

Comparing Organizational Models for the National Center for Science and Civic Engagement

AN INTERACTIVE QUALIFYING PROJECT

Submitting to:

SPONSORING AGENCY

The National Center for Science and Civic Engagement

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ABSTRACT

Proper management of a non-profit organization and its finances is important for achieving and maintaining financial stability and for fulfilling its larger mission. Working with the National Center for Science and Civic Engagement (NCSCE), we researched aspects of financially stable organizations, including organizational models and revenue generating streams. We provided the NCSCE with a recommendation concerning the organizational model that best suits its needs, along with viable revenue generation methods it can implement towards self-sustainability. Our model included an in-depth analysis of risk factors, opportunity costs, and projected financial models, all of which will be used by The Center's Strategic Planning Committee as they plan for the organization's growth.

AUTHORSHIP

In this document, all writing and editing was equally shared by team members. The following page goes into detail regarding each individual's primary responsibility for the Interactive Qualifying Project.

Krista Anderson focused on research that involved the independent non-profit organization (NPO) structure, grants, donations, taxes, and the target market. She also is responsible for the writing of the executive summary and the recommendation.

Matthew Forman was responsible for the financial analysis of the NCSCE, financial overview of other organizations, developed all financial models and projections, and an overview of grant funding. He was in charge of contacting and leading all interviews performed. He is also responsible for the formatting of this document.

David Wians contributed research on fiscal sponsorships, the understanding of current methods and structures employed by the NCSCE, and the benefits of implementing a membership structure. He also performed the research on other NPOs and organizations that we contacted for interviews. He is responsible for the conclusion chapter.

All members contributed equally in effort, writing, and editing responsibilities for their own and each other's sections to put forth the best document.

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ACRONYM REFERENCE

AAC&U: Association of American Colleges and Universities

AACTE: American Association of Colleges for Teachers Education

AAE: Association of American Educators

AEESP: Association of Environmental Engineering and Science Professors

ARRA: American Recovery and Reinvestment Act

AASHE: Association for the Advancement of Sustainability in Higher Education

AAUP: American Association of University Professors

AAUW: American Association of University Women

ACS: American Chemical Society

ASTE: Association for Science Teachers Education

DC CSF: District of Columbia College Success Foundation

DUNS: Data Universal Numbering System

ETM: Education Through Music

FY: Fiscal Year

GLISTEN: the Great Lakes Innovative Stewardship through Education Network

GDP: Gross Domestic Product

HU: Harrisburg University

IRC: Internal Revenue Code

IRS: Internal Revenue Service

NASPA: National Association of Student Personnel Administrators

NCSCCE: National Center for Science and Civic Engagement

NCTM: National Council of Teachers of Mathematics

NPO: Non-profit organization

NSF: National Science Foundation

NSTA: National Science Teachers Association

P&L: Profit & Loss

SCE-WestNet: Science and Civic Engagement Western Network

SCI: SENCER Centers for Innovation

SENCER: Science Education for New Civic Engagements and Responsibilities

SENCER-ISE: Science Education for New Civic Engagements and Responsibilities-Informal Science
Education

SSI: SENCER Summer Institute

STEM: Science, Technology, Engineering and Math

SUU: Southern Utah University

SCI: SENCER Center for Innovation

US: United States

VSO: Visitor Serving Organization

EXECUTIVE SUMMARY

Currently, many non-profit organizations (NPOs) are reliant on federal and private grants to not only support projects and initiatives, but also to cover the overhead costs associated with running the organization. With economic constraints and government cutbacks, there are growing concerns about the availability of these grants, which is dangerous for those that rely on them. Many organizations are concerned about financial stability and need to consider making changes to the structure of the organization for the survival of projects, initiatives, and the organization itself.

The National Center for Science and Civic Engagement (NCSCE) relies heavily on federal funding, especially from the National Science Foundation (NSF). The NCSCE was awarded a grant from the NSF titled SENCER (Science Education for New Civic Engagements and Responsibilities), which was the inaugural grant that established the NCSCE and has since served as The Center's largest source of revenue. The SENCER grant will end in the 2016 fiscal year, meaning that The Center will have to reapply for the grant, which can be a time-consuming and uncertain process. If the termination of the NSF grant were to happen before the renewal of the grant, there could be significant damage to the organization. In its current situation, The Center would not continue functioning should the grant money run out. The projected NCSCE income for 2014 shown in Figure ES-0-1 below illustrates The Center's heavy dependence on grants, particularly from the NSF.

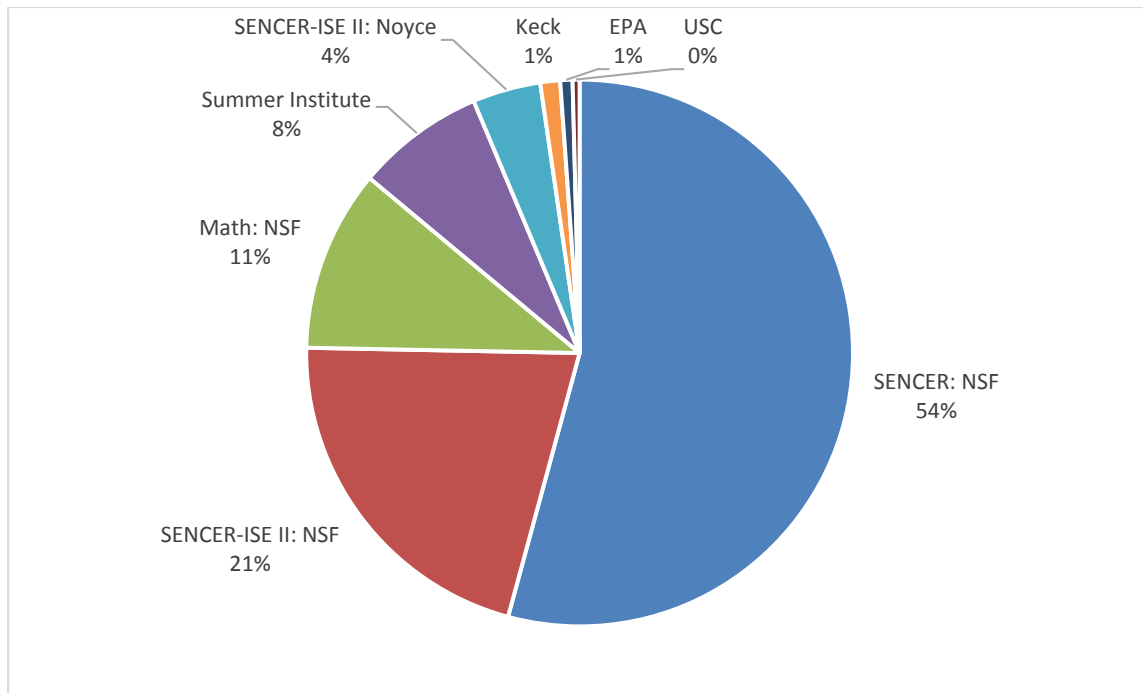


Figure ES-0-1: NCSCE Projected Income by Percentage FY2014

The goal of this project was to evaluate two possible organizational models that the NCSCE is considering and the revenue implications that accompany each strategy. The first model being investigated by The Center is ending its association with a university and becoming a private operating foundation under 501(c)(3) tax-exempt status. The second model The Center is investigating is a fiscal sponsorship, which is similar to its current structure. If The Center were to pursue a fiscal sponsorship, it may chose to remain with its current sponsor, Harrisburg University, or it may establish a relationship with a different organization. However, the fiscal sponsor does not need to be a college or university, as it could be any NPO that would be willing to host The Center and believes in similar core values. The two organizational models researched are shown in Figure ES-0-2 below, highlighting a few key differences between them.

Fiscal Sponsorship	Independent Foundation
Not responsible for filing legal documents	Responsible for filing all required legal documents
Other organization as a fiscal sponsor	501(c)(3) status
Grants are processed through the fiscal sponsor	Grants processed by the foundation

Figure ES-0-2: Primary Differences between Models

In addition to our work on the two organizational models, NPO funding sources and funding strategies were also researched. Through performing interviews with NCSCE staff and the staff of other NPOs, we discovered how other successful organizations sustain themselves and what the NCSCE could do to achieve a sustainable future under either organizational model.

Additionally, critically reviewing ideas regarding financial sustainability, budgeting, and new sources of revenue outside of federal funds for the NCSCE helped shape our overall recommendation. Researching diverse funding strategies based upon other NPOs helped identify viable funding strategies that would fall in line with the mission of the NCSCE and be applicable to either organizational model.

Several objectives were established to achieve our goal, which included developing an understanding of the two proposed organizational models, determining the range of non-profit funding methods and sources, researching potential markets for the NCSCE, and determining the current condition and financial needs of the organization.

A fiscal sponsorship with a different college or university would be the most beneficial organizational structure for the NCSCE. Before The Center changes its structure, it needs to generate revenue by increasing the number of conferences it hosts, developing a tiered membership model, and modifying its house call system. With changes to its structure and the addition of revenue streams, the NCSCE can have a financially stable future.

We developed gross revenue projections for the NCSCE for FY2014 to FY2016. These projections included potential revenue generated from membership dues, the Summer Institute, the inclusion of two news events, and a speaker's bureau. Based off of our projections, the NCSCE could potentially generate revenue of \$319,500 in FY2014, \$504,250 in FY2015, and \$640,000 in FY2016. Generating these levels of revenue would allow The Center to cover some of its overhead costs, making it less reliant on grants and more attractive to potential grant donors.

CHAPTER 1 - INTRODUCTION

With the arrival of the U.S. Government's budget sequestration effective March 1, 2013, which worked to reduce the country's financial debt (Mervis, 2012), federal funding cuts have impacted many non-profit organizations in the pursuit of grant money to conduct research, develop, and sustain programs (NSF, 2013). Arguably, large budget cuts to organizations like the National Science Foundation (NSF) would mean many fewer grant awards and a reduction in the size of grants given in science and technology related fields. The NCSCE is currently heavily dependent on the federal grant money it receives, which allows The Center to pursue its mission to reform science education by linking it to civic issues. With increasingly complex communal and global problems, many of which can be addressed through the use of science and technology, there are many organizations who are vying for dwindling grant money.

Moving forward, The Center is looking at two distinct paths which it could follow. The first involves remaining affiliated with a NPO, which could be its current partner Harrisburg University, or a different institute, and acting as a research center under the banner of that larger institution. Alternatively, The Center has also asked us to investigate the possibility of separating itself from any institutional partner, becoming its own independent NPO. Each model was evaluated on its respective financial feasibility and the difficulty involved in its implementation.

Recommendations on sustainable funding methods were provided for both models. We believe that the majority of these funding methods are shared between the organizational models, and we worked to identify any specific aspects of a funding method that would exclude it from being applicable to either model. The research completed by our team will help The Center's staff weigh the pros and cons of each organizational model, and provide a basis for the future growth and development of the organization.

With the future of federal grant money uncertain, the National Center for Science and Civic Engagement (2013) is also looking for alternative sources of funding to create financial sustainability so that it can continue the initiatives which it has already heavily invested in. The initiatives are hosted in a distributive manner throughout the country in a multitude of schools and universities, each of which participate in a particular program. Federal funding currently holds a critical role within the NCSCE as federal funds cover most of The Center's operating costs, which allows it to support its initiatives and keep the organization afloat. The NCSCE is creating a short-term and long-term plan to phase out its dependence on federal funding to cover its operating costs because in its current state, without the support of government funds, the NCSCE may not be able to sustain itself.

As of the fall of 2013, the NCSCE (2013) has received a small number of grants from private foundations, and none have developed into long-term relationships with The Center. The NCSCE also heavily relies on the NSF, who provides 75% of the money that is used to fund the SENCER program. Additional funds are needed to cover The Center's overhead costs due to the fact that grant money alone does not sufficiently cover these costs and grants limit the amount of overhead costs that can be accounted for in the grant.

The goal of this project was to outline the potential advantages and disadvantages of the two organizational models which the NCSCE has asked us to explore, which include remaining a research center for a NPO, or becoming an independent NPO. We provided a detailed analysis of these advantages and disadvantages to help the NCSCE staff make an informed decision about the future structure of the organization. To meet our goals, we conducted semi-structured interviews with NCSCE staff so we could learn more about the financial situation of the NCSCE and their ideas for sustainability. In addition, we used archival research to identify the common standards for organizations that are both attached and unattached to a larger NPO. Finally, we hope that by working with the NCSCE, its staff will

develop a better understanding of their options moving forward, and The Center can continue its work in the support of science education for many years to come.

CHAPTER 2 - BACKGROUND

The NCSCE is looking for a comparison of two possible organizational models as it considers restructuring: remaining attached to a NPO, and becoming an independent NPO. In addition to the analysis of the two organizational models, an evaluation of different funding methods was performed. By presenting the advantages and disadvantages of each model, The Center's staff hopes to move the organization into a more financially stable position.

In the following chapter we reviewed a wide variety of material and topics which we deemed important. This information is pertinent background information which must be understood before beginning our comparison of organizational structures and financial strategies.

2.1 NON-PROFIT ORGANIZATIONS

In the United States, NPOs are tax-exempt organizations that serve the public interest. When an organization establishes itself as a NPO, it can spend its funds on the mission and goals of the organization, without having to pay taxes. Non-profit organizations form the third sector of the American economic structure, while the government and for-profit organizations compose the first and second sectors respectively (Gunn 2004). Having a large third sector in the country is seen by some as an indicator of a healthy national economy. Within the United States, there was a large growth in the third sector surrounding NPOs who specifically focus on education, environmentalism, and social services. Approximately 10% of the United States' Gross Domestic Product comes from organizations in the third sector.

2.1.1 Applying for Non-Profit Status

To establish an organization as not-for-profit, the organization must undergo an in-depth and time consuming review process. The basic six steps of the review are listed in Figure 2-1 (District of Columbia, 2013). A prospective NPO must specify its mission, draft a concept paper, determine its proposed organization type, establish a board of directors, develop a comprehensive set of bylaws, and

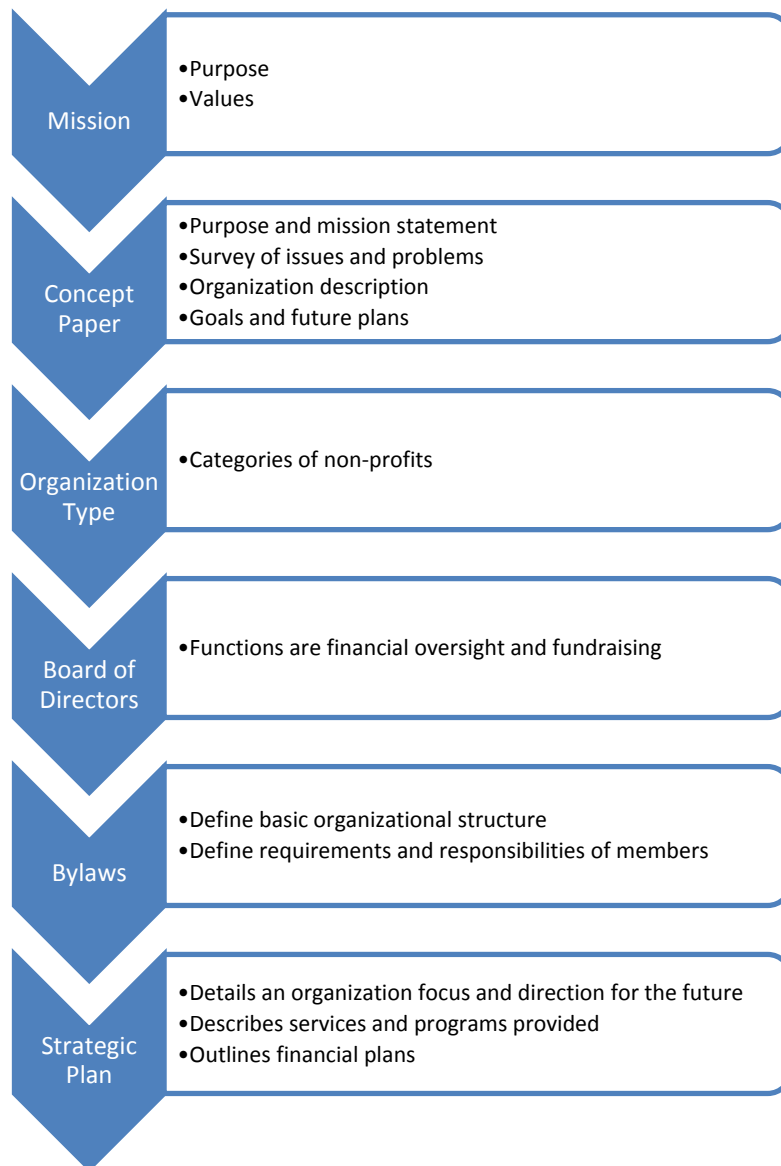


Figure 2-1: Beginnings of NPO Application Process (District of Columbia, 2013)

develop a strategic plan for ongoing success.

Developing a precise mission statement is a very important first step for an organization that is pursuing NPO status. In precise terms, the mission statement must state whom the organization is serving, and what exactly the organization will be doing (Whalen, Interview, 2 Oct. 2013). After the mission statement is completed, it is added into a concept paper, which introduces the proposed organization to potential board members and contributors. It should include the mission statement, the issues the organization hopes to address, a description of the organization, and future plans of the organization.

As part of the process of becoming a non-profit, the exact organization type must be determined. Non-profits are classified under 501(c)(3) status when determining individual organization types. These categories comply with the IRS regulations and each category has unique tax benefits (Rebecca Moore, personal communication, 25 Sep. 2013). Examples of different types of organizations include private foundations, private operating foundations, associations, or any other public charities. Each type is slightly different in structure and who it serves, so a potential organization must determine which organizational type is best suited to it.

When establishing a board of directors, it must be kept in mind that board members are responsible for ensuring the organization carries out the mission statement faithfully and for providing legal accountability for all operations performed by the organization. If it is discovered that the organization has been misusing funds, or if the organization finds itself with a legal issue, it will be the duty of the board members to effectively manage the situation and receive blame in the event of wrong doings.

Determining how the organization will be managed and operate falls under the responsibility of the bylaws. Bylaws serve to define basic organizational structure, specifying which staff members within

the organization have authority over certain operations, and how the decision-making hierarchy is divided. Bylaws also define responsibility of membership and establish rules for meetings of the board.

After the bylaws are created, the final step is for the organization to create a strategic plan. A strategic plan gives details regarding where the organization is headed in the future, explains projects and initiatives that will be undertaken, and outlines the financial plans for the sustained operation of the organization.

After the first six basic steps are completed, the organization must go through a tax and licensing procedure, displayed in Figure 2-2.

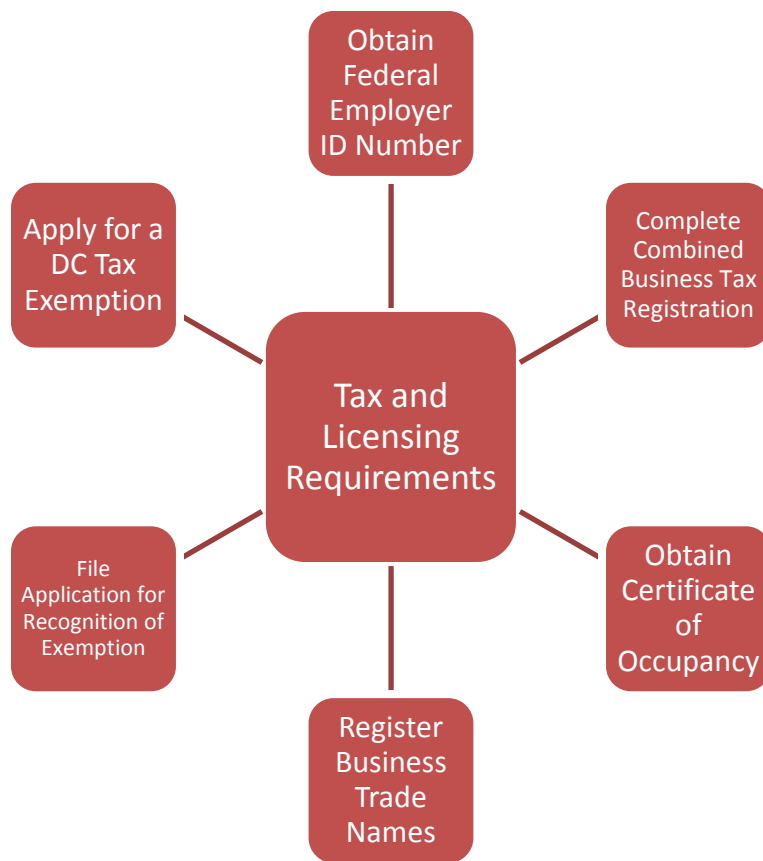


Figure 2-2: Tax and Licensing Requirements for a NPO (District of Columbia, 2013)

All parts of the tax and licensing procedure shown in Figure 2-2 are equally important for the establishment of a NPO. The organization must fill out additional paperwork regarding incorporating with the state in which the organization resides, obtain a Federal Employer ID, complete tax registration, obtain a certificate of occupancy, register any trade names it might have, determine if it needs to apply for business licenses, apply for a DUNS number, apply for federal recognition of exemption, and apply for a tax exemption in its state. Once an organization has completed these steps and is permitted its NPO status, it must report to the IRS and its state by adhering to their standards. As all of this occurs, the organization must actively pursue funding opportunities, so that it has funds to begin operation if the application is approved.

2.1.2 Structure

The structure of a NPO can vary and is highly dependent on the individual goals of the organization (Young, 2001). While some non-profits may be small and dedicated to advancing one cause, others can be much larger institutions that have many different projects and initiatives, each with a diverse goal and method of operation. A common practice among organizations is to establish a strong working relationship with a host institution, which will sometimes even provide office space, pay staff salary and benefits, and help cover overhead costs (Whalen, interview, 2 Oct. 2013). When these costs are covered by the NPO's partner, much of the financial burden on the NPO generally associated with running an organization is relieved.

2.1.3 Funding

NPOs of all sizes share something in common; they must maintain a revenue stream that allows them to operate and continue to achieve their goals (Non-profit and Fundraising Resources, 2013). Depending on the size and strength of an organization, it might accomplish this in numerous ways. Some NPOs charge a fee for participants to attend an annual conference, while others may focus on membership fees at the institutional or individual level. If an organization chooses to pursue a

membership model, it must be confident in the value of the resources and materials provided. Hosting conferences to generate revenue can also be useful, but the organization must make sure the attendees are involved and see the development of the initiatives and programs (Whalen, interview, Oct. 2 2013). Although conferences and organizational memberships are major funding sources for many NPOs, they are not the only two revenue generating strategies used by non-profits. Additional funding strategies can often be directly tied to what an organization offers and who it serves.

2.1.4 Tax Implications

When NPOs have 501(c)(3) status, they are exempt from having to pay income tax (Rebecca Moore, personal communication, Sep. 25, 2013). While a NPO is technically tax exempt, it still may be liable for taxes on any unrelated business income it might have received. For most organizations, this would apply to income that is not related to the stated educational or humanitarian purpose of the organization. A 501(c)(3) is also responsible for employment taxes on any salaried employees, but does not have to pay federal income tax on grant money it receives. NPOs must file a 990 or 990-N tax return for awarded funds. Additionally, NPOs do not have to pay any taxes on money raised to cover operating costs unless the money raised is deemed as unrelated business income. If a NPO were to lose its 501(c)(3) status, the organization would be responsible for the taxes on any money raised within the current fiscal year.

2.1.5 The Jed Foundation

The Jed Foundation is a NPO whose mission is to work with university students in promoting the importance of mental health and suicide prevention (The Jed Foundation, 2013). It was formed in 2000 by Donna and Phil Satow after their son committed suicide, and has seen success in the programs it runs for students, parents, and campus professionals. In 2012, the Jed Foundation's net assets came in at \$2,213,193. That year, the Jed foundation had a total income of \$1,022,485, which was an increase of \$239,607 from the previous year. The Jed Foundation receives income from its annual gala, grants,

investments, and individual and private donations. The Jed Foundation is a fantastic example of a NPO worth analyzing due to its broad funding base, multiple revenue generating streams, and successful implementation of programs.

2.1.6 American Association of University Women

The American Association of University Women (AAUW) works to empower women in their communities and improve their lives (American Association of University Women, 2009). The AAUW researches gender equality in education and the workplace, promotes women on college campuses to pursue leadership positions, and works to advance STEM education in K-12. In 2012, the AAUW had a total income of \$9,018,367, which came from membership dues, conferences, federal grants, investments, and individual donations. The AAUW is an appropriate NPO to analyze because it operates under a membership model while still pursuing other means of funding for the organization.

2.2 NATIONAL CENTER FOR SCIENCE AND CIVIC ENGAGEMENT

The National Center for Science and Civic Engagement (2013) is a research center aimed at promoting a teaching style that ties a science and technology based curriculum to civic and local issues, which results in an improvement in the comprehension of the material taught in the classroom. The NCSCE (2013) was established after its founders developed a curriculum to teach college students about HIV and AIDS during a time when it was a compelling problem throughout US college campuses. Although the initiative was not hugely successful at reducing the infection rates among students, it was found that by tying a prevalent issue faced by students to academic curricula, students showed greater interest in learning science principles (Burns, personal communication, Nov. 20, 2013).

2.2.1 Current Initiatives

The NCSCE (2013) currently operates four primary initiatives which are used to achieve its mission. The Center's main initiative is Science Education for New Civic Engagements and Responsibilities (SENCER).

SENCER is the name of the grant that predates the NCSCE, and eventually led to its founding. The goal of SENCER is to stimulate an interest in STEM (Science, Technology, Engineering, and Math) related fields by connecting students and educators to large civic issues that they encounter regularly and that a student might feel personally affected by or interested in. The founding goal of SENCER, which was used to develop curriculum in the past, includes increasing students' knowledge about biology and cell development through the examination of the HIV virus. SENCER was and still is funded by a National Science Foundation grant, and continues to be The Center's largest initiative.

Science Education for New Civic Engagements and Responsibilities- Informal Science Education, (SENCER-ISE), is a branch of SENCER that unites formal and informal science educators (NCSCE, 2013). SENCER-ISE creates partnerships between formal institutions, for example universities, and informal institutions, like museums, to bring STEM concepts into causal learning environments. SENCER-ISE works to create sources of "life-long" learning on the topics of science, public health, welfare, and public policy.

The Great Lakes Innovative Stewardship Through Education Network (GLISTEN) is an initiative focused around the Great Lakes that was started in 2009 (NCSCE, 2013). Sponsoring clusters of state parks, universities, science museums, and other organizations, GLISTEN provides education required by residents of the area to properly care for the Great Lakes in addition to helping develop an understanding of civic responsibility in students. As students learn how to better take care of the Great

Lakes, the GLISTEN initiative hopes to strengthen STEM principals in students. The GLISTEN initiative also hopes to convey the importance of direct-action and community-based research in the community.

Science and Civic Engagement Western Network (SCEWestNet) is a new initiative, which seeks to create sustainable science education reform in the Western United States (NCSCE, 2013). Funded by the W.M. Keck Foundation, SCEWestNet is introducing SENCER inspired programs to institutions in western states, with the desire of creating a positive atmosphere in which organizations within the network can better serve their students.

2.2.2 Harrisburg University

The Center operates under the non-profit institution Harrisburg University (HU), a private university located in Harrisburg, Pennsylvania that offers an education and dedicated pathway to a career (NCSCE, 2013). HU uses an applied science and technology based curriculum to prepare career-minded individuals to succeed and serve their communities locally, nationally, and globally.

Harrisburg University awards nationally accredited undergraduate and master degrees in STEM disciplines. The university aims to link education with business needs in the region, providing its students with a better chance of finding employment. Harrisburg University hopes that by providing students with a science and technology based education, it can stimulate a knowledge-based economy in Pennsylvania and better prepare the region and graduates for the “21st century knowledge based economy” (Harrisburg, 2013).

2.2.3 Current Funding

The Center currently operates under a system where each of its initiatives is sponsored by a specific grant or targeted donation (Danielle Kraus Tarka, personal communication, Oct. 29 2013). Under the agreement between the NCSCE and Harrisburg University, donations and grants are written to Harrisburg, which receives these grants without paying taxes. These funds are then transferred to The

Center, allowing them to take full advantage of the tax-exempt status of Harrisburg and receive grants as if they were made directly to The Center. This is an example of a fiscal sponsorship, which is explained in greater detail in [Section 4.1](#) of this document. All universities have a percentage based fee called an indirect rate, which is explained in detail in [Section 2.4.3](#) of this document, which in an uncommon agreement is fully refunded by Harrisburg to the NCSCE. This arrangement was established during the founding of the NCSCE and Harrisburg and has not changed since both organizations' inception. The Center uses the additional funds that traditionally are allocated to the indirect portion of the grant award to pay for programs that The Center has no existing grant funds for.

2.2.4 Operation Costs

The Center functions as a research center for Harrisburg University, and is not its own NPO. Rather it is Harrisburg University that holds a non-profit status, which the NCSCE uses to apply for and receive grants without paying taxes (NCSCE, 2013). However, The Center, still has its own expenses which include costs both directly and indirectly related to fundraising and the initiatives The Center supports. The Center allocates part of the grant awards it receives to cover its operating costs, often allocating costs, like salaries, as direct cost of the grant; however, this is not always the case.

2.2.5 Strategic Plan

Many organizations use a strategic plan to plot their future by setting goals and identifying a path that will allow them to achieve those goals (NCSCE, 2013). The NCSCE is currently developing a new strategic plan, a task for which we are providing assistance. Along with outlining the two organizational models, the NCSCE requires assistance in the evaluation of its current strategic plan and revenue generation methods. Our team's contribution to the strategic plan will be our comparison of the two organizational models and the analysis of the new funding methods The Center may implement.

2.3 NCSCE CURRENT SPONSORS

The NCSCE currently receives grant money from several foundations, including the NSF, who has given The Center its largest and most extensive grant to date. The W.M. Keck Foundation, Noyce Foundation, and the Corporation for National and Community Service have each provided additional grants to the NCSCE. The relationships with those three foundations are fairly new, and the NCSCE staff is uncertain of the renewal of these grants.

2.3.1 National Science Foundation

The National Science Foundation (2013) is a large federal government organization that supports scientific research and science and engineering educational programs. The NSF accounts for about one-fourth of all federal funding educational organizations receive for projects and research. The NSF receives over 40,000 proposals every year for grants, funding approximately 11,000 of them. The NSF gives awards in all 50 US states, with the largest percentage of awards going to organizations in New York, California, Illinois, and Massachusetts. One example of a NSF grant was the “STEM at SUU Grant”. This grant at Southern Utah University is in the process of recruiting students who are interested in science and engineering, but perhaps do not have the financial ability to attend a traditional university. By implementing a STEM program at the university, SUU hopes to attract new students to its campus (NSF, 2012).

Before the NSF awards a grant, there are three phases of evaluation in nine steps to decide how to allocate grant money. These steps are listed in Figure 2-3 below (NSF, 2013). In phase one, the NSF announces the availability of a grant. This is the phase in which an organization will submit a proposal saying what purpose it would use the grant money for. The NSF receives all proposals for the grant that were correctly submitted. In phase two, experts are chosen to be part of a review board, who review each proposal submitted to the NSF. The NSF has established guidelines for the selection of a review board, which includes choosing members with specialized knowledge in the same field as that of the

proposal. The NSF also seeks to develop a diverse representation within the review board, working towards a balance among different fields and specializations. After the review board evaluates a proposal and makes its recommendation, the NSF Program Officer makes a recommendation to the appropriate Division Director addressing whether or not the proposal should be accepted. Normally, the final proposal approval is provided at the divisional level, which can take up to six months. In phase three of the NSF's review, there is a business focused review that lays out the fine details of the grant, how much money has been allotted, and over what period of time the funds will be distributed. After the business review is completed, the award is officially finalized and processed.

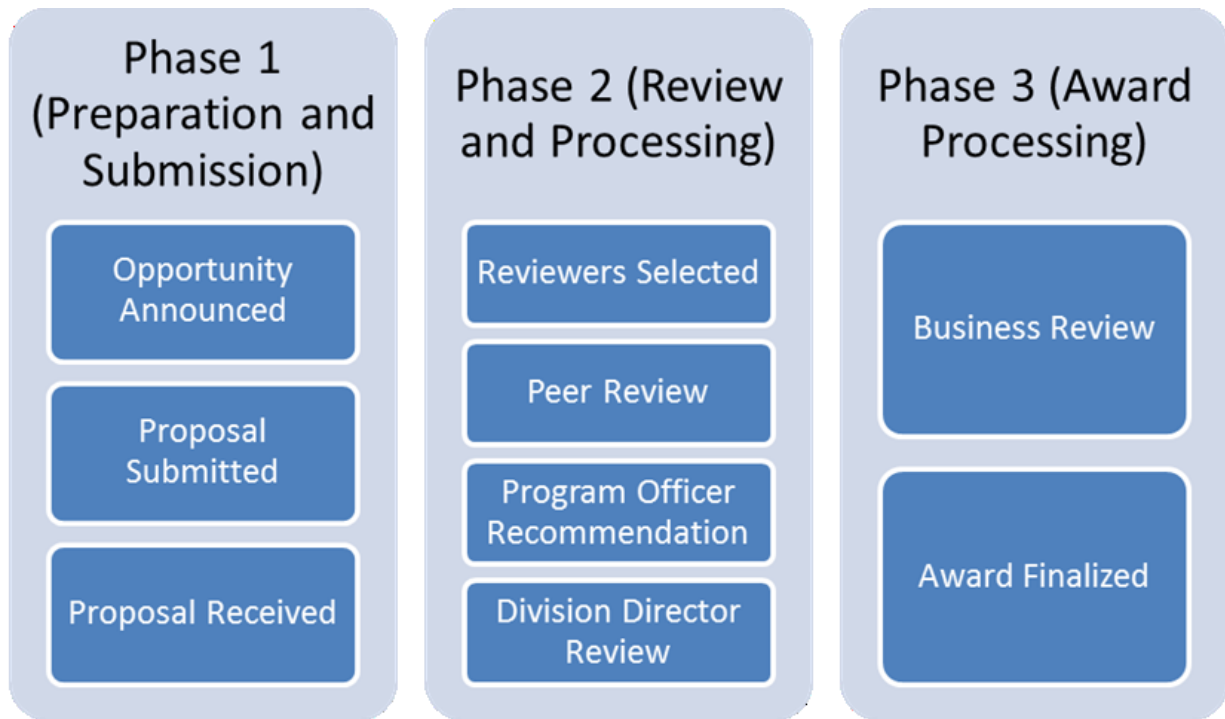


Figure 2-3: Grant Money Process (NSF, 2013, Grants)

In Figure 2-3, shown above, the three phases are shown in the divisions of preparation, processing, and awarding for a NSF grant along with the internal steps associated with each phase. All nine steps must be completed in that order before the NSF will officially award a grant to an organization.

2.3.2 W.M Keck Foundation

The W.M. Keck Foundation looks to fund endeavors which are new and distinct in their approach to science and technology (2013). The W.M. Keck Foundation will often help fund high-risk projects, which Keck defines as research breaking into a new field, research that is taking an unconventional approach, or research looking for new discoveries that would possibly challenge existing conclusions. Organizations that apply for Keck grants must be 501(c)(3) organizations and must also be able and willing to provide certified financial statements that can be given to Keck on an annual basis.

A Keck Grant issued in June of 2013 went to The Global Waste Research Institute at California Polytechnic State University (Keck, 2013). The grant has been issued to look at the advances that were made in the development and use of nanomaterials and integrate this information into the university's STEM curriculum. California Polytechnic State University plans to provide the new curriculum to several hundred undergraduate students through a variety of courses in nine disciplines.

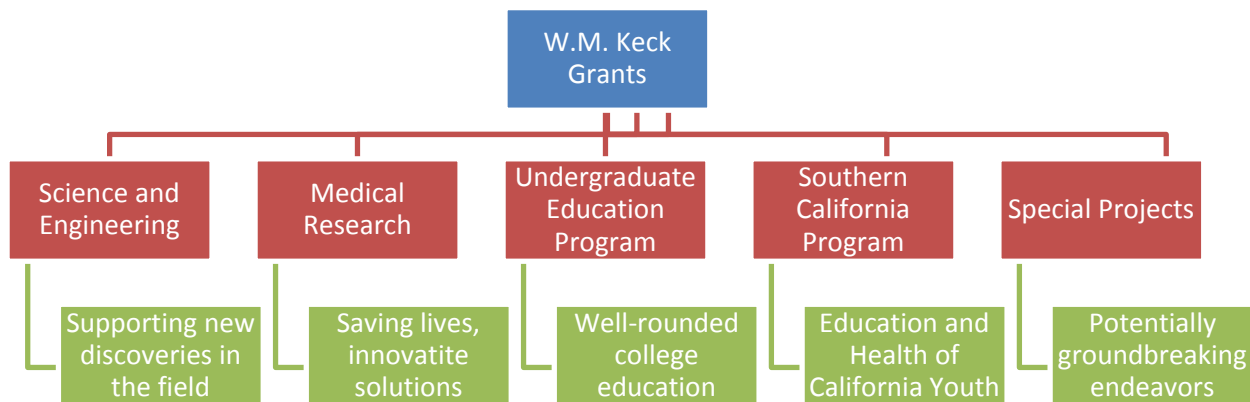


Figure 2-4: W.M. Keck Foundation Grant Areas (WM Keck, 2013, Grant)

Figure 2-4 above depicts the division of Keck grants as they pertain to specific funding areas, along with a brief description of what each funding area is focused on. The NCSCE received its grant for the initiative SCEWestNet from Keck's Undergraduate Education Program, as this initiative looks to reform undergraduate science education on the West Coast of the United States (2013).

2.3.3 Noyce Foundation

The Noyce Foundation has funded several projects that support the education and implementation of STEM principles (2013). The Noyce Foundation seeks to support formal and informal science and bridge the gap between the two education environments. The Noyce Foundation awarded 35 major grants in 2012, all of which were focused on the advancement of STEM education. Some examples include advancing STEM in afterschool programs, STEM media coverage, and a summer STEM Institute. The Noyce Foundation provided the NCSCE with a grant award that allowed The Center to create partnerships with four universities, helping it to advance STEM education in its own curriculum (The Noyce Foundation, 2013).

2.3.4 The Corporation for National and Community Service

The Corporation for National and Community Service was established in 1993 to engage Americans in service and volunteering, and serves as the nation's largest grant distributor in the area of volunteering. Its core programs are Senior Corps, Americorps, and the Social Innovation Fund. For the NCSCE, The Corporation for National and Community Service gave a grant to support the GLISTEN initiative, which is focused on civic issues regarding environmentalism, building STEM principles, and encouraging volunteerism to care for the Great Lakes (2013).

2.4 FEDERAL & PRIVATE GRANTS

Financial awards in the form of grants are issued by both federal and private organizations. Grant award requests are only successful for a small percentage of those organizations that apply, but when accepted, can have a major impact on an organization. A portion of the grant award is allocated to the sponsoring organization to help cover general costs, which is referred to as the indirect. The remainder of the grant award is then made available to cover costs according to the budget outlined in the grant application. Finally, it is important to note all grant funds are distributed on a reimbursement

schedule so that large sums of money are not distributed to awarded organizations with no guarantee of its use.

2.4.1 Application Process

To receive a grant, a non-profit must write a grant application to begin the application process (Young, 2001). For every application submitted, the petitioning organization must create a new proposal, laying out all aspects of the organization's plan and a proposed budget for the use of the funds. This proposal will then be reviewed by the agency providing the grant, and will be evaluated on its merits, history with the granting organization, and feasibility (Oates, interview, Sep. 18, 2013). If the grant application is deemed to be an appropriate use of funds, the submitted petition is among the best submitted, and the donor agency has enough funds to meet the criteria of the grant, then the grant petition may be funded.

A lack of available funds causes many grant applications to go unfunded, despite the merit or quality of the grant (Wardel, 1999). Approximately 75% of all grants submitted to the NSF go unfunded, with only 25% successfully making it through the application process (Foundation, 2012). In 2010 and 2011, the funding rates were 23% and 22%, respectively. This bleak success rate makes the grant writing process stressful for the principal investigator, the primary party responsible for the grant application, especially when federal funding is a large portion of an organization's operating funds (Tarka, personal communication, Oct. 29, 2013). WPI's Vice Provost Manning (2013) believes that substantial federal grants are more likely to be awarded to a group attached to an established institution because of its more dependable financial backing and history.

2.4.2 Re-Application Process

Since grants are issued for a specific time frame, there becomes a need to reapply for a grant if the research or directive of the grant is ongoing (Tarka, personal communication, Oct. 29, 2013). Applying for the continuation of a grant is very similar to the initial application, requiring minor

modifications to the categorization of the application, indicating that it is a request for a continuing grant as opposed to new work. A proposal, budget, and timeframe are still required and must be submitted with the grant continuation application.

Federal funding in particular can sometimes be considered a more stable source of grant funding based upon the desire of the federal government to see a project through to its completion (Manning, personal communication, Oct. 9, 2013). In some instances, organizations that award private grants fail to continually support a project due to the awarding organization's desire to disperse its funding amongst many initiatives and provide funding opportunities to many organizations.

2.4.3 Indirect Rate

Every organization that hosts a project or a grant has an indirect rate, which is a percentage that determines how much of the grant award is set aside for the host institution to cover costs relating to the operation of the grant. This rate can be assigned by a government office, or set to a default 10% if a rate is not assigned (Manning, personal communication, Oct. 9, 2013). The purpose of the money earned by the indirect is not specified in the grant, and can be used at the discretion of the organization.

Typically, organizations use this indirect money to cover or partially cover overhead costs which could include rent, utilities, office supplies, salaries, accounting costs, and other expenditures associated with the operation of the grant. It is important to separate dependent program costs, which are specifically accounted for in the proposed budget, and general operating or overhead costs that can be covered by the indirect amount (Oates, personal communication, Sep. 18, 2013). The organization that is awarded the funds is not required to use the indirect to cover overhead costs, although that tends to be the standard practice.

Grant awards that come from private organizations can include caps on the indirect rate, which help private foundations assure that the maximum possible amount of the award is going to the

intended cause (Manning, personal communication, Oct. 9, 2013). Unlike the federal government, not all private grant awarding foundations honor an organization's pre-determined indirect rate.

Organizations who have a distributed or branched structure can ask for indirect rates to be calculated for individual programs or offices within a larger organization (Manning, personal communication, Oct. 9, 2013). For example, if a particular group or program performing research is working at an institution with a 35% indirect rate, the specific research program inside of the institution can request that a separate indirect rate be calculated for itself if it believes the institutional rate is not appropriate for what it is doing.

2.4.4 Retrieval of Funds

Grant funds operate on a reimbursement basis that requires the organization that receives the grant to expend some of its funds before it can be reimbursed (Tarka, personal communication, Oct. 29, 2013). This can pose a problem to some organizations that do not have a large operating budget to front some of the grant related costs while it waits for reimbursement.

When departments, academic groups, professors, or other smaller organizations located within a larger organization are awarded grant money, the grant issuer sends the money directly to the institution. It is then expected of them to pass the funds along and/or make them available to the smaller group working under them. The larger organization will first remove a certain portion of the funds as allowed by the indirect rate before making the remainder of the funds available. This process of dividing funds and making them available to the specific sub-groups can sometimes be lengthy and may ultimately delay funds from reaching the principal investigator.

For the NCSCE to maintain good standing with the NSF in particular, it must submit a yearly report (Tarka, personal communication, Oct. 29, 2013). This yearly report allows the organization who has received the grant award to maintain access to its funds and avoid a halt on the distribution of the

funds caused by a late or not filed report. The report includes a detailed budget for the coming year, a financial report from the previous year, a summary of how the project is progressing, any delays or impediments that the organization has encountered, and many of the publications or results the organization has had in the past year.

CHAPTER 3 - METHODOLOGY

The goal of this project was to evaluate two organizational models in addition to identifying possible revenue streams for the NCSCE. We accomplished our goal by identifying funding strategies based upon existing NPOs, interviewing NPO funding experts and NCSCE staff, reviewing current funding strategies employed by the NCSCE, conducting a financial analysis of the NCSCE and other NPOs, and researching different organizational models and revenue streams.

3.1 EVALUATING ORGANIZATIONAL STRUCTURES

A fundamental goal of this project was the evaluation of two potential organizational structures the NCSCE is exploring for potential long term adoption. A working knowledge of both organizational structures and the hybrid structure The Center currently follows was crucial in allowing us to evaluate and present information to the NCSCE.

3.1.1 Research Relating to The Center's Possible Dependence on a NPO

Archival research provided us with information concerning if the NCSCE were to depend on another NPO as a fiscal sponsor, exemplified by a college or university. We looked at other organizations and research centers, professors at major universities for example, who conduct grant-funded activities under the umbrella of a larger NPO. Using this research, a better understanding of how the relationship between The Center and a fiscal sponsor would operate was gained. This information proved important in the final recommendation made to the NCSCE.

3.1.2 Research Relating to The Center Becoming an Independent NPO

The evaluation and archival research completed for the NCSCE provided us with the necessary information to recommend an organizational model that best suits The Center's needs. We researched federal regulations to present the requirements and the process the NCSCE would have to undergo if it were to seek its own NPO status. We developed a generic timeline for obtaining 501(c)(3) status,

outlined budgeting changes that would be required, identified associated risks, and highlighted the tax implications that would most likely be involved. Specific NPOs that we examined are also provided, accompanied by relevant financial information regarding each example's finances and revenue sources. Means of non-traditional funding were also introduced, inspired by the funding methods used by Charity: Water, one of the organizations we investigated. The knowledge gained from our study of NPOs was incorporated into our recommendation for the NCSCE.

3.1.3 Interview NCSCE Staff

We interviewed NCSCE staff to develop a better understanding of The Center's current organizational model using the interview protocol which can be found in Appendix C of this document. The NCSCE's current fiscal sponsorship is very unique compared to most fiscal sponsorship agreements (Tarka, personal communication, Nov. 13, 2013). Through our interviews, we also learned about the differences between the NCSCE's current relationship with Harrisburg University, and what a more typical relationship between the NCSCE and a different fiscal sponsor would be. Our interviews have also provided us with information regarding risks and benefits that could be associated with a change in fiscal sponsorship.

3.1.4 Interview NPO Organizational Leaders

Interviews with NPO leaders have provided valuable information on the two organizational models being explored by The Center. The interview protocol that was followed can be found in Appendix C. As The Center reaches a point where it may undergo a radical change in its structure, information regarding both models will be very important. A full understanding of these models, and the steps needed to achieve them has ensured The Center is well informed about the structures it is exploring, helping to prevent it from making any decisions that could negatively impact the organization in the long term.

Jonathan Bucki, one of the leaders developing the strategic plan for the NCSCE, was interviewed to gain insight and clarification on financial details regarding the NCSCE and what plans they are developing for the future. Speaking with Jonathan Bucki gave us insight concerning the interviews he has performed and what information he felt was most valuable from those interviews.

The American Association of University Women (AAUW), The Jed Foundation, Operating Understanding, the Q.E.D. Foundation, Hands On DC, Education through Music, Higher Achievement, Worcester Crafts, The Forum on Education Abroad, and the District of Columbia College Success Foundation (DC CSF) were all contacted via phone for interviews. By contacting staff within these NPOs, we learned how the organization became a NPO, how revenue is generated, and what methods they have found successful. Also addressed was what type of structure each organization adheres to and if it has deviated from the structure at any point in time.

3.1.5 Interview Tax Professional

A tax professional provided the understanding of tax discrepancies that may emerge while an organization undergoes a change in its structure. An interview following the interview protocol found in Appendix C was conducted with Rebecca Moore, Attorney at Law with Buchanan, Bibler, Gabor and Meis law firm in Algona, IA. The two organizational models being explored may have very different tax requirements, and switching from one model to the other could result in tax complications for the organization. The lawyer we interviewed provided us with information regarding any tax discrepancies or complications which would require professional assistance in generating the required financial documents for a NPO.

3.1.6 Identify Target Market

To properly understand the viability of the pursued organizational models and revenue streams, The Center requires a general knowledge of the potential stakeholders in its operation. If The Center is interested in implementing membership fees for access to its programs and conferences, then the

resources it distributes must appeal to a certain number of people to generate sufficient revenue. The groups of people that would be interested or affected by The Center's resources were identified through research. Knowing which demographics may be interested in The Center's programs has allowed us to provide The Center with useful information concerning a target market into which it can expand. It is important for The Center to understand its potential target market in moving forward with either the independent or fiscal sponsorship organizational models.

3.2 UNDERSTANDING CURRENT NCSCE FUNDING STRATEGIES

With financial information provided to us by The Center, a detailed understanding of its current funding strategies and general expenses was developed. To gain this understanding, we interviewed NCSCE staff members, reviewed NCSCE historical financial data, developed a summary of the organization's costs, and reviewed The Center's current grants and revenue streams.

3.2.1 Review the NCSCE Financial Data

To understand how The Center has managed its finances, it was necessary to review financial records and discover how it has impacted The Center. We compiled aggregate reports, charts, and figures about the financial history of the NCSCE, which allowed us to draw conclusions about the financial history of the organization. Our review has also given us the necessary information to make better and more informed recommendations to the NCSCE.

3.2.2 Analysis of Incoming Grant Money

Examining the current finances of the NCSCE and looking at how much grant funding the organization received has provided us with a strong understanding of how grant money affects The Center's finances. After establishing the amount of grant funding given to the NCSCE from each foundation, we compared that amount to the total amount of grant money given out by that particular foundation for that year. Similar comparisons were performed for historical data as well, so we could draw conclusions about the longevity and stability of funds the NCSCE receives from foundations.

Performing this analysis allowed us to identify whether or not the NCSCE was more or less successful in acquiring grant money as time has gone on. This financial data can be correlated to events or actions related to the organization, which could include funding campaigns, leadership changes, and other events that might be deemed relevant.

3.2.3 Interview NCSCE Staff

Interviews with members of the NCSCE staff were conducted according to the interview protocol found in Appendix C, so we could gain a better understanding of The Center and how it operates. The interviews have verified that all suggestions we made are not only in line with the ideals and goals of the organization, but are feasible for the organization to implement.

3.3 IDENTIFY NON-PROFIT FUNDING STRATEGIES

To determine the best funding strategies employed by NPOs, interviews were conducted and archival research was performed. Interviews with leaders of NPOs who have experience in developing revenue sources were questioned about how and why certain strategies have proven to be successful or unsuccessful in the past. The interview protocol for all interviews performed can be found in Appendix C. Archival research was performed to explore the current funding strategies and practices used by the NCSCE. The research which was performed has proven to be effective at providing an in-depth analysis of funding strategies, and through the study of non-profits and their sources of revenue, successful models that the NCSCE could emulate were identified.

3.3.1 Review Funding Strategies Employed by the NCSCE

Archival research was used to review existing NCSCE records and documents in addition to examining previous NCSCE revenue generating strategies. The research has helped to determine which strategies represent viable revenue generating opportunities in addition to exposing the NCSCE's largest expenditures. With this knowledge, a better understanding of how the NCSCE operates, and how we can help improve its revenue generating strategies was formed.

3.3.2 Review Funding Methods of other NPOs

Revenue generation methods employed by other NPOs were studied, providing insight about establishing a dependable revenue stream. Some NPOs publish annual financial statements online, which allowed us to review their financial history, and learn about which funding methods have been most effective. The American Association of University Women (AAUW), The Jed Foundation, Education through Music (ETM), the Higher Achievement Organization, The Worcester Crafts Center, and the District of Columbia College Success Foundation (DC CSF) were all contacted via phone or email and questioned on their funding methods. Contacting organizations that do not disclose specific funding methods online would provide us with the opportunity to speak directly with a representative from that particular NPO. Questions regarding the effectiveness of certain funding methods and the NPO's financial outlook were asked in addition to questions concerning the risks and obstacles that need to be considered and discussed. Our evaluation of alternative funding methods will help The Center weigh the advantages and disadvantages of each funding method.

3.3.3 Interview Non-Profit Funding Professionals

Interviews with the NCSCE staff were performed so that we could gain an insight into The Center's finances and operation. The interviews with The Center's staff were conducted in accordance with the interview protocol which can be found in Appendix C. Additional interviews were conducted with experts on financing and operation NPOs, which included Janet Pane-Joyce, Elena Glatman, and Frank Lemire, who all represent the WPI funding offices, Dr. Whalen from the Forum on Education Abroad, Vice Provost Manning from the WPI Research Office, and the CEO of the Jed Foundation, John MacPhee. Jonathan Bucki, who works for the NCSCE as a strategic planning consultant was also interviewed and questioned about the funding strategies he is familiar with in addition to other NPO staff members. Information gained from these interviews were incorporated throughout the document, in addition to the full interview summaries which are available in Appendix D.

3.3.4 Revenue Method Profit & Loss Calculations

Summative profit & loss (P&L) calculations for each revenue generation method discussed in the document were created. A P&L for each proposed revenue generation method was created to present the NCSCE with a sample financial scenario for each funding method displaying how it might positively impact The Center. Each P&L was prepared in an impartial manner using historical NCSCE data along with data gathered about relevant stakeholder and target markets so that estimated values used in the document are as realistic as possible.

3.4 SUMMARY

This chapter has outlined the methods used to accomplish our goal of comparing the two organizational models The Center is exploring, and developing recommendations that can be used in a strategic plan to minimize its dependence on federal grant funding. Our comparison and evaluation of funding models has involved archival research, interviews, and an evaluation of current and past NCSCE finances. Through the compilation and comparison of all of the research, interviews, and analyses, we addressed the advantages and disadvantages of an organization attached to a fiscal sponsor, and of an independent NPO. Recommendations were made to help establish a well-structured strategic plan that outlines sustainable ideas which the NCSCE could employ in the future.

CHAPTER 4 - RESULTS

Through interviews, research, and the analysis of pertinent documents, we obtained necessary information that will allow the NCSCE to make an informed decision regarding the future of the organization. Two organizational models and several revenue generating strategies were researched, accompanied by a financial analysis of the NCSCE and other non-profit organizations. A general target market was outlined, and an overview of federal and private funding was provided.

4.1 FISCAL SPONSORSHIP

One way in which the NCSCE could chose to organize is by attaching itself to a fiscal sponsor. Fiscal sponsorship is a relationship between three parties: a donor, the service provider, and the fiscal sponsor (Solomon, 2008). The donor is the person, foundation, or government agency that is making the donation or funding the grant for a project. The service provider is the party that is performing the service or running the program for which the donation is being made. The fiscal sponsor is a NPO that manages the funds and services on the behalf of the service provider. The donor provides the money designated for the service provider to the fiscal sponsor, who is responsible for accounting for the money on its own tax documents, who then in turn provides financial and human resource services to the service provider (The Non-profit Association of Oregon, 2013). In return for its work, the fiscal sponsor is allotted a percentage of the funds for itself as an administrative fee, also known as an indirect as described in [Section 2.4.3](#).

When establishing a fiscal sponsor relationship, there are many criteria that must be met (The Non-profit Association of Oregon, 2013). The service provider does not need to be a 501(c)(3), but must be eligible for 501(c)(3) status. The fiscal sponsor has full control over the distribution of funds to the program, and assumes all of the risk and liability associated with the project. "Pass-through funds," or funds that are so heavily restricted by the donor that it is not possible for the fiscal agent to take its

indirect without violating the terms of the donation, cannot be accepted. Using pass-through funds as a way to circumvent administrative fees cannot happen since funds donated with such restrictions are treated as direct donations to the service provider who does not have a 501(c)(3) status, and therefore making the donation not tax deductible.

A fiscal sponsorship arrangement could be very beneficial to the NCSCE. Working with a fiscal sponsor, The Center would not be responsible for its own accounting or human resource services, freeing it of the costs and effort that are associated with those activities. This would allow The Center's staff to better focus their efforts on the NCSCE's mission and minimizes the amount of internal resources required to run The Center. Donors tend to be more willing to donate a larger amount of money to an organization of substantial size, allowing a large organization to distribute its funds where they are needed as opposed to donating small amounts to numerous organizations (Manning, personal communication, Oct. 9, 2013). Additionally, some donors may have special rules or limitations that prevent them from providing grants to smaller or less established organizations, meaning that the NCSCE may not receive certain funds if it is not attached to a fiscal sponsor.

4.1.1 Fiscal Sponsor vs. Fiscal Agent

Fiscal sponsorship is an arrangement in which the sponsor has direct control over the money given by donors and distributes the money to the program on its own accord (Nober, 2004). In this structure, any funds that are misused are the responsibility of the fiscal sponsor, creating a stronger sense of accountability and oversight of the service provider by the fiscal sponsor. Liable for any misconduct, the fiscal sponsor will carefully monitor the service provider, and ensure that it is following any guidelines set by the donor and/or applicable financial laws.

The term "fiscal agent" is often used in place of fiscal sponsor although it should not be, as it implies a very different type of legal arrangement (Nober, 2004). Under the legal definition of agency, an

agent works on behalf of its principal, in this case the service provider. The service provider maintains full control over its finances and directs the fiscal agent in its actions. If a project used a non-profit as a fiscal agent rather than a fiscal sponsor, they would be directly violating tax laws that apply to NPOs. For any form of partnership to be a legal relationship, the fiscal sponsor must have complete control over the funds, with the service provider working for the sponsor and not the other way around. Fiscal agencies are typically undesirable, as it is hard to determine liability in the event of financial indiscretions.

4.1.2 College or University as a Fiscal Sponsor

Using a college or university as a fiscal sponsor is a common practice, and is how the relationship between Harrisburg University and the NCSCE is currently established (Manning, personal communication, Oct. 9, 2013). For organizations similar to the NCSCE in size and mission, universities make for attractive fiscal sponsors because it is often easy to find a university that shares ideals and goals with the organization. Universities also have the benefit of possessing existing infrastructure to handle the work that is associated with processing a grant.

4.1.3 Professional or Other Association

Organizations exist whose mission is to act as a fiscal sponsor for organizations who have not yet acquired 501(c)(3) status (New Organizing Institute, 2013). Organizations like the New Organizing Institute offers its services as a fiscal sponsor to groups without 501(c)(3) status. Unlike a university, an association like the New Organizing Institute offers its services exclusively as a fiscal sponsor, meaning that its resources are dedicated to the efficient processing of donations and assisting the programs and organizations that it sponsors.

4.1.4 Time Frame

The time for an organization to begin working with a fiscal sponsor is highly variable. If there is a preexisting relationship between a group and a sponsor, it will take significantly less time to establish a

fiscal sponsorship than it would if the group has to find a new potential sponsor. Once a sponsor is found, the sponsor and service provider will need to establish terms of the relationship.

4.1.5 Risks

Entering into a relationship with a fiscal sponsor is not without its risks for all parties involved (Nober, 2004). When giving money to a project that is using a fiscal sponsor, the donor must be cautious, making sure that the relationship between the service provider and the fiscal sponsor is strong and clearly defined. If a donor gives money to a fiscal agent rather than a fiscal sponsor, its funds could be misused without any system of liability in place.

When agreeing to become the fiscal sponsor for an individual or an organization, the non-profit must fully evaluate the potential project (Nober, 2004). Being completely liable for the project, a sponsor must be sure that the service provider is capable of completing it. If the sponsor agrees to take on an organization with poor leadership or financial standing, the sponsor may reconsider agreeing to host that particular organization.

The service provider must also enter into a relationship with a fiscal sponsor very carefully (Nober, 2004). A sponsor with poor internal structure, lacking the resources to properly and effectively manage incoming grants, must be avoided as it could negatively impact the success of the project. A group seeking a fiscal sponsor must also create a written document that clearly outlines the terms of the relationship, including information concerning the services both sides will provide, administrative fees, and rules and conditions for the termination of the relationship.

4.1.6 Taxes

In a fiscal sponsorship, it is the duty of the fiscal sponsor to file all tax information relating to the grants and donations received (Colvin, 2006). The fiscal sponsor uses its 501(c)(3) status on behalf of the service provider, allowing donations and grants to be accepted tax-free. As funds are given to the

sponsor and not to the service provider, all grants and donations will be filed with the rest of the sponsor's taxes.

4.2 CURRENT NCSCE FISCAL SPONSORSHIP

The relationship between the NCSCE and Harrisburg University is different from the typical relationship between a fiscal sponsor and a service provider. The NCSCE is not its own NPO; rather it is a research center that works under Harrisburg University. Despite this, The Center is highly independent, with its own office, staff, programs, budget, and management structure. Harrisburg acts as a fiscal sponsor to the NCSCE, which is explained in [Section 4.1.1](#) of this document.

4.2.1 Operations

Harrisburg University acts as a fiscal sponsor for the NCSCE and therefore the NCSCE maintains no direct access to its own funds. When the NCSCE requires funds, The Center must send a request to Harrisburg and wait for the accounting department to process its request. The Center's bills including phone, internet, utilities, and credit card, are all sent to Harrisburg for payment.

The Center makes every effort to charge its expenses to its credit card as that is the most streamlined payment method available to The Center's staff (Tarka, personal communication, Nov. 12, 2013). On a monthly basis, NCSCE staff review the credit card statement along with any other reimbursements or payments, coding each expense to a particular NCSCE account.

In working with Harrisburg, The Center has dealt with delayed payments, due to cash flow issues at Harrisburg, which has strained the relationship with vendors that The Center works with. When monetary issues arise, items are prioritized for payment usually starting with payroll, followed by money that was already spent, like credit card bills. Simple reimbursements to NCSCE participants or sub award grants offered by The Center can be left at the bottom of the "to be paid" pile.

Much like The Center's bills, the NCSCE's payroll checks are issued from the Harrisburg accounting department. Although checks are issued with Harrisburg's name on them, there are specific accounts at Harrisburg which hold protected funds for the NCSCE to request payments from.

4.2.2 Indirect Funding from Harrisburg

The NCSCE was founded along with Harrisburg University, both of which stemmed from the first SENCER grant. Karen Kashmanian Oates was a Co-Principal Investigator on the SENCER grant and was also the inaugural Provost at Harrisburg. Both organizations came to the agreement that Harrisburg would pass all indirect money from the NCSCE's grants directly to the NCSCE, resulting in an atypical relationship.

The forwarding of the indirect to the NCSCE is unusual since that money is generally held by the sponsoring institution, Harrisburg University in this case, to use as it desires. The sponsoring university receives the indirect, which is typically used to cover the costs associated with hosting the grant, but it is not required the funds be used for this purpose. A detailed explanation of the indirect rate and its application can be found in [Section 2.4.3](#) of this document.

4.2.3 Drawing Down Funds

The drawing down of funds allows an organization to receive funds before they are typically expended on a monthly or quarterly basis. However, it requires more frequent check-ins and reports to the granting agency. If an organization requires grant award funds to support its operation it may draw down funds before they are expected to be utilized. This is caused by an organization not possessing enough operating capital to expend funds on grant programs while waiting to be reimbursed.

4.2.4 Risks

Although the current arrangement the NCSCE has with Harrisburg has remained unchanged since the founding of both institutions, there is no guarantee that their relationship will remain

unchanged in the future. Since Harrisburg serves as the NCSCE's fiscal sponsor and The Center is simply a research center under Harrisburg, any grant award which The Center applies for will be written directly to Harrisburg. Although Harrisburg is expected to ethically disperse the funds, it is still in a position of control over the grants, reducing the power possessed by The Center over its own grants.

If Harrisburg were to become financially unstable, the funds earmarked for The Center could be delayed or reallocated. If Harrisburg were to encounter cash flow issues, meaning its debts were larger than its available funds, expenses are prioritized and sub awards or other payments requested by The Center might not be immediately processed. Most grants operate on a reimbursement structure so persons within the organization or the organization itself must provide operating capital allowing for the day to day operations of the organizations while a reimbursement is processed. When the ability to get reimbursed becomes questionable, tension and uncertainty is introduced into the organization. Exceptions to this reimbursement model can be made when organizations request to draw down funds as described previously.

To eliminate any uncertainty, the NCSCE has requested a full and speedy pay-out of the current grant award (Tarka, personal communication, 30 Oct. 2013). This pay-out would be placed into NCSCE accounts which are available exclusively for the use of the NCSCE.

4.3 INDEPENDENT STRUCTURE

The second organizational structure that was evaluated for the NCSCE is the independent structure. As a NPO or association, the NCSCE would not be attached to a fiscal sponsor and would apply for 501(c)(3) or 501(c)(6) tax-exempt status.

All organizations that qualify under the 501(c)(3) section of the Internal Revenue Code (IRC) are automatically considered private foundations, with a few exceptions to this rule that are explained in section 509(a) of the IRC (IRS, 2013). Typically, organizations that fall into the excluded sector are those

who have public support or have a supporting relationship with other similar organizations. The excluded organizations are informally referred to as public charities, although the IRS does not officially recognize this term.

Should the NCSCE choose to become an association instead of a foundation, it would apply for 501(c)(6) tax-exempt status. While similar to a foundation, there are some differences that set an association apart from a foundation, namely who its services are provided to (IRS, 2013). Foundations seek to serve the general public and members, while associations only work to serve members.

4.3.1 Private Operating Foundation

Once an organization has received its 501(c)(3) status, which is explained in greater detail in [Section 2.1.1](#), then it is automatically considered a private foundation (IRS, 2013). In the Tax Reform Act of 1969, Congress developed a few distinctions between private foundations and public charities. A subcategory of private foundations was also established, known as private operating foundations, which combines aspects of private foundations and public charities. A private operating foundation is essentially a private foundation that conducts its own educational or charitable programs and activities. Unlike private foundations, private operating foundations are allowed to receive grants from other foundations and make donations to other organizations as it sees fit. An organization that is strictly a private foundation can only give grant money to help other organizations run initiatives and activities. Private operating foundations and public charities are both considered appropriate recipients of grant money from any private foundation.

In general, to qualify as a private operating foundation, there are certain qualifications established by the IRS that must be met by an organization after it has qualified for NPO status. These can be seen in Figure 4-1 below.

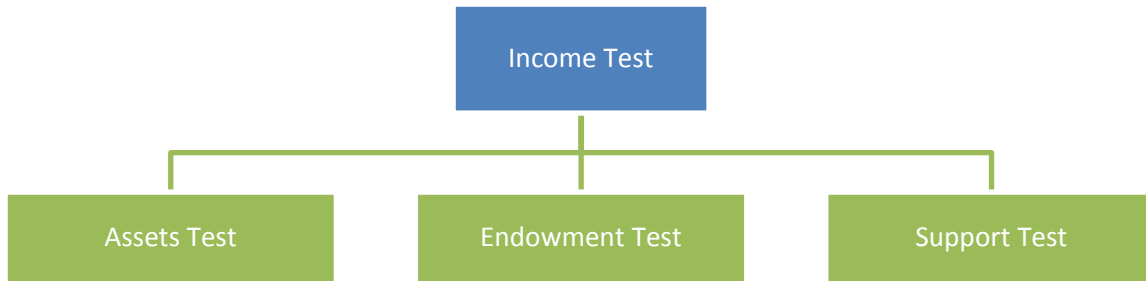


Figure 4-1: Four Primary NPO Test's (IRS, 2013)

The first requirement an organization must satisfy is the income test, shown at the top of Figure 4-1. The income test ensures that the organization is using a significant amount of grant money and other sources of funding for its charitable activities and initiatives.

An organization must also pass one alternative test, which could be the assets, endowment, or support test, shown at the bottom of Figure 4-1. An organization will meet the requirements of the assets test if 65% or more of its assets are being used for its initiatives and activities that are satisfying the charitable purpose of the organization. The endowment test is very similar to the required income test, and many organizations find that if it passes the income test, it also meets the requirements of the endowment test, which requires that a private operating foundation makes distributions of a minimum of two-thirds of its investment return for its charitable goals, initiatives, and programs on a regular basis. The requirements of the support test are met if 85% or more of a foundation's support is normally received from the public or from five or more other exempt organizations which are not private foundations. Also, no more than 25% of the foundation's support can be received from any one specific organization, and no more than 50% of its support can be from gross investment income. It is also important to note that support from a government organization is treated as support from the general public.

To determine the required amount of money to be set aside for distribution concerning the charitable purposes of an organization, Congress made the IRC 4942 tax, which provides a formula for calculating the required value. For private foundations, this donation must be made outside of the organization. Private operating foundations have the advantage of not being subject to the IRC 4942 taxes due to the different distribution requirements set up by the IRS (IRS, 2013). The distribution requirement that the IRS gives to private operating foundations is that a percentage for distribution can be used internally within the organization.

Taxpayers' contributions made to private operating foundations have the advantage of being deductible in the same way that contributions to public charities are tax deductible (IRS, 2013). Under IRC 170(b)(1)(A)(vii) and IRC 170(b)(1)(D)(i), contributions made by the general public to private operating foundations are deductible for up to 50% of the taxpayer's adjusted gross income. Presenting this tax benefit to the general public can be appealing to an organization looking to collect public donations for its initiatives.

Private operating foundations are tax exempt under IRC section 501(c)(3) (Grant Space, 2013). While there may still be tax requirements on unrelated business income, most revenue generated by the foundation will not be taxed. A large source of revenue generation for private operating foundations typically comes from federal and private grants.

One of the main disadvantages of creating a non-profit and receiving private operating foundation status is that it takes time, effort, and money, all of which need to be accounted for before filing for tax-exempt status. A private operating foundation is an entity under federal, state, and local laws, so the use of professionals, which could be an attorney or accountant, may be necessary for the completion of tax paperwork and other financial documents (Grant Space, 2013). Applying for federal tax exemption usually costs around \$200-\$800, in addition to the fees some states charge for

incorporation or any fees associated with using an attorney or accountant. As a tax-exempt organization, a NPO must keep detailed records of finances and submit regular filings to the IRS and state government to maintain its tax-exempt status. Because a non-profit is an organization working for the public interest, all tax documents are available for public inspection. These filings limit the amount of personal control an individual has in a private operating foundation or in a private foundation due to the laws and regulations created by the IRS and state governments. The organization's own articles of incorporation and bylaws that were established during the initial application for 501(c)(3) status also potentially limit one's personal control. All individuals associated with the private operating foundation or a private foundation must abide by these laws and rules.

4.3.2 Grant and Donations to Private Operating Foundations

Using other private operating foundations as examples, it is clear to see how grants and donations affect finances. By understanding how successful NPOs generate revenue, an organization looking to become a private operating foundation can establish strong practices to follow. The organizations in this section were chosen at random from a website which provides access to 990's which are open to public inspection. A basic filter which only looked at private operating foundations was applied to the search to ensure the selected organization would have sufficient data.

Africa Uplifted works to improve the lives of people who live in Sierra Leone by supporting initiatives and projects in the fields of healthcare, education, essential needs, spiritual needs, and economic development (Africa Uplifted, 2013). Africa Uplifted is a NPO that has 501(c)(3) status and was founded in 2011 to be a successor to The Lance and Julie Burma Foundation. In 2011, Africa Uplifted had a total revenue of \$453,710.

The Charter School Growth Fund is a non-profit who invests into the nation's highest performing charter schools with the hopes of expanding the impact the schools have on underserved students

(Charter Growth, 2013). The Charter School Growth Fund believes that there needs to be significant changes to transform K-12 education in this generation and to meet the needs of students. In 2011, they had a total revenue of \$81,650,467 and 18 donors.

The Majella Foundation uses community resources to offer help and services to thousands of pregnant women (Majella, 2013). Majella was created in the summer of 2005 to help educate women on what resources are available to them during a pregnancy. In 2012, they had a total revenue of \$1,211,244 with five donors.

The Arthur B. Schultz Foundation runs the Thriive initiative, which seeks to improve the business and social prospects in developing communities. The main objectives of Thriive are to develop business production, create new jobs, and to engage social responsibility in communities. In 2011, Thriive had a total revenue of \$501,000.

Looking at Figure 4-2 below, it can be seen that all four organizations listed received revenue which originates from private foundations in the form of private grants. A small amount of each organization's revenue comes from individual donations and other sources, however the primary source of all of their funding are grants. Even though the sources of private grants and donations are completely different for all four organizations, each organization displays a similar pattern such that they receive significantly more revenue from private grants than general donations.

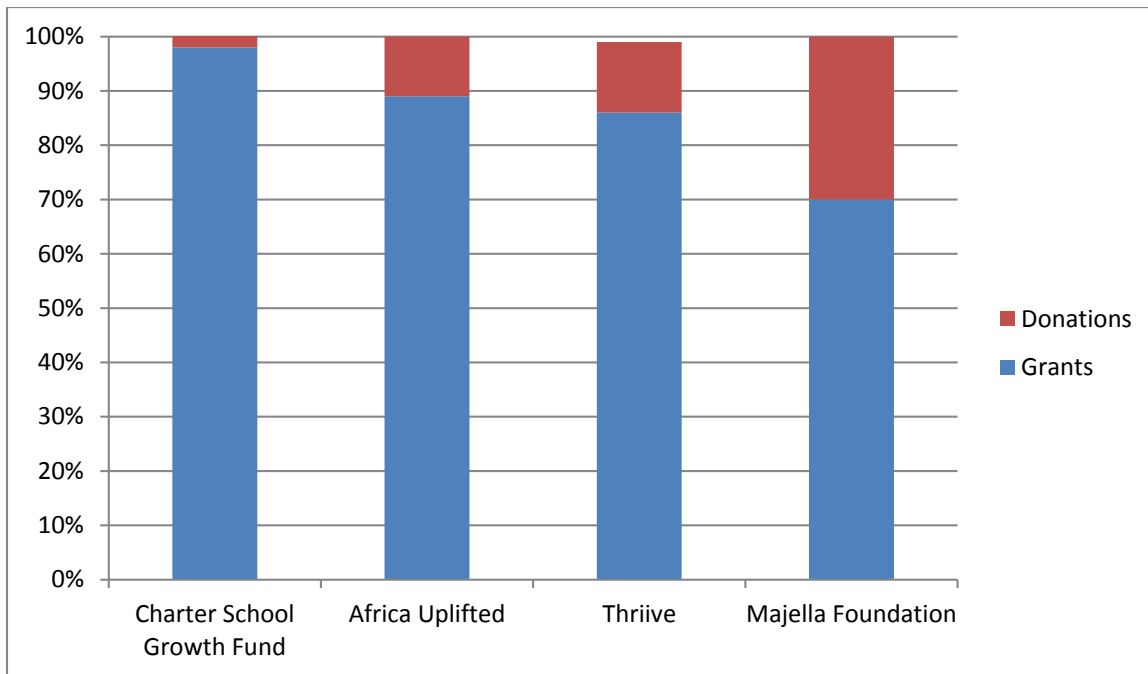


Figure 4-2: Percentage of Revenue Received by Example Organizations (Africa Uplifted, 2013) (Charter Growth, 2013) (Majella, 2013) and (Thrive, 2013)

Should an organization choose to follow the path of becoming a private operating foundation, private grants in particular should become a main focus for revenue generation with less focus on receiving donations. Figure 4-2 clearly shows how important private grants are to private operating foundations. An organization looking at becoming a private operating foundation should make private grants a focus for the organization.

4.3.3 The 100% Model

Some NPOs use a non-traditional approach to handling the finances of an organization. Non-traditional ways of fundraising can spark an interest among the general public, and may even attract the attention of other foundations that are awarding grants. While an organization must be careful in planning any non-traditional methods of fundraising, the method presented below could be a unique opportunity for an organization considering becoming its own NPO.

Charity: Water is an independent non-profit that uses 100% of the public donations it receives directly on funding clean water initiatives (Charity Water, 2013). Charity: Water claimed that by funneling 100% of donations into its initiatives, it could still find another way to cover operating costs. It uses specific private donations, money from other foundations, and sponsors to cover everything from staff salaries to office rent.

Charity: Water chooses to work with local partners because it believes that investing locally is the best way to create a long-term relationship and bring about positive results for clean water initiatives (Charity Water, 2013). It relies on a group it refers to as “The Well,” which is a group of donors and grants that cover its operating costs to allow Charity: Water to fulfill its promise of using 100% of public donations on its initiatives.

In 2012, Charity: Water raised \$33 million total in its fundraising campaigns. \$22 million was used to fund over 2,000 clean water projects around the world and \$11 Million was used to cover its operating costs (Charity Water, 2013). Of Charity: Water’s total revenue, its largest amount, 56%, comes from the public in the form of private donations, with the remaining 44% coming from foundations, corporations, and special events. In 2012, Charity: Water had 90,057 individuals donate to its public fund, with the average donation being around \$188. This was accomplished partially through its online fundraising platform, called MyCharity: Water, which in three years has raised over twenty million dollars. An additional online campaign is the birthday campaign which, since its implementation, has prompted 6,262 individuals to donate money that would be spent on their birthday and donate it to Charity: Water instead, raising \$2,925,890 for clean water initiatives. In addition to the birthday campaign, Charity: Water has a program which lets the public create their own unique fundraising programs to assist the organization in meeting its fundraising goals. Some examples, named by Charity: Water, include Noah Barclay Weaves for Water, where Noah wove baskets and sold them to raise funds;

John and Andrew Climb Mt. Rainier, where John and Andrew chose to become more fit and active, accepting donations for their climb up Mt. Rainier after they got in shape; and Cubby Graham Grows a Beard, where Cubby grew out his beard for all of the donations he raised. Each of these fundraising platforms were created by individuals who believed in the mission of Charity: Water, and who took it upon themselves to help in Charity: Water's fundraising. In addition to these individual platforms, Charity: Water hosts an annual Charity Ball, which in 2012, raised three million dollars. The Charity Ball only generates a small amount of the total donations received, but Charity: Water still finds that hosting the ball is vital to its fundraising campaign and for building its relationship with donors.

Charity: Water is non-traditional in how it raises money for its initiatives, with its 100% model setting it apart from other organizations. It proves that other NPOs might bring attention to their own initiatives through the use of non-traditional fundraising ideas, attracting new donors and generating larger revenue.

4.3.4 Becoming an Association

An association is a group of people who come together supporting a common business goal or idea (IRS, 2013). To qualify under section 501(a) as a tax-exempt organization, the association must have a written document proving it was founded as an association, and showing the purpose of the association. The legal definition of an association can vary from state to state, but the general concepts stay the same.

An organization can be created as a corporation, a trust, or an unincorporated association, all of which qualify for tax exempt status (IRS, 2013). Associations that meet the requirements of the IRC section 501(c)(6) are exempt from federal income tax since they are viewed as business leagues. To qualify for tax exemption as a business league under section 501(c)(6) of the IRC, an organization must be an association with a group of people who have common business interests, a goal to promote those

interests, and who do not engage in a standard business model which is carried out in a for-profit manner. Section 501(c)(6) of the IRC provides tax exemption for many models of associations, including business leagues, chambers of commerce, and real estate boards. Promoting higher business standards in communities, promoting new and better business methods, and educating the public on pressing issues in their communities all qualify as a common business interest. One key difference that separates associations from foundations is that associations are usually membership based, and must file 990-T tax returns, which are used to report an association's taxable business related income. Should an organization become an association, it would need a clear and defined path concerning how it will create revenue from membership and how it will best serve its members.

4.3.5 General Timeline for Becoming a NPO

A timeline for organizations seeking to become their own non-profit was provided by the University of San Diego, outlining the basic steps an organization needs to take to become a NPO and approximately how long each step will take.

The initial three months of this process should be spent developing ideas for the NPO, and researching organizations that may already be filling the role in society that the new NPO desires to fill. If a new NPO enters an area in which another organization already operates, they will be competing for limited funds, and the new organization may have a difficult time establishing itself (USD, 2013). A potential NPO can apply for tax-exempt status through the IRS. While awaiting application approval, a leadership board should be selected to serve the best interest of the organization.

In month's three to six, the creation of the board of directors and the organization should take place, and a clear mission statement should be established along with the organization's goals and objectives (USD, 2013). At this time, potential revenue sources should be established, which can involve contacting other foundations and looking at grant opportunities.

In months six to nine, the grant application process should start, and any follow up information for the IRS should be completed (USD, 2013). In these months, a strategic plan should also be developed along with different programs or initiatives that will be operated by the NPO. It is at this point in time that the potential NPO needs to develop evaluation criteria to measure the success of its initiatives, which will allow an organization see how effective its initiatives are.

In month's nine to twelve, board members and staff should undergo training in how to implement the organization's initiatives and programs (USD, 2013). It is at this stage that funding should be officially secured, allowing the new NPO to function and begin work on its initiatives.

The NCSCE is much farther along in this theoretical time frame than most organizations because the NCSCE has existed for over ten years, and has an established board of directors, initiatives, mission statements, and funding. However, if the NCSCE were to seek independent 501(c)(3) status, processing the application could still take as long as a year. Receiving tax-exempt and NPO status from the IRS can be very time consuming, and the NCSCE would need to transfer its current grants and/or network to connect with other foundations to secure new grants.

4.3.6 Budgeting

Should an organization choose to become its own NPO, it would need to consider its budget and make sure it has enough money not only to get started, but also to support itself through the application process.

The average fee for the initial filing of the articles of incorporation is approximately \$115, excluding costs incurred if professional assistance is required. (New Jersey, 2013). Once an application is submitted, an organization can expect a three to four month turnaround for the IRS to process the application. Some states require a certified audit when the organization's gross revenue exceeds a certain amount, potentially necessitating further budgeting for attorney or accountant fees.

At the federal level, organizations filing for 501(c)(3) status (Form 1023) will be charged a filing fee, which in 2010 was \$400 for gross annual revenues of \$10,000 or less, and \$850 for gross annual revenues above \$10,000. While the filing fees themselves aren't substantial, the fees for professional assistance for filings can be large. Also, an organization looking to become a private operating foundation needs to find steady financial sources, mostly in the form of grants from private foundations. If an organization is currently in a relationship with a fiscal sponsor, it also needs to budget for any resources that are currently supplied by the fiscal sponsor.

4.3.7 Risks

There are many risks that an organization looking to become a NPO must consider. To deal with these risks, the organization needs to develop some kind of risk management plan, as some risks are unavoidable. According to the National Council of Non-Profits (2013), risk management involves "scenario planning," or looking ahead and spotting threats to an organization, and creating plans to deal with them. When a non-profit is successful at risk management, it is taking a proactive role in reducing the likelihood of major problems arising.

The US Department of Health and Human Services lists many categories of risk, and they are shown in Figure 4-3 below. Each category of risk is equally important to address, as they could all be damaging to an organization trying to develop a successful NPO.



Figure 4-3: Categories of Risk According to (US Department of Health & Human Services, 2013)

Fraud can come in many different forms, including burglary, swindling, forgery, and embezzlement (National Council of Non-Profits, 2013). An organization should take proper measures to ensure the safety of its property and money, as fraud can happen both inside and outside of an organization, and can permanently damage an organization.

Non-profits have specific goals, objectives, and missions for which funds are set aside, and it is the responsibility of the board to manage money in an ethical manner, and ensure that the organization stays focused on its mission statement (National Council of Non-Profits, 2013). Many NPOs receive grants and other funds with limitations on its use, and those limitations need to be respected at all

times. Improper use of funds may cause donors to withdraw funds or demand paybacks from the organization, and could impact the future acquisition of grants.

Although non-profits have tax-exempt status, they may still be required to file certain taxes, which can include employment tax, Social Security, FICA, sales tax, and state and federal income taxes (National Council of Non-Profits, 2013). Failure to pay these taxes can result in heavy fines. Also, unrelated business income is becoming a significant concern as non-profits seek creative ways to raise funds, as it can be subjected to taxation. To be taxed as unrelated business income, the income must meet the following three requirements: Conducted for business purposes, regularly carried on, and not related to furthering the tax-exempt purpose of the organization (Rebecca Moore, Interview, 22 Nov. 2013).

The IRS's approval of tax-exempt status is a privilege, and many rules and regulations must be followed to keep this status (National Council of Non-Profits, 2013). Failing to meet the charitable purpose requirement, misuse of funds, private inurement, and certain types of political activities can all result in the IRS revoking an organization's non-profit status (IRS, 2013). In regards to political activity, a NPO may not take part in direct political activity, but the IRS states that they may communicate with government representatives, petition the government, and offer unbiased views of an issue to educate the public.

Fundraising is a key operation for every NPO, but it does present some risks. An organization must protect itself from unethical fundraising, where it may never see the money that was raised. A NPO must also guard itself against the improper use of its name and logo, especially in regards to funding because donors may not want to work with an organization if they believe that the NPO is associated with certain groups. Organizations will often spend valuable resources to negotiate a new

sponsorship only to discover that the new relationship is untrustworthy, making the selection of potential donors very important in avoiding the loss of funds.

When considering financial risks, most of the attention is directed towards financial loss; however, all non-profits have physical assets at risk as well. Copyright protection is very important to ensure that all tools and curricula owned by a NPO are distributed according to the will and benefit of the NPO.

The risks highlighted in Figure 4-3 must be kept in mind while operating a NPO, as failure to do so can jeopardize the entire organization. Although independent audits can be performed by a certified public accountant in an effort to reduce financial risks, an audit is not designed to detect fraud and serves only to declare current financial records.

4.3.8 Taxes

The IRS form 990 is the annual tax return that tax-exempt organizations must file with the IRS (Guidestar, 2013). All 501(c)(3) organizations, regardless of income, are required to file a 990, as it provides the IRS and the public with information regarding the organization's mission, initiatives, and finances. There are exceptions to the filing rule, including religion-based organizations, state institutions, and organizations that are engaged in a fiscal sponsorship, where the sponsor files the 990 form. There are different types of 990 forms depending on the exact structure of the organization. Form 990-PF is filed by all 501(c)(3) private foundations and 4947(a)(1) charitable trusts. The 990-N or "ePostcard" is for non-profits to file if its income was less than \$25,000 for the previous year or less than \$50,000 for the current year. Form 990-EZ is a return that non-profits which have met the income and asset tests can choose to file if its income was less than \$500,000 and its assets were less than \$1.25 Million for the previous year. For the current year, the levels must be less than \$200,000 and assets less than \$500,000. Form 990 is the general form that all filers who do not fall into a particular category must file under. The

date for filing the 990 form depends on the cycle of each organization's fiscal year, with every organization required to file by the fifteenth day of the fifth month after its fiscal year comes to an end. While organizations are not required to file using professional assistance from a tax lawyer, most hire professionals to complete the form due to the difficulty associated with filing these forms (Rebecca Moore, Interview, 22 Nov. 2013).

If an organization chooses to become a NPO, it must be well educated in the tax responsibilities that accompany the position. A NPO is completely responsible for knowing which 990 form they need to fill out and when it needs to be submitted to the IRS. If the use of a tax professional is needed, the NPO is responsible for finding and hiring this person for their assistance.

4.4 FINANCIAL ANALYSIS

An in depth review of numerous organizations' fundraising efforts, grants, membership fees, events, payroll, utilities, consulting costs, and other items that can affect the net revenue of an organization are all identified in this section. Every organization operates on its own slightly different financial model, but ultimately has similar costs and revenue sources that are applicable to most organizations.

For an organization to remain viable in the long term, it must bring in more money, which is referred to as revenue, than it spends, which is referred to as expenses. Organizations which have a large amount of built up assets or cash on hand can "operate in the red," or spend more money than it may bring in, but this is not a sustainable model.

Abridged profit and loss statements were generated for the past three fiscal years, FY2009, FY2010, FY2011, based upon each organization's IRS 990 form. The 990 is a form an organization must file with the IRS to maintain its exempt status which is further explained in [Section 4.3.8](#).

4.4.1 Grant Funding

Grants, both federal and private, are a source of funding for many organizations. In recent years, the availability of federal grant funds has become less reliable as the United States remains in financially unstable times.

Twenty six government agencies spent \$537.1 billion in FY2012, up from \$493.7 billion in spending a decade ago in FY2003. This increase in funding is somewhat misleading, considering trends in the most recent three fiscal years. Figure 4-4 allows for a better understanding of the current trend in federal grant funding since it has steadily decreased since the peak in the 2009FY which was caused by the American Recovery and Reinvestment Act (ARRA). During the time period of FY2003 and FY2008 there was an average rate of 15% decline in funding. After the ARRA, from FY2009 to FY2012 the average rate of decline was 19%.

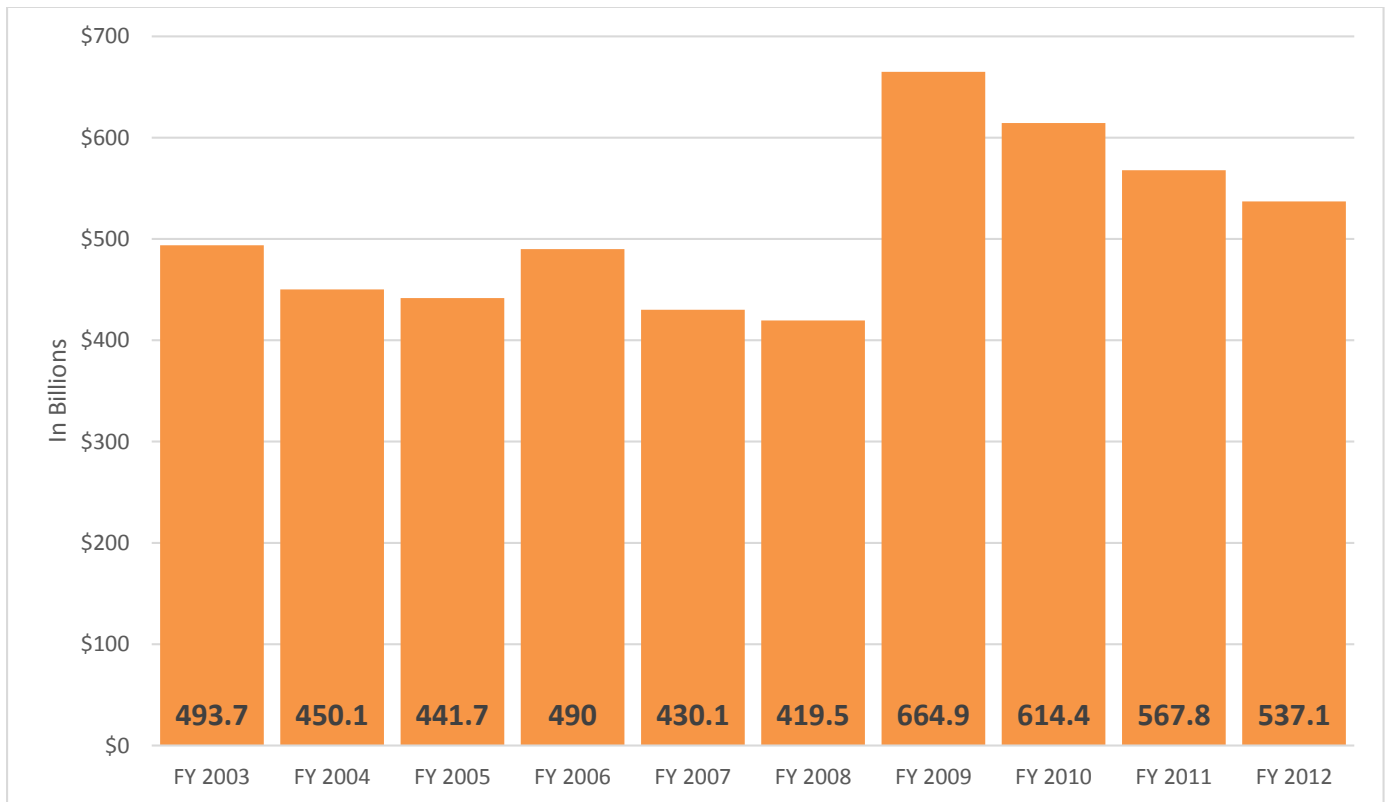


Figure 4-4: Total Federal Grant Funding \$ in Billions (Franzen, 2013)

As the Controller during the recent sequestration Danny Werfel wrote, “Given the widespread use of grants, loans and other Federal financial assistance to non-federal entities (e.g., State, local and tribal governments, non-profit organizations, and companies), sequestration will impact the funding of these activities”¹. In the same memo he continued to suggest that some agencies consider delaying awards for new funding, decreasing continuation funding and/or renegotiating existing financial obligations.

This spike in available funds translated to a higher than normal funding rate for the NSF in the 2009 fiscal year which can be seen in Figure 4-5. A jump in NSF competitive proposals can also be seen in the 2010 fiscal year, which can be attributed to the larger amount of funds available. However, the NSF has witnessed a decline in the number of competitive submissions after the 2010 fiscal year, likely attributed to the NSF’s funding rate returning to a value closer to its historical average rate of approximately 25.2%.

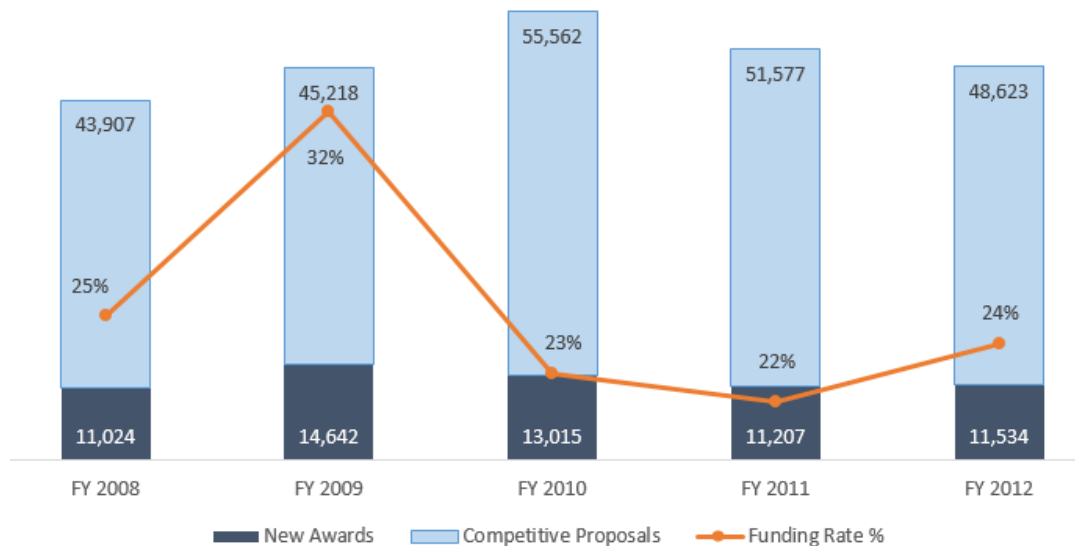


Figure 4-5: Number of Award Proposals & Funding FY2008 - FY2012 (NSF, Performance & Financial highlights, 2012)

¹ Werfel, 2013

Private foundations have also been decreasing the amount of grant money they award, meaning that organizations will find funding harder to come by at both the federal and private level. Private foundations must keep a closer watch on its payouts, as each organization’s income through donations and other revenue streams have also been affected in recent years.

Specifically, the W.M. Keck foundation has decreased its total grant awards constantly since the 2008 fiscal year. The greatest drop off in grant funding occurred in the 2010 fiscal year with just over a 30% drop from the 2009-2010FY. Across the 2008, 2009, and 2011 fiscal years, there was an approximately 15% drop in funding each year. The 2012 fiscal year only showed an 8.64% drop in funding, possibly hinting that funding levels will begin to stabilize. Figure 4-6 provides a visual representation of the value of the W.M. Keck Foundation’s grant awards in millions of dollars for FY 2005-2012.

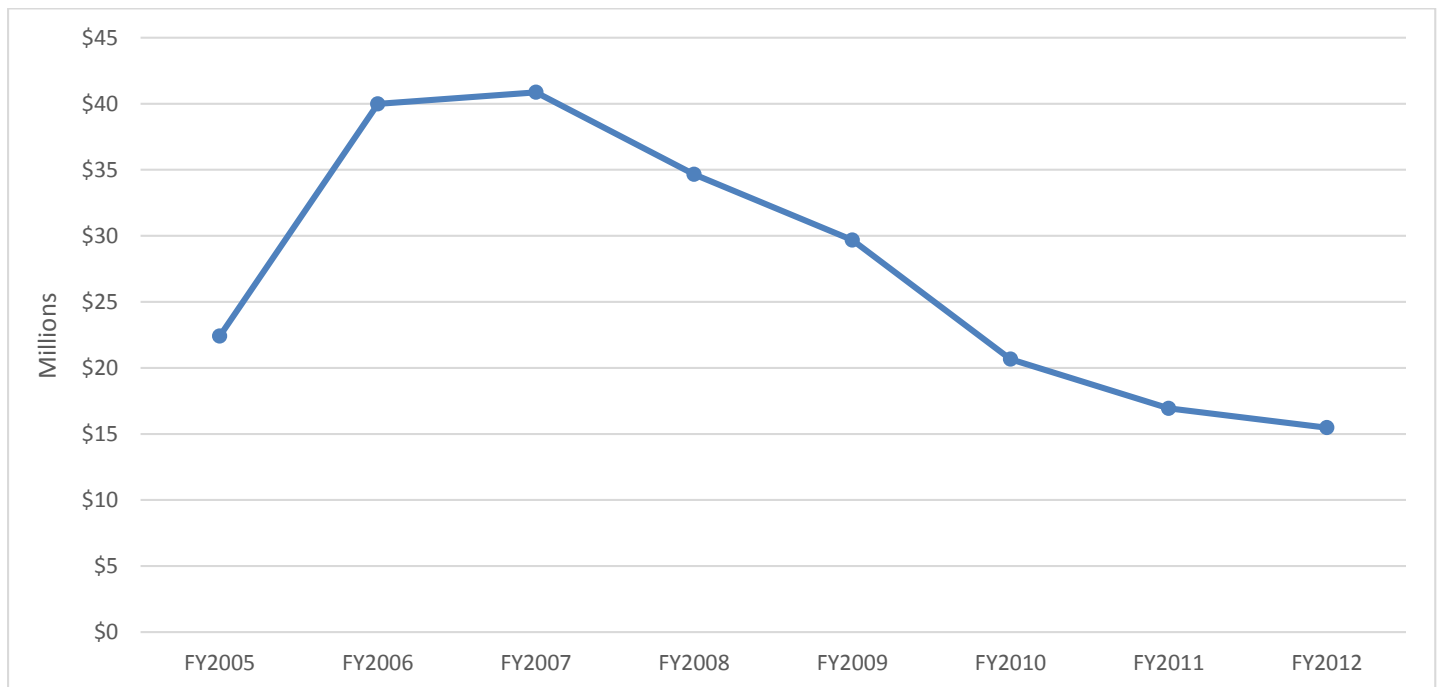


Figure 4-6: Historical Keck Foundation Grant Giving by Fiscal Year (W.K. Keck Foundation, Annual Report, 2005-2006)

4.4.2 NCSCE Operating Costs

The Center’s operating costs are distributed among numerous projects and/or grants that The Center holds at any one time. This division of costs allows The Center to operate numerous projects simultaneously while still ethically splitting its expenses across grants. One example of this division is The Center’s Executive Director’s salary of which, approximately 58% comes from the SENCER grant, 8% comes from the SENCER-ISE grant, 5% comes from the NSF Math grant, 1% comes from the EPA grant, and 27% comes from the NCSCE’s indirect funds. Similar divisions of cost centers are in place for every line item in the NCSCE’s budget. Four salaries and four general cost centers are depicted below in Figure 4-7. The figure graphically represents the division of costs between grants as discussed above.

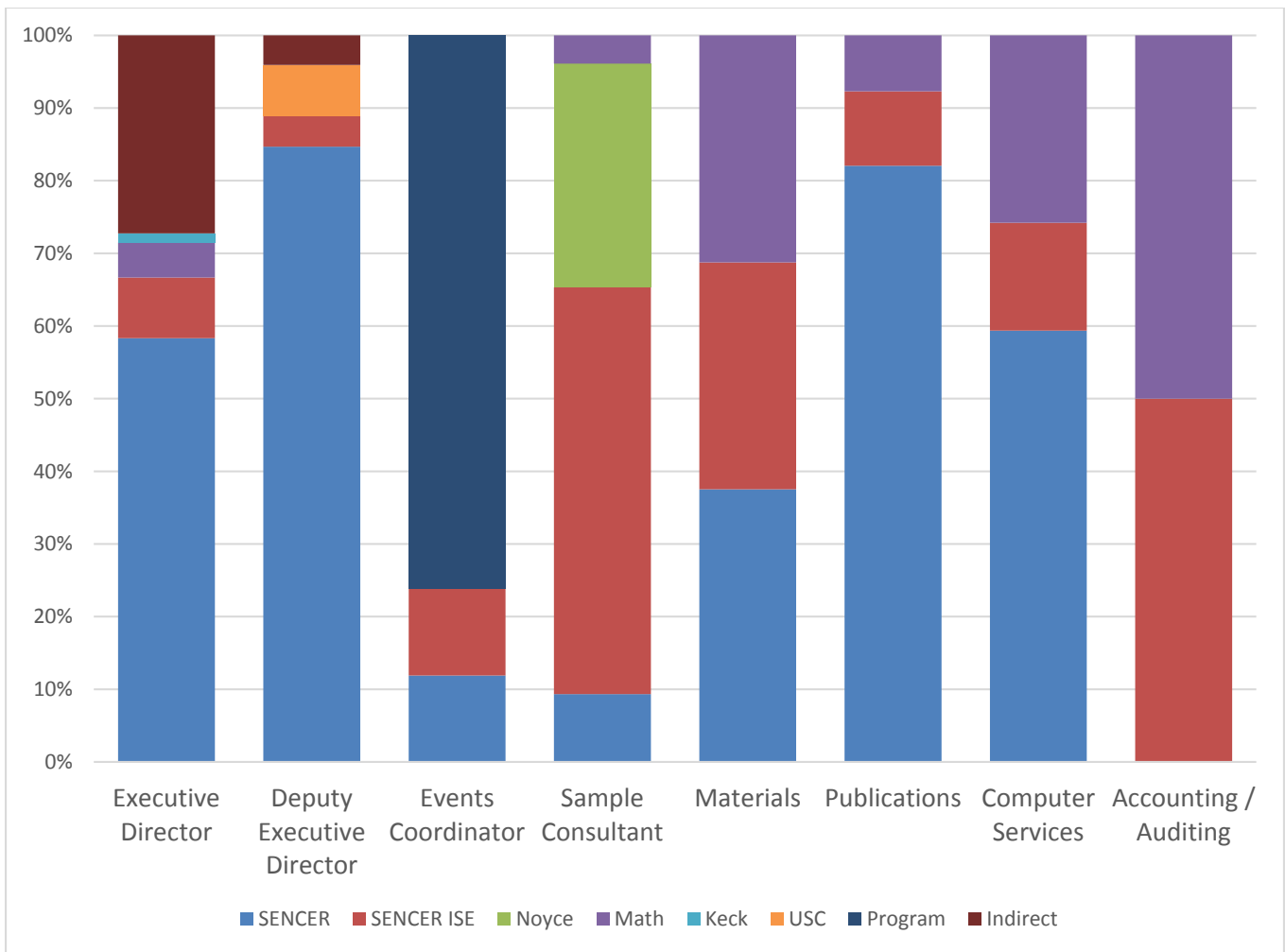


Figure 4-7: NCSCE Projected FY2014 Division of Select Expenses Among Income Sources

Since the majority of the NCSCE's funding is sourced from grants, which The Center has previously submitted a budget for, many of its operating costs are directly accounted for in the budget of each grant and are paid on a reimbursement basis. The NCSCE expects to spend \$1,707,109 in the 2014 fiscal year on operating costs and initiatives. Figure 4-8 provides an overview of the expected division between each major cost center regardless of the funding source.

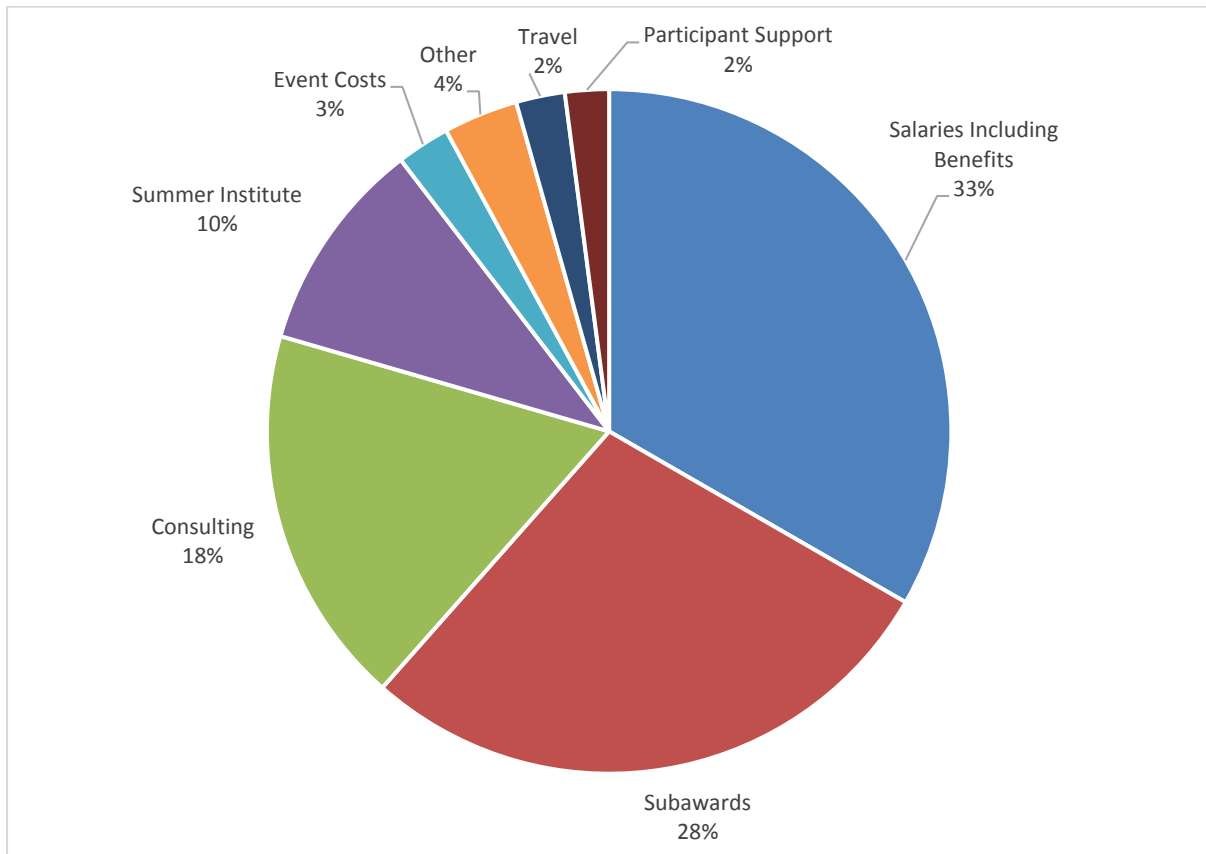


Figure 4-8: Projected NCSCE Expenditures FY2014

The two largest operating costs for The Center in its FY2014 budget are salaries, including benefits, and its sub awards to organizations who participate in grant related work. Together these two categories make up 61% of The Center's expenses. Consulting costs are the next largest expense at 18% of the organization's budget. The large percentage of consulting costs that the NCSCE incurs is understandable due to the fact that The Center only has seven people on payroll of which three make more than \$45,000 a year before fringe benefits. The salaried staff at the NCSCE require additional

support to sustain The Center’s operations, which explains why, when looking at all personnel costs and excluding special discussion leaders for major events, 51% of the NCSCE’s budget for the FY2014 is allocated to personnel.

The NCSCE solicits applications for sub awards to fulfill a wide array of needs related to its grants. Sub award funds have gone towards faculty development programs, regional meetings in emerging SENCER markets, and course release money allowing professors to develop curriculum or teach an experimental class.

Although the NCSCE has managed to decrease its overall projected expenses by \$20,817 in FY2014, this only represents 1.31% of the overall budget. The allocation of costs has changed rather significantly, almost 40% in some categories, from FY2013 to FY2014. The shifting of cost centers highlights the instability that The Center currently faces year to year. Figure 4-9 depicts the change in percentage that occurred between the FY2013 and FY2014 budgets respectively. It is important to note that a 100% change in expense represents a new expense to The Center in FY2014.

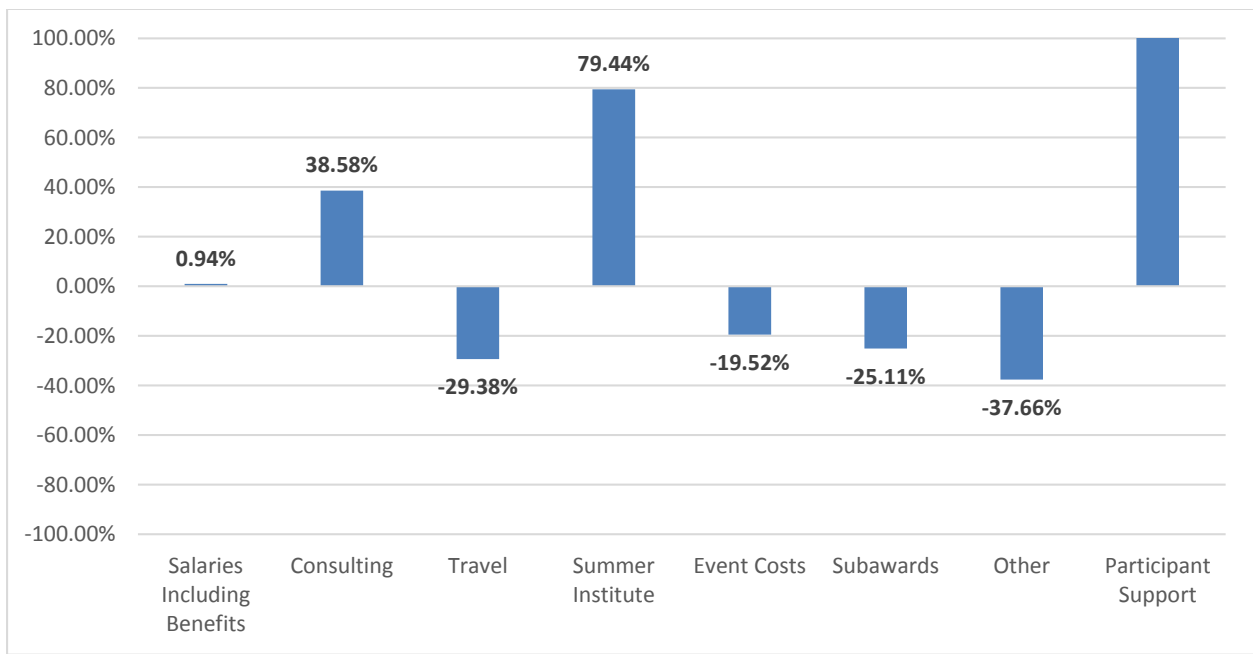


Figure 4-9: NCSCE Percentage Change in Cost Center from FY2013 to FY2014

4.4.3 NCSCE Funding Sources

The Center's primary revenue source is its grant awards which is supplemented by a small amount of conference attendance fees projected at \$130,000 in FY2014 which only makes up 8% of The Center's gross revenue. The Center's primary grants have focused on the SENCER and SENCER-ISE initiatives, but the NCSCE has received grants from the EPA and recently was awarded a new grant through the NSF for projects on Math concepts. The Center expects to receive 86.05% of its gross funding in the 2014 fiscal year from the SENCER, SENCER-ISE, and NSF Math grants alone.

The Center's financial model can be hard to understand because it does not operate on a traditional net revenue model, where income minus expenses equals net revenue. A real world application of this traditional model is exemplified in Figure 4-10 below. Revenue is generated by selling lemonade, from which the cost of the products that go into the lemonade, the expenses, are deducted, leaving the profit of the sale.



Figure 4-10: Traditional Revenue & Expense Model

The Center's revenue can directly depend on its expenses, which is a result of the reimbursement model grants operate on. The organizations that issue grants expect all funds from a grant to be used on grant related activities and do not allow for funds that have not been utilized to be treated as profit.

In a traditional financial model, and assuming a fixed income, if an organization were to budget \$80,000 on program activities, and only spend \$60,000, the balance of \$20,000 would be unspent money that the organization could not use in an unrestricted form. Under the grant reimbursement model, the proposed organization would only receive the \$60,000 in funds from the grant since that is what was spent on the actual program activities. The only profit, in a traditional sense, the organization would see from the program activities would be the portion of the indirect funds that the organization did not spend on other expenses to support the grant.

Since the organization's budget called for \$80,000 and only \$60,000 was used, the unused \$20,000 from the budgeted amount is still accessible to the grant awardee but must be used on grant related activities, which require further justification to the grant awarder. Funds can be rolled over into the next fiscal year if extra funds exist, as long as the grant period is still valid. In the event that there are additional funds at the end of the grant period, a grant period extension called a "no-cost extension" can be requested to allow the organization to spend the unused funds on grant related activities.

One other avenue through which The Center has generated funds is its annual SENCER Summer Institute. The Center is projecting approximately a \$50,000 profit from its 2014 Summer Institute, and is working to develop it into a more profitable event. The Center has budgeted much of the cost of the Summer Institute into the direct costs of three different grants, allowing The Center to realize profits from a larger portion of its attendance fee. Much of the fee is still required to cover the cost of the venue, meal, and other small incidentals like name badges and water bottles.

The NCSCE expects to generate \$1,707,109 in revenue in the 2014 fiscal year almost exclusively from grant funding. The Center has budgeted \$1,591,790 in expenses, netting the NCSCE just over \$115,320 for the 2014 fiscal year. If The Center's projections are accurate and its staff can adhere to the

budget that was developed, The Center will have successfully sustained its operations for another year and will roll over some assets to the following fiscal year.

The Center’s income distribution for FY2014 can be seen in Figure 4-11 below. The Summer Institute is projected to be 8% of The Center’s gross revenue in FY2014. Using the funding methods presented later in this document, The Center will have the ability to grow its non-grant based revenue and reduce its dependence on grant awards, particularly those issued by the NSF.

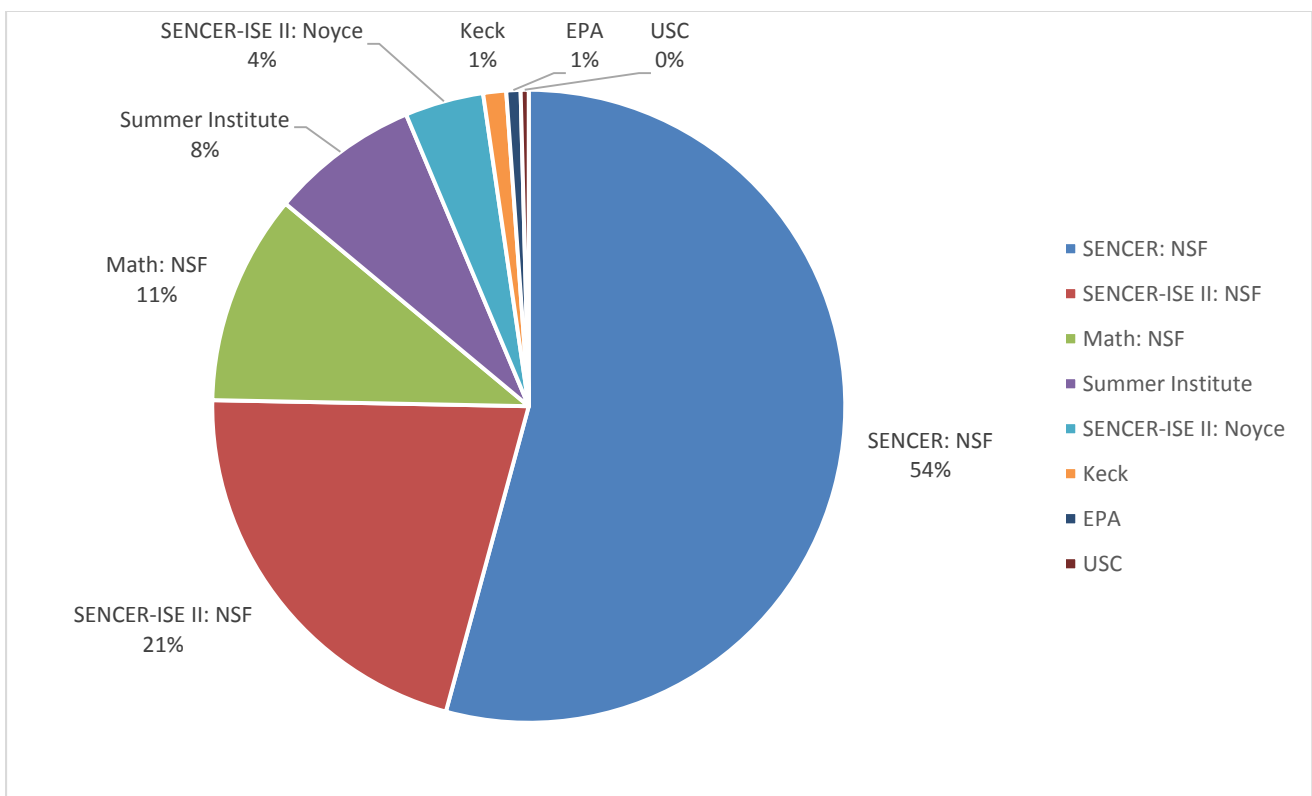


Figure 4-11: Projected NCSCE Income FY2014

The NCSCE increased its gross revenue by \$80,751 in the 2014 fiscal year which accounts for 4.73% of the FY2014 budget. Although The Center’s gross revenue remained almost unchanged from FY2013 to FY2014, the sources that make up the total revenue changed greatly. Figure 4-12 depicts the change in percentage that occurred between the FY2013 and FY2014 budgets respectively. It is

important to note that a 100% change in revenue indicates a new income source for the 2014 fiscal year.

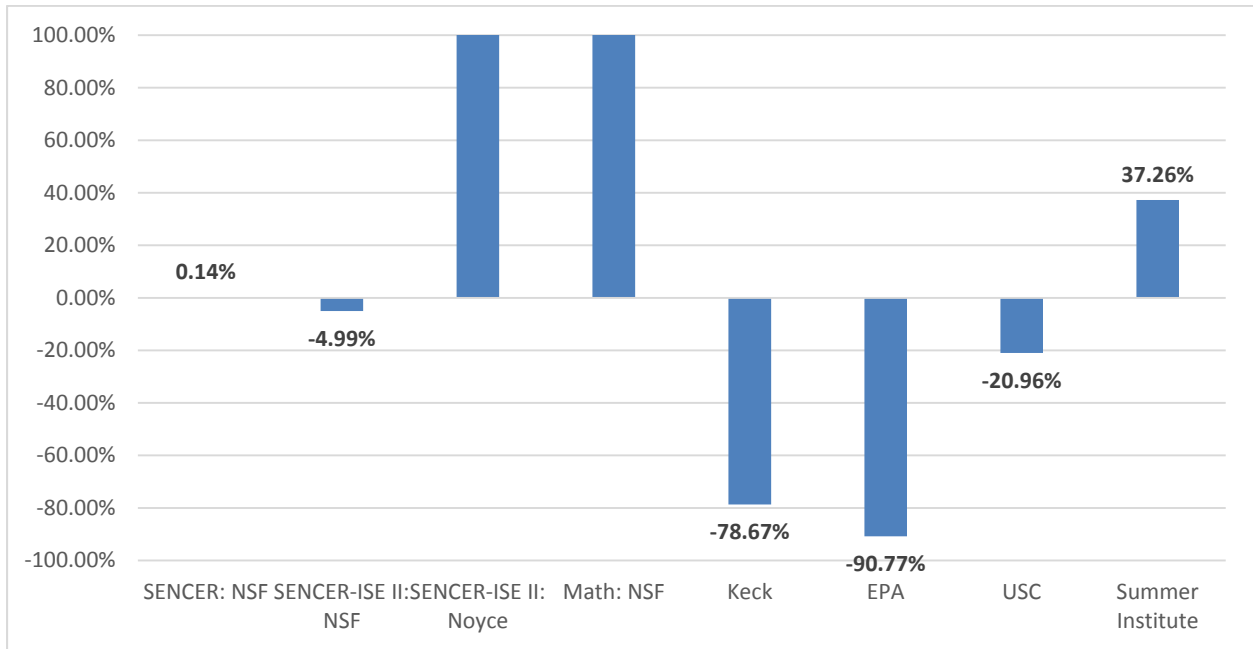


Figure 4-12: NCSCE Percentage Change in Revenue from FY2013 to FY2014

Below are profit and loss statements for the NCSCE for FY2012 and FY2013. The profit and loss statements for the NCSCE were not compiled based upon 990 tax forms due to the fact that these forms are filed by Harrisburg as a part of their own tax forms. The table was prepared using internal financial documents including The Center’s budget, grant proposals, and grant specific budgets.

Each profit and loss statement has two primary sections representing the organization’s revenue and expenses. Within these two primary sections are individual line items, representing the largest sources of revenue or cost managed by the organization. Each line item’s total dollar value is listed, along with this value’s percentage of the total revenue or total expense.

The National Center For Science & Civic Engagement Projected 2014			
Income			
	SENCER	\$925,547	54.22%
	SENCER-ISE	\$360,022	21.09%
	SENCER-ISE II	\$68,735	4.03%
	NSF Math Grant	\$183,417	10.74%
	Summer Institute	\$130,000	7.62%
	Keck	\$20,000	1.17%
	EPA	\$12,388	0.73%
	USC	\$7,000	0.41%
	Total:	\$1,707,109	
Expenses			
	Salaries	\$530,380	33.32%
	Consulting	\$285,950	17.96%
	Summer Institute	\$160,600	10.09%
	Event Costs	\$40,040	2.52%
	Rent	\$35,000	2.20%
	Accounting	\$14,000	0.88%
	Sub-Awards	\$449,030	28.21%
	Other	\$76,790	4.82%
	Total:	\$1,591,790	
	Year End Net:	\$115,320	

Figure 4-13: Summary P&L for NCSCE Projected 2014

The National Center For Science & Civic Engagement 2013			
Income			
	SENCER	\$924,264	55.78%
	SENCER-ISE II	\$378,930	22.87%
	Keck	\$93,750	5.66%
	EPA	\$134,157	8.10%
	USC	\$8,856	0.53%
	Summer Institute	\$117,001	7.06%
	Total:	\$1,656,958	
Expenses			
	Salaries	\$524,456	32.52%
	Consulting	\$206,350	12.80%
	Summer Institute	\$89,500	5.55%
	Rent	\$34,364	2.13%
	Accounting	\$13,220	0.82%
	Event Costs	\$49,750	3.09%
	Sub-Awards	\$599,625	37.18%
	Other	\$95,342	5.91%
	Total:	\$1,612,607	
Year End Net:		\$44,351	

Figure 4-14: Summary P&L for NCSCE FY2013

4.4.4 Other NPOs

A fiscal overview was performed for each of the following NPOs. Official IRS tax documents, specifically the 990 forms from the past three fiscal years, along with any other financial information that we obtained including annual reports from The Forum on Education Abroad and the Jed Foundation were used to compile the following financial analyses. Each organization's primary funding sources and expenses were identified in the profit and loss statements. We attempted to standardize the categories across each statement, although deviation between each one was necessary to accurately represent each organization's relevant information.

The IRS 990 form separates all sources of an organization's revenue into the following categories; federal campaigns, membership dues, fundraising events, related organizations, government

grants, and all other contributions, gifts, grants and small amounts. This final category of contributions, gifts, grants and small amounts has been marked as “other” within our own profit and loss statements. The default distribution of revenue into these categories has made the analysis of 990 forms difficult, providing limited specific information and prohibiting us from completing a more in-depth analysis of each organization’s revenue sources.

Jed Foundation

In recent years, The Jed Foundation has been slowly using funds from its built up assets which total over \$2 Million dollars. The Jed Foundation is not worried about depleting its reserves as it believes that these funds are more than sufficient to sustain it through the coming year, and it would like to use a greater portion of its donations for its programs (MacPhee, interview, Dec. 7, 2013). The Jed Foundation hosts an annual gala each year, which in itself is not a major source of revenue, however, the Jed Foundation uses the gala as an opportunity to ask its constituency and past supporters for donations. Much of the Jed Foundation’s income is reflected in the “other” income line item, which is composed primarily of these private donations. One aspect of the Jed Foundation that is not reflected in Figures 4-15, 4-16, and 4-17 is that they have a strong board of directors who are willing to provide personal funds to help cover overhead costs. This support allows the Jed Foundation to direct more of its grant and donation money towards its programs.

The JED Foundation 2009-2010			
Income			
	Annual Gala	\$227,000	17.08%
	Primary Income 2		0.00%
	Investment Income	\$6,200	0.47%
	Other	\$1,095,925	82.45%
	Total:	\$1,329,125	
Expenses			
	Annual Gala	\$160,795	9.01%
	Primary Income 2		0.00%
	Salary	\$321,122	18.00%
	Occupancy	\$59,396	3.33%
	Legal	\$75,077	4.21%
	Accounting	\$36,450	2.04%
	Other	\$1,131,062	63.40%
	Total:	\$1,783,902	
	Year End Net:	-\$454,777	

Figure 4-15: Jed Foundation P&L FY2009

The JED Foundation 2010-2011			
Income			
	Annual Gala	\$199,000	25.42%
	Primary Income 2		0.00%
	Investment Income	\$8,666	1.11%
	Other	\$575,212	73.47%
	Total:	\$782,878	
Expenses			
	Annual Gala	\$191,135	13.35%
	Primary Income 2		0.00%
	Salary	\$366,750	25.61%
	Occupancy	\$63,916	4.46%
	Legal	\$112,500	7.86%
	Accounting	\$34,529	2.41%
	Other	\$663,019	46.31%
	Total:	\$1,431,849	
	Year End Net:	-\$648,971	

Figure 4-16: Jed Foundation P&L FY2010

The JED Foundation 2011-2012			
Income			
	Annual Gala	\$368,250	36.02%
	Primary Income 2		0.00%
	Investment Income	\$7,569	0.74%
	Other	\$646,666	63.24%
	Total:	\$1,022,485	
Expenses			
	Annual Gala	\$198,610	16.87%
	Primary Income 2		0.00%
	Salary	\$490,282	41.64%
	Occupancy	\$76,651	6.51%
	Legal	\$109,238	9.28%
	Accounting	\$33,000	2.80%
	Other	\$269,695	22.90%
	Total:	\$1,177,476	
	Year End Net:	-\$154,991	

Figure 4-17: Jed Foundation P&L FY2011

Forum on Education Abroad

The Forum on Education Abroad typically generates over 50% of its yearly revenue at its major annual conference, which is also its single largest expense each year. The Forum's other major income source comes from its membership fees paid by member organizations, which have consistently been a large percentage of its annual revenue. The Forum has a partnership with Dickinson College who houses The Forum's office and is responsible for the salaries of the organization's staff. After all expenses directly associated with its annual conference, the primary expense The Forum must account for every year is the management fees paid to Dickinson, which covers the services provided by Dickinson. This single expense management fee is a good example of how a streamlined partnership could work for The Center.

The Forum on Education Abroad			
2009-2010			
Income			
	Conference	\$486,457	53.04%
	Membership	\$389,069	42.42%
	Education programs	\$12,537	1.37%
	Investment Income	\$4,838	0.53%
	Other	\$24,250	2.64%
	Total:	\$917,151	
Expenses			
	Conference	\$404,006	54.99%
	Membership		0.00%
	Salary	\$0	0.00%
	Management Fee	\$283,069	38.53%
	Legal	\$737	0.10%
	Accounting	\$6,324	0.86%
	Other	\$40,527	5.52%
	Total:	\$734,663	
	Year End Net:	\$182,488	

Figure 4-18: Forum on Education Abroad P&L FY2009

The Forum on Education Abroad			
2010-2011			
Income			
	Conference	\$737,772	60.82%
	Membership	\$414,530	34.17%
	Education programs	\$41,170	3.39%
	Investment Income	\$4,775	0.39%
	Other	\$14,818	1.22%
	Total:	\$1,213,065	
Expenses			
	Conference	\$551,423	54.56%
	Membership		0.00%
	Salary	\$0	0.00%
	Management Fee	\$405,616	40.14%
	Legal	\$725	0.07%
	Accounting	\$6,450	0.64%
	Other	\$46,405	4.59%
	Total:	\$1,010,619	
	Year End Net:	\$202,446	

Figure 4-19: Forum on Education Abroad P&L FY2010

The Forum on Education Abroad			
2011-2012			
Income			
	Conference	\$740,798	52.50%
	Membership	\$505,288	35.81%
	Education programs	\$95,043	6.74%
	Investment Income	\$8,563	0.61%
	Other	\$61,450	4.35%
	Total:	\$1,411,142	
Expenses			
	Conference	\$644,559	52.33%
	Membership		0.00%
	Salary	\$0	0.00%
	Management Fee	\$499,772	40.58%
	Legal	\$4,737	0.38%
	Accounting	\$7,100	0.58%
	Other	\$75,483	6.13%
	Total:	\$1,231,651	
	Year End Net:	\$179,491	

Figure 4-20: Forum on Education Abroad P&L FY2011

American Association of University Women

The American Association of University Women has a unique set of revenue and expenses, providing a very interesting analysis of its financials. The AAUW spends approximately twice as much money on its conference than it earns from it, making the conference a highly unprofitable event. The cost of hosting the conference is dwarfed however by the revenue generated by the membership dues collected by the AAUW. The disparity between the costs of the conference and the money earned from the conference is due to the AAUW combining conference tickets with its membership fees, making the revenue from membership fees seem much higher than it really is. Providing conference tickets through membership fees and requesting those fees upfront is one way to build a stronger membership base, and allows for the organization to have a more predictable revenue stream.

American Association of University Women			
2009-2010			
Income			
Membership Dues	\$3,046,116		22.88%
Conference	\$228,811		1.72%
Government Grants	\$306,504		2.30%
Investment Income	\$4,221,335		31.71%
Other	\$5,510,236		41.39%
	Total:	\$13,313,002	
Expenses			
Membership Dues			0.00%
Conference			0.00%
Salary	\$5,016,397		38.42%
Occupancy	\$589,779		4.52%
Legal	\$272,122		2.08%
Participant Support	\$2,854,817		
Accounting	\$82,535		0.63%
Other	\$4,240,581		32.48%
	Total:	\$13,056,231	
Year End Net:		\$256,771	

Figure 4-21: AAUW P&L FY2009

American Association of University Women			
2010-2011			
Income			
Membership Dues	\$2,966,661		26.06%
Conference	\$476,765		4.19%
Government Grants	\$195,100		1.71%
Investment Income	\$3,014,866		26.48%
Other	\$4,730,543		41.55%
	Total:	\$11,383,935	
Expenses			
Membership Dues			0.00%
Conference	\$1,365,096		8.65%
Salary	\$5,749,237		36.45%
Occupancy	\$93,789		0.59%
Legal	\$828,034		5.25%
Participant Support	\$329,571		2.09%
Accounting	\$80,560		0.51%
Other	\$7,327,829		46.45%
	Total:	\$15,774,116	
Year End Net:		-\$4,390,181	

Figure 4-22: AAUW P&L FY2010

American Association of University Women			
2011-2012			
Income			
Membership Dues	\$2,931,103		32.50%
Conference	\$223,465		2.48%
Government Grants	\$46,155		0.51%
Investment Income	\$2,529,389		28.05%
Other	\$3,288,245		36.46%
	Total:	\$9,018,357	
Expenses			
Membership Dues			0.00%
Conference	\$592,460		3.60%
Salary	\$6,340,792		38.57%
Occupancy	\$122,312		0.74%
Legal	\$187,028		1.14%
Participant Support	\$4,051,999		24.65%
Accounting	\$41,267		0.25%
Other	\$5,104,522		31.05%
	Total:	\$16,440,380	
Year End Net:		-\$7,422,023	

Figure 4-23: AAUW P&L FY2011

DC College Success Foundation

The DC College Success Foundation is another unique organization that spends more money than it currently generates. With net assets well over \$60 Million in FY2012, the DC CSF has no problem with deficit spending. Its greatest cost is the “Participant Support” it provides to many of its members in the form of pre-college support programs and scholarship opportunities to help students pay their college tuition. The DC CSF is can also keep a relatively low percentage of its total expenses due to salary, at around 15%. This percentage might be misleading due to the high volume of money that the DC CSF’s spends on grants, and its total assets in other areas.

District of Columbia College Success Foundation			
2009-2010			
Income			
	Mentor Program		0.00%
	Advocacy	\$131,156	2.94%
	Govmt Agency Fees	\$131,156	2.94%
	Investment Income	\$15,394	0.34%
	Fundraising Events	\$457,717	10.25%
	Other	\$3,166,119	70.87%
	Total:	\$3,901,542	
Expenses			
	Mentor Program	\$835,455	8.07%
	Advocacy	\$243,208	2.35%
	Salary	\$1,491,061	14.40%
	Occupancy	\$160,686	1.55%
	Legal	\$1,136	0.01%
	Participant Support	\$4,156,273	40.13%
	Accounting	\$2,865	0.03%
	Other	\$624,527	6.03%
	Total:	\$7,515,211	
	Year End Net:	-\$3,613,669	

Figure 4-24: DC CSF P&L FY2009

District of Columbia College Success Foundation			
2011-2012			
Income			
	Mentor Program	\$600,000	10.74%
	Advocacy	\$71,757	1.28%
	Govmt Agency Fees	\$671,757	12.02%
	Investment Income	\$2,339	0.04%
	Fundraising Events	\$513,474	9.19%
	Other	\$3,728,526	66.73%
	Total:	\$5,587,853	
Expenses			
	Mentor Program	\$1,235,081	11.06%
	Advocacy	\$204,386	1.83%
	Salary	\$1,775,687	15.91%
	Occupancy	\$161,378	1.45%
	Legal	\$3,431	0.03%
	Participant Support	\$6,957,534	62.33%
	Accounting	\$4,130	0.04%
	Other	\$821,250	7.36%
	Total:	\$11,162,877	
	Year End Net:	-\$5,575,024	

Figure 4-25: DC CSF P&L FY2010

District of Columbia College Success Foundation			
2011-2012			
Income			
	Mentor Program	\$600,000	10.74%
	Advocacy	\$71,757	1.28%
	Govmt Agency Fees	\$671,757	12.02%
	Investment Income	\$2,339	0.04%
	Fundraising Events	\$513,474	9.19%
	Other	\$3,728,526	66.73%
	Total:	\$5,587,853	
Expenses			
	Mentor Program	\$1,235,081	11.06%
	Advocacy	\$204,386	1.83%
	Salary	\$1,775,687	15.91%
	Occupancy	\$161,378	1.45%
	Legal	\$3,431	0.03%
	Participant Support	\$6,957,534	62.33%
	Accounting	\$4,130	0.04%
	Other	\$821,250	7.36%
	Total:	\$11,162,877	
	Year End Net:	-\$5,575,024	

Figure 4-26: DC CSF P&L FY2011

4.4.5 Summary

The above profit and loss statements provide an overview of each organization's different financial situation. These statements highlight trends among NPOs regarding which sources of income are most popular and successful, and clearly identify typical cost centers faced by these organizations. The financial models above were used in conjunction with other financial documentation including the 990 form and annual financial reports to create a complete financial picture for each organization in question. We formed our recommendations regarding funding models that might be successful for The Center based upon what has proven to be successful in the past and what is currently successful.

4.5 FUNDRAISING/REVENUE SOURCES

To become a financially stable organization that is not completely reliant on grants to cover overhead costs, the NCSCE needs to create new sources of revenue and develop its existing ones. The NCSCE can use this revenue to help cover staff salary, pay for overhead costs, and cover other expenditures not directly related to its initiatives. Hopefully, by relieving its grants of these costs, new grants the NCSCE applies for will be more attractive to grant donors (Tarka, Interview, 22 Nov. 2013). New revenue could be generated through a membership structure, grants and donations, or new events, all which have been researched in detail and are explained below.

4.5.1 Membership

The Membership model is a widely utilized structure that allows organizations to maintain contact and involvement with its constituency and has established itself as a strong revenue generating strategy for many organizations. Each organization investigated has a slightly different structure when it comes to membership, including how they define grouping levels, eligibility, cost, and advantages of membership. Universally, becoming a member of an organization has some cost, either financial or intellectual, and provides some advantage over someone who is not a member.

Membership models can be organized at the individual level allowing faculty, staff, and students to join, or at the institutional level offering membership to interested universities, learning centers or associations. A hybridized model of the above could also be established allowing for both institutions and individuals to possess membership. If a tiered membership structure were implemented, The Center could offer different benefits depending on what tier a member is in, which could include access to online publications or a discount at an upcoming conference.

One innovative method of expanding the NCSCE's reach through membership includes aggressively pursuing professional organizations as target markets. For example, if The Center could convince the Association for Science Teacher Education (ASTE) to become a member, it would allow the NCSCE to reach all 680 institutional members of the ASTE at once. Targeting STEM oriented professional organizations that already have their own member base eliminates the need to pursue individual prospective members, which can be both costly and time consuming. Due to the wide applicability of civic engagement and STEM education, many existing organizations stand to benefit from the NCSCE's materials and resources as means of professional development and education. If the NCSCE offered its services to the ASTE, providing the ASTE with something it can offer to its members which has both value and fulfills the mission of the ASTE, the partnership would be beneficial for both parties. The ASTE could add a new perk to its membership package, creating more of a value for its members, and the NCSCE would expand its reach and receive financial compensation from the new member organization. With an average annual conference attendance of 460 members and a historical attendance as high as 541, the ASTE serves as a strong example of an organization who might be of interest to the NCSCE.

If large professional organizations like the ASTE were to partner with the NCSCE, both direct and indirect benefits would be realized. The Center's initiatives offer the educational opportunities being sought by the ASTE, meaning that there could be a large number of ASTE members seeking faculty

development and curriculum improvement, a service that could be provided by The Center. The NCSCE might attract individual members of the ASTE to the Summer Institute, increasing its attendance and reach. Members of the ASTE could refer colleagues seeking professional development to the NCSCE, circumventing the ASTE and directly increasing The Center’s membership base. The possibilities of building a large and strong membership base are very high if the NCSCE chooses to develop its own membership model.

A recent IMPACTS study, presented visually in Figure 4-27, suggests that the primary benefits of membership being sought by people who are currently 18-35 years old are shifting from tangible advantages towards simply supporting the ideals of an organization they believe in (Dilenschneider, 2013). Although the study was conducted with a visitor serving organization (VSO) as the target for the questions, some conclusions can still be drawn. IMPACTS research is an organization which conducts studies to help their clients understand each of their target market’s behaviors and influence future efforts to produce desirable outcomes.

“What is the primary benefit of membership?” Based on IMPACTS data for a large VSO that supports conservation

AGE 13 – 34

(lexical analysis, top five by descending frequency)

1. Free Admission
2. Belonging to the organization
3. Supporting the organization
4. Supporting conservation
5. Making a positive impact on the environment

AGE 35+

(lexical analysis, top five by descending frequency)

1. Free Admission
2. Priority Access
3. Members-only functions
4. Advance notice of upcoming activities
5. Member discounts

Figure 4-27: Results of IMPACTS study on Benefits of Membership (Dilenschneider, 2013)

A large portion of The Center's members and prospective target audience are educational professionals. Beyond this current market, The Center is actively trying to involve a new audience, including tenure track professors and new teachers still developing their individual teaching style (Bucki, interview, Nov. 20, 2013). Ultimately, if The Center were to ask its current participants and future members to pay a fee, the members must see a valuable return on their investment.

The Center currently offers many services including a bi-annual peer reviewed journal, numerous online publications, books, models, multiple symposia, in-house consultations, and an annual Summer Institute (Tarka, personal communication, Nov. 12, 2013). In addition to the extensive list of resources offered directly by the NCSCE, the nine regional centers that operate under the NCSCE host a range of events and offer their own additional resources. Each one of these items is an asset of the NCSCE which can be used to encourage membership and justify associated fees.

The Center has allowed all of its information to flow freely by offering it free of charge to anyone who would like it (Tarka, personal communication, Nov. 12, 2013). Although noble, this method of distribution has not benefited the NCSCE financially, and could be monetized as The Center moves forward and continues to grow. The availability of all of the NCSCE's materials has helped it establish its name and gain recognition from the NSF, but could act as a valuable incentive for potential members.

Although a membership structure, especially one that requires a financial commitment has the potential to alienate new members and current active participants, The Center can develop a model with a low level "buy-in" designed to retain all currently involved members. Although a paid membership model may discourage some people from involving themselves with The Center, paid membership will result in a better and more involved group of people who are committed to The Center and its growth.

Since its inception, the NCSCE has not had a well-defined membership base, which has allowed for anyone to associate themselves with the NCSCE and the resources it provides with no “buy-in” (Tarka, personal communication, Nov. 12, 2013). Some or all of the above resources could be restricted to member only access, requiring those individuals and institutions who desire to use the NCSCE’s resources to pay for them. Advantages of a membership could include digital or physical access to The Center’s literature, or a discount for attending the Summer Institute, leveraging part of the membership cost towards the Summer Institute.

Developing a pricing hierarchy for a membership model can be complicated and would require in-depth planning before it is implemented. Since The Center could institute any combination of the aforementioned membership models, The Center will have to work with its strategic planning team to develop a model that is best suited for The Center and its future members. Pricing levels could vary based on the type of membership, the size of a member organization, past involvement with The Center, and other factors (Colorado Non-profits, 2013).

We provided two examples from other organizations that have tiered membership structures, along with the respective membership prices, to provide the NCSCE with real examples regarding the potential prices for a membership model. In the first example, we looked at the National Science Teachers Association which has two levels of membership, the individual membership and the institutional membership (NSTA, 2013). The individual membership is available to students and teachers, and costs \$35 for a student per year, and \$75 for a teacher per year. The institutional membership is offered to libraries and schools, and the price is set at \$95 per year.

In our second example, we looked at the Student Affairs Administrators in Higher Education. It has four levels of membership, which are for students, professionals, corporations and non-profits, and institutions (NASPA, 2013). Each level of membership has multiple tiers, depending on what the member

is looking for in their membership. The student membership can include graduate and undergraduate students, and costs range from \$26-\$37 per year. University faculty and other professionals will pay \$50-\$75 per year. Corporations and non-profits pay \$242-\$269 per year, and institutions, both 2-year and 4-year, will pay \$1,260-\$1,887 per year. In this organization, one of the main benefits of membership includes a reduced fee to attend conferences.

A sample income statement focusing on a potential NCSCE membership structure is outlined in Figure 4-28 below. The sample income statement accounts for the potential loss of conference revenue associated with the discounts provided as membership incentives for each level. The statement however, is conservative and assumes that every member will take advantage of their discount. The proposed membership levels and organizational participant levels, although fictional, account for approximately only 2/3 of the people The Center is currently engaged with. This is an estimate of how many people The Center could persuade to join its membership base. This model reflects the desire of The Center to have a low level buy in, the “journal only” option, and the ability for organizations representing large groups of people to join as Organizational Members. Organizational Members differentiate themselves from Corporate Sponsors because Corporate Sponsors would not receive any of The Center’s resources in return for their sponsorship. Corporate Sponsors might receive an endorsement from The Center or be highlighted as an educational supplier at one of the NCSCE’s future conferences. The ability for The Center to mold the Corporate Sponsorship membership level into a customizable benefit package for the sponsor allows The Center to provide sponsorship opportunities to organizations of varying type and size. This affords The Center a certain amount of flexibility in pursuing and consequently retaining cooperate sponsors in the years to come.

Sample Membership P&L			
Level	Price	Quantity	Sub
Student	\$10	200	\$2,000
Journal Only	\$20	200	\$4,000
Contributor	\$150	50	\$7,500
Member	\$250	500	\$125,000
Member + Conference	\$800	100	\$80,000
		1050	\$218,500
Organization < 100	\$5,000	2	\$10,000
Organization 100-200	\$7,500		\$0
Organization 200-300	\$10,000		\$0
Organization 300-400	\$12,500	1	\$12,500
Organization 400-500	\$15,000	1	\$15,000
Organization 500-1000	\$17,500		\$0
Organization > 1000	\$20,000		\$0
Corporate Sponsorship	\$10,000	3	\$30,000
		7	\$67,500
Lost Conference Revenue Contributor	(\$20)	50	(\$1,000)
Lost Conference Revenue Member	(\$20)	500	(\$10,000)
Lost Conference Revenue Advance Pay	(\$100)	100	(\$10,000)
		650	(\$21,000)
		Grand Total	\$265,000

Figure 4-28: Sample NCSCE Membership Structure w/ Revenue Projections

Concerns regarding those who have donated their time to prepare materials that The Center may now use to generate revenue were raised by NCSCE faculty (Bucki, interview, Nov. 20, 2013). In effect, royalties for the material that was generated must be addressed before these resources are used to generate revenue for the organization. Something as simple as a free individual membership to those that have contributed to the project in the past may suffice. Alternatively, The Center has expressed the desire to stay true to its roots and make sure that certain materials are still offered for free if monetization started to occur (Tarka, personal communication, Nov. 12, 2013). The Center could keep its previous publications available for free while restricting future content.

Additional advantages to establishing a membership model within any organization is increased involvement among members (Bucki, Interview, Nov. 20, 2013). Charging a membership fee requires members to buy-in to the organization, compelling individuals to stay better connected, increase their participation, and give back to the organization in some way, forming a more committed and more involved base of supporters.

Membership can also raise the expectations of members concerning their experience with the organization. If the NCSCE were to require a member to pay to access its resources, the resources must warrant the membership fee, and questions or attempts at contacting the organization must be met with a speedy and appropriate response. The level of customer service and responsiveness to complaints and/or feedback is expected to be higher when an organization begins to collect fees for its services. The raised expectation might require additional staff hours that have not been allocated in the past to address issues that might arise.

4.5.2 Grants and Donations

Grants, both federal and private, are a principal resource to organizations for supporting their initiatives and projects. Grants typically come in sums much larger than individual donations, symposia, or membership fees, making them an attractive supply of funds for organizations.

Federal grants are economic aid provided by the government (Cornell Law, 2013). A federally run foundation, corporation, or government agency can provide financial assistance to a non-profit organization in hopes of supporting that organization's goals and initiatives. Federal grants are distributed to serve the public good, and are not for the benefit of the government. There are five types of federal funding for individuals and organizations, presented in Figure 4-29 below with a brief definition of each.

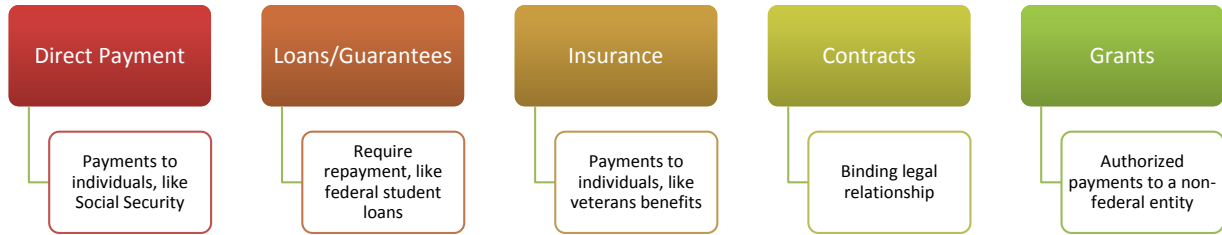


Figure 4-29: Five Types of Federal Funding (Urban, 2013)

Of the five types of federal funding shown in Figure 4-29, NPOs deal with grants, as grants are the only authorized payments available to them from the government. In 2011, grants made up 17.3% of federal spending (Urban, 2013).

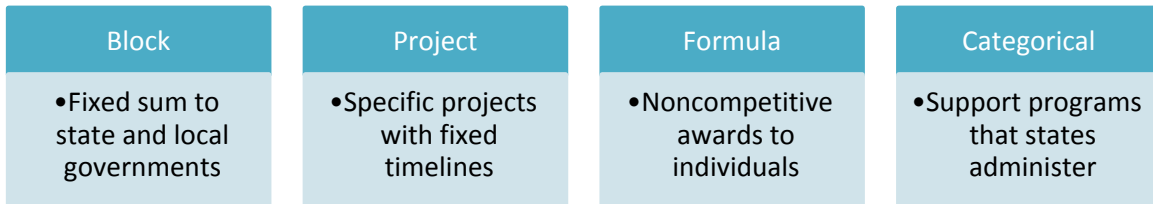


Figure 4-30: Four Sub-Sections of Government Giving (Kent University, 2013)

In Figure 4-30 above, the four sections of government giving can be seen (Urban, 2013). Grants for NPOs fall into the project section, as they are specific projects with a definite timeline for the awarded funds. Sometimes, changing political trends can affect certain areas of giving. As men and women move in and out of federal offices every year, each with their own political agenda, money for grants can be repurposed quickly. Organizations know that federal funding is not guaranteed, so typically they will be searching for new grants while continuing to reapply for old grants (Kent University, 2013).

Applying for grants can be a tedious process, but has the potential to provide huge pay-offs for an organization that puts in the required time and effort. Between 2000 and 2010, there was a 23.6%

increase in the number of registered NPOs in the US, meaning there is more competition than ever for grants (Blackwood, Roeger, Pettijohn, 2013).

Dr. Whalen (personal communication, Oct. 2, 2013) believes federally run organizations will try to cultivate long term relationships with the organizations they support because they want to see the organizations' initiatives succeed and improve life for the general public. In 2010, one-third of revenue sources for non-profits came from government contracts and grants, totaling 23.9% and 8.3% of their annual revenue respectively (Urban Institute, 2013). As opposed to grants received from foundations, where the size of the organization may impact incoming funds, size and reputation do not play a large role in the federal grant process, where grant reviewers are more concerned with the content of the proposal (Glatman and Lemire, Interview, 14 Nov. 2013).

Private grants are grants provided by foundations to assist other organizations in their missions and initiatives (Foundation Grants, 2013). Private foundations are required by law to give a minimum of 5% of their assets every year to supporting other organization's initiatives. Because of this law, private operating foundations and other exemptions of the 501(c)(3) code can apply for grants provided by these foundations.

Private grants are more stable than federal grants due to the requirement to give a minimum of 5% of their assets each year, but many private foundations do not typically develop long term relationships with organizations, instead preferring to support a broad range of organizations and initiatives, shifting their support as existing grants expire (Pane-Joyce, Interview, 12 Nov. 2013). When networking with foundations, it is important to note that the priorities of the foundation might change, so it is beneficial for an organization to maintain an understanding of a foundation's priorities and in which direction the foundation is headed.

The advantages and disadvantages of both public and private funding were developed with information from Kent University, and are provided in Figures 4-31 and 4-32 below (Kent University, 2013). When an organization is comparing public and private funding, it must consider which option fits the organization and its initiatives the best, and then pursue that type of funding.

Advantages

Public Funding	Private Funding
<ul style="list-style-type: none"> • Purpose of money is determined by the Gov't • More money than private donors • More likely to cover indirect costs • Finding funding opportunities is easier • Applications and deadlines are straightforward • Possibilities of renewal are known upfront 	<ul style="list-style-type: none"> • More likely to focus on new issues and "Special Interest" projects • Wide range for value of grant awarded • More flexible in responding to unique needs an organization might have • Usually have fewer applicants

Figure 4-31: Advantages of Public & Private Funding (Kent University, 2013)

Disadvantages

Public Funding	Private Funding
<ul style="list-style-type: none"> • Lengthy proposal requirements • Sometimes hard to sell them on new ideas and approaches • Changing political agendas can affect some programs • Funds that are available can quickly change 	<ul style="list-style-type: none"> • Average size of grants usually smaller • Priorities of the foundation can quickly change, so continuation of grants can be uncertain • Less likely to cover all project costs • Researching policies and procedures can be time consuming

Figure 4-32: Disadvantages of Public & Private Funding (Kent University, 2013)

Many organizations that have received their 501(c)(3) status are also eligible to receive tax-deductible donations. Organizations that accept donations must provide a written disclosure form to donors of a quid pro quo for donations over \$75. A quid pro quo is a donation to a charity by a donor as a contribution to the organization for any services the organization has provided to the donor. For

example, if a donor gives an organization \$100 and receives a ticket for a play that is worth \$75, then the donor has made a quid pro quo donation. According to IRS law, the written quid pro quo statement must inform the donor that their donation is tax-deductible, and must provide the donor with an estimated value of what they received from the organization in return.

No disclosure statement is required when the services given to the donor meet the insubstantial value standards set in the Revenue Procedure 90-12 and Revenue Procedure 92-49 (IRS, 2013). When there is no donative element involved in the transaction, for example a donor buys a t-shirt from the organization, and when there is only a religious benefit provided to the donor, the disclosure statement is not required. A penalty of \$10 for every contribution made will be applied if there is no quid pro quo statement.

Beginning on August 17, 2006, a new rule was implemented stating that the donor has to obtain and keep a written record and a bank record from the organization they donated to as a record of the donation (IRS, 2013). These records must show the date of the donations, the name of the organization, and the value of the donation. Obtaining these written records is the responsibility of the donor, not the organization, but the organization must provide the record to the donor when asked.

One common practice by which organizations obtain donations is through advertising on their website. The webpage of Charity: Water is shown below in Figure 4-33 on the next page.

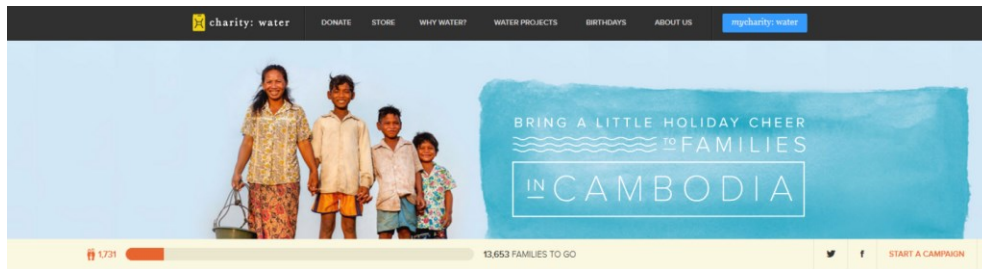


Figure 4-33: Charity: Water's Clear Fundraising Message on Their Homepage (Charity: Water, 2013)

In the case of Charity: Water, they have decided to make their fundraising efforts a focus of their webpage. They clearly state the purpose of the donations, and use strong images to support their reasoning. In addition to petitioning for donations through a website, organizations can write letters to their donor base, or ask for donations at sponsored events. Generally, donations make up only a small part of an organization's revenue and have fewer resources devoted to them than grant searching. Despite the relatively small amount of revenue typically generated through donations, they are an effective way of connecting with people who are interested in the mission of the NPO, giving them a way to contribute to a cause in which they believe.

Another way of receiving donations is through forging partnerships with corporations. When a corporation is donating to a NPO, it is viewed as an exchange relationship, which benefits both the NPO and the corporation (Roza, 2010). The NPO gets the donation, and the corporation gets its company name involved in the programs, events, webpage, or literature through the NPO. When looking at corporations for a potential partnership, it is important to look for a corporation that will match the ideals and mission of the NPO (Guidestar, 2013). Before coming into a partnership with a corporation, a NPO needs to determine what exactly it would like from a corporation. This could include paying for meals at a conference, a general donation, helping in a specific initiative, volunteering, or anything else

the organization could use help in. Guidestar (2013) directs organizations looking for corporate partners to The Civic 50, which is a ranking system of companies that are most willing to be involved in a partnership with an organization.

4.5.3 Events

The SENCER Centers for Innovation that stems from the National Center for Science and Civic Engagement host many annual symposia and conferences for its members to come together and discuss the issues of advancing The Center's goals (NCSCE 2013). These symposia, which come in the form of national and regional meetings, are the main way in which The Regional Centers interacts with its constituency, and they allow The Center to focus its goals and improve the quality of STEM education and civic engagement.

The Center's main conference, which it hosts itself, is the SENCER Summer Institute (SSI), which in 2014, will be held between July 31st and August 4th at the University of North Carolina Asheville (SENCER, 2013). The Summer Institute brings together formal and informal science educators, administrators, teachers, and students for discussions and programs about STEM education. People with an interest in attending the SSI are required to fill out applications, which are then evaluated by The Center. Attendees pay a registration fee of \$650, which covers meals, workshops, consultations, individual sessions and program materials.

In addition to the SSI, The Center hosts one other national conference: The Washington Symposium and Capitol Hill Poster Session (SENCER, 2013). At this event, educators, administrators, teachers, students, and government representatives gather to discuss the transformation of STEM education. The Washington Symposia hosts discussions about new initiatives, public policy, science and human rights, and effective means to communicate with the public.

While speaking with the leaders of NPOs, we discovered conferences run by other organizations often form a substantial part of their financial base (Whalen, personal communication, 2 Oct. 2013). Knowing this, we determined that by expanding the SSI, The Center could bring in a large amount of funding. The Jed Foundation and the Forum on Education Abroad earn 36% and 52.5% respectively of their total yearly income through their conferences. Comparing these numbers to the 8% earned by The Center's conferences indicates the great potential for The Center to expand its income through the development of its conferences.

The current venue being used by The Center for the SSI has a fixed cost of \$28,380 associated with hosting the conference. If 225 people attend the SSI, The Center would bring in a profit of \$62,666. By accepting 250 participants, an 11% increase in attendance, The Center stands to profit \$72,782, a 16% increase.

Costs Per Person (225 Paying Participants)						
	7/31/2014	8/1/2014	8/2/2014	8/3/2014	8/4/2014	Total
Meals, Breakfast	\$0.00	\$6.47	\$6.47	\$6.47	\$20.58	\$39.99
Meals, Lunch	\$0.00	\$7.63	\$7.63	\$7.63	\$33.48	\$56.37
Meals, Dinner	\$30.00	\$35.00	\$35.00	\$0.00	\$0.00	\$100.00
Supplies, Totes	\$6.00					\$6.00
Supplies, Water Bottles	\$5.00					\$5.00
Supplies, Name Badges	\$4.00					\$4.00
Supplies, Program Book	\$28.00					\$24.00
Supplies, Copying	\$10.00					\$10.00
Fixed Cost Share						\$126.13
<i>Unit Cost Total</i>						<i>\$371.48</i>
Per Person Program Fee						\$650.00
Profit Margin Per Person						\$278.52
Profit for 225 participants						\$62,666.03

Figure 4-34: SENCER Summer Institute 2014 Cost Projection with 225 Paying Participants

Costs Per Person (250 Paying Participants)						
	7/31/2014	8/1/2014	8/2/2014	8/3/2014	8/4/2014	Total
Meals, Breakfast	\$0.00	\$6.47	\$6.47	\$6.47	\$20.58	\$39.99
Meals, Lunch	\$0.00	\$7.63	\$7.63	\$7.63	\$33.48	\$56.37
Meals, Dinner	\$30.00	\$35.00	\$35.00	\$0.00	\$0.00	\$100.00
Supplies, Totes	\$6.00					\$6.00
Supplies, Water Bottles	\$5.00					\$5.00
Supplies, Name Badges	\$4.00					\$4.00
Supplies, Program Book	\$28.00					\$24.00
Supplies, Copying	\$10.00					\$10.00
Fixed Cost Share						\$113.52
<i>Unit Cost Total</i>						\$358.87
Per Person Program Fee						\$650.00
Profit Margin Per Person						\$291.13
Profit for 250 participants						\$72,782.25

Figure 4-35: SENCER Summer Institute 2014 Cost Projection with 250 Paying Participants

Maximizing the efficiency of the SSI is a great way for The Center to increase its revenue, as a large increase in the amount of profit is realized by bringing in just 25 more participants. This means if its current venue can hold 250 people, for example, The Center should attempt to bring in that many people, reducing the shared cost per person, and increasing the profits that are realized per person.

To be a truly viable means of sustaining the NCSCE's operations, conference attendance may need to dramatically increase either by means of a larger event or numerous smaller events. If The Center were to increase interest in the SSI enough to require a bigger venue, the associated costs of running the SSI would also increase. This places importance on maximizing the efficiency of the SSI, by bringing in the maximum number of people for the given venue.

Another way to increase the revenue from the SSI would be to increase the attendance fee. This method may not be ideal, as increasing the cost of attendance may discourage people from participating, lowering the overall revenue from the event.

An alternative method of making The Center's conferences more profitable would be to increase the number of large conferences held annually. By adding additional conferences, The Center would generate more money than before without having to increase the number of participants at each conference, which interferes with the personal atmosphere that has been cultivated at the SSI.

Accompanying these large national conferences, SENCER Centers for Innovation (SCI) host at least two regional symposia each year to encourage local collaboration and development (NCSCE, 2013). Butler University, Case Western Reserve University, George Mason University, Roosevelt University, Rutgers University, University of North Carolina Asheville, Santa Clara University, Texas Woman's University, and Worcester Polytechnic Institute have all hosted these symposia within their respective regions of the country.

We looked at two organizations to see how they bring in revenue based off of the events hosted throughout the year. By looking at different examples regarding conferences and events, the NCSCE can see how other organizations handle the attendance fees, and how they are incorporated into its tiered membership structure. Our first example, Charity: Water, hosts an annual gala where 1,800 attendees are expected to attend (Charity Water, 2013). An attendee can buy an advanced ticket (\$250) or a VIP ticket (\$1,000) which gives them access to different aspects of the gala. Charity: Water also does group sales for the gala, which start at \$10,000. The second organization we looked at was Student Affairs Administration in Higher Education. At its annual conference, 5,000 attendees are expected to attend (NASPA, 2013). The pricing depends on an attendee's membership status, and prices are determined by the date at which tickets were purchased. The prices are set at an early bird special priced at \$125-\$585, a regular price of \$150-\$635, and late registration fees of \$175-\$685. This method encourages attendees to register early. The lower prices listed at each price range are the prices for a student, and the higher prices are for an institution or corporation attending.

At this time, The Center does not require participants in regional meetings to pay a registration fee. The regional symposia are hosted and operated by the SCIs, who may charge participants a small fee for attending, but this fee is set by the local administrators, and not the central NCSCE. If The Center were to charge a universal participation fee for the regional symposia, it would begin to increase profits from those attending their local meetings, but may be negatively impact the mission of The Center.

4.5.4 Revenue Projections FY2014 – FY2016

We have assembled a set of base line projections of The Center’s revenue if it were to implement the suggestions we made throughout this document. The projections were assembled using data from other non-profit organizations and historical data from The Center itself. These projections are not to be treated as a definitive result of The Center’s possible efforts.

Based upon the projection shown in Figure 4-36, The Center would generate an additional \$1.46 million dollars over the next three years shifting its percentage of revenue received from federal grants from approximately 90% to 70%, representing a 20% drop. This assumes that its current levels of federal and private grant funding will be maintained until FY2016. The Center’s earned income percentage could rise to almost 30% of its total revenue by FY2016, bringing in \$640,000 in revenue.

This projection has been established on a three year time line as the SENCER grant expires in FY2016, allowing The Center to build a strong financial foundation to make its re-application more favorable to the NSF. The three year window allots approximately 18 months for The Center to acquire and fully develop an agreement with a new fiscal sponsor, allowing the NCSCE to re-apply for the SENCER grant under the name of the new fiscal sponsor, avoiding the need to transfer the SENCER grant mid-project.

The financial projection for The Center incorporating our recommended methods of revenue generation is displayed below in Figure 4-36.

Gross Revenue Projections FY2014-2016

FY 2014

Membership 2014	\$100,000	
Summer Institute 2014	\$130,000	200 people @ \$650
Event B 2014	\$87,500	175 people @ \$500
Speakers Bureau 2014	<u>\$2,000</u>	
FY 2014 Subtotal:	\$319,500	

FY 2015

Membership 2015	\$180,000	
Summer Institute 2015	\$143,000	220 people @ \$650
Event B 2015	\$96,250	175 people @ \$550
Event C 2015	\$75,000	150 people @ \$500
Speakers Bureau 2015	<u>\$10,000</u>	
FY 2015 Subtotal:	\$504,250	

FY 2016

Membership 2016	\$265,000	
Summer Institute 2016	\$162,500	250 people @ \$650
Event B 2016	\$110,000	200 people @ \$550
Event C 2016	\$82,500	150 people @ \$550
Speakers Bureau 2016	<u>\$20,000</u>	
FY 2016 Subtotal:	\$640,000	

Grand Total: \$1,463,750

(Figure Continued on Next Page)

HISTORICAL		
FY2013	Revenue	Percent Composition
Total Income	\$1,656,958	100.00%
Private Grants	\$102,606	6.19%
Federal Grants	\$1,437,352	86.75%
Earned Income	\$117,000	7.06%

PROJECTIONS		
FY 2014	Revenue	Percent Composition
Total Income	\$1,896,609	100.00%
Private Grants	\$27,000	1.42%
Federal Grants	\$1,550,109	81.73%
Earned Income	\$319,500	16.85%
FY 2015	Revenue	Percent Composition
Total Income	\$2,081,359	100.00%
Private Grants	\$27,000	1.30%
Federal Grants	\$1,550,109	74.48%
Earned Income	\$504,250	24.23%
FY 2016	Revenue	Percent Composition
Total Income	\$2,217,109	100.00%
Private Grants	\$27,000	1.22%
Federal Grants	\$1,550,109	69.92%
Earned Income	\$640,000	28.87%

Figure 4-36: Gross Revenue Projections FY2014 - FY2016 Including New Sources

In order for The Center to realize the revenue projected above in Figure 4-36, the organization may need to bring in additional staff members to ensure the new revenue generation streams are well managed during the first few years of this projection period. A staff member dedicated to building and supporting a strong membership base would be critical to the membership model's success. This new staff member could market the NCSCE to other organizations, build partnerships, look for sponsors, and

develop materials for individuals, all of which would help the NCSCE generate revenue. This position may initially seem like a costly investment, however, once the membership model is established and well developed, the position could be scaled back to represent one part of a staff member's duties.

The second staff position that The Center would require would be a full time events coordinator. As The Center develops its event offerings, the amount of time required to properly support and plan the events would also increase. Bringing in a dedicated staff member to manage and coordinate events would ensure the events get the attention they need to maintain the high standard The Center desires to uphold. The events coordinator position has already been filled, as of Dec. 2013, and is included in the FY2014 budget projections.

Finally The Center may need a staff member that could better market The Center and develop its national recognition. This position could be part of the membership development job, but it could also be its own part time position as the membership staff member is focused on his or her duties while they establish a membership base. The Center should work to better market itself and build a stronger brand identity. We do not believe additional staffing would be required to support a more developed house call system due to the relatively limited staff hours associated with pairing organizations with subject matter experts, especially at the NCSCE's current state.

By implementing a tiered membership structure, hosting more events, and further developing the speakers bureau, it can be seen that from FY2014 to FY2016, the NCSCE could potentially generate revenue at about \$319,500 for FY2014, \$504,250 for FY2015, and \$640,000 for FY2016. By generating this level of revenue, The Center could cover some of its own overhead costs, which would make it less dependent on federal grants while at the same time making it more attractive to potential grant donors.

4.5.5 Effect of Indirect Rate on FY2014 – FY2016 Revenue Projections

The projections included in the [Section 4.5.4](#), only account for increased revenue generated through the revenue generation strategies we have outlined. The projections do not account for the increased expenditures as a result of new staff or the cost of running new events. Figure 4-37 below incorporates the FY2016 projections into a more developed P&L statement for The Center which includes items like increased event related expenses and increased payroll requirements.

The National Center For Science & Civic Engagement Projected 2016			
Income	Subject to Indirect		
	SENCER	\$925,547	41.76%
	SENCER-ISE	\$360,022	16.24%
	SENCER-ISE II	\$68,735	3.10%
	NSF Math Grant	\$183,417	8.27%
	Keck	\$20,000	0.90%
	EPA	\$12,388	0.56%
	USC	\$7,000	0.32%
	Subtotal:	\$1,577,109	71.15%
	Indirect Fee		
	Membership	\$265,000	11.96%
	Summer Institute	\$162,500	7.33%
	Other Events	\$192,000	8.66%
	Speakers Bureau	\$20,000	0.90%
Subtotal:	\$639,500	28.85%	
Total Income:	\$2,216,609		
Expenses	Indirect Cost @ 00%	\$0.00	0.00%
	Salaries	\$600,000	29.48%
	Consulting	\$300,000	14.74%
	Summer Institute	\$180,000	8.85%
	Event Costs	\$200,000	9.83%
	Rent	\$50,000	2.46%
	Accounting	\$20,000	0.98%
	Sub-Awards	\$600,000	29.48%
	Other	\$85,000	4.18%
	Total:	\$2,035,000	
Year End Net:		\$181,609	

Figure 4-37: FY2016 Revenue Projections with Added Expenditures

The following projection, Figure 4-38, takes the developed P&L for the FY2016 projections and includes a theoretical indirect applied against all grant funds indiscriminately. This application of an indirect rate includes anything that is not “Earned Revenue.” Estimates regarding the result of The Center paying a 35% indirect rate to its fiscal sponsor are factored into Figure 4-38 below, as reductions in the P&L’s expenses including a reduction of payroll, consulting, events, and other costs. Although those expenses still exist, a fiscal sponsor would help the NCSCE cover certain costs out of the indirect it receives, effectively allowing The Center to remove parts of those line items from its budget.

The National Center For Science & Civic Engagement Projected 2016			
Income	Subject to Indirect		
	SENCER	\$925,547	41.76%
	SENCER-ISE	\$360,022	16.24%
	SENCER-ISE II	\$68,735	3.10%
	NSF Math Grant	\$183,417	8.27%
	Keck	\$20,000	0.90%
	EPA	\$12,388	0.56%
	USC	\$7,000	0.32%
	Subtotal:	\$1,577,109	71.15%
		Indirect Fee	
Membership	\$265,000	11.96%	
Summer Institute	\$162,500	7.33%	
Other Events	\$192,000	8.66%	
Speakers Bureau	\$20,000	0.90%	
Subtotal:	\$639,500	28.85%	
	Total Income:	\$2,216,609	
Expenses	Indirect Cost @ 35%	\$551,988.30	26.20%
	Salaries	\$400,000	18.98%
	Consulting	\$275,000	13.05%
	Summer Institute	\$50,000	2.37%
	Event Costs	\$160,000	7.59%
	Rent	\$0	0.00%
	Accounting	\$0	0.00%
	Sub-Awards	\$600,000	28.48%
	Other	\$70,000	3.32%
	Total:	\$2,106,988	
	Year End Net:	\$109,621	

Figure 4-38: FY2016 Revenue Projections with Added Expenditures and 35% Indirect Rate

Ultimately once The Center starts to negotiate its partnership with a new fiscal sponsor, The Center will need to perform calculations similar to those performed above to analyze the real world proposal, factoring in the NCSCE financial situation at the time. The next projection, Figure 4-39, also

factors in a proposed indirect rate, now at a rate of 45%, and has additional deductions reflecting the 10% increase in indirect a fiscal sponsor would realize from the partnership.

The National Center For Science & Civic Engagement			
Projected 2016			
Income	Subject to Indirect		
	SENCER	\$925,547	41.76%
	SENCER-ISE	\$360,022	16.24%
	SENCER-ISE II	\$68,735	3.10%
	NSF Math Grant	\$183,417	8.27%
	Keck	\$20,000	0.90%
	EPA	\$12,388	0.56%
	USC	\$7,000	0.32%
	Subtotal:	\$1,577,109	71.15%
	Indirect Fee		
	Membership	\$265,000	11.96%
	Summer Institute	\$162,500	7.33%
	Other Events	\$192,000	8.66%
	Speakers Bureau	\$20,000	0.90%
	Subtotal:	\$639,500	28.85%
Total Income:	\$2,216,609		
Expenses	Indirect Cost @ 45%	\$709,699.24	32.79%
	Salaries	\$350,000	16.17%
	Consulting	\$225,000	10.39%
	Summer Institute	\$50,000	2.31%
	Event Costs	\$160,000	7.39%
	Rent	\$0	0.00%
	Accounting	\$0	0.00%
	Sub-Awards	\$600,000	27.72%
	Other	\$70,000	3.23%
	Total:	\$2,164,699	
Year End Net:		\$51,910	

Figure 4-39: FY2016 Revenue Projections with Added Expenditures and 45% Indirect Rate

Both the 35% and 45% indirect rate projections display how raised indirect rates associated with a new fiscal sponsor could impact The Center's financials. In the above projections, 86.9% and 81.7% of

the cost of the indirect rate was directly realized by The Center for the 35% and 45% indirect rate projections respectively. The NCSCE realized this return in the form of subsidy for certain cost centers. The expense subsidies can be seen in Figure 4-40 below where the expenses from each indirect rate are compared.

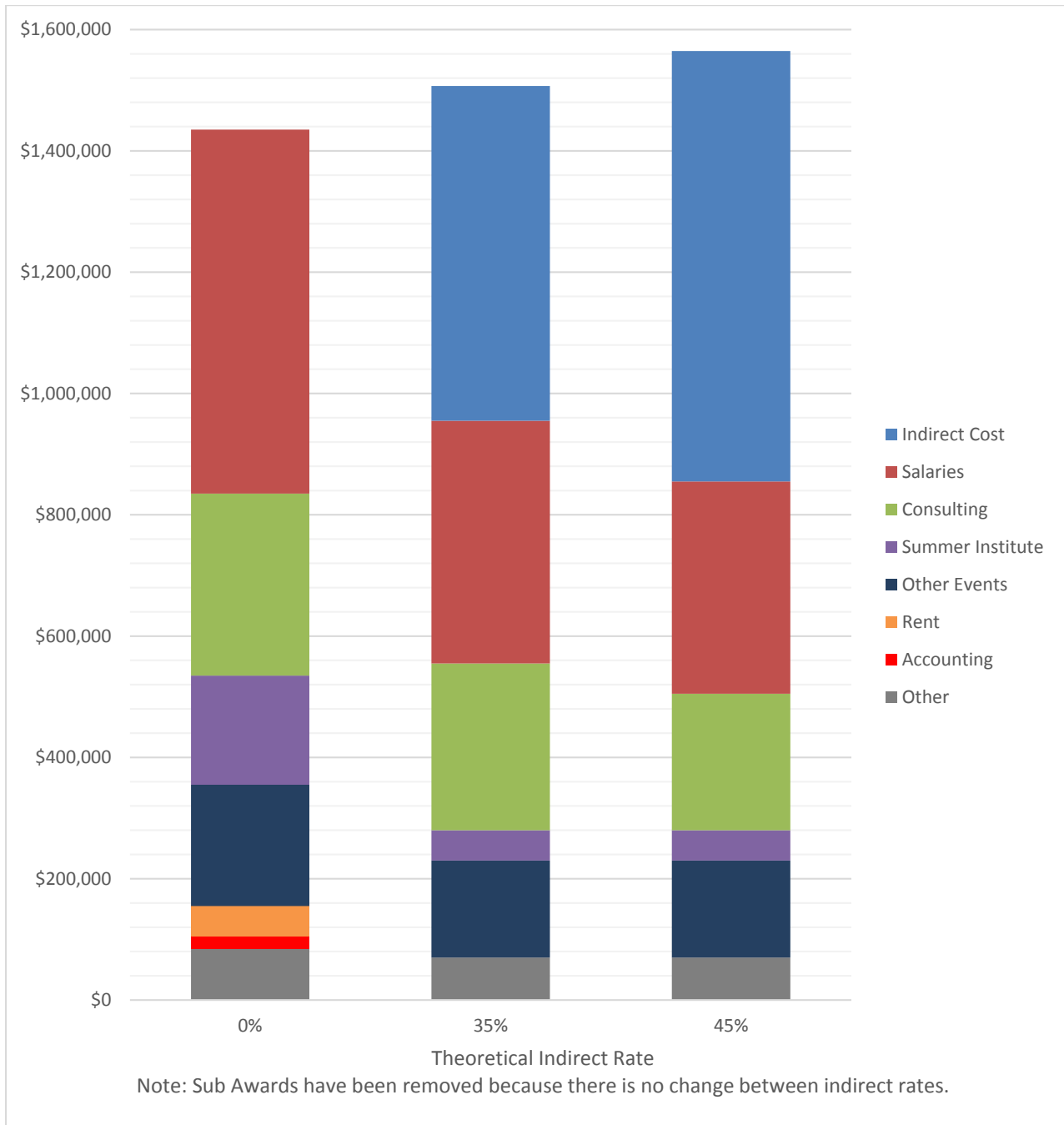


Figure 4-40: FY2016 Total Projected Expenditures divided by Proposed Indirect Rate

4.6 TARGET MARKET OVERVIEW AND EXAMPLES

The NCSCE has expressed a desire to have its programs and curriculum implemented in 20% of colleges and universities in the US. In 2010, there were 2,774 four-year institutions and 1,721 two-year institutions in the United States (NCES, 2010). If The Center were to provide its curricula to 20% of these nearly 4,500 colleges and universities, then The Center would be working with approximately 900 institutions. Looking at a few of the professional societies in the country, we can provide The Center with information concerning the size of these groups and whether their constituency is composed of individual or institutional members. The Center asked for numbers regarding the membership base of different organizations around the country that could potentially be included in its target market. These organizations were chosen at random based off of the availability of the number of members to the public and the missions and goals of the organizations.

Listed below are several associations and organizations, along with their approximate membership total and a brief description of each.

The American Association of University Professors (AAUP) serves to define fundamental professional values and standards for institutions of higher education, and to instill professional values and standards into educators (AAUP, 2013). The AAUP has an institutional based membership model, and has approximately 150 members.

The National Science Teachers Association (NSTA) has a mission to promote innovation in science teaching and education for teachers and students (NSTA, 2013). It has a membership base of national and international individuals, students, professors and institutions, totaling over 55,000 members.

The American Association of Colleges for Teachers Education (AACTE) advocates the development of high quality teachers and leaders involved in pre-K through 12 education (AACTE, 2013). The AACTE's membership is made up of more than 800 institutions.

The Association of Environmental Engineering and Science Professors (AEESP) is an organization made up of professors from around the world in the fields of science, engineering, and environmental protection (AEESP, 2013). It offers membership at an institutional level, with approximately 800 members.

The Association for Science Teacher Education (ASTE) is an organization working to promote the growth of science education (ASTE, 2013). The ASTE has 800 institutions around the globe that have membership with the organization.

The Association of American Educators works mainly with public school teachers to provide professional benefits and resources to them (AAE, 2013). It has members at the individual level totaling over 300,000 teachers in all 50 states.

The National Association of Student Personnel Administrators (NASPA) works for the advancement, health, and sustainability of professionals in student affairs (NASPA, 2013). Recently, it has been known to be involved in creating a network of institutions working to develop students' civic engagement in their communities (Alfred, 2013). NASPA's membership includes 13,000 individual members and 2,100 institution members (NASPA, 2013).

The American Chemical Society (ACS) is an organization that uses the independent membership model to help represent professionals of all levels in chemistry related fields (ACS, 2013). In 2012, it reported more than 163,000 individual members belonging to the organization (ACS, 2012).

The National Council of Teachers of Mathematics (NCTM) works to support teachers and professors at all levels of education to support high quality mathematics education (NCTM, 2013). NCTM has multiple levels of membership, including full individual membership, E-membership, Student E-membership, and Emeritus membership, totaling over 80,000 members.

STEM Education Coalition works to improve STEM education at all levels (STEM Education Coalition, 2013). It is an alliance of over 500 different businesses, professional organizations, and educational organizations.

The American Association of University Women (AAUW) works for the development of equality for women (AAUW, 2013). Education is one of its methods, and it has a focus on empowering women in STEM education. It has over 170,000 members and supporters across the globe.

The Association for the Advancement of Sustainability in Higher Education (AASHE) works to develop sustainability in higher education for future and current students (AASHE, 2013). It currently has 846 members and 199 associate members.

These professional associations and organizations represent only a small portion of all groups that the NCSCE could appeal to. With so many organizations dedicated to improving the quality of educators, The Center has an easily accessible market of people and institutions who may be interested in resources provided by The Center.

4.7 SUMMARY

This chapter includes all of the work and analysis that was accomplished through interviews, archival research, and the examination of financial and tax documents. Two potential organizational structures along with the current structure of the NCSCE were reviewed and evaluated. A financial analysis was performed on the NCSCE, multiple non-profit organizations, and each proposed revenue

generation method. The financial analyses for the NCSCE include revenue projections and the potential effects of different indirect rates on its finances, while a broad financial picture was painted for four other non-profit organizations. Examples of new target markets have been provided to the NCSCE, giving it options for expanding the reach of its initiatives and programs. All of the knowledge obtained throughout this chapter was used to make a well-developed, informed, and thorough recommendation for the NCSCE's strategic planning committee.

CHAPTER 5 - CONCLUSION AND RECOMMENDATION

Non-profit organizations are an important part of business culture in the United States, and play an ever increasing role in improving the lives of the general public. As a NPO improves the quality of its programs and initiatives, it must compete with other NPOs for funding awards sourced primarily from federal and private grants. With the number of NPOs growing each year, along with the limited availability of private donations and dwindling government grants, competition for these funds is at an all-time high, making financing a non-profit a difficult task.

In addition to the methods of generating earned income that affect how NPOs function, the different organizational models available to NPOs play a major role in the operation of the organization. Using a fiscal sponsor relieves the organization of many economic pressures, allowing it to focus on its initiatives and objectives rather than administrative tasks and costs. The benefits of sponsorship do come at the cost of some autonomy and the indirect fee. Pursuing official 501(c)(3) status and becoming an independent non-profit organization allows the organization to maintain maximum control over its projects, but requires that the NPO manage its own taxes and handle all costs associated with its operation.

The NCSCE is at a crossroads for its organizational structure. Facing grant cutbacks due to the weak financial situation of the United States, and the potential loss of a major government grant, The Center must reevaluate its current standing, and form a strong strategic plan moving forward. Through our research, analysis, and interviews, we developed and presented pertinent information and have provided the following recommendation to the NCSCE: The NCSCE should continue to use a fiscal sponsor, and should work to find a fiscal sponsor that can provide a more substantial and secure financial backing.

A fiscal sponsorship with a different college or university would be more beneficial to The Center when compared to becoming an independent NPO or maintaining its current relationship with Harrisburg University. In its current fiscal sponsorship, if Harrisburg University were to fail, the NCSCE would also fail, making the task of finding a stable fiscal sponsor very important to the long term success of the NCSCE. To find an ideal sponsor, the NCSCE should seek a college or university that is well established, financially stable, and that shares similar goals and missions, as common interests will help to ensure that The Center and the new sponsor will maintain a long and productive relationship. Continuing to maintain a relationship with a fiscal sponsor would mean that the NCSCE would not be responsible for its own accounting, tax documentation, grant management, or human resources, freeing it of many financial burdens. Although it is unlikely that a new fiscal sponsor would refund the money it receives through the indirect back to The Center as Harrisburg University does, there is the potential for the new fiscal sponsor to pay for office space, staff salaries, and other overhead costs. Ideally, The Center would chose to form a relationship with a university that has a strong national reputation, not only providing a more solid foundation for The Center, but improving its name recognition and credibility as well.

The amount of time required for the NCSCE to find a new fiscal sponsor is highly variable, and depends on a few key issues. First, parties representing both the NCSCE and Harrisburg University would have to come to an agreement regarding The Center moving away from the university and taking the grants that it has been awarded with it. When SENCER was originally moved from the Association of American Colleges and Universities (AAC&U), it was a long and arduous process due to the AAC&U's unwillingness to give up the grant (Oates, personal communication, 6 Dec. 2013). However, unlike the difficulties experienced when leaving the AAC&U, Karen Oates believes that if The Center were to ask to move the grants from Harrisburg University to another institute, it would be a smooth process met with little to no resistance. In addition to negotiations with Harrisburg University, The Center must approach

multiple colleges and universities that it feels could serve as a good match for The Center, such that representatives from both parties could discuss what benefits a fiscal sponsorship would bring to both organizations.

Developing revenue streams outside of grants is critically important to the long term stability of The Center, regardless of the organizational structure it chooses to follow. Through our research involving other NPOs, we concluded that many NPOs receive a large percentage of their yearly revenue from an annual conference. We are aware that The Center desires to limit the size of its conferences so that a sense of community and a personal atmosphere can be fostered at its events. We are recommending that The Center host additional conferences of the same size as the SENCER Summer Institute throughout the year, each with a different area of focus. Increasing the number of conferences with unique focuses, The Center could offer a wider range of programs and attract members of its target market who may not have taken an interest in past conferences.

The second most prominent revenue model that has surfaced through our research is membership, which can provide a consistent and predictable revenue stream for an organization. A tiered membership model would allow The Center to monetize some of its assets, providing select resources to members at different tiers of the membership structure. The membership model could include specific tiers for colleges and universities, K-12 schools, professors, students, and other professionals. As the NCSCE moves to a membership model, The Center should monetize many of its resources, like its literature and house calls, both of which are currently provided for free.

The Center's current structure of house calls is a free service that it provides, and could easily be modified into a source of revenue. To generate revenue, The Center could develop these house calls into a formal speakers bureau with different groups of subject matter experts. The Center could charge

institutions a fee for matching them with an appropriate expert to come to their institution to help in a workshop, speak, or provide any other service the institution may require.

Finally, The Center would be best served by establishing a strong revenue base by developing its earned income, and continuing its grant applications and reapplications before changing its organizational structure. Once The Center has developed a larger and more dependable earned income stream, it will be in a better position to change its organizational structure. As the NCSCE looks toward the future, the growth of the organization is very important in expanding its reach on STEM education and civic engagement across the country.

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APPENDIX A: SPONSOR BACKGROUND

The National Center for Science and Civic Engagement (2013) was created in the late 1990's at Harrisburg University as a research center supporting the grant Science Education for New Civic Engagements and Responsibilities (SENCER). With HIV affecting college campuses nationwide, the connection was made between helping students see the real life impacts science can have on their lives and their level of interest in civic issues that directly impact them. This connection has become the focus of The Center's mission: to advance science education reform in colleges and universities across the country by tying it to civic issues. The Center is aware of the decreasing number of college students choosing to major in science related fields and sees a significant decline in elective science based classes. Society today has an ever increasing dependence on science and technology to meet the demands of the most pressing issues in our global community. To meet these demands, the NCSCE sponsors a variety of initiatives including SENCER, Great Lakes Innovative Stewardship through Education Network (GLISTEN), Science Education for New Civic Engagements and Responsibilities- Informal Science Education (SENCER-ISE), and Science and Civic Engagement Western Network (SCEWestNet). The NCSCE hopes to encourage civic accountability and inspire students as they pursue their education and develop innovative solutions to increasingly complex problems.

The NCSCE (2013) not only works to inspire students but prides itself with its involvement at the university level working with professors and faculty to assure that their innovative concepts reach beyond the borders of their own campuses. The NCSCE is looking for improvements in the way science is being taught to motivate students to pursue scholarly excellence, and wishes to "retain, prepare, and graduate students who will be effective citizens" (NCSCE, Paragraph 2, 2013).

The NCSCE (2013) is a service provider for Harrisburg University, who serves as a fiscal sponsor for The Center. A full description of fiscal sponsorships and The Center's relationship with Harrisburg can be found in [Section 4.1](#) and [Section 4.2](#) of this document, respectively. To support itself, the NCSCE has enlisted the help of numerous volunteers who contribute their time and knowledge to help the NCSCE move forward with its initiatives and projects. The NCSCE uses its grant money to host events, run initiatives, and pay the salaries of certain staff members, leaving the need for supplementary funds to cover other costs like sponsoring domestic and international students who cannot afford to take part in The Center's programs. To cover this shortfall, the NCSCE accepts donations from individuals and businesses alike.

The NCSCE (2013) is comprised of twenty-two core members who are identified on the organization's website. Each principal member has a set of specializations and fields of interests that they bring to the organization. Listed below are the core staff members of the NCSCE, along with their title within the organization.

- William E. Bennett, Senior Scholar
- Wm. David Burns, Executive Director
- Stephen Carroll, Senior Research Fellow
- Hailey Chenevert, SENCER-ISE Program Assistant
- Eric Darr, Senior Scholar and Advisor
- Richard Duschl, Senior Fellow
- David Ferguson, Senior Fellow
- Matthew Fisher, Senior Fellow
- Chuck Gahun, Project Consultant
- Jeannette Haviland-Jones, Senior Fellow
- Edward Katz, Senior Fellow
- Stephanie L. Knight, Director of Evaluation and Assessment
- Danielle Kraus Tarka, Associate Director
- Ellen F. Mappen, Senior Scholar
- Terry McGuire, Senior Fellow
- Claire McInerney, Senior Research Fellow
- Karen Kashmanian Oates, Senior Fellow
- Glenn Odenbrett, Program Director for GLISTEN
- Eliza Jane Reilly, Senior Scholar
- Amy Shachter, Senior Fellow

- David Temple, Senior Research Scholar
- Barbara Tewksbury, Senior Fellow

Not dependent on a traditional office hierarchy, the NCSCE (2013) relies on its staff for their practical field knowledge. The dynamic nature of their faculty allows them to create and follow through on new projects and activities efficiently. Regional and national meetings allow large groups of people who are interested in The Center’s mission to come together to discuss common interests. Each staff member has a unique and impressive history, representing a large number of public and private universities and governmental committees and boards. With such an experienced group of staff, the NCSCE has an extremely diverse team, capable of bringing forth unique solutions to many problems.

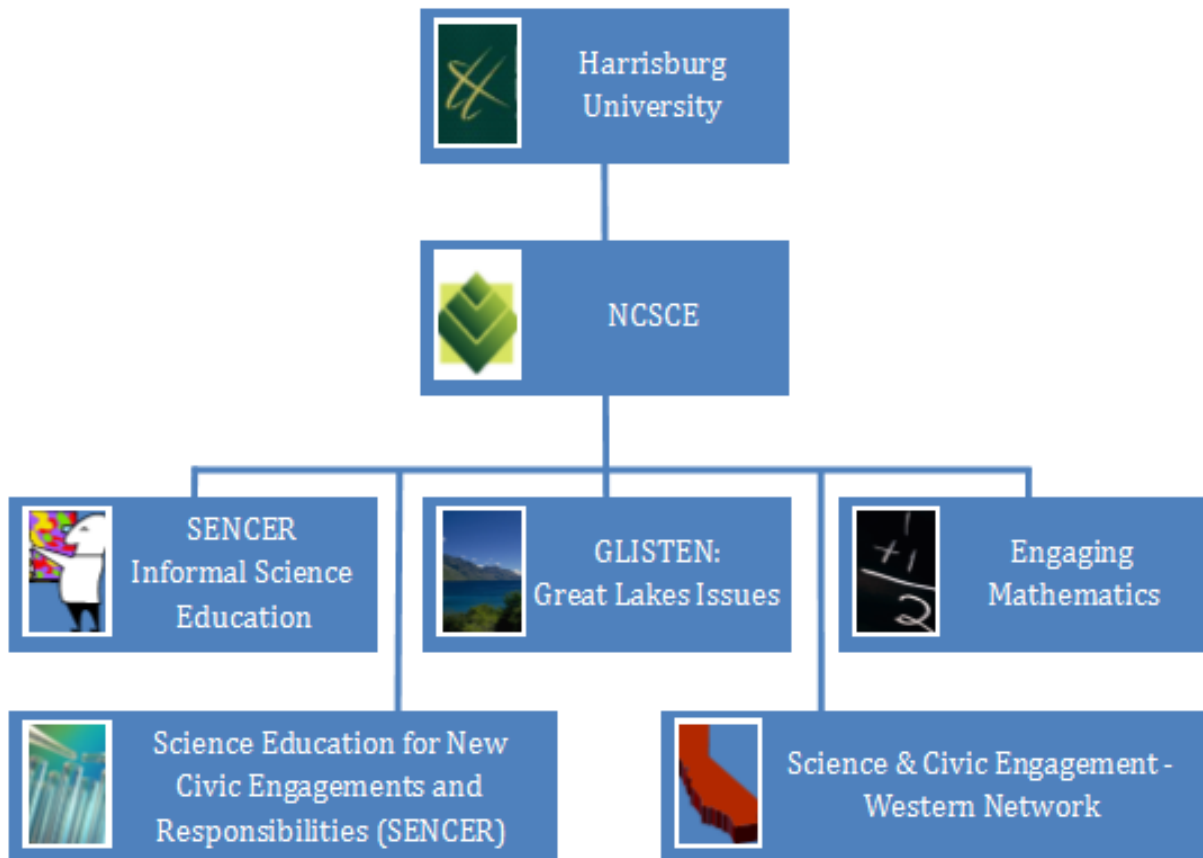


Figure A-1: NCSCE Organizational Structure and Programs (NCSCE, 2013)

The NCSCE (2013) also has a close working relationship with Harrisburg University, using this university to give students access to many of their programs. Both the NCSCE and Harrisburg University are committed to the improvement of STEM education and combine their resources to achieve this goal. While the NCSCE writes their own grants, Harrisburg University must preview all grants created as the fiscal sponsor, and is the recipient of all grants and donations. Figure A-0-1 shows the hierarchy of the organization and the different initiatives in order of creation from left to right.

The NCSCE (2013) works closely with the National Science Foundation as it is currently their primary sponsor and a critical part to their success and continued existence. The NCSCE is not directly related to the NSF; however the NCSCE is dependent on the NSF's continued funding. Along with the NSF, the NCSCE depends on grant money from other large organizations like the W.M. Keck Foundation, the Noyce Foundation, and The Corporation for National and Community Service.

The National Science Foundation (2013) provided the grant for the development of the SENCER program. SENCER works to develop science education by looking at real world problems and connecting them to important civic questions on the local and global scale. SENCER programs promote the science, technology, engineering, and mathematics (STEM) base in their initiatives. The SENCER program also helps empower the NCSCE to explore new ways to support lasting partnerships between grade school and university professionals alike regarding issues of civic accountability.

The W.M. Keck Foundation (2013) offers grant programs that support science and engineering related research and development throughout the country. Their most famous grant funded the building of the twin telescopes Keck I and Keck II on the summit of Mauna Kea on the Big Island of Hawai'i. For the NCSCE, the W.M. Keck Foundation funded a two-year initiative called SCEWestNet, started in February of 2012, to support reforming science education in the western area of the U.S. (SENCER,

2013). The project began where existing work from SENCER had left off on the development of new curriculum in science education and reform (NCSCE, 2013).

In September 2013, the Noyce Foundation helped to support the SENCER program making four new partnerships at Cornell University, Fordham University, Hamilton College, and the University of Connecticut, regarding civic engagement (SENCER, 2013). These new partnerships bring in a wide range of civic issues to look at, included but not limited to the use of toxic chemicals in household products, research on early cognitive learning in children, and high school students becoming involved in the research of urban ecology. The NSF could only meet the funding needs of six partnerships, so the Noyce Foundation stepped in with the funds to support the last four partnerships for the NCSCE.

The Corporation for National and Community Service has annually given funding to the NCSCE for their program GLISTEN (Great Lakes Innovative Stewardship Through Education Network)(SENCER, 2013). GLISTEN works with undergraduate students and faculty to promote environmental care of the Great Lakes, which make up a large percentage of the world's fresh water supply (NCSCE, 2013). GLISTEN focuses on the development of undergraduate STEM curriculum, promoting students to take direct action in local organizations, and helping students and local community members become environmentally aware citizens.

APPENDIX B: WHY THIS PROJECT QUALIFIES AS AN INTERACTIVE QUALIFYING PROJECT AT WPI

The Interactive Qualifying Project (IQP) is a project that Worcester Polytechnic Institute (WPI) undergraduate students must complete as one of their graduation requirements. The project provides each student the opportunity to apply their understanding of science and technology to address a societal problem (Worcester Polytechnic Institute, 2013). WPI believes that by addressing a societal problem during the IQP, students will be better suited to fulfill their roles as professionals and as citizens. Students use social science methods to conduct research for their project and create a formal document and presentation regarding the work that was completed and the results that were obtained. The document is completed and delivered to WPI and the sponsoring organization, and the presentation is made directly to members of the sponsoring agency.

Project sponsors are typically external organizations that bring in WPI students to help them address a problem or accomplish a certain task. Through an extensive research period and time spent working directly at the offices of the project sponsor, the students develop solutions to the problems and tasks facing the sponsor. Some of the organizations who have worked with WPI students at the Washington, D.C. project center include the US Patent and Trademark Office (USPTO), the Environmental Protection Agency (EPA), the National Science Foundation (NSF), the US Coast Guard (USCG), and now the National Center for Science and Civic Engagement (NCSCE).

Our project qualifies as an IQP due to the societal issues we are addressing and the use of numerous different social science research methods to assist the National Center for Science and Civic Engagement. The goal of our project is to help the NCSCE develop a sustainable financial plan by presenting it with research on two proposed organization models and multiple revenue generating methods. The presented research includes the generation of new revenue, the better use of existing

funds, and other useful information the team has developed. The Center wishes to develop means of covering overhead costs without relying on funds from grants, focusing that money on its initiatives. Having met our project goals and accomplishing our objectives, we have successfully completed WPI's Interactive Qualifying Project and have helped the NCSCCE secure its financial future.

APPENDIX C: INTERVIEW PROTOCOL

Before the Interview

1. Gather background information about the subject.
2. Arrange date and time of interview and explain the aim of the interview questions.
3. Request permission to record the interview.
4. Request permission to use the subject's name in documentation.

Statements to be made before Questions Begin

1. Thank subject for meeting with the team.
2. Introduce all team members present.
3. Present background information on the project and its sponsor.
4. Provide the subject with the specific region of their knowledge you are looking for them to cover however also advise the subject to feel free to share anything at all they feel is relevant.

Interview Questions to Ask

1. Please describe some of the fundraising methods that your organization employs?
2. Which methods have you seen work particularly well or poorly? Why?
3. What financial costs are associated with the fundraising methods you employ?
4. How does your organization track its donations & grants?
5. Does your organization perform targeting advertising and/or donor program marketing to people based off their donor history? If so, how?
6. How does your organization thank and/or acknowledge donors?
7. Please describe some of the tax incentives that you advertise to your potential donors? Any other financial incentives?
8. Is there any other general or specific information regarding fundraising or a related matter that you feel would be beneficial to our research? If so, what are they?

9. Would it be ok to contact you again if we have any follow-up questions regarding the information that you provided us with today?

After the Interview

1. Develop a summary and/or transcript of the interview.
2. Identify any important information than could immediately affect the project.
3. Send a thank you email to the subject.
4. Review the interview summary and/or transcript and verify no information was omitted.

APPENDIX D: INTERVIEW SUMMARIES

CO-FOUNDER OF THE NCSCE (OATES)

Interview held at 9:30 AM on 9/18/2013 in Salisbury Labs

WPI's Dean Karen Oates is the Co-founder of the NCSCE. Working with David Burns, founder and president of the NCSCE, Oates was instrumental in the creation and early development of the NCSCE. Dean Oates informed the team that The Center received a grant named SENCER to work with universities to develop an understanding on HIV. The Center determined that by relating education to civic issues, like HIV, students would take a greater interest in science education. This idea became the core philosophy behind the NCSCE.

The team asked about the nature of the relationship between The Center and Harrisburg University, and how it has developed over time. Originally associated with the Association of American Colleges and Universities (AAC&U), Dean Oates and David Burns felt that they had a lack of control over their grant money. As a result, Oates and Burns decided to leave the AAC&U and founded Harrisburg University. Dean Oates informed us that Harrisburg was established in part to act as a host institution for The Center, based upon the same core philosophy of tying science education and civic issues. Harrisburg has an indirect of 20%, however unlike a typical relationship, Harrisburg funnels all of this money back into The Center, meaning that The Center winds up receiving 100% of the grant money awarded. Dean Oates also noted that WPI has an indirect of 58%.

Dean Oates expressed some concern on the stability of Harrisburg University, and how it may be a negative relationship for The Center. When Dean Oates left Harrisburg seven years ago, it had two hundred students. Today there are five hundred students, representing a growth of only three hundred students in the past seven years. Oates believes that by remaining associated with Harrisburg, The Center is engaged in a potentially dangerous relationship, and runs the risk of being dissolved if

something were to happen to Harrisburg University. Dean Oates believes that the NCSCE might be more stable if it tied itself to another university, or if it branched off as its own 501(c)(3).

PRESIDENT OF THE FORUM ON EDUCATION ABROAD (WHALEN)

Interview held at 11:00 AM on 10/2/13 over the phone in East Hall

Dr. Brian Whalen is the President of the Forum on Education Abroad, a non-profit organization located at Dickinson College in Carlisle, Pennsylvania. The Forum works with universities, overseas institutions, and other organizations to provide educational programs and resources to improve the quality and available opportunities of foreign study programs. Dr. Whalen was instrumental in the development of the forum, taking it from a small organization to a large and highly successful one. As such, he is very knowledgeable on the subject of the operation and expansion of non-profit organizations. We asked him about his experience, and his view on the keys of developing a successful organization. He said that a strong relationship with the host institution that shares the same values and goals was instrumental in the expansion of The Forum. He noted that one of the benefits of being hosted by an institution is that much of their infrastructure like office space and electricity is provided by Dickinson, reducing the financial strain on The Forum and allowing them to focus their funds on the development of their programs. Dr. Whalen was firm in his belief that defining a mission statement in very precise terms is vital in creating successful organizations.

Dr. Whalen discussed the model of membership that was adopted by The Forum. In this model, universities and organizations pay a membership fee, based upon the size of the foreign studies programs. The Forum generates a large amount of revenue through its conferences, which charge a fee of \$500 per person to attend. To attract members, an organization must offer resources and services, developing a niche that is both attractive to universities and unoccupied by other organizations. This niche is very important, as it gives an organization the opportunity to charge its members for its resources and the opportunity to attend its conferences, as these services are not attainable through

any other organization. Dr. Whalen noted that many colleges and universities are in a time of cutting back on the number of conferences they attend and organizations that they are members of, which puts a greater value on finding and developing a niche market.

WPI VICE PROVOST FOR RESEARCH (MANNING)

Interview held at 9:00 AM on 10/9/13 in Boynton Hall

We were directed to meet with WPI's Vice Provost Michael Manning as he is very knowledgeable concerning the nature of indirect rates and grants. Manning informed the team that indirect rates are calculated by an external office, and in the case of WPI, is calculated by an office of the United States Navy. He also told us that it is possible for independent departments to receive an indirect rate that is separate from its parent institution. For more information, Manning referred us to Elena Glatman in the Office of Sponsored Programs.

When asked about the role of federal funding as it applies to non-profit organizations, Manning said that federal funding is often more dependable and consistent than funding that comes from independent foundations. This is because smaller foundations typically give one time grants to non-profit organizations, preferring to donate to many organizations over time rather than constantly giving money to one group. He also told us that federal grants are more likely to be awarded to non-profits that are associated with a university. With this, Manning believes that it is in the best interest of the NCSCE to continue to pursue federal funding, and to remain attached to a college or university.

ASSOCIATE DIRECTOR OF FOUNDATION GIVING (PANE-JOYCE)

Interview held at 12:00 PM on 11/12/2013 at the NCSCE Office

Janet Pane-Joyce is the associate Director of Foundation Giving at WPI. Janet works in the Institutional Advancement office in WPI and works to receive grants from private foundations. She works in writing and submitting proposals dealing with issues at the university level. Proposals in specific

areas are usually written by certain professors interested in the grants. She serves as a “matchmaker” between the institutional needs and donors who are willing to provide the support that match the needs of the institution. She does research on what private foundations are out there and she networks with them. She also helps track relationships with various donations from private foundations. She believes that private foundations are not as complicated in the budget process as opposed to a federal organization. She believes that working with foundations is less technical, but typically private foundations don’t want to have a long term relationship for funding operations. They want to support a board range of initiatives through different organizations. When looking at a fiscal sponsorship, a larger institution is better than a smaller institution due to name recognition when submitting proposals for grants. Smaller institutions might not have the ability to afford to hire someone whose job it is to search for grants, so it takes the time away from another person to complete their work related duties. NPOs cooperate about sharing information, so going to similar organizations that have similar services for ideas for funding and grants is helpful. Maintaining personal contact and relationships with foundations is important so you can see any changes coming. Changes in funding usually revolve around turnover in foundation workers. Janet also provided us with some information regarding a NPO which was adopted by a larger entity. This was the Worcester Center for Crafts, and Worcester State adopted it about five years ago. She said that we could contact Honee Hess at this organization for more information.

ASSOCIATE DIRECTOR OF PRE-AWARD SERVICES (GLATMAN AND LEMIRE)

Interview held at 11:30 AM 11/14/13 in the NCSCE Office

We conducted an interview with Elena Glatman and Franc Lemire in the sponsored programs office at WPI. Elena works with pre awards in the office of sponsored programs. Pre awards are when you have money on your account and the project is done, so you can go to the government to discuss how the unused balance will be used. The pre award has to do with submitting the proposal and having a staff review to make sure that it is ok to accept the proposal according to the terms and conditions.

Many sponsors award one year at a time, and the pre awards get involved each year. All proposals must go through the Office of Sponsored Programs at WPI. They believe for the review process of proposals at the federal level, the institute or organizations name recognition is not important. There is a review process assessing qualitative and quantitative value of proposal. Some agencies don't go through a peer review process. At WPI, there is a database that can be used to help find opportunities for grant money. OSP does not work with any of the financials regarding the grant money. There can be a wide variety of reasons that a NPO doesn't get a grant. It could deal with the scope of work defined in the proposal if it did not seem reasonable. Some organizations are particular about the proposal that is submitted and its formatting.

NCSCE CONSULTANT (BUCKI)

Interview held at 11:00 AM on 11/20/2013 in the NCSCE Office

We conducted an interview with Jonathan Bucki, who is the strategic planning consultant for the NCSCE. He shared with us information he gained from the interviews he has performed for the NCSCE. He has found that his interviewees think that the strengths of the NCSCE include its fundamental idea revolving around teaching through issues and experience, that it thinks more broadly on education in general, and that the idea of civic engagement is relevant and important. The interviewees also thought the people involved in the organization add greatly to the strength of the NCSCE. He believes there are some trends in higher education revolving around the cost of a college education and the ethics involved with hiring and maintaining professors in universities. He also pointed out the decline in the traditional model of liberal arts education and the focus now is turning to teaching students how to lead, not necessarily to become better citizens and employees, which could potentially become a problem. From his interviews, many are in agreement that the NCSCE could establish a type of membership model to bring in income for the organization. He believes that many people recognize the importance of SENCER, and there could be a good opportunity in universities to involve the NCSCE as

universities are presenting “grant challenges” to their students, which often end up being linked to civic issues. He also believes there is a donor fundraising opportunity for the NCSCE revolving around the potential market of newly or almost retired individuals who are involved in SENCER. When looking at colleges and universities, he believes there is a shift in higher education that is leading to potentially a larger audience for the NCSCE.

NCSCE STAFF (KRAUS TARKA)

Interview held at 2:00 PM on 11/22/2013 in the NCSCE Office

We conducted an interview with Danielle Kraus Tarka, who works for the NCSCE. She spoke about The Center’s Summer Institute, but notes that The Center wants to keep conferences to keep the conference more personal and encourage discussion. The Center also views their summer conference as a networking opportunity for its attendees, so keeping it small would be ideal. The Center would prefer to have more small events versus one large event for all of the above mentioned reasons. She also explained to us what a house call is, which is when The Center matches a college or University with a speaker, host for a workshop, or other needs the university might have. She clarified for our research on target markets; The Center wants purely numbers regarding the number of professors in specific organizations. She also told us that when looking at tenured professors, it could be a good or bad situation for the professors to be involved in, at that tenured status is not necessarily what The Center is looking at for curriculum development. Her opinion is that charging for curriculum is not the best option for The Center because it loses the community value and might price people out of the market. Her opinion is that events are the most promising financial stream for the NCSCE. She also believes The Center must be careful in how it creates a membership model, which she believes should be a tiered model, and The Center also needs a bridge for members from undergraduate to graduate programs to professional careers. Danielle believes it best for the NCSCE to not have grants to cover overhead costs.

She thinks that by relying less on grants for overhead costs, that could help The Center's amount of grants that it is approved for.

WORCESTER CRAFTS STAFF (HESS)

Interview held at 4:00 PM on 11/22/2013 in the NCSC Office

Honee Hess, who works with Worcester Center for Crafts as the executive director, was chosen for an interview due to the partnership that Worcester Center for Crafts has with Worcester State University. Before the interview, we discovered that Worcester Crafts had recently made the change from being its own NPO, to creating an affiliation with Worcester State. It was this affiliation and the change in organizational structure that we were interested in learning more about. In 2009, the Craft Center took a strategic pause, which actually meant it closed its doors temporarily. It lasted for nine months, and the Craft Center reopened under an affiliation with Worcester State University. The Worcester State Foundation (a NPO) holds the assets of the Worcester Center for Crafts now. Worcester Center for Crafts is still a fully independent NPO, even though it is part of an affiliation with Worcester State. It files its own taxes, has its own board of directors, and has its own bank accounts, among other things. There is a 1500 page affiliation agreement, which defines Worcester State at the corporation and restructured the Craft Center's debt. This made it possible for the Craft Center to reopen as an independent organization. People at Worcester State and in the community didn't want the Craft Center to go away, and when they met, they realized the Craft Center could continue to operate under Worcester State, which would help the Craft Center by allowing its continuation of operation, and allowed Worcester State to help meet the requirements of a new major it was offering for a visual arts program. Some advantages include that Worcester States gives the Craft Center office space and support. Worcester State also hosts the organization's website and gives the Craft Center their expertise if the Craft Center wants it. Worcester State has also allocated funds to help with the Craft Centers art studios and other maintenance projects for its facilities. The only disadvantage for the Craft Center is

that it is using state money, so it has to go through a state contracting and procurement process, which has so far been problematic to the organization. The organization has so far decided that the affiliation with Worcester State is good for the organization, and that it is financially not stable enough to even consider going back out on its own. After the affiliation, new and old employees were brought into the organization. Some of these employees were brought in by Worcester State University. The Craft Center now has employees who work with the Craft Center, but are really employees of Worcester State. The Craft Center cannot sustain itself without the support it receives from Worcester State. It is moving towards creating a more mixed portfolio of mixed income streams, which could be a service agreement with the university to help support the operating costs of the studios. It also has an art gallery from which artwork is sold, which is another income stream. It also has tuition for events, and tries to write grants and get corporate support. It also has individual support that it accepts. Honee believes that in this time period, NPOs are under an increased stress in general, so organizations need to be creative in looking at new models of structure.

TAX PROFESSIONAL (MOORE)

Interview held at 11:00 AM on 11/29/2013 in Bode, IA

An interview was conducted with Rebecca Moore, Attorney at Law in Algona, IA. While looking at fiscal sponsorships and independent organizations, we had a few questions regarding NPO taxes which we could not find the answer to in any of our research. One aspect of taxes we wanted to learn about was the unrelated business income tax that NPO's are subject to. An activity is an unrelated business income if it meets the following three requirements: it is business, it is regularly carried on, and it is not substantially related to furthering the exempt purpose of the organization. Also, there is no requirement that an organization use a professional to complete its 990 tax documents, but it is a common practice as the form is confusing and the instructions are not user friendly.

CO-FOUNDER OF THE NCSCE (OATES)

Personal communication held at 11:30 AM on 12/06/2013 in the NCSCE Office

Karen Oates was contacted so that we could ask her about how an organization moves its grants from one institute to another. We knew through previous contact that Karen had been involved in moving the SENCER grant from AAC&U to HU. She told us about how she and David Burns had to go to NSF and AAC&U to receive permission to move the grant. Initially, AAC&U said they were going to keep the grant, but the NSF said if the grant did not move with Oates and Burns, they would cancel the grant. An agreement was finally reached to move SENCER after a certain time period. Karen believes that if the NCSCE wanted to move the SENCER grant again to another institution, everything would run smoothly. We also asked her about house calls, and she was in agreement that the house calls performed by The Center could be a potential source of revenue.

EXECUTIVE DIRECTOR OF THE JED FOUNDATION (MACPHEE)

Interview held at 11:30 AM on 12/05/2013 in the NCSCE Office

John MacPhee was contacted to learn about the Jed Foundation and its revenue generating strategy. For the Jed Foundation, they value the annual gala they host not only for its monetary gain, but also to support and network with attendees. MacPhee feels that an organization must be careful in how they approach an event, as the Jed Foundation uses the gala to ask their regular supporters for more money. His point was that even without the gala, that money from their main supporters would have gathered anyway. He believes that it is important to look at the incremental value that an event would bring in and not just look at the raw numbers earned at an event. Although the Jed Foundation does not have a membership structure, MacPhee recognized the importance memberships can bring to an organization. The Jed Foundation had a corporation that gave a huge donation every year for a few years who eventually stopped making donations, causing The Jed Foundation to lose a large source of funding. To bring in more money, The Jed Foundation invested in different fundraising methods.

MacPhee believes in the importance of diversifying revenue sources and not relying on a large single donor like The Jed Foundation had done previously.