

Grounded in the Past, Funded for the Future: An Examination of Foundation-Directed Grant Writing From Failure to Success

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Abstract

Each year, The Ohio State University's Women in Engineering Program (WiE) raises tens of thousands of dollars in corporate support for its pre-college engineering summer programs. In an effort to diversify and increase its financial resources, WiE sought *unsuccessfully* in 2007 and successfully in 2008 to obtain a two-year grant from The Camille and Henry Dreyfus Foundation in support of *CheME & YOU @ OSU*, an innovative, single-sex pre-college summer program focused on chemical engineering. Through an examination of the original and revised versions of WiE's proposal in support of *CheME & YOU @ OSU* and the Dreyfus Foundation's recommendations for preparing the proposal, this paper argues that the most effective foundation-directed grant proposals are those that rely on explication to demonstrate how the proposed program builds upon and extends an organization's most successful and well-established offerings. A comparative analysis of the narrative components and budget contained in both the original and revised versions of WiE's proposal form the basis of this argument.

Introduction

In August 2009, the Women in Engineering Program (WiE) at The Ohio State University (OSU) offered a new summer program initiative designed to introduce female students entering grade 9 to chemical engineering and related career fields. While the three other pre-college programs offered by WiE during the summer of 2009 were sponsored by corporations, this new program, known as *CheME & YOU @ OSU*, was unique in receiving a two-year, \$50,000 Special Grant in the Chemical Sciences from The Camille and Henry Dreyfus Foundation. This foundation award was significant, not only in terms of its source, but also because the Dreyfus Foundation had declined WiE's previous grant proposal in support of a summer 2008 launch of *CheME & YOU @ OSU*. By examining the differences between the first and second versions of the proposal, along with the Dreyfus Foundation's suggestions for strengthening the proposal, this paper seeks to demonstrate that the most effective foundation-directed grant proposals are those that thoroughly explicate how the proposed program will build upon and extend the organization's most successful and well-established offerings. Indeed, this paper will argue that it was only by detailing its history of proven summer program curricula that WiE was able to secure a future for *CheME & YOU @ OSU*.

Stop Condensing, Start Explicating

From 1994 to 2009, WiE offered a six-day, residential summer program for some 55 incoming OSU female engineering undergraduates. This multi-discipline engineering program introduced participants to a variety of areas within the larger engineering field. Starting in 2002, WiE also assumed responsibility for running two other multi-discipline engineering summer programs, one of which was a six-day residential camp begun in 2003 for 34 male and female students entering grades 10 and 11 and the other of which was a five-day nonresidential camp begun in 2002 for 30 girls entering grade 8. The latter program was originally under the direction of an OSU engineering faculty member and funded by a grant from the National Science Foundation; however, in 2008

WiE took over the program, which has since been funded through corporate sponsorships solicited by WiE and members of the College of Engineering's development team.

The process of soliciting corporate support for these summer programs has often taken the form of phone conversations; face-to-face meetings; and short presentations involving the WiE director, members of the College's development team, and one or more company representatives. The director then follows up with letters containing brief descriptions of the programs, their budgets, and how the companies will be recognized for their support. The summer programs have also been included as part of larger corporate-directed grant proposals prepared and submitted by WiE or the College of Engineering. In these cases, WiE's program and budget descriptions are even more condensed, sometimes consisting of only a few sentences and a total projected cost.

Given the time and space limitations inherent in the corporate solicitation process, university grant-seekers, like WiE, may often rely as much on established personal and/or institutional relationships and the company's desire to increase its name recognition among potential future employees and area communities as on a thorough explication of the goals and potential effectiveness of the proposed programming. This is not to suggest that WiE or any other university grant-seeker lacks a comprehensive history, rationale, and implementation plan for its proposed programs. Rather, this is an attempt to point to a possible reason for why WiE, despite having tremendous success in securing corporate sponsorship of its summer programs, did not initially receive funding from the Dreyfus Foundation in support of *CheME & YOU @ OSU*. The following note, which was included in the Dreyfus Foundation's July 31, 2007 request for a full proposal in support of *CheME & YOU @ OSU*, confirms this line of reasoning: "Specific issues to be addressed to improve your chances with the referees: include details of the chemistry to be taught and documentation of successes of previous camps." Although this note clearly invites the preparation and submission of a detailed curriculum for *CheME & YOU @ OSU* and a comprehensive history of WiE's summer program offerings and their effectiveness in increasing participants' interest in and pursuit of engineering, the absence of both from the original version of the proposal points to how challenging university grant-seekers may find the transition from corporate-focused solicitation to foundation-directed grant writing.

The different requirements of the corporate and foundation solicitation processes were underscored for WiE in the Dreyfus Foundation's instructions for and responses to the two versions of its grant proposal in support of *CheME & YOU @ OSU*. Asked by the Dreyfus Foundation to submit a full proposal in the fall of 2007, WiE was allotted 10 pages for the proposal narrative. Whereas the original proposal used less than 5 of the 10 pages, the revised version provided over 8 pages of information on *CheME & YOU @ OSU*. The Dreyfus Foundation's decision to fund this revised version points to the importance of explication to foundation-directed grant writing as opposed to the information condensing more often valued by the corporate solicitation process.

Components in Need of Compelling Explication

Although the length of WiE's revised grant proposal in support of *CheME & YOU @ OSU* was nearly double that of the original, both of these documents included the following: (a) an explanation of the program mission and its coincidence with that of the Dreyfus Foundation, (b) a program rationale, (c) information on support offered by OSU and its institutional partners, (d) a program description, (e) a marketing plan, and (d) an evaluation plan. Crucial to any foundation-

directed proposal, these components are often mentioned explicitly in the submission instructions; however, as discovered by WiE, there are more and less compelling ways of explicating each.

Program Mission

The mission of the Dreyfus Foundation, as described on its website, is “to advance the science of chemistry, chemical engineering and related sciences as a means of improving human relations and circumstances” (www.dreyfus.org/about/our_mission.shtml). In preparing its first grant proposal in support of *CheME & YOU @ OSU*, WiE formulated the mission of the proposed program in the following two ways: (1) “to encourage and support girls interested in studying chemical engineering at the college level” and (2) “to ignite enthusiasms and to start the solidification of a high school student’s interest in chemical engineering.” Although these two formulations indicate an intersection of mission between the Dreyfus Foundation and *CheME & YOU @ OSU*, they only partially reflect the proposed program’s audience, curriculum, and goals. The first mission formulation indicates that the program will “support girls interested in studying chemical engineering”; however, it is unlikely that rising ninth graders have had any introduction to chemical engineering at this point in their education. Thus, both this and the second mission formulation may seem inaccurate to the grant reviewer in their representation of the program as serving female students who already have an interest in chemical engineering and/or who plan to earn an undergraduate degree in the field.

Compared with the two mission formulations contained in the original proposal, the two included in the revised version contain information that the grant reviewer is likely to see as more directly related to *CheME & YOU @ OSU*: (1) “[to] provide young women across the country with the opportunity to learn about the exciting fields of chemistry and chemical engineering” and (2) “not only [to]...provide young women who are rising ninth graders with the opportunity to learn about the exciting world of chemistry and chemical engineering but also [to]...strengthen the pipeline of female undergraduates who are enrolling in chemistry and chemical engineering programs at OSU and at other universities across the United States.” In addition to emphasizing that the program introduces female students to both chemistry *and* chemical engineering—an important point given the Dreyfus Foundation’s support of the “chemical sciences” as a whole—these revised mission formulations balance broader, more sweeping visions of the program’s impact with detailed information about its scope, audience, and goals (www.dreyfus.org/about/our_mission.shtml).

Beginning with the phrase “young women across the country,” the first revised mission formulation is designed both to impress upon the grant reviewer the potential geographic reach of *CheME & YOU @ OSU* and to inform him or her that this is a residential program, as opposed to a day camp. In the same way, the phrase “opportunity to learn about the exciting world of chemistry and chemical engineering” signals that the program provides a crucial introduction to these fields. By continuing to move between specific details and broader observations on the program’s potential impact, the second revised formulation grounds the grant reviewer in the particulars of the program’s audience and short-term goals before encouraging him or her to contemplate the positive effect that the program is likely to have on the engineering profession nationwide.

Program Rationale

As with the mission statements discussed in the previous section, the two versions of WiE’s rationale in support of *CheME & YOU @ OSU* differ markedly. Although both versions portray the program as a crucial pre-high school intervention designed to develop and strengthen young

women's interest in math and science generally and in chemical engineering in particular, the second version makes a stronger case by providing specific details about the program and its history. The following excerpt from the original rationale underscores the importance of grounding a proposed program in the specific history of the grant-seeking organization:

By providing experiences in an engineering context we can provide a gateway to creative real-life problem solving and exploration in the areas of Chemical Engineering and Chemical Sciences. Students experiencing the scientific and engineering design process first hand begin to see how chemical scientist[s] and engineers influence and shape their lives. Exposing rising [ninth] graders to a week[-]long learning adventure has many benefits. Providing early exposure has the potential to open up new lifelong pursuits.

The argument that students need exposure to the engineering design process, to what chemistry and chemical engineering is, and to what professionals in these fields do is certainly persuasive; however, the content is such that this argument could be used to justify not only *CheME & YOU @ OSU* but also any other program that seeks to introduce students to engineering, chemical engineering, and/or the chemical sciences. Indeed, the argument is so *generally* persuasive that a grant reviewer may be inclined to apply it as much to other proposed programs as to *CheME & YOU @ OSU*.

In addition to relying on justifications that might easily be used to support similar programs, the first version of the rationale for *CheME & YOU @ OSU* omits any direct reference to WiE's or the College of Engineering's other summer programs or these programs' proven success in igniting middle and high school students' interest in engineering and related career fields. Instead, the original rationale only obliquely refers to these outreach efforts when explaining the follow-up contact that WiE and the College of Engineering will have with *CheME & YOU @ OSU* alumnae: "During their sophomore, junior and senior years in high school, former campers will be invited to attend WiE outreach events and the College of Engineering Open House." The use of the phrase "outreach events" is less likely to convey how experienced WiE is in developing and implementing summer programs, and even more significantly, this phrase runs the risk of implying that WiE has previously hosted only one-time and/or one-day "events" rather than weeklong programs.

In contrast to the overly general framing of the first version of the rationale, the second version makes clear that *CheME & YOU @ OSU* is a natural and necessary extension of WiE's current summer program offerings. After providing a brief history of WiE's summer programming for middle and high school students, the opening of the revised rationale culminates in a statement specifically describing these programs' impact:

Since 2002, these two programs have given over 380 middle and high school students the opportunity to explore the field of engineering through a variety of age-appropriate hands-on activities, interactive demonstrations, and presentations led by OSU engineering faculty, staff, and graduate students, as well as professionals from area industries and corporations.

By including specific information about the size of the audience served, the different types of learning experiences included in the curriculum, and by whom the curricula were delivered, this impact statement underscores the fact that WiE has both an established history of offering summer programs like *CheME & YOU @ OSU* and the institutional and industrial support necessary to execute a weeklong curriculum.

Further highlighting the need for *CheME & YOU @ OSU* to close WiE's gap in services for young women between grades 8 and 9, the second version of the rationale mentions the number of queries received in the WiE office from parents and teachers of students in this age group. In addition, the rationale explains that the program curriculum is already well established as part of WiE's multi-discipline engineering summer programs, during which WiE relies on a faculty member and a number of students from the university's Department of Chemical and Biomolecular Engineering to supply approximately two to three hours of chemical engineering-related content. These sessions are structured such that participants are broken into small groups, and each group completes a different hands-on activity, all of which are part of a larger curriculum. Thus, although some 10 or more chemical engineering activities are available, WiE's multi-discipline summer programs allow participants to complete only one activity in the time allotted.

After noting the availability of a curriculum for *CheME & YOU @ OSU*, the second version of the rationale cites the proven success of this curriculum in increasing middle and high school students' interest in and knowledge of chemical engineering. Drawing on data collected during WiE's 2008 summer program for female students entering grade 8, the rationale points out that the chemical engineering session, when compared with all of the other sessions offered during this program, "received the highest average participant rating with regard to how much participants felt like the activity taught them. In addition, when asked to describe what they enjoyed most about the 2008 [program], some 33% of the participants mentioned some element related to the chemical engineering segment of the camp." Having demonstrated the curriculum's appeal to middle school students, the rationale then turns to data from WiE's 2008 summer program for high school students. First, the quality of the session leaders is established: "Chemical engineering faculty and graduate students tied with the activity leaders from only one other department for the highest average participant ratings." Then, individual participants' comments on the curriculum—"one student described...the activity itself...[as] 'really really fun, interesting, and cool'"—are provided, demonstrating that these activities are of interest to a high school population as well.

The second version of the rationale concludes its arguments for *CheME & YOU @ OSU* by establishing why chemical engineering, as opposed to the other engineering disciplines offered across the College of Engineering, should be the focus of this program. Using data reported by the College in 2007, the rationale explains that "of the 14 engineering majors available to undergraduate students, chemical engineering had the highest female enrollment with a total of 127. (Mechanical engineering had the second highest enrollment with 99 women)." *CheME & YOU @ OSU*, then, not only fills the gap in WiE's summer programs but also capitalizes on the field's apparent attractiveness to undergraduate women and, hopefully, by extension, to female students entering grade 9 who have not yet begun to make decisions about their academic and professional futures.

Institutional Support

Although neither the original nor the revised version of WiE's grant proposal in support of *CheME & YOU @ OSU* contains a section specifically devoted to institutional support, both versions attempt to respond to the Dreyfus Foundation's representation of successful grant proposals—this representation appears in the foundation's July 2007 and its June 18, 2008 request for a full proposal—as those that "are characterized by...a description of the capabilities and expertise brought to the project" by providing the reviewer with a sense of how OSU, the College of Engineering, WiE, and its partners in industry will contribute to the program's development and implementation. The first version of the proposal describes how the program director will contact

the female engineering professionals who participate in WiE's mentoring program for female engineering undergraduates to begin recruiting businesses and corporations to provide on-campus exhibitions/presentations or off-campus tours as part of the proposed summer program. In addition to garnering support from the industrial arena, the original version of the proposal indicates that the delivery of the program curriculum will require "OSU engineering faculty, students and staff to support and lead workshops and hands on engineering design challenges for the participants." The implication here may be that these are chemical engineering faculty, students, and staff; however, it is unclear to what extent this department or any of its other counterparts across the College might be involved in the program. In addition, there is no indication as to whether the students involved are members of the undergraduate- or graduate-student cohort. The distribution of responsibilities and the students' status are somewhat clarified by a subsequent reference to graduate student research displays that will enable participants to "learn more about specific chemical engineering research areas," but the reviewer's assumption that support will come mainly from industry professionals and from faculty and graduate students in the university's Department of Chemical and Biomolecular Engineering is once again complicated by the assertion that "local professional and student engineering societies and clubs will be solicited for participation as well."

To strengthen its argument for *CheME & YOU @ OSU*, WiE tried to consider the first version of the proposal from the grant reviewer's perspective—to see what additional information could be included and how existing information could be clarified, re-organized, and made more compelling. With regard to institutional support, this approach resulted not only in a reduction in the number of parties needed to implement the program but also in the addition of specific information regarding each person's departmental affiliation and level of expertise. In addition to the WiE Director, Assistant Director, and the office's three undergraduate student assistants, the only other parties mentioned explicitly in the revised version of the proposal are a chemical engineering faculty member; an unspecified number of chemical engineering graduate students, who will be responsible for delivering the curriculum; and four female graduate students, who will serve as residential advisors and will also be affiliated with the Department of Chemical and Biomolecular Engineering. The second version of the proposal does make reference to the fact that participants will "travel to area businesses and corporations, where they will have the opportunity to tour facilities and to talk with women who are professional chemists and chemical engineers"; however, this revised version of the proposal indicates that these off-campus visits will be secondary to the on-campus activities delivered by the chemical engineering faculty and students.

The second version of the proposal also includes a letter of support from the faculty member who runs the chemical engineering sessions offered during WiE's multi-discipline engineering summer programs and who also serves as the College's Dean for Undergraduate Education and Student Services. Reflecting a departmental- and college-level commitment to *CheME & YOU @ OSU*, this letter notes the faculty member's commitment to the program and his willingness to provide all of the necessary laboratory space and equipment. In addition, the faculty member indicates that he will assist in identifying and training chemical engineering graduate students to deliver the core curriculum of activities. Thus, if there were any doubts as to whether WiE had the manpower, expertise, space, and equipment needed to deliver the program, this letter would do much to put them to rest.

Program Description

The program description, like the section on institutional support, provides grant seekers with the opportunity to convince potential funders that the groundwork has been laid for the proposed program and that financial support is all that is needed to implement it. When preparing to revise the original program description, WiE realized that the first version might suggest that the program was still in the planning stage. For example, the first version of the program description includes only a general discussion of the activities that comprise the *CheME & YOU @ OSU* curriculum:

Participants will physically test common consumer products and form hypotheses regarding how they are made....This active learning process [will help] the participants discover things such as why hair gel has bubbles, which highlights the importance of fluid dynamics; how a Mr. Clean Magic Eraser™ works, emphasizing the importance of separations and polymer processing; or the importance of chemical product design by discovering how you would design a dishwashing tablet.

Although specific products are mentioned, the use of the phrase “discover things such as” begs the question as to whether these products and the activities to which they correspond will ultimately be included in the curriculum or whether other activities will be used. Given the Dreyfus Foundation’s suggestion in its July 2007 request for a full proposal that WiE “include details of the chemistry to be taught,” a grant reviewer might also be concerned that there is not enough content to warrant a weeklong curriculum. In response to this potential concern, the original program description mentions WiE’s plans to schedule off-campus tours of area corporations and on-campus “mini-workshops” and exhibitions led by OSU engineering faculty, staff, and students as well as professional and student engineering organizations; however, only two other activities are described in any detail.

Unlike the first version of the program description, the second version includes a detailed description of each of the 10 activities that comprise the core curriculum. The following is a sample activity description taken from this revised version:

Enzymatic Cleaning: This activity is designed to introduce students to the role that soap and enzymes play in the treatment of stains. After creating a series of grass stains on a white t-shirt, students are invited to try out the different solutions that they have prepared (a soap and enzyme mixture; a soap only, denatured enzyme mixture; an enzyme only mixture; and a commercially available cleanser) to see which works best in removing the stains. In addition to introducing students to enzymes, this activity asks students to think about how temperature changes an enzyme’s effectiveness.

After supplying detailed activity descriptions that contain information on both what participants will do and what concepts will be introduced, the second version of the program description includes a paragraph on the off-campus field trips that will supplement the core curriculum. Like the first version, the revised program description does not provide any specific information as to which companies or businesses will be hosting these field trips; however, it does ground these trips in WiE’s summer program history, underscoring WiE’s ability to schedule such trips and to assist companies in engaging pre-college students effectively:

Visits to area industries such as The Scotts Miracle-Gro Company, the Nestlé Product Technology Center, and Honda of America Manufacturing have always played an important role in WiE’s [summer programs]. These visits give students a first-hand look at the kinds of

careers and work experiences available to persons with a degree in engineering ...and as one of the 2008...participants [in the middle school program] wrote in her program evaluation, they also enable students to learn “what engineers actually do in the REAL WORLD.”

This description also responds in advance to any questions that the grant reviewer might have as to whether these off-campus field trips are valuable and enhance student learning.

The revised program description includes several other details about the structure of *CheME & YOU @ OSU*, all of which demonstrate how prepared WiE is to implement the program. A discussion of the small-group presentations that the students will give during the closing ceremony emphasizes that WiE has thought about how to review and reinforce the curriculum content. In addition, by referring to the closing ceremony, the program description confirms that WiE has planned both the academic sessions and the social and recreational activities that will take place during the opening and closing afternoons of the camp and also in the evenings. Indeed, the program description concludes by listing the series of evening activities in which students are likely to engage.

Program Marketing

Both the first and second versions of WiE’s proposal in support of *CheME & YOU @ OSU* include plans for how the program will be marketed. In addition to sending out press releases, they describe how WiE will post information about the program on its own and the College of Engineering’s websites and share this same information with educators across Ohio and with young women currently in grade 8 who have previously participated in WiE programs.

What distinguishes the revised version of the marketing plan from the original is the evidence it offers as to how successful these advertising strategies have been in the past. Although the majority of WiE’s summer program participants come from Ohio, the revised plan points out that “in 2008, 21% of the students who participated in WiE’s [summer program for high school students] were from states other than Ohio.” In addition, the revised plan makes clear that the demand for this program is such that WiE will likely have no problem filling the spots available: “As with the [summer program for high school students], WiE anticipates having double the number of applications for the 30 spaces available for students in the *CheME & YOU @ OSU* program.”

Program Evaluation

As with the program descriptions discussed earlier, the two versions of WiE’s program evaluation plan for *CheME & YOU @ OSU* differ with regard to how rigorously they provide detail. The following description of the pre- and post-program surveys, which were two of the four assessment tools included as part of the original program evaluation section, provides a case in point:

The participants will complete a pre- and post-evaluation survey. The surveys will focus on what [students] knew prior to and following the camp and if the camp resulted in a heightened awareness and/or interest in chemical engineering. The pre-camp survey will be included during the opening session of the camp. Pre-camp surveys [will] determine whether participants currently entertain engineering as a viable career option, what stereotypes about women’s career choices campers may have, existing confidence levels in math and science, and their overall perception of engineering....Six months after the camp, a supplemental

post-camp survey instrument will be electronically mailed to participants to determine whether participant confidence levels in math and science were augmented, whether existing stereotypes about women's career choices shifted, and whether [the program]...was effective by introducing chemical engineering as a viable career option.

This description suggests that there is no coherent relationship between what will be assessed by the pre-camp survey and what will be assessed by the post-camp survey. While the pre-camp survey will focus on participants' attitudes about engineering, women's career options, and math and science, the post-camp survey will look at knowledge gained and the participants' interest in the specific discipline of chemical engineering. And even though the pre-camp survey is connected with the supplemental post-camp survey, this connection is problematic since the former contains no mention of chemical engineering and the latter no mention of engineering more broadly speaking. In response to this confusion, the grant reviewer might be inclined to wonder whether this evaluation plan is likely to collect meaningful and useful data.

A grant reviewer might also question why the post- and supplemental post-camp survey descriptions do not refer to specific program components. The grant reviewer is likely to expect that these two surveys will collect information on the quality of the curriculum, the activity leaders and off-campus tour guides, the social and recreational activities, and so on. Although the original evaluation plan does mention a "formative camp evaluation," no further information is given as to what it will measure.

Following its discussion of the pre-, post-, and supplemental post-camp surveys, the original evaluation plan mentions the fourth and final assessment tool that will be used to evaluate *CheME & YOU @ OSU*: "The exhibitor/workshop presenter evaluation form will focus on logistics and organizational items to ensure the highest quality is achieved in order to attract and retain exhibitors and workshop presenters for future years." Although the program's "logistics and organizational items" are mentioned, no specific details are given, and once again, the grant reviewer might question why the participants will not be involved in evaluating these "items," whatever they may be.

In contrast to the original program evaluation plan, the revised version not only increases the number of assessment tools from four to six but also establishes stronger relationships between them. After outlining a plan to administer pre- and post-program participant questionnaires, activity evaluation cards, a post-program parent and guardian questionnaire, a post-program activity leader questionnaire, and a past participant questionnaire, the revised program evaluation plan provides information on each assessment tool. According to the description of the pre-program questionnaire, it is "designed to collect information about [the participants'] understanding of, enthusiasm for, and previous contact with the fields of chemistry and chemical engineering and about their plans for college and their interest in OSU." By focusing specifically on chemistry and chemical engineering, this description better reflects the program curriculum and more directly corresponds with the content of the revised post-program questionnaire:

On the last day of the program, all *CheME and YOU @ OSU* participants will be asked to complete a questionnaire designed to measure the effects of the program on their interest in chemistry and chemical engineering, as well as to find out what the students think they have gained from the program. In addition, this questionnaire will ask the students to rate the program accommodations, meals, and recreational activities and to provide feedback on the

program staff and residential advisors. Participants will also be asked about their interest in attending OSU now that they have spent six days on the university's Columbus campus.

By maintaining the focus on chemistry and chemical engineering and the students' relationship to OSU, this description connects the pre- and post-program questionnaires and highlights the likelihood that these assessment tools will collect meaningful and useful data. The description also indicates that participants will evaluate accommodations, meals, and so on, suggesting that an analysis of both the large-scale impact of this intervention and its individual program components will be available. In addition, the revised plan calls for the administration of activity evaluation cards designed to collect participants' feedback on each of the program's activities and tours.

The past participant questionnaire complements this telescopic focus on the individual program components. According to the revised evaluation plan, these questionnaires will be distributed to program alumnae to "track the long-term effects of [the program] on participants' interest in and pursuit of careers and opportunities in the fields of chemistry and chemical engineering...and on their career and college plans." Like the pre- and post-program questionnaires, the past participant questionnaire is designed to collect data regarding the impact of *CheME & YOU @ OSU* on students' interest in chemistry, chemical engineering, and OSU.

Although the Dreyfus Foundation's July 2007 and June 2008 requests for full proposals both indicate that "reviewers will place a particular emphasis on projects that...provide a clear and rigorous plan to assess effectiveness including over the longer term," the revised version of the program evaluation plan for *CheME & YOU @ OSU* is much more coherent and comprehensive than the original. However, even the revised version lacks some specific details and relies, in part, on overly general language. For example, the description of the parent and guardian questionnaire specifies that parents/guardians will be asked to evaluate the "marketing, planning, and organization of the program," but it fails to offer any details as to what information will be "gather[ed]...from [parents and guardians] about their children's experiences at the program." An alternative to further sharpening these assessment tool descriptions would be to include copies of the questionnaires in an appendix. This way, more space could be devoted to other proposal sections without sacrificing details related to the program evaluation plan.

Tweaking the Budget

In addition to the proposal components described previously, WiE prepared a one-page categorical budget as part of its grant proposal in support of *CheME & YOU @ OSU*. Although both versions of the budget incorporate a two-year grant from the Dreyfus Foundation, they differ in the expense categories listed and in the distribution of funds across these categories (See Table 1).

The first version of the budget requests \$22,385 to cover annual expenses across the following types of categories: faculty/staff employee salaries; undergraduate employee salaries; housing; meals; space, table, and chair rentals; transportation and parking; supplies, t-shirts, and give-away items; and computers, phones, printing, and postage. OSU is then listed as providing annual support in the amount of \$9,200 with funds distributed across faculty/staff employee salaries; undergraduate employee salaries; space, table, and chair rentals; and computers, phones, printing, and postage. In-kind contributions with a cash value of \$4,000 are also included in this first version to cover costs associated with meals; transportation and parking; and supplies, t-shirts, and give-away items.

In contrast, the revised budget dispenses with in-kind contributions and lists annual support provided by the Dreyfus Foundation and OSU at \$25,000 and \$11,000, respectively. The removal of in-kind contributions creates a budget that better reflects the likelihood that all costs will be covered by Dreyfus Foundation funds and OSU, and the use of round numbers makes clear that this is a projected budget and not an expenditures list borrowed from another program. Even more importantly, the revised budget uses Dreyfus Foundation funds to cover only those costs directly associated with *CheME & YOU @ OSU* (i.e., housing; meals; space, table, and chair rentals; transportation and parking; and supplies, t-shirts, and give-away items). In addition, the revised budget includes two categories—activity leader stipends and residential advisor stipends—that were not part of the original budget. These costs are also directly related to running *CheME & YOU @ OSU* and, thus, can be covered by Dreyfus Foundation funds as well. By assigning OSU responsibility for the \$11,000 budgeted for faculty/staff and undergraduate employee salaries, which are generally considered overhead expenses, and deleting costs related to computers, phones, printing, and postage that might also be considered overhead, the revised budget demonstrates that Dreyfus Foundation funds will be used solely to support the proposed program and not for costs more appropriately covered by OSU.

Table 1. Comparative Summary of the Original and Revised Versions of the Budget for *CheME & YOU @ OSU*

Expense Categories	Original Budget				Revised Budget			
	The Camille and Henry Dreyfus Foundation	The Ohio State University College of Engineering	In-Kind	Totals	The Camille and Henry Dreyfus Foundation	The Ohio State University College of Engineering	In-Kind	Totals
Faculty/Staff Employee Salaries	\$2,600	\$2,400	\$0	\$5,000	\$0	\$8,000	---	\$8,000
Undergraduate Employee Salaries	\$1,000	\$500	\$0	\$1,500	\$0	\$3,000	---	\$3,000
Housing	\$6,000	\$0	\$0	\$6,000	\$4,400	\$0	---	\$4,400
Meals	\$5,000	\$0	\$1,000	\$6,000	\$5,500	\$0	---	\$5,500
Space, Table, & Chair Rentals	\$1,000	\$5,000	\$0	\$6,000	\$800	\$0	---	\$800
Transportation & Parking	\$3,700	\$0	\$1,000	\$4,700	\$1,000	\$0	---	\$1,000
Supplies, T-Shirts, & Give-Away Items	\$675	\$0	\$2,000	\$2,675	\$2,500	\$0	---	\$2,500
Computers, Phones, Printing, & Postage	\$2,410	\$1,300	\$0	\$3,710	---	---	---	\$0
Activity Leader Stipends	---	---	---	---	\$9,000	\$0	---	\$9,000
Residential Advisor Stipends	---	---	---	---	\$1,800	\$0	---	\$1,800
Totals	\$22,385	\$9,200	\$4,000	\$35,585	\$25,000	\$11,000	---	\$36,000

Conclusion

In light of WiE's relative inexperience with foundation-directed grant writing when compared with its extensive history of soliciting corporate support, it is not surprising that the original grant proposal in support of *CheME & YOU @ OSU* went unfunded by the Dreyfus Foundation. Having learned to successfully distill proposed program missions, rationales, descriptions, and marketing and evaluation plans into a couple of pages or paragraphs for review by corporate representatives, WiE sought to employ this same strategy to garner the attention and support of the grant reviewer(s) at the Dreyfus Foundation. This strategy, however, is of limited use when seeking support from foundations that value innovation, explication, specificity, and a detailed account of how the proposed program is grounded in and extends the organization's past and current program offerings. Indeed, based on WiE's experience with *CheME & YOU @ OSU*, it is imperative that grant seekers draw on their history, no matter how small or large, to secure funding for their future program offerings.

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