Planting Seeds of Knowledge:

Sustainability of San Francisco Bay Area School Garden Programs

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ABSTRACT

Historically, Untied States school garden programs have existed to augment classroom education. Previously conducted studies have proven the efficacy of using school garden programs as an educational tool, however these studies have not examined the sustainability of using garden programs long-term. To discover what factors, specifically focusing on program resources and program logistics, contribute to school garden program sustainability, I surveyed 60 schools and interviewed 5 schools located in the San Francisco Bay Area. I found that program resources, especially program support, have the largest impact on the sustainability of school garden programs as well as dictate the nature of program logistics. Therefore, efforts to increase school garden program sustainability should begin by improving program resources.

KEYWORDS

outside education, experiential learning, active learning, interdisciplinary education, food

movement

INTRODUCTION

School garden programs have a long history of supplementing education in the United States, often responding to educational needs of the time. Currently over 12.5 million United States youth are classified as obese (Ogden et al. 2012). In response to the obesity epidemic, school garden programs often promote healthy eating choices (Lautenschlager and Smith 2007, McAleese and Rankin 2007, Ratcliffe et al. 2009). School garden programs can also concentrate on teaching responsibility and self-awareness (Ozer 2007), providing a respect for nature (Skelly and Zajicek 1998), and enhancing science lessons (Robinson and Zajicek 2005). Because programs can be integrated into a variety of curriculum objectives, each program's structure depends on its individual goals and location.

California, especially the Bay Area, has a history of supporting the alternative food movement and school garden programs. California AB 1014 1999 established the California instructional school garden program and AB 1634 2002 and AB 1535 2006 provided more financial support for school garden programs. In the Bay Area, alternative food movement leader Alice Waters supported the establishment of the pioneering Edible Schoolyard at King Middle School in 1996 (The Edible Schoolyard Project 2011). The Edible Schoolyard project has received copious media coverage. Public interest in school garden programs has led to investigative research on the educational impact of the garden programs.

However, the research has been limited to assessing the effects of programs and their curriculum, and does not examine long-term sustainability. School garden programs can create positive learning outcomes and behavioral change (Klemmer et al. 2005, Robinson and Zajicek 2005, Lautenschlager and Smith 2007, McAleese and Rankin 2007, Ratcliffe et al. 2009). Many lesson plans have been proposed and proven successful (Skelly and Zajicek 1998, Dirks and Orvis 2005, Hazzard 2012), but no comparative studies have been undertaken to determine which curriculum is most effective. Data collection has typically been conducted over a single school year (Skelly and Zajicek 1998, Dirks and Orvis 2005, Klemmer et al. 2005, Robinson and Zajicek 2005, Lautenschlager and Smith 2007, McAleese and Rankin 2007, Ratcliffe et al. 2009)

and fails to address whether garden programs are meeting their goals and whether the programs are sustainable, comprising the ability and resources to continue indefinitely. In order to ensure the continuation of school garden programs, questions surrounding long-term sustainability need to be addressed.

To address these questions, I examined program resources and logistics that contribute to school garden program sustainability in the San Francisco Bay Area. For program resources, I specifically focused on program support, financial support, and curriculum. Program support is defined as all the people who work to make the garden program successful. Financial support is defined as the funding for garden programs. Curriculum is defined as the lesson plans created for teaching in the garden setting. For program logistics, I specifically focused on program structure. Program structure is defined as the number of classrooms that participate in the garden, the number of hours the class participates, and the frequency of the class participation. I compared program resources with program logistics to understand which factors contribute more to program sustainability.

METHODS

Study population

I surveyed and interviewed school garden program coordinators from socially and economically diverse elementary and middle schools located in Alameda, Contra Costa, San Francisco, San Mateo, and Santa Clara counties (Appendix A), all of which exist within the San Francisco Bay Area (Fig. 1). I targeted school garden coordinators because of their extensive, expert knowledge about their specific school garden programs as well as their experience working with multiple classrooms.

Fig. 1. Map of San Francisco Bay Area counties. This study focused on Alameda, Contra Costa, San Francisco, San Mateo, and Santa Clara counties.

Data collection

To gather my survey data, I began by compiling a list of garden coordinators. I searched the internet for the school districts located in my selected counties and used those sites to discover all the elementary and middle schools in the districts. I found that while many websites mentioned having a garden program, they did not have the school garden coordinator's contact information. Therefore, if I could not email a school garden coordinator directly, I sent an email to the school principal asking them to forward the survey to the garden coordinator. I sent a total of 819 emails and received 60 survey responses.

My survey focused on questions about program logistics, curriculum, support and quality, and personal involvement (Appendix B). I utilized selection questions to gather basic information about the programs. I employed ranking questions to discover what factors were most important for program success. And I used free response questions to gather novel data and provide answers to queries for which I could not accurately predict possible responses.

To substantiate my survey findings, I conducted semi-structured interviews (Appendix C) with 5 garden coordinators in differing garden programs. I focused on comparing programs located in economically diverse areas and comparing programs with a paid coordinator to programs with a volunteer coordinator.

Data analysis

To understand how program resources and program logistics affect school garden program sustainability, I analyzed program goals, program support, financial support, and program structure. When evaluating my survey data, I used descriptive statistics to depict data trends in my selection and ranking questions. For the free response questions, I looked for patterns in the coordinators' responses and coded key themes to create descriptive statistics. When investigating my interview data, I looked for patterns in the interviewee responses and compared the interview responses to my survey responses to substantiate my data.

RESULTS

I received 60 survey responses and conducted 5 interviews. I categorized the results of the surveys and interviews into the following themes: program goals, program resources, and program logistics.

Program goals

School garden coordinators reported, "teaching a respect for nature" as the most common garden program goal (Table 1). In addition, all but 4 schools reported possessing multiple program goals. Surveyed coordinators most commonly explained the reasons for their program goals by stating the desire to provide an opportunity to learn outside of a classroom, the desire to provide holistic education, the desire to promote healthier students, and the desire to enhance school standards curriculum. When asked to rank whether or not the programs were meeting their self-reported program goals on a scale of 1 to 5 ("never" to "always"), school garden coordinators reported an average ranking of 3.8. School garden coordinators explained meeting their program goals by saying they had strong curriculum and good program support. School garden coordinators explained not meeting their goals by stating that they did not have enough

time to teach in the garden, did not have enough support, and did not have the time or expertise to develop relevant garden curriculum.

Table 1. Percent of schools teaching specific program goals.

Teaching Healthy Eating Habits	Teaching Practical Science Lessons	Teaching Life Skills	Teaching a Respect for Nature
83%	81%	78%	84%

Program resources

Program support

Program coordinators provide the major source of garden program support. Program coordinators reported working with their respective programs for an average of 3.9 years, with some coordinators just beginning and others working for 16 years. 49% of program coordinators are the original program coordinator, and 25% of program coordinators had previous coordinator experience before taking the job. Of the coordinators interviewed, 2 had fulltime jobs, 1 was a contract employee, and 2 were volunteers. When asked if they saw themselves in the coordinator position after 5 years, none definitively replied yes. However, when asked about their biggest concern for the future of the garden program, all mentioned the need to have continual committed garden coordinators.

In addition to program coordinators, 83% of respondents reported that school and parent support were important factors for program success. Coordinators' ranking of factors that contribute to program success on a 1 to 5 scale ("not important" to "very important") showed "teacher support" had an average ranking of 4.44, in comparison to "sufficient funding" (4.31), "parent/community support" (4.07), and "program structure and lesson plans" (4.02) (Table 2).

Table 2. Average ranking of importance of key factors contributing to program success. Based on a 1-5 scale ranking scale with 1 as "least important" and 5 as "most important".

Category	Average Ranking
Sufficient Funding	4.31
Teacher Support	4.44
Parent/Community Support	4.07
Program Structure and Lesson Plans	4.02

Financial support

20% of coordinators cited funding as one of the most important factors for their program's success and 25% of coordinators reported insufficient funding as one of the most important barriers to their program's success. 70% of schools cited "PTA/PFC Fundraising" as a source of their program funding (Table 3), and 56% of programs received funding from multiple sources. Programs also received grants and funding from external sources (Appendix D). When asked in interviews what coordinators would do if they felt they had sufficient, secured funding, garden coordinators stated that they would make structural improvements to their garden (e.g. put in more garden beds or add drip irrigation) and hire a full time coordinator or additional help.

Table 3. Funding sources. Reported by survey respondents.

Funding Source	Percent of Schools that Reported Receiving Funding from that Source
Government Grant	26%
Non-Government Grant	42%
PFC/PTA Fundraising	70%

Curriculum

57% of the garden coordinators helped to develop their garden program curriculum. Of the coordinators that helped to develop their program, 12 reported using outside online sources, 12 reported using the state-standards as a guideline, and 9 reported working with teachers to create relevant curriculum. 42% of programs reported having a form of evaluation for their curriculum and of the programs that did not have a form of evaluation, 70% reported wanting to have a form of evaluation.

Program logistics

Structure

The programs surveyed reported operating for an average 6.4 years, with some programs just starting out and the oldest program operating for 23 years. 53% of programs surveyed occur within class hours, while 37% of programs occur during recess, lunch, or after school. The mode number of hours in the garden per week was 1 hour, while the average was 1.5 hours. 44% of programs have weekly scheduled garden time. 71% of garden programs worked with all grade levels at their school.

DISCUSSION

Program resources have a considerable impact on the sustainability of school garden programs and strongly affect the nature of program logistics, suggesting that efforts to increase sustainability should begin by improving program resources including support, funding and curriculum. More specifically, programs should focus on partnering with outside, long-established organizations, supporting coordinator career development, and developing standards-based curriculum.

Program goals

While program goals provide a marker for measuring success, specific goals had no measurable impact on program sustainability. Programs reported specific academic goals (sometimes required by funders or administrators), however coordinators also spoke of attempting to achieve less tangible goals, such as providing a relaxing and meditative environment for the students. School gardens provide a unique teaching setting, which allows coordinators to teach lessons that could not be covered in a regular classroom (Robinson and Zajicek 2005, Blair 2009). When asked what students got out of the garden program, interviewed coordinators spoke about both specific and less definable benefits. For example, coordinators spoke of the garden providing an

environment for learning basic science and nutrition lessons, as well as an environment for students to slow down, de-stress, and make connections to the food they eat.

Program resources

Program support

Survey respondents indicated that sufficient program support was the most important factor in determining garden program success because it supported access to all other important program resources. Garden program coordinators provide the most direct program support and have the greatest impact on the long-term success of their programs (Nkansa and Chapman 2006). The nature of the coordinator position varies by school from volunteer, part-time, and full-time positions. Generally, coordinators wanted to work full-time, which allows for more time to teach classes and more stable employment. The instability of the coordinator work environment contributes to the short–term tenure of many garden coordinators. Coordinator positions are held for an average of 3.9 years, compared to the average of 11 years in a regular teaching career (Stephens 2001).

Additional sources of program support include administrators, teachers, parents, and community members. Coordinators commonly mentioned a desire to develop teacher support. Teachers face professional pressures, including teaching the state standards within limited class time (Darling-Hammond and Wise 1985). To increase the importance of school gardens and reduce teacher stress, gardens programs can be used to teach state-mandated curriculum; however, developing the standards-based curriculum provides another challenge. Most garden coordinators have a background in gardening, not teaching. Moreover, no Bay Area school districts offer garden coordinators formal career development opportunities. Coordinators, who work limited hours, have to actively seek out curriculum and career development resources for themselves. For example, some coordinators used curriculum books, which included lesson plans, developed by the non-profit Life Lab and the University of California Botanical Garden (Life Lab 2013, Botanical Garden 2013). School garden coordinators would benefit from gaining professional development opportunities (Graham et al. 2005). In addition,

providing career development and curriculum support could increase the number of years a coordinator will stay at a program (Johnson and Birkeland 2003).

Coordinators are isolated from one another, inhibiting their ability to support each other. Coordinator meetings and other forms of district-based organization would provide an opportunity to exchange ideas and resources, and establish camaraderie in an otherwise solitary position. In addition, providing a network of support will encourage coordinators' long-term commitment to programs (Johnson and Birkeland 2003).

Some coordinators wanted less input from the district level. Working with a district adds a layer of bureaucracy that these coordinators felt hindered rather than helped the success of their program. This concern should be kept in mind when trying to form stronger district-garden program relationships.

School garden programs can also improve program stability by partnering with long-lasting, outside organizations. One such organization is the Master Gardener program, which was mentioned as a garden resource in both surveys and interviews. In addition, the San Francisco-based Education Outside program focuses on maintaining a long-term organization, which supplies short-term garden coordinators to specific schools (Education Outside 2013).

Financial support

Program funding has a large impact on the structure, including the classes that participate in the garden, the number of hours they participate in the garden, and the frequency they visit the garden, of individual school garden programs. The amount and type of funding effects whether or not the school can afford to hire a full-time garden coordinator. This, in turn, affects the amount of time available for teaching and learning in the garden. The most commonly reported form of funding came from parent organizations (i.e. PTA, PFC, PTO). Parent organization funding can be sustained year to year but can be effected by the location of the school. The schools surveyed and interviewed came from locations with diverse income levels (Table 4). More research needs to be done to better understand the relationship between school locations and parent organization funding. Grant funding, the second most common form of funding,

often comes as a one-time, lump sum, which may or may not be available to pay for a coordinator salary. Grant funding can provide the money to begin or expand a program, while parent organization funding can support hiring a garden coordinator. Programs also relied on governmental grants, local donations, and selling garden products to maintain funding. 55% of programs reported having multiple sources of funding. Programs gain security when they rely on multiple funding sources. If program coordinators feel that they have secured funding, they are able to focus on the needs of their program, which in turn leads to a stronger program.

Table 4. Responding school districts divided by median household income. Median household income data from the US Census for 2007-2011. The California median household income is $61,632. Unified School District is abbreviated as USD. School District is abbreviated as SD.

< $61,632	# Schools	$61,632-$80,000	#	$80,000-$100,000	#	$100,000-$200,000	#
Berkeley USD	3	Alameda USD	2	Campbell Union SD	1	Belmont-Redwood Shores Elementary SD	1
Oakland USD	4	Albany USD	1	Castro Valley USD	1	Cupertino Union SD	3
West Contra Costa USD	2	Antioch USD	1	Evergreen SD	1	Lafayette SD	1
		Hayward USD	1	Fremont USD	1	Los Altos SD	1
		San Bruno Park Elementary District	2	Livermore Valley Joint USD	1	Moraga SD	1
		San Lorenzo USD	3	Milpitas USD	2	Orinda Union SD	1
		San Francisco USD	4	Morgan Hill USD	1	Piedmont USD	1
				Mountain View Whisman SD	2	Pleasanton USD	2
				New Haven USD	1	San Carlos SD	3
				Newark USD	1	San Ramon Valley USD	4
				Pacifica SD	1	Saratoga Union SD	1
				San Jose USD	1		
				Sunnyvale SD	1		
TOTAL:	9		14		15		19

Curriculum

School garden program curricula, which seek to meet program goals, can affect the short-term success and long-term program sustainability. While some garden programs had no formal curriculum, others focused on science and/or nutritional instruction. Curricula emphasizing mandated state standards, garnered more support from teachers and administrators, because it provided a necessary academic resource. I did not expect the importance of state-standard based curriculum in garden program sustainability, and did not focus survey or interview questions in this direction, therefore more research needs to be done to better understand this relationship.

Program logistics

Structure

Program support and funding define program structure. Programs with more support, and therefore more funding, were able to have more garden time. In addition, programs with more resources could include more grade levels in the program. Additional time in the garden improves learning outcomes. While program structure depends on program resources, targeted program curriculum can be used to garner program support.

Limitations and future directions

Due to limited time and resources, my study focused specifically on the San Francisco Bay Area. While the Bay Area provided a good study site because of its historical participation in the alternative food movement, the history of the Bay Area also differentiates it from other sites, which may limit the transferability of the study data. Nonetheless, this paper speaks to general trends in garden education as opposed to focusing on the particular influence of the program setting. In order to better understand

the transferability of the study findings, I would suggest conducting a mirror study on a larger scale in a different location, for example Southern California.

     This study discovered that school gardens vary in form based on their location. Future research could build on my findings by examining how community interactions with their schools affect funding and other forms of support, especially considering the effect of location on parent organization financial support. Future studies should also examine the political, socio-economic, racial dimensions of these relationships.

     While this study focused on the perspectives of garden coordinators, future studies should focus on interviewing school district officials and principals to provide more insight into the administrative limitations that effect school garden programs. In addition, teachers should be interviewed to better understand what factors, especially standards-based curriculum, encourage teachers to support garden programs. This study provided a good introduction into the field, but more research needs to be done involving more participants on a larger geographic scale.

Broader implications

     Program sustainability depends on associating with outside organizations, providing coordinator job training, and promoting standards-based curriculum (Table 5). By partnering with an outside organization, school garden programs reduce the transient nature of their programs. In addition, these organizations can help provide career development opportunities, which increase program coordinator investment. The organizations can also help with developing relevant, standards-based curriculum. Standards-based curriculum will create a connection with teachers and garner their support. By having the teachers involved in the program, the program will become an essential learning tool. In focusing on building these program aspects, school garden programs can become more sustainable.

Table 5. Problems and solution recommendations.

Current Problem	Possible Solution
Not enough teacher support	Teach more standards in the garden
	Develop relevant lessons with teachers
Unsecured funding	Find multiple funding sources
	Provide an integral school service that merits parent organization funding
No coordinator professional development/support	Organize district-wide school garden coordinator meetings
	Find and develop relationships with outside, long-lasting organizations

Conclusion

In conclusion, the program resources have the largest impact on school garden program success. To increase program resources, programs should attempt create garden curriculum that provides an integral service to the school. By making the garden an essential learning tool, the programs will gain rationale for increased funding. In addition to create larger program buy-in, program coordinators should be given more support and opportunities for personal development. Growing these program resources will allow the program to develop their logistics. Increasing program resources, will allow garden coordinators use the garden to effectively teach students.

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APPENDIX A: Survey Information by County

Table A1. School district survey responses by county. The numbers in parentheses indicate the number of surveys returned from the district. Unified School District is abbreviated as USD. School District is abbreviated as SD.

Alameda	# Schools	Contra Costa	#	San Francisco	#	San Mateo	#	Santa Clara	#
Alameda USD	2	Antioch USD	1	San Francisco USD	4	Belmont-Redwood Shores Elementary SD	1	Campbell Union SD	1
Albany USD	1	Lafayette SD	1			Pacifica SD	1	Cupertino Union SD	3
Berkeley USD	3	Moraga SD	1			San Bruno Park Elementary District	2	Evergreen SD	1
Castro Valley USD	1	Orinda Union SD	1			San Carlos SD	3	Los Altos SD	1
Fremont USD	1	San Ramon Valley USD	4					Milpitas USD	2
Hayward USD	1	West Contra Costa USD	2					Morgan Hill USD	1
Livermore Valley Joint USD	1							Mountain View Whisman SD	2
New Haven USD	1							San Jose USD	1
Newark USD	1							Saratoga Union SD	1
Oakland USD	4							Sunnyvale SD	1
Piedmont USD	1								
Pleasanton USD	2								
San Lorenzo USD	3								

Table A2. Total survey responses by county.

Alameda	Contra Costa	San Francisco	San Mateo	Santa Clara
21	10	4	7	14

APPENDIX B: Survey Questions

Gardening Program Survey

Hello,

My name is Katie Clabeaux. I am an undergraduate Environmental Science student at UC Berkeley, and I am conducting a senior thesis on understanding what resources are necessary for successful school gardening programs. I would like to ask you would take a few minutes to fill out the survey below to help me gather data. The surveys will be anonymous, and please skip any questions you feel uncomfortable answering. If you have any questions, or are curious about the results of my thesis, please email me at kclabeaux@gmail.com.

Thank you in advance,
Katie

Program Logistics

What is the name of your program?

What district is your school in?

What year was your program founded?

What grades participate in your program?
(select all that apply)
☐ Kindergarden
☐ 1st Grade
☐ 2nd Grade
☐ 3rd Grade
☐ 4th Grade
☐ 5th Grade
☐ 6th Grade
☐ 7th Grade
☐ 8th Grade

How many hours a week, on average, do the students participate in the program?
[   ]

Please describe the program structure.
(e.g. Is gardening a seasonal class? How many times a week does it occur?)

[   ]

Program Curriculum

What are the goals of your program?
(Select all that apply)
☐ Teaching healthy eating habits
☐ Teaching practical science lessons
☐ Teaching life skills
☐ Teaching a respect for nature
☐ Other: [   ]

Why do you focus on these goals?

[   ]

Do you believe your program meets those goals?

     1 2 3 4 5

Never ○ ○ ○ ○ ○ Always

Please explain why or why not.

Do you have a means of evaluating the effectiveness of the program?

○ Yes

○ No

If yes, please describe the process and resources necessary.

In addition, if yes, what information has your evaluation provided?

If no, would you like to perform an evaluation?

○ yes

○ no

If yes, what resources would you need to preform an evaluation and how would you evaluate the program?

Program Support and Quality

Please rank the importance of "Sufficient Funding" for program success on the following scale

1 2 3 4 5

Not Important ○ ○ ○ ○ ○ Very Important

Please rank the importance of "Teacher Support" for program success on the following scale

1 2 3 4 5

Not Important ○ ○ ○ ○ ○ Very Important

Please rank the importance of "Parent/Community Support" for program success on the following scale

1 2 3 4 5

Not Important ○ ○ ○ ○ ○ Very Important

Please rank the importance of "Program Structure and Lesson Plans" for program success on the following scale

1 2 3 4 5

Not Important ○ ○ ○ ○ ○ Very Important

Where does your program funding come from?

☐ Government Grant
☐ Non-Government Grant
☐ PFC/PTA Fundraising
☐ Other: [   ]

If you recieve funding from multiple sources, please list the percentage of funding from each source.

If you receive a grant, please describe it.
(The grant name, who funds it, and any additional info you would like to add.)

What factor do you feel is most important to your program's success?

If you recieve funding from multiple sources, please list the percentage of funding from each source.

If you receive a grant, please describe it.
(The grant name, who funds it, and any additional info you would like to add.)

What factor do you feel is most important to your program's success?

What factor do you feel stands in the way of your program's success?

Personal Involvement

How long have you worked as the school gardening coordinator?
(in number of years)

Are you the original coordinator?
○ Yes
○ No

If not, how many coordinators has the program had?
(if you do not know, please type "don't know"; if you are the original coordinator, please type "one")

Did you help create the curriculum?
○ Yes
○ No

If yes, please briefly describe the process.

If not, what source did the curriculum come from?

Do you have previous experience working with gardening programs?

○ Yes

○ No

If so, please briefly describe experience or list past positions.

If you could change one thing about your gardening program, what would it be?

(Submit)

Appendix C: Interview Questions

Personal Information

How did you get into teaching school gardening programs?

[Are you a volunteer or an employee? Would you prefer to be an employee?]

[Did you receive any form of formal school garden program teacher/volunteer instruction?]

[Do you see yourself in this position in 5 years?]

What is your favorite part about the job?

Program Structure/Curriculum

Tell me about your program.

What are the top things that are integral for the success of your garden program?

What do you think the students get out of the garden?

[What would be your ideal garden program structure?]

[Does this structure match up to your current model?]

How many school subjects does your garden program help teach?

Do you feel incorporating more school subjects into garden learning would increase the success of the garden?

What are your biggest concerns for the future of the garden program?

Program Support

Do you feel that you have all the resources and support you need to be successful?

Who helps with the garden? Who would you like to help with the garden?

The general survey consensus is that programs are not receiving enough funding do you feel this way?

How would you change the program if you had more funding?

NOTE: Questions in *[Italics]*were only asked if there was enough time.

APPENDIX D: External Funding Sources

Table A3. External funding sources. Reported by survey respondents.

External Funding Sources	Contact Information
Allied Waste (Milpitas)	http://www.wasteservicesmilpitas.com/
Altamont Education Advisory Board (Altamont)	http://altamonteab.org/
Ashbury Children's Foundation	http://www.ashburychildren.org/ourorg.html
Berkeley Public Education Foundation (Berkeley)	http://www.bpef-online.org/grants/
California Fertilizer Association	http://www.calfertilizer.org/
Center for Ecoliteracy	http://www.ecoliteracy.org/
San Francisco Public Utilities Commission (San Francisco)	http://www.sfwater.org/index.aspx?page=104
Allied Waste (Contra Costa)	http://www.pleasanthillbayshoredisposal.com/
Eden Garden Club (Castro Valley)	http://edengardenclub.com/
Kaiser Permanente	http://info.kaiserpermanente.org/communitybenefit/html/about_us/northern-california/community_programs.html
Lowe's Toolbox	http://www.toolboxforeducation.com/
Morgan Family Foundation	http://www.morganfamilyfoundation.org/
Roots & Shoots	http://rootsandshoots.org/
San Bruno Education Foundation (San Bruno)	http://sanbrunoedfound.org/
San Ramon Valley Education Foundation Grant (San Ramon)	http://www.srvef.org/
US Fish & Wildlife Service School Yard Habitat Restoration	http://www.fws.gov/cno/conservation/schoolyard.cfm
The Corps for Education Outside	http://www.educationoutside.org/corps
USDA Snap-Ed	http://snap.nal.usda.gov/
Watershed Project Teacher Action Grant	http://www.thewatershedproject.org/home.php
Wild Ones	http://www.wildones.org/