted a 45% Non-White Audience.” *Hyperallergic*, January 17, 2018. <https://hyperallergic.com/421398/how-atlantas-high-museum-attracted-a-45-non-white-audience/>

Rodney, Seth. “Is Art Museum Attendance Declining Across the US?” *Hyperallergic*, January 18, 2018. <https://hyperallergic.com/421968/is-art-museum-attendance-declining-across-the-us/>

Rodney, Seth. “The Evolution of the Museum Visit, from Privilege to Personalized Experience.” *Hyperallergic*, January 22, 2016. <https://hyperallergic.com/267096/the-evolution-of-the-museum-visit-from-privilege-to-personalized-experience/>

Ross, Stephen A. “The Economic Theory of Agency: The Principal’s Problem.” *The American Economic Review*, 63, no. 2 (1973): 134-139.
http://www.jstor.org/stable/1817064?seq=1#page_scan_tab_contents

Scutari, Mike. “Can This Organization Revitalize Arts Education in America?” *Inside Philanthropy*. December 11, 2014. <https://www.insidephilanthropy.com/arts-education/2014/12/11/can-this-organization-revitalize-arts-education-in-america.html>

Scutari, Mike. “Is a Powerful New Philanthropic Ally of Arts Education Rising in the South?” *Inside Philanthropy*. June 21, 2017. <https://www.insidephilanthropy.com/home/2017/6/21/alice-walton-crystal-bridges-arts-education>

Skinner, S. J., R. B. Ekelund, and J. D. Jackson. “Art museum attendance, public funding, and the business cycle.” *American Journal of Economics and Sociology*, 68 (2009): 491–516.

Sheets, Hilarie. “Studio in a School: A Teaching Moment.” *Art News*. March 4, 2013. <http://www.artnews.com/2013/03/04/studio-in-a-school/>

“Summary of the February 9, 2018 Agreement with the Office of the Massachusetts Attorney General.” *Berkshire Museum*, February 9, 2018. <https://berkshiremuseum.org/newvision/ago-summary/>

Temin, P. "An Economic History of American Art Museums." In *The Economics of Art Museums*, 179-94. Chicago: University of Chicago Press, 1991.

Weil, S. E. “From Being about Something to Being for Somebody: The Ongoing Transformation of the American Museum.” In *Making Museums Matter*, 43. Smithsonian Books, 2002.

Weisbrod, B. A. “Demand for collective goods in private not-for-profit markets: Can fundraising expenditures help overcome free-rider behavior?” *Journal of Public Economics*, 30 (1986): 83-96.

Yermack, David. “Donor Governance and Financial Management in Prominent U.S. Art Museums.” *Journal of Cultural Economics*, 41 (2017): 215-235.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2590232

Yetman, M. H., and R.J. Yetman. “Do donors discount low-quality accounting information?” *Accounting Review*, 88 (2012): 1041–1067.