Growing Pains: Dealing with excess demand and the conflicting benefits of community gardens in Cambridge, Massachusetts

by

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Submitted to the MIT Department of Urban Studies and Planning
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Abstract

Community gardens are one of the most popular uses of vacant space in the United States; there are likely over 6,000 operating in the country today. Although only a tiny portion of the population has ever participated in one, people applaud them for a range of benefits including community connectedness, physical activity, entrepreneurship, food production, and improved urban environments; the list of perceived benefits is effectively endless. Unfortunately, no community garden has an infinite amount of space and therefore it’s likely that every garden won’t provide every benefit that is attributed to community gardens broadly.

This possible tension between different benefits was the impetus for this client-based thesis project. By first analyzing the history of community gardens, I identify that certain benefits are primarily associated with a particular time period in community garden history. Then, I give an overview of these benefits as they are addressed in the community garden and urban agriculture literature, categorizing them under four themes: social, physical/health, economic, and environmental. After reviewing and analyzing the literature addressing the history and potential benefits of community gardens, I offer a categorical framework through which conflicts between the benefits can be viewed. Next, I describe my primary research, a potluck focus group of community gardeners in Cambridge, Massachusetts, and discuss my findings. All parts of my research coalesce into a set of recommendations for expanding and improving community gardening (and urban agricultural practices in general) in the city of Cambridge.
Though the full list of people who have helped me produce this document is huge, the individuals thanked below have given me truly substantive help and I would be remiss without acknowledging them directly.

First of all, my thesis advisor, Amy Glasmeier, and thesis client, Jennifer Letourneau, have spent hours reading drafts, giving detailed feedback, and shaping my ideas; for their attention and guidance, I am truly grateful.

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Executive Summary

Introduction & Background
Community gardens are nearly ubiquitous in urban and even suburban settings and the American Community Garden Association estimates that there are approximately 6,000 active community garden projects in the United States. These gardens theoretically provide social, physical and health, economic, and environmental benefits. However, given that each garden occupies a finite amount of space and some cities are more space constrained than others (meaning they have fewer gardens than non-space constrained cities), it is unlikely that all community garden projects provide all of the benefits often attributed to them. In tight land-market cities like Cambridge, Massachusetts, the assumption that all community gardens provide a large number of benefits can lead to conflicts between these benefits. Often different groups of people are proponents of different sets of benefits and conflicts between the benefits can lead to conflicts between the people. These conflicts often play out in day-to-day garden management and, without adequate oversight or policy enforcement, winners of these conflicts ultimately determine who gets to garden and why.

Purpose of Research
This research report provides an analysis of and recommendations for the community garden program in the city of Cambridge, Massachusetts. As a requirement for the Master's of City Planning program at the Massachusetts Institute of Technology (MIT), this project attempts to analyze the history, benefits, and conflicts of the Cambridge community garden program in order to provide a set of recommendations for improving the program.

Research Method
This research project uses both secondary and primary research in order to produce a grounded set of recommendations. The secondary research methods
include archival studies and reviews of literature that address the history of community gardens generally, the history of the Cambridge community garden program, and the academic literature that addresses the (potential) social, physical, economic, and environmental benefits of community gardens. This secondary research was paired with primary research consisting of a small potluck focus group of current Cambridge community garden coordinators and members. That focus group elicited a small sample of opinions about the Cambridge community garden system as it currently stands and a number of ideas for improving the system. Finally, a set of recommendations was generated by synthesizing the primary and secondary research.

Findings
The two primary conflicts in the Cambridge community garden system as it currently stands are (1) between users who think gardeners should be able to use a plot indefinitely versus those who think gardeners should pass their plot on to another person after a certain period of time, and (2) between gardeners who think community gardens should be primarily for food production versus those who think it should be up to the gardener how they use their plot. Furthermore, some of these conflicts occur within individual gardeners (i.e. a gardener might be torn between thinking that plots should turnover and thinking that good gardeners should be able to hold on to their plots forever).

Recommendations
This primary and secondary research has lead to a number of recommendations that could improve the community garden system in Cambridge.

Create a community garden council
In light of the current lack of purpose and constrained capacity of the community garden system, I recommend the formation of a community garden council that will (at minimum) be tasked with defining a vision/purpose for the Cambridge community garden program. This council, if implemented properly, could create a number of opportunities for expanding participation and impact of the community garden program, in addition to expanding its capacity and efficiency of operation. Though this council will have to be carefully constructed, if its members are carefully selected, they could provide a foundation for a huge number of activities and benefits, along with the capacity to implement them.
Pair or group garden users with non-conflicting interests
The wide variety in reasons that people participate in community gardens can create opportunities for people with non-conflicting interests to space the same space/garden plot. For example, gardeners who participate for physical activity could share space with gardeners who participate for food production. Explicit encouragement of this type of activity from the city can expand garden participation, thereby creating more benefits from a limited amount of space.

Create opportunities for people on garden waitlists
Creating outlets for people who want to participate in gardens but haven’t yet been given a plot can harness the energy of willing gardeners while also allowing them to productively contribute to the city’s well being. A few examples of this type of opportunity include garden and neighborhood clean up days, storefront and business corridor beautification events, and park improvement plans.

Encourage or endorse yardsharing
Despite dense residential neighborhood patterns in Cambridge, many homes and businesses have unused or underutilized yard space. City endorsement or encouragement of yard sharing can alleviate pressure on the community garden system without taking on any more responsibility or creating more community gardens.

Collect feedback about community garden program annually
Creating a standard or institutionalized method for gathering feedback, input, and ideas about the community garden program can at least provide a repository of information on which future decision makers could base their choices. Annual collection or even continuous collection (depending on the method of collection) of opinions about the community garden program can also incorporate voices not often involved in the conversation about community gardens (including non-gardening residents).

Increase the number of community gardens
Although it doesn’t seem likely given current development pressure in the city, the most obvious way to involve more people in community gardening is to create more community gardens.
Introduction

There is a general assumption that community gardens across all of time share purposes and create all of the benefits that have been attributed to them (food production, community building, youth development, entrepreneurship, etc.). A closer look at the history of community gardens reveals that certain benefits were tightly related to specific time periods, place-specific contexts or both. These various contexts draw different users and create different interests in public gardening. I theorize that as contexts in which gardens are located change, people's reasons for gardening also change. And while it is true that all community gardens do offer multiple benefits, gardens simply can't offer all of the benefits, at all times, in any context.¹

Unrecognized by most community garden advocates, the reason understanding these different benefits matters so much is that there are tensions between them, even if the people involved don't recognize them as such. When left unresolved, these tensions can lead to conflicts: conflicts between the city and the gardens themselves, conflicts among gardeners within the gardens, conflicts between the gardeners and those who want to get in the gardens, and conflicts between the gardens and their surrounding neighborhoods. In cities with abundant land and community garden space, like Seattle or Detroit, these conflicts can often

¹ Ironically, one of the benefits of community gardening as a phenomenon is that it can be used to achieve a broad number of goals, depending on the context. But this is notably different than achieving all goals in all contexts.
be resolved by simply creating more gardens. However, in cities where space is at
a premium, these conflicts are not resolved so easily.

**Purpose/Reason for this project**

In the city of Cambridge, some if not all of the aforementioned conflicts can be
observed around the community garden program. Fortunately, understanding
the history and benefits of community gardens can help improve today’s garden
movement. Understanding these things can lead to a process that helps reconcile
the conflicts, while simultaneously improving the system and creating capacity
to deal with future shifts in context. The latter is particularly relevant if gardens
are to remain permanent neighborhood fixtures (which is a stark contrast to their
transient past).

At the highest level, the purpose of this project is to encourage the con-
tinued expansion of urban gardening in the city of Cambridge. Though there are a
number of different pathways to achieve this goal, my research will focus on cre-
ting greater deeper understanding of community gardens in order to improve the
city’s program while also gathering lessons to be applied for the broader expansion
of urban agriculture.

**Methodology**

This client-linked thesis project will take the following steps to achieve the goals
mentioned above: a historical overview of community gardens (in general and in
Cambridge specifically), a review of literature concerning the benefits (and con-
licts between benefits) of community gardens, original research with Cambridge
community garden members, analysis and discussion of the research, and a list of
proposals and recommendations. Understanding the history of community gardens will begin to uncover the roots of where many of the benefits attributed to them come from. A brief review of the significant volume of literature analyzing the benefits created by community gardens will then lead to a discussion of the underlying conflicts between some of those benefits. My understanding of the history and literature concerning community gardens then lead to my original research, which took the form of a potluck focus group that convened community garden coordinators and members of different gardens in Cambridge. I then analyzed my findings against the previously identified conflicts and prepared my recommendations. These included an overall recommendation along with a short-list of proposals created by combining ideas from my focus group and the literature.

In order to make my thesis as readable as possible, I will lead this document with my recommendations (Chapter 2), followed by the more dense information: my literature review which includes the history of community gardens (Chapter 3) and the discussion of their benefits and conflicts (Chapter 4). I'll then briefly explain my research process detail my findings (Chapter 5) and discuss them as they relate to the literature (Chapter 6). Finally, I'll conclude with an overview of my entire process.

In addition to this document, I have created a small number of documents that can be used in conjunction with my full thesis or on their own. These include a short executive summary of my entire thesis and a number of graphic representations of my research and findings. I hope that these documents will be useful to community garden advocates, city officials, and urban agriculture enthusiasts in general.
Recommendations

Chapter Overview
To get right to the heart of the matter, this chapter details the recommendations and proposals that have been culled from my research (my focus groups and my literature review). First, I'll describe my highest-level recommendation, creating a community garden council for the city, and why implementing it could create capacity to deal with problems and opportunities (current and future), while also allowing better program operation. Then I'll describe a number of specific proposals that could be adopted whether or not the council is created. Finally, I'll discuss an overall decision-making framework in which these recommendations/proposals were created and could be used to create others.

Create a community garden council
At the highest level, my research points to one overarching recommendation: the Cambridge of Cambridge should create an institutional structure that governs the community garden program with input from all relevant parties of stakeholders. Those stakeholders include city officials, community gardeners, people desiring to get in the gardens (whom I will call “waitlisters”), and neighborhood residents. This decision-making body could have a number of roles and powers, but at the minimum, it should be responsible for establishing explicit purposes for the community garden program (even if each garden is allowed to determine its own purpose), determining citywide community garden policy, periodic review of that policy, and convening community garden coordinators at least annually. This
council should also have some explicit relationship to other relevant city groups such as the Food & Food Policy Council, the Open Space Committee, Neighborhood Development and others.

The reason for creating a multi-stakeholder decision-making body is three-fold: (1) to ensure that no relevant voices are excluded from the policy creation process, (2) to ensure that maximum benefit is created via negotiation of interests, and (3) to expand the capacity of the community garden program on a citywide scale.

Including voices from parties that aren’t typically consulted allows two things: First, there is an opportunity to hear and address concerns from parties affected by gardens but not directly involved in them. Second, hearing these concerns can create opportunities that result in more benefit for a greater number of actors. These two factors together create a balancing force that results in improved program outcomes for all stakeholders involved. Garden policy must be jointly determined by the city, gardeners, and non-gardeners. Though gardeners may mean well (or not), inherited privilege and power, from whatever structures, tend to dominate policy to ensure those in the system remain in it. Expanding the capacity of the community garden program at the city scale can help because, at the moment, the amount of activity is limited by the city’s unitary position of power: 100% of the weight falls on the city to do everything related to the program while the energy and effort of gardeners is underutilized.

The creation of this group will almost necessarily be a complex process and will require careful mediation and facilitation. The structure and membership of the group will be tricky to define as will be the first set of decisions the group makes. As always, institution building is a complicated matter and an experienced professional should be brought it for at least the crafting of the group. Additionally, the group might be best served in the long run if it is chaired by someone who
is well regarded in the community but is impartial or as impartial as possible to community gardens (ex. church leaders, city officials without direct relevance to community garden operations). It is of critical importance that the group be structured in a way that ensures people already in power (formally or informally) in the community garden system do not assume all of the positions of power, thereby reinforcing the existing reality.

**Specific Policy Proposals**

In addition to the broad recommendation about the creation of a community garden council, a number of other recommendations came out of my research and literature review. Each section below explains a bit about each idea, its benefits, and relative costs.

**Pair/group garden users with non-conflicting interests**

One of the outcomes of my research illuminated the fact that the current policy, though created with positive ideals, creates conflict in places where they need not exist. Eliciting interests (goals) rather than objectives (ideas for achieving those goals) creates space to build policy that reaches multiple interests simultaneously.

Though there are many opportunities here, one of the most poignant was illustrated both in the focus group session and from the literature. Different people have different reasons for gardening and the fact that the current policy suggests no more than one family per household effectually discourages people from sharing plots. However, since some people garden for physical enjoyment or communion with nature and others garden for food or flower production, these two interests could actually be paired in the same plot without conflict. Another example is people who want to garden socially. Community gardens are often lauded as space
for different people in a neighborhood or community to connect and interact, but ensuring that each plot only has one gardener limits this possibility.¹

**Create opportunities for waitlisters**

Another proposal that arose during the focus group was the ability to incorporate people on waitlist more actively into the garden world of Cambridge, even if that doesn’t necessarily mean immediate incorporation into community gardens. There are a lot of people on the waiting list for each garden and assuming these people are serious gardeners, there are many ways that their interest and effort could be used before time comes for them to have their own plot. Although the garden committee describe above could further explore and create opportunities, two have already been identified: supporting collaboration between business owners and waitlisters, and creating garden (or pocket garden) workdays.

One way to harness the energy of gardeners not yet in community gardens is to connect them with people who need gardening work. One of the easiest connections is to businesses. Many businesses have growing space or the potential for it along their storefronts but professional landscaping can be costly. Pairing waitlisters with businesses that have storefront ground space or even window boxes can give gardeners space to grow while simultaneously beautifying storefronts. It’s possible that the types of gardeners interested in this type of growing situation are more prone to grow flowers and perennials and this could reduce the tensions between food gardeners and flower gardeners in community garden settings. Although there may be less space, for some gardeners, an entire community garden may be too much or gardening for a few businesses could meet their space requirements. Though there are many details to confirm between business and

¹ Not all gardeners see this type of collaboration as beneficial, especially because more gardeners in the space seems to raise concerns about theft and security. Even so this type of arrangement could be extremely beneficial in certain contexts.
gardener (how many flowers is the gardener allowed to take, how regular should the space be tended, etc.), the city could provide agreement templates or outline a process that supports this type of activity. Any agreement like this should probably be formalized to avoid problematic outcomes, but the opportunity for mutual benefit is clear.

Another way to get waitlisters involved in some sort of gardening activity is to organize community garden workdays to which waitlisters are invited. Although this may not be plausible for all gardens, some would greatly benefit from groups of people getting together to work on large-scale projects. This could help accomplish the creation of the project, but also would start to introduce gardeners to waitlisters. One idea was to actually allow participation in these workdays to affect position on waitlists. It’s likely that this would happen informally, but it could also be formalized. Each workday attended could move a gardener a certain number of places closer to having a garden plot, but it’s likely that the personal connections between gardeners and waitlisters would influence garden participation even more (via connections between gardeners with non-conflicting benefits).

**Encourage or endorse yardsharing**

Another win-win solution involves connecting residential landholders with excess or unused space to waitlisters or other people looking for space. This proposal solves the problem of excess demand with little required effort or resource from the city. By connecting waitlisters to (presumably) homeowners with extra yard-space, the city avoids the management costs associated (however small or large) with community garden plots while giving people access to space on which to grow. By encouraging or even officially endorsing yardsharing, the city can increase the amount of space on which food is grown without adding any extra land to its own holdings (which is unlikely anyways).
Collect annual feedback about community garden program

A standing policy or method that regularly collects public feedback about community garden program would, at the very least, inform the city of the most extreme opinions about the program. Depending on the method of collection, opinions gathered might be representative (if the method is thought through well) or, at the very least, representative of the most extreme views (people who volunteer for feedback gathering sessions are often at positive or negative extremes). The focus group method I utilized in my primary research could be a model of gathering input for gardeners, neighbors, waitlisters, and city officials alike. The framework would need modification and a highly qualified moderation/mediator to ensure the session remained productive, but it could be a low-cost alternative to something like a paper or internet survey (though those are also valid methods of collecting public input about the community garden program). Furthermore, if the data collected is systematically recorded, a repository of citizen feedback could help future decision-makers understand popular sentiments about the community garden program.

Increase the number of community gardens

It almost goes without saying that the city could increase amount of growing and reduce demand by creating more gardens. And while Cambridge has an extremely tight land market, the city has actually added three new gardens since 2008. Though it's unclear how likely it is for the city to add more gardens in the future, if it is an option, doing so with the guidance of the new garden council could allow it to meet a wider variety of objectives than most gardens.
Framework for understanding opportunities

Win-win agreement framework

The creation of these alternatives and their implementation depends on two theories that both deal with how to solve conflicts: the consensus building approach (CBA) and principled negotiation (PN). Below, I'll briefly describe the two theories and explain how they can be used, even if none of the above recommendations are implemented. The foundational and preferred theory is the CBA, but if all parties are not able or willing to build consensus, PN can help the city determine how to best determine policy in the future.

The consensus building approach is based on well-defined process that brings stakeholders together to collectively solve their problem and then move forward with the solutions they have collaboratively generated. In the community garden setting, the benefit of this approach is that all parties get to be heard, opportunities are created for stakeholders to benefit from, and the solutions created are necessarily going to be implemented by any or all of the stakeholders present (because implementation, not just policy, is a part of the process of reaching agreement). Furthermore, reaching consensus requires that people who are currently marginalized by the community garden system (waitlisters and neighborhood residents) have a voice and be a part of creating and implementing the solution. Although getting all of these parties together is tricky and time-consuming, the alternative of making decisions based on incomplete information and partial stakeholder buy-in often results in delayed (if not prevented) implementation and the worsening of relationships between stakeholders, whether or not they actually were involved in the process.

2 Susskind, Breaking Robert's Rules.
3 Fisher, Getting to Yes.
4 Susskind, Breaking Robert's Rules, 4.
Unfortunately, it can be time-consuming and labor-intensive to gather all stakeholders together for a CBA process. It can mean finding times that work for all stakeholders (and there may be many) or trying to negotiate who gets to represent each stakeholder group (which can be complicated and politically fraught). If the CBA is determined to simply be too difficult to arrange, the principled negotiation framework created by the Harvard Negotiation Project is an alternative that should achieve similar results.

Principled negotiation is a method by which parties can reach agreement (a step below consensus) that ensures decisions are made based on the merit of issues. It aims to, at minimum make an agreement that creates mutual gains and determines the outcomes of conflict based on fair standards determined mutually by all parties. In principled negotiation, identifying interests (instead of relying on the things your “position” should want) creates space to negotiate to achieve multiple objectives simultaneously. For example, two people may fight over an orange a decision is framed in way that requires only one of them have the orange and the entire orange. However, if the two people are required to explain their interest in the orange, it may be found that one person only wanted the rind to zest it for cooking, while the other person wanted the juice to drink. By soliciting interests, a win-win solution has been created in which both people are better off than before. In addition, the aspect of involving people in the decision-making process often makes them feel as if they have a stake in the matter. And assuming that at least their minimum needs were met, this involvement can remove barriers from implementation, even if all parties aren’t responsible for making the implementation happen (as in CBA).

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5 Susskind, Breaking the Impasse.
6 Fisher, Getting to Yes, xxviii.
7 Ibid., 29.
CHAPTER OVERVIEW

The following brief history of community gardens is for the purpose of understanding the values that lead to the creation of community garden programs and how those values have evolved over time. My recap will begin with the first community garden programs in 18th century England and end with present-day American gardens. I attempt to trace how the values are reflected by changes in expressed purposes of community garden projects. This history is based primarily on the works of Sam Bass Warner, urban historian and a former MIT Visiting Professor, and Laura Lawson, professor and chair of the Department of Landscape Architecture at Rutgers.

Historical account of CGs

Community Gardens as welfare: English Roots

The forerunner to what we currently call community gardens were created around the 1750s in agrarian England. Until that point, even land that was privately owned was mostly unfenced and every town had a commons, which gave every resident opportunity to grow food or support a small number of animals.¹ This land access created a floor below which even the poorest families and citizens could not fall. Between 1760 and 1820, larger commercial farmers advocated for land enclosure and the commons were gradually lost in village and village.² This process led to a never before seen reality: peasantry being fully dependent

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¹ Warner, To Dwell Is to Garden, 8.
on their labor for their well being. For farmers, this created a striking paradox: they watched their own incomes increase while the city’s welfare rolls enlarged because of rising poverty levels. Not wanting to watch their new income get funneled back into welfare, landowners created arrangements by which peasants could rent or borrow small plots of land in order to support themselves. When the savings from this approach both prevented employers from needing to raise wages while also addressing poverty, the model spread and the ancestor to community gardens were born.

Community Gardens in the US

Though community gardens began in the US with the same initial purpose as in the UK, their purposes have changed with each time period they were implemented. Starting as an economic support for the poor in the late 19th century, over the course of the 20th century they served as a type of economic support and nationwide patriotic act during the World Wars and have settled in their current uses as sites for education, green space, economic support, and leisure. Each of these periods has been largely associated with a different type of benefit that I will detail through the follow brief historical overview.

3 Some scholars warn that the effect of enclosure has been exaggerated, but for the purposes of this thesis, I will assume that enclosure played a key role in the creation of poverty in England. 4 Between 1760 and 1820, England as a whole saw its welfare payments increase from £700,000 to £1,800,000 (assumedly adjusted for inflation). 5 Warner, To Dwell Is to Garden, 9. 6 Some scholars warn that the effect of enclosure has been exaggerated, but for the purposes of this thesis, I will assume that enclosure played a key role in the creation of poverty in England. 7 These leases were almost always offered with a number of restrictions that make clear the negative social views of the upper classes towards the lower classes. These restrictions typically included a mandate to attend daily religious services in addition to limits on the times of day allowed for work on leased land. 8 Thompson, The Making of the English Working Class, 237
Gardens as welfare: American Beginnings

Though it’s unclear exactly how the ideas transferred from England to the US or if they transferred at all, the first instance of anything resembling a community garden were started by the Mayor of Detroit in the mid-1890s. An economic depression led Detroit’s mayor, Hazen Pingree, to advocate for the poor to be able to use vacant land during the time of falling incomes and joblessness. By using public funds to provide the unemployed with the ability to produce their food, the city actually incurred a savings for its welfare budget. Approximately $9,000 of public investment over two years generated $60,000 in produce for nearly 2,500 families. The success of Pingree’s “Potato Patches” as they were called, led to the creation of similar programs in large cities across the nation, but most of these programs ended by 1920 as the economy improved.

War Gardens (1910s - 1950s)

The next major appearance of public gardening program occurred during World War I. European food shortages raised the price of food exports so the US government created a nationwide campaign to encourage individuals to produce as much of their own food as possible in order to allow commercial farm production to be exported for profit. The program’s success is widely lauded as a golden era of gardening and Laura Lawson, one of the few US community garden scholars, reports that $525 million of food was produced by community gardens in 1918 alone. During World War II, gardens were again advocated by the federal government, but this time lead by civic interest. Though food was clearly a positive

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10 Warner, To Dwell Is to Garden.
11 Laura Lawson, “A Brief History of Urban Garden Programs in the United States.”
12 Laura Lawson, “A Brief History of Urban Garden Programs in the United States.”
13 Lawson, City Bountiful.
outcome of gardening (in 1944, Victory Gardens are reported to have produced over 40% of the nation’s vegetable supply), these Victory Gardens were framed strongly as patriotism and participation in the war effort.\textsuperscript{14} After both wars, public interest in gardening waned. A combination of civilian burnout from the tough work of gardening and shifting government attention resulted in diminished funding and simultaneous conversion of land to more productive economic uses.\textsuperscript{15}

Note: Though there were several other minor garden movements during this time, such as children’s school gardens, vacant lot cultivation associations, and depression era gardens at the national level, their impact was either minor or not particularly different from a movement already observed.\textsuperscript{16} At the local level, however, the children’s garden had a significant much impact and I will discuss them in greater detail with regard to Cambridge specifically.

Gardens as neighborhood activism

Rapid population growth and the post-WWII economic boom drove both federal highway expansion and suburban development. Though these two subjects are worth entire histories on their own, what’s relevant to community gardens is that the exodus of populations from urban areas left vacant lots everywhere and urban renewal advocates were attempting to bust highways through “slums” all across the country. It was in this context that community gardens made their next major appearance. Often, these somewhat radical neighborhood activist efforts resulted in the preservation of neighborhoods as they stood, but sometimes they involved neighbors taking over land that was vacant or abandoned during the suburban exodus and subsequent disinvestment. The creation of community gardens was one way that these vacant lots were repurposed.

\textsuperscript{14} Laura Lawson, “A Brief History of Urban Garden Programs in the United States.”
\textsuperscript{15} Ibid.
\textsuperscript{16} Ibid.
Present-day Gardens as urban sustainability

Though many of the gardens founded with neighborhood activist sentiments have remained, the evolving interest in cities has had significant impact on the purpose of community gardens. As young and middle-aged Americans flock back to the city, neighborhoods are dealing with the opposite of the exoduses they experienced in the 60s-80s. The importance of retaining open, green space in cities, along with the civic benefits of participation in projects like community gardens has made the population interested in them slowly shift. The most important difference during this time period is that gardening is approached much more often as a hobby or recreational activity and less as an activity for the creation of economic value (though that hasn’t disappeared entirely).

Cambridge Community Garden History

The history of community gardens in Cambridge was much more influenced by the children’s garden movement than the vacant lot cultivation associations or victory gardens than the national narrative. However, the 1970s matches the national st-
ry well and I believe that the garden program is currently dealing with the resulting tension between the reason these gardens were founded and the current users (or people who desire to be users).26

Children's Gardens

The first public garden project in Cambridge is recorded during the same period as Pingree's Potato Patches in the late 1890s. Mrs. Anne Longfellow, daughter of Henry Wadsworth Longfellow, allowed children to garden in her personal backyard (presumably quite large given her family line and the time period) and even after she sold the field in 1898, it was still used for children's gardening.27,28,29 In fact, this space was used for children's gardening until the Depression of the mid-1930s.30 Along with this dedicated space, a number of annual statewide and citywide gardening competitions supported by the League of Women Voters of Cambridge and the Park and Recreation Commission encouraged hundreds of children's participation in gardens all over town.31 One other public garden during this time had a crop of over $6,700 in 1900.32

Victory Gardens

Victory gardens were a much less significant part of public gardening in the city.

26 The majority of this information was collected by Harvard student, Catherine Melina, for a graduate research assignment through reading the Cambridge annual reports from the 1880s to today.
27 “Genealogy Profile for Anne Allegra Thorpe.”
29 Lawrance Roger Thompson, Young Longfellow (1807-1843), 16.
In 1918, the city spent $1250 to plow and plant land owned by five different city departments, but a direct statement from the Cambridge Annual Report quoted that this program was “far from [being] a success...” The World War II Victory Gardens seemed to be more successful with two primary facets. The first was a greenhouse constructed on the land of the City Home that operated on excess heat from the building’s boilers. The operation was run by Parks and Recreation staff and kept the City Home supplied with fresh vegetables year-round. The second was a citywide initiative to encourage citizens to garden, as at the national level. The city made four large plots of land available and helped over 5,000 residents plow yards for gardening.

Through at least 1943, these projects went well, but there is little data on exactly how productive or successful they were. The gardens that were a part of the “War Effort” of 1943 were reported to have been the peak of public interest and it waned, congruent with historians who have observed the difficulty of sustaining large scale gardening projects. After this period, the City Home greenhouse was sustained and, surprisingly, the Parks department (having been recently split off from the Parks and Recreation department) continued to add growing space via greenhouses and outdoor space so much that it reportedly provided 18,000 pounds of vegetables to city institutions in 1952. Unfortunately, the division of the Parks and Recreation department signaled the downfall of this sort of activity as the Parks department slowly shifted its attention towards playgrounds.

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34 City of Cambridge, “Annual Reports, City of Cambridge, Mass.,” 30.
35 Ibid., 38.
37 Judith Sumner, “Exploring Victory Gardens: How a Nation of Vegetable Growers Helped to Win the War.”
and tot lots, permanently removing the participation of children from city-supported gardening.\(^{39}\) Although the exact stories are unknown, all that is known is that none of these gardens or greenhouses existed by the 1970s.

**Community garden expansion**

The 1970s were a busy decade for community gardens across the country and Cambridge was no exception. As mentioned before, many community gardens during this time were established in neighborhood takeovers/land grabs, but in Cambridge, the Public Works department and the Cambridge Conversation Commission explicitly set out to create gardens as well.\(^{40}\)\(^{41}\) A combination of factors including a near food shortage due to a trucker’s strike and large amount of vacant land in the city led the city to actively support the use of public and private land for gardening.\(^{42}\)\(^{43}\) Between 1976-77, the Conservation Commission clarified its position as public garden mediator and provided resources including seeds, soil preparation, advertising and water.\(^{44}\) In other cases, the city actively supported garden creation (with the advocacy of citizens, of course) through policies such as building variances and zoning changes.\(^{45}\)\(^{46}\)

**Development pressures cause garden stagnation and destruction**

Unfortunately, while most gardens on City land experienced the safety of secure

40 “A History of Wetland Protection.”
42 Doug Baker, “Community Gardens Foster Neighborhood Spirit.”
44 Ibid., 27.
46 Ibid., 29.
land tenure, some gardens on donated or private land struggled and lost against residential and commercial development pressure. The garden at the King School, a 70' x 80' plot was only cultivated for two years before being reclaimed by the school for conversion to a playground. The garden on Youville Hospital land near Hovey Street was slated for a parking lot and the gardeners went so far as hiring lawyer to protect their land use. In the end, they were unsuccessful and the school paved over the garden with a parking lot.

From 300-400 participants in 10-12 gardens in the early 80s to 15 gardens and around 450 participants to 1995 and likely slightly more today, the slight increase in the number of gardens hasn’t even come close to tracking the demand. The high volume of rental housing in Cambridge (70% as of 1996) and the resistance of landlords to rental gardening on their property drives an extremely high garden demand. Many gardens have low turnover rates and in areas with particularly high rental density, sometimes the official waiting lists can be as long as six years. In reality, when the true turnover rates are taken into account, the waiting lists can be even longer.

Garden expansion as attention to food grows

Over the last 10-20 years in the US, the attention to food as it relates to individual and public health has increased dramatically. Health, climate change, and local economic invigoration are three of the most often cited reasons for people to this increase in public attention to food and food systems. As a side effect, the number of people desiring to grow at least some of their own food has grown tremendously and this is expanding the demand for community garden space. However, the type of person gardening for recreation is typically quite different than the

47 Alex Strysky, Director of Cambridge Conservation Commission.
48 Lawson, City Bountiful.
person gardening for economic support and this is one of the primary conflicts in community gardens and community garden systems today.

**Conclusion**

Although community gardens have rarely changed names, they have gone through a number of changes in motivation and therefore implementation. And while most of these transitions have occurred with a clearly demarcated break in time, the most recent two have not and, at least in Cambridge, this could be a reason for the tension and conflict within the garden program today.

Beginning with the welfare gardens, both in the UK and the US, community gardens were created for those in economically poor situations. They tended to be people who needed food. During WWI and WWII, most gardens existed for economic, nutritional, or even patriotic reasons. Those gardens, though they experienced a rapid, federally supported launch, their gardeners burned out quickly and their existence was short-lived. These gardens and the ones before them were mostly started by reformers, educators, or civic leaders in order to serve the broader population. The next community garden era began in the 1960s and 1970s mostly as neighborhood activism that used grassroots organizing to take or use vacant land for a variety of reasons. Because of this, the type of person who was a part of this garden tended to be among the more radical, activist crowd, whether or not they were in need of economic assistance. Over the course of the next 20-30 years, as these gardens remained permanent but their neighborhoods changed, motives for gardens evolved. This newer group of gardeners (some new transplants and some just aging radicals) typically gardens for reasons like con-

49 Judith Sumner, “Exploring Victory Gardens: How a Nation of Vegetable Growers Helped to Win the War.”

50 Hou, *Greening Cities, Growing Communities*, 15.
necting with environment, preservation of open, green space in neighborhoods, and cultural and ethnic expression. It is here, between these final two seasons of gardeners, that today’s conflicts are most present.

51 Ibid., 15–16.
Benefits and conflicts of Community Gardens

CHAPTER OVERVIEW
The importance of characterizing the benefits of community gardens is to clarify the underlying and often unseen conflicts between them and to ensure that the gardens are achieving their intended purpose(s). In this chapter, I first address a small, but representative portion of the literature concerning the benefits of community gardens and describe them after dividing them into four categories: social, physical/health, economic, and environmental. Then, I analyze three ways in which these different benefits could conflict in a community garden setting: conflicts concern how space is used within gardens, conflicts between uses of the gardens, and conflicts about the terms-of-use of community garden plots. Finally, I’ll conclude with a brief review of the conflicts and how the outcome of those conflicts can formally or informally determine what benefits any community garden accrues.

Introduction
The importance of characterizing the benefits of community gardens is to clarify the underlying and often unseen conflicts between them and to ensure that the gardens are achieving their intended purpose(s). In some cities, when demand for community gardens grows, there is actually enough land to meet that demand. However, in cities like Cambridge, the amount of land for community gardening is extremely limited and in these cases it is even more important the garden policy and operation aligns with the community garden program’s intended objectives.
Benefits

For the sake of discussion, I will sort the benefits identified in the literature into social, physical/health, economic, and environmental categories, though the individual benefits within these classifications are often intimately connected.

Social

Of all the benefits associated with community gardens, the social benefits are the most widely acclaimed and well documented. Although the body of literature on this subject is massive, I'll focus on these five: Community cohesion, community organizing, social capital building, community resilience, and youth development.

Community cohesion is one of the most commonly cited benefits of community gardens and it varies across different gardens and even within the same garden over time. More private or insular gardens tend to experience the cohesion among their members while more public outward-facing gardens observe this cohesion happening between the garden and its “surroundings.”

The more outward-facing gardens can even form the basis for community organizing efforts, especially when the gardens are threatened. When Mayor Giuliani attempted to mandate that hundreds of community gardens in NYC be converted to residential developments, thousands of gardeners connected to advocate for their gardens and

1 These surroundings can be defined institutionally (such as different organizations that help the garden to operate through provision of resources, space/land, programming, etc.), physically (such as the neighborhood or organization in the physical area around the garden), or socially (such as the network of people who know gardeners or use the garden space)
2 Saldivar-Tanaka and Krasny, “Culturing Community Development, Neighborhood Open Space, and Civic Agriculture.”
3 Macias, “Working Toward a Just, Equitable, and Local Food System.”
4 O'Brien and Shoemaker, “An After-School Gardening Club to Promote Fruit and Vegetable Consumption among Fourth Grade Students.”
5 Ohmer et al., “Community Gardening and Community Development.”
6 Ozer, “The Effects of School Gardens on Students and Schools.”
7 Pudup, “It Takes a Garden.”
many of them are still standing today because of their collective effort.8,9,10,11

On a more practical level for the gardens and gardeners, the connections made between gardeners and between gardeners and their broader community can build social capital. For the gardens, having connections to people who can help their garden secure necessary resources (such as water or soil) can be invaluable during the growing season, but can also prove useful in the future. Furthermore, in places where gardeners may be growing to improve their own household's vegetable consumption patterns, this social capital has been witnessed to have positive effects on a family's level of food security.12 These types of connections collectively increase a community's resilience.13

From education and participatory learning to entrepreneurship, community gardens can be particularly powerful vehicles for engaging youth with their surroundings.14 For example, in places where community gardens are used entrepreneurially, youth development can be encouraged through the promise of economic payoff.

On another level, gardens can be used simply as a tool to help students

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8 Schmelzkopf, “Incommensurability, Land Use, and the Right to Space.”
9 Stone, “The Benefits of Community-Managed Open Space.”
10 Staeheli, Mitchell, and Gibson, “Conflicting Rights to the City in New York’s Community Gardens.”
11 Smith and Kurtz, “Community Gardens and Politics of Scale in New York City*.”
13 Teig et al., “Collective Efficacy in Denver, Colorado.”
engage more with the *reason* for getting an education.\textsuperscript{15}

**Physical/health**

Though it’s almost unfathomable for any household (however small) to produce all the food it needs in a community garden plot (however large), the benefits that accrue to individuals even somewhat involved with food production are numerous, including the encouragement of healthy eating habits, improved food literacy, increased levels of physical activity and improved mental health.

From children to seniors and everywhere in between, proximity to and tactile experience with food production has been proved to encourage healthy eating habits.\textsuperscript{16} When children are exposed to growing food, their preference for and knowledge of fresh food (i.e. food literacy) has been documented to shift, even over short periods of time, and in adults, participation in community gardens is linked with increased consumption of the daily recommended amount of fruits and vegetables.\textsuperscript{17, 18}

While the above consumption-based health benefits likely accrue to all populations, the physical and mental health benefits for seniors may be even more important. Gardening are increasingly used to improve the mental health of seniors, particularly veterans with post-traumatic stresses, and gardening has been demonstrated as one of the preferred forms of physical activity for seniors of all

\textsuperscript{15} Doyle and Krasny, “Participatory Rural Appraisal as an Approach to Environmental Education in Urban Community Gardens.”
\textsuperscript{16} Ishwarbhai C. Patel, “Gardening’s Socioeconomic Impacts”; Lautenschlager and Smith, “Understanding Gardening and Dietary Habits among Youth Garden Program Participants Using the Theory of Planned Behavior.”
\textsuperscript{17} Food Corps, “Food Corps | About Us”; Heim, Stang, and Ireland, “A Garden Pilot Project Enhances Fruit and Vegetable Consumption among Children.”
\textsuperscript{18} Alaimo et al., “Fruit and Vegetable Intake among Urban Community Gardeners.”
Economic

Though there are certainly economic benefits provided by community gardens, the case for them is often and likely most easily made by not making the economic argument. As H. Patricia Hynes, author of *A Patch of Eden: America's Inner-City Gardeners*, puts it:

> What happens when the dollar value of a benefit is underestimated, unknown, or impossible to calculate? Do we lose the twenty gardens... to sixty townhouses because the value of (their) biodiversity is not possible to calculate in dollars, and the benefit of tranquility to the gardeners is estimated to be 1/1000th of the return on the development project?\(^{21}\)

Only with the understanding that community gardens provide more benefit than their economic value do they make a good argument for use of limited public land. With that in mind, these benefits can be measured in a number of ways including the value of the vegetables produced, entrepreneurial value (of garden output and training of entrepreneurs), and the value of money saved on welfare expenses (the most classic measurement of them all).

At the most basic level, the economic benefit of gardens can be measured via the value of the vegetables produced. Though estimates are few and far between, most places record value in terms of dollar per square foot of growing space or dollar value of output per dollar of input and estimates average at around

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19 Ng, “War Garden Project Offers Therapy to Veterans.”
20 Crespo CJ et al., “Leisure-Time Physical Activity among Us Adults”; Rolland et al., “Muscle Strength in Obese Elderly Women.”
$2 per square foot or $6 of produce for every $1 of input (excluding the value of time). 22 However, a more meaningful statistic might be the percentage of household vegetable consumption that comes from garden plots and in some places, gardeners get 50% or more! 23, 24, 25 Although these economic values may not seem particularly significant, given the disproportionate amount of income spent by the poor on food, any budget relief can be valuable. 26 Even further, the accessibility (availability and affordability) of culturally significant foods for immigrant communities is critical. 27 Furthermore, access to food that is culturally relevant and familiar for immigrant populations has a significant positive affect on diet and health outcomes. 28 Additionally, while garden value could be maximized by growing crops with the highest market exchange value (tomatoes typically have the highest space to dollar ratio), a variety of vegetables can provide a family with a higher utility than maximum monetary value. 29

Though most gardens, especially those on public land, prohibit the sale of goods produced in community gardens, when sale is allowed, gardens can accrue benefits from gardener entrepreneurship. In San Francisco, California, the Berkeley Youth Alternatives Garden is called an “entrepreneurial garden” because it

24 Roger Doiron, “What’s a Home Garden Worth?”.
26 This is one of the strongest arguments for preferential treatment in community gardens to families of lower economic standing.
29 Roger Doiron, “What’s a Home Garden Worth?”.
allows youth to grow food (possibly transforming it into value-added products like pesto or tomato sauce) and then sell it at the local farmer’s market. Similarly, when community gardeners are allowed to sell their produce to farmer’s markets or restaurants, a small supplemental income can be garnered which might be particularly useful for families with individuals unable or unwilling to take full-time work.

Dating back to their origins, gardens are most classically measured by the amount of money saved on welfare programs. In the first and second year of Mayor Pingree’s Potato Patches (1894-1895), a total investment of about $8,600 created around $58,000 of produce for families and individuals out of work. In times of economic downturn, gardens are a clear economic benefit likely due to the fact that people have both time and energy to devote to food production.

Environmental

Finally and more to the logic of modern gardeners, community gardens can create environmental benefits for their neighborhoods and communities. These benefits can be classified into two categories, as community open green space and as direct ecological benefit.

As cities continue to densify, green, open space becomes increasingly scarce for urbanites but community gardens can help combat this trend. Whether incorporated to parks or just existing in congested neighborhoods (like Manhattan and Brooklyn), community gardens can provide green space for residents and can even beautify their surroundings. Neighborhood beautification, a side effect in some gardens, is a key element in others and the opportunity to express cultural

32 Twiss et al., “Community Gardens.”
sentiments is critical to the happiness of the gardeners.\textsuperscript{33, 34}

From an ecological perspective, community gardens can act as key part of urban systems. Just like Central Park is referred to as the lungs of Manhattan, community gardens can improve biodiversity, provide habitat, reduce noise pollution, diminish urban heat island effects, and serve as waste- and grey-water treatment sources.\textsuperscript{35, 36, 37}

**Conflicts between benefits**

Given the (non-exhaustive) long list of the benefits above, conflicts between some of them can begin to be seen. Take for example: (1) the Seattle P-Patch programs which boasts that some of their gardeners secure over 50% of their household’s annual vegetable intake; (2) many of the Guerrilla Garden projects in NYC claim that their gardens encourage cooperation and collaboration between neighbors to address larger neighborhood social issues; (3) other projects laud their local community garden as open space in which interracial children can play.\textsuperscript{38, 39} Unfortunately, the garden that boasts large volumes of produce, is unlikely to also serve as a community park and a neighborhood meeting space because of the focus on food production. Though interests do not always conflict, the ability to recognize conflicts when they arise and to know how to solve them is key to

\textsuperscript{33} Ober Allen et al., “Growing Vegetables and Values”; Hannah and Oh, “Rethinking Urban Poverty.”
\textsuperscript{34} Hou, *Greening Cities, Growing Communities*, 176.
\textsuperscript{35} Flynn, *Colony Collapse Disorder*; Hou, *Greening Cities, Growing Communities*, 28.
\textsuperscript{36} US Environmental Protection Agency, “Heat Island Effect.”
\textsuperscript{37} “CoLab Radio » Blog Archive » Can Anchor Institutions Save New Hampshire’s Polluted Great Bay?”.
\textsuperscript{38} Armstrong, “A Survey of Community Gardens in Upstate New York.”
\textsuperscript{39} “P-Patch Community Gardens: About the P-Patch Program.”
community gardens meeting most of their objectives (whatever they may be). For the sake of clarity, I will classify the conflicts into physical space conflicts, use conflicts, and term-of-use conflicts.

**Physical space conflicts**
The design of a garden somewhat dictates how it is used; therefore different designs encourage or discourage certain activities. If we assume that each garden is a fixed amount of space, how the space is apportioned for different uses can be a clear indicator of the priorities of the people who planned or use the space. For example, some of the gardens in Cambridge are almost completely devoted to growing space with only enough pathways for gardeners to get to and from their plots; others have 50% or more of their area devoted to play space. In fact, in the Sacramento Street Garden, a proposal to put a path through the park brought such fear of losing growing space that the gardeners organized a small campaign and gathered hundreds of signatures to prevent it. This is representative of one of the primary conflicts seen in gardens: growing space versus social space. Stated in another way, this is a conflict between economic benefit and social benefit. And, as always, the prioritization of one or the other depends wholly on the context. In some gardens, the idea of having 100% growing space is so antithetical to the purpose of the garden that it isn’t even a possibility. In New York City, all (or almost all) of the gardens run by Puerto Ricans have casitas. In Puerto Rico, casitas were traditionally places where men would rest from fieldwork and in NYC they serve that purpose in addition to being a place where women gather to socialize and play board games.

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40 Hou, *Greening Cities, Growing Communities*.
41 Max Harrison, “A Cambridge Community Garden.”
with less clearly delineated social spaces actually have less interaction among gardeners, though this is just a theory.\textsuperscript{43}

This conflict spreads beyond the actual use of the gardeners. Gardens devoted exclusively to food production tend to be spaces that only gardeners use though just because non-garden space exists doesn’t mean it will be used. If there is nothing for anyone else to do in the space, there’s simply no reason for others to enter the space. These gardens tend to have only aesthetic value for non-gardeners. Gardens with social or “unprogrammed” space can attract use from gardeners and from others, for better or worse. For example, the Costa Lopez and Squirrel Brand gardens both have paths through them and that tends to attract people, especially mothers with strollers, runners, and dog walkers, to use the space. In some cases, non-gardeners will even go out of their way to stop by the garden because of the visual interest it adds to their walk.\textsuperscript{44}

There are exceptions to these physical space conflicts simply because the ability for a space to be “social” or “productive” depends on the people that use it. For example, one garden in Cambridge is fully communally operated and while there is little social space, because no gardener has a “plot,” all of the space is used socially as well as for production. However, this sharing model can go the other way as well and none of the space can be perceived as social, sometimes resulting in gardeners going in to garden and then leaving immediately afterwards. Depending on the context, gardens with multiple uses may garner more support because of the ability to support multiple constituencies, broadening the base of support. In a place like Cambridge, this ability to show support of multiple constituencies may be important depending on how secure the land tenure for a

\textsuperscript{43} Hou, \textit{Greening Cities, Growing Communities}.

\textsuperscript{44} Justin Bates, “Single White Garden Seeks More Diverse Social Life: Squirrel Brand Park and Neighborhood Change.”
garden is. If the garden is totally secure (city-owned and operated), broad-based support may not matter much. In the case of private gardens, where land security may not be so clear, having a broad support base to rely upon when development pressure arises could prove to be quite useful.

Use conflicts
Similar to the physical space conflicts, there are uses that conflict by nature or generate the possibility for conflict. In some cases, these conflicts can be mediated, but in others the question is more about the underlying purpose of the garden(s).

As mentioned above, gardens often experience a conflict between production space and social space and, unfortunately, there is a perception that gardens that encourage multiple uses also encourage/enable theft. To complicate this issue, though, some say that openness of the garden encourages eyes on the garden and theft prevention while others say that garden openness encourages theft. It's unclear whether having a lock on a community garden helps to prevent theft, but over time, most community gardens do end up fenced in and locked. A 2011 New York Times article concluded with a few gardeners saying that theft might be a fact of life for community gardens and that community gardeners should simply follow the old farmer's rule and plant more than you need. 45 For some people, however, the idea of someone plucking the watermelon into which they've put so much love and resource is unbearable and the fence locks appear.

Another example of a use conflict occurs when the type of garden involves groups of people that may have different views on the purpose of the garden. The most common conflict of this type is between gardens aimed towards youth and those primarily used by older populations. The two most common types of youth

45 Finn, “Community Gardens Find Theft Is a Fact of Life.”
garden are the educational garden (which actually tend to just be a small number-of plots within operating community gardens) and the entrepreneurial garden. The nature of those uses tends towards louder and more boisterous. For older gardeners who garden as a way to commune with nature or have experience tranquility within the rush of urban life, having children running around the garden is a direct impingement. In several cases, the fact that children or youth were sharing or using the garden space actually created so much pushback and complaint from gardeners that the youth organizations chose to remove their participation from those gardens. Although some of the complaints were based on fear (i.e. noticed theft after seeing “some brown children” working in the garden) without proof, at least in the case of the entrepreneurial gardens, the use conflict is well founded. Even if there were no complaints based on interactions between different garden users, some gardeners using the garden to produce food for entrepreneurial purposes is very different from using the garden to produce food for oneself.

Again, some of these conflicts can be mediated with conversations and guidelines set out between different garden users, but in some cases, it might not make sense for certain uses to exist in the same space.

**Term-of-use conflicts**

The biggest conflict that occurs solely within gardens is the classic term-of-use conflict: how long is a gardener able to use a plot (assuming the garden follows the classic one gardener/family to a plot model) and for what? This conflict is the most simply stated while being the most pervasive in areas that have a high demand but low supply of community garden space.

Most gardeners want to use their garden plots for as long as possible which

46 Langhout, Rappaport, and Simmons, “Integrating Community into the Classroom Community Gardening, Community Involvement, and Project-Based Learning.”
47 Alex Freedman, Interview with ex-Food Corps Intern.
directly conflicts with people who want to get in the gardens. Without regulation and oversight, there is almost always a natural rate of turnover because people move away, get busy, etc. However, if there aren't formal or informal policies to ensure that a certain amount of space is turned over to new gardeners on a regular basis, gardeners tend to accrue an increasing amount of space.⁴⁶

Often city government or nonprofit management handles the term of use conflicts, but, as always, context is key. In areas where demand is closely matched with supply, external forces to maintain proper levels of plot turnover may not be necessary. However, where demand outstrips supply, there is a clear tension between many parties. (1) Gardeners who have differing opinions on who should be able to garden for how long, (2) and between gardeners and people on garden waitlists, and (3) between gardeners and the enforcers of turnover policies (either city governments or nonprofit managers).

**Conclusion**

**Community gardens as shape-shifters**

As discussed in Chapter 3, community gardens have been created for different purposes depending on the time period and specific local context. Furthermore, even within general time periods, no two communities are exactly the same and their community gardens reflect this. The earliest community garden instances were clearly geared towards food production and economic relief while later gardens seem to be positioned more towards recreation, environment, and enjoyment.

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⁴⁶ “Garden creep” can occur when a gardener ceases to maintain her garden plot and one or more adjacent gardeners tends it for her. Over time, this newly annexed space comes to be perceived of as a part of the annexer’s garden and even physical demarcations might change to incorporate this new space. Eventually, this reduces the number of distinct users of a community garden area.
It then makes sense that the benefits each garden creates vary depending on the circumstance. The question, then, is how much does the city engage in determining (and potentially changing) which benefit(s) the gardens should be trying to create.

Whoever wins out in conflicts determines how gardens are used

Although it’s somewhat obvious, the benefits that gardens create are directly related to how they are used. Whenever there is a lack of explicit purpose, the use (and therefore benefits) of a garden is determined by whoever can argue, explicitly or practically, most effectively for their position.49 Therefore, the three types of conflicts surrounding community gardens are key to understanding the benefits any particular garden provides, who gets to garden, and why. Whether city, civilian, or non-profit, any party that wants to understand or change the benefits any community garden creates must know how different benefits could possibly conflict and how to work with different parties to resolve those conflicts. This latter question was the driving force behind my primary research in Cambridge.

49 In some locations, official policy might state one purpose, but the users of the gardens may be creating benefits that are different or even in conflict with explicitly define purpose of the garden.
Chapter Overview

In this chapter, I give a brief intro overview of my research methods, including how I approached and created the plan for my primary research. I then detail my findings.

Introduction

Given the conflicts between benefits of different gardens (and therefore the gardeners espousing differing sets of benefits), the role of mediator has been taken on by either local governments, national community garden organizations such as the American Community Garden Association, or local nonprofits such as the Boston Natural Areas Network (having recently merged Boston Urban Gardeners) or Green Guerillas in NYC.\(^1\)\(^2\) Although there is some literature on the outcomes of the different managers listed above, my research focuses on the city as the balancing force because that is the situation in Cambridge (though the findings themselves point to people outside the gardens as another balancing force).\(^3\)

Assuming (for now) that the most important actors are they city and community gardeners, my primary research focuses on the latter group. Although the city as an actor should also be analyzed eventually, I have defined my research scope as the current community gardeners in Cambridge. The representatives of the community gardeners are community garden coordinators and community

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1 Charlotte Kahn, Interview about community garden history in Cambridge and Boston.
2 Saldivar-Tanaka and Krasny, “Culturing Community Development, Neighborhood Open Space, and Civic Agriculture.”
gardeners whose perspectives were gathered in focus groups. Information on the positions of gardeners was gathered through a focus group in attempt to elicit the broadest and deepest understanding of different actors involved.

Methodology

There are likely as many different types of community gardeners as there are benefits to them and capturing the wide range of their opinions and ideas is a daunting task. After many discussions with people around the city (including two former city councilors and several current city officials) and a brief overview of the literature, I realized that it is a common finding that there is little “community” among certain community gardens. The frequency of this finding deterred me from just conducting interviews and spurred me to find a research method that went beyond simply collecting information.

Why potluck focus groups?

Numerous informal interviews related to and not to my research lead to my desire to hold potluck focus groups. I chose to use focus groups as my primary data collection methods for three reasons. The first was to gather stakeholders with different opinions on the purposes and operation of gardens. My hypothesis is that the creation and function of the gardens are so different (particularly as reflected by the different formal and informal policies that govern them) that the people involved in each type are separately by several divides including social, economic, physical, and ideological. These gardeners are rarely if ever brought together and given the conclusion that there is little community among Cambridge community gardens, I wanted to experiment in bridging some of the previously mentioned divides.

4 Kurtz, “Differentiating Multiple Meanings of Garden and Community”; Firth, Maye, and Pearson, “Developing ‘community’ in Community Gardens.”
divides. Second, to create a space or at least to initiate a process of individual reflection. I genuinely believe that there are gardeners in different gardens who have no idea how other gardens (or gardeners) operate and contact with other opinions should move individuals to reflect on their own opinions. Third, I believe that the differences between the gardeners and garden types open up opportunities for creative, collective problem solving and moving forward, solutions that are supported will be much more likely to succeed if they are genuinely generated by community garden members themselves.

Preparation

Preparation for the focus group required three stages: selecting and inviting participants, designing the session, and question development.

The selection process for the group entailed requesting a full list of community garden coordinators from the Cambridge Conservation Commission (CCC) Director and then reaching out to as many as possible (only 10 of the 13 gardens have contact information for their coordinator listed). In addition, the CCC Director generously gave me a list of people who weren’t coordinators, but still had high levels of involvement in their community gardens. After contacting both groups of these people (16 people total), I found eight people who were interested in coming and six agreed and were able to come to the focus group (two others were interested in attending, but had schedule conflicts). I invited most contacts by phone call though a few were invited via email. Initially, I planned to hold a second focus group, but my brief overview of focus group literature revealed that two people

5 Max Harrison, “A Cambridge Community Garden.”
6 Jota Samper and Eric Schultheis, “Community Gardens as a Proxy for Land Struggles and Urban Activism (or How MIT Sowed the Seeds of Its Own Destruction).”
is not a large enough number to warrant a useful focus group. However, as I will explain, I believe the focus group that I held is only the first of many similar meetings that should occur in the future.

Simultaneous to the selection and invitation of group participants, I had several conversations with a professional community engagement practitioner to help design the focus groups. In attempt to avoid some of the common pitfalls of focus groups, we devised a session structure that prioritized honesty, respect for the ideas and opinions of others, creation of space to openly agree or disagree, engagement from all group members, and reflection.

In the three weeks leading up to the focus group, I designed the questions for the session in conversation with my thesis advisor, my thesis group, Nene Igietseme and Andrew Cook. I created an initial list of questions with the goals of surfacing; individual/personal objectives for gardening in a community garden context, perceived ideal objectives of community gardens at the city level, perceived understanding of current city policy, places where city objectives don’t align with gardener objectives, and opportunities/options for program improvement and alignment of objectives/incentives. I sent my initial question list to my advisor for review and she suggested pre-testing my questions by asking them to colleagues, seeing the form (hypothetical) responses took, and then modifying/improving the questions to make sure they elicited the type of answers I was looking for. I then worked with my thesis group to work and rework my questions. This iterative process lasted approximately two weeks and my question set evolved four times before landing on the final set.

8 Nene Igietseme, Designing a Focus Group.
Findings

The focus group went well and achieved some, if not all, of its primary and second objectives. Though my selection size was limited, the selected gardeners surfaced many of the differences between gardens, gardeners, the benefits gained by different approaches, and hinted at steps for overall program improvement. More expansive participation would elicit even more information. Below, I briefly overview the responses to each question.

Personal Motivation and Objectives for having a community garden plot

Responses to this question fell into three primary categories: production, social, and knowledge building. Four of the six gardeners mentioned a desire to grow food or flowers for a variety of reasons (note: none of these reasons were need-based). Some of the responses did mention the inability to get certain plants (food or decorative) unless they grew them themselves. Four gardeners mentioned social or community reasons for gardening, including wanting to “keep in touch” with the broader community and growing and learning with other knowledgeable gardeners. Three gardeners mentioned educational reasons for community gardening; either learning from other gardeners or just learning more about the earth and the environment during the gardening process.

Ideal City Objectives for Community Gardens

Five gardeners mentioned that the city should aim to enhance its social community through the community garden program in ways like building connections between disconnected parts of the community and encouraging residents to be involved with the improvement of their own physical space. Four gardeners said that the city should aim to provide growing opportunities and access to outdoor space through its community gardens. Three gardeners referred to the importance
of gardens as a tool to connect people back to nature and the environment, including through the provision of community green open space. Two gardeners said that community gardens should prioritize food production either for the gardeners using the plot or for the city as a whole (through donations or policies that encourage sharing). A different set of two gardeners discussed the educational opportunities available through gardens, both for students in primary and secondary school and for residents and families interested in learning about environmental issues such as food production and soil science. One gardener mentioned that the city should attempt to beautify itself through community gardens.

Understanding of City Objectives as represented by the current policy

At this point in the focus group, I provided the gardeners with copies of the current city policy for them to analyze and try to determine the objectives as evidenced by the policy. Some of the gardeners seemed to be unaware that this policy applied to gardens in the city.

Five gardeners mentioned that the city policy clearly prioritized providing equal access to community gardens. Three mentioned the policy’s clear preference for making the community garden system fair for people both inside and outside of it. Two each mentioned the city’s desire to limit garden tenure and to ensure a high standard of maintenance for the plots. Two gardeners mentioned the city’s community objectives, but in opposing manners: the first said that the city policy aimed to encourage community engagement with the community garden program (by forbidding locks on garden gates) while the second said the city seemed to stymie efforts at community building (via the plot turnover policy which was presumed to be too frequent). One gardener each referred to the following: the prevention of permaculture, establishment of city control, citywide standardization of policy, and garden creation.
Areas where city policy aligns and doesn't align with gardener objectives

At this point, the gardeners (in theory) have thought through their own objectives for gardening, the city's ideal objectives for community gardens, and the city's objectives as evidenced by its policy. Below I first detail the responses gardeners gave that describe the places where the city policy aligns with their own objectives as gardeners before detailing the areas that they believe do not align.

Areas of alignment: Four gardeners cited the alignment on the objectives of fairness and access. Two mentioned the attention to accessibility for those with disabilities. Two mentioned the creation of a garden coordinator as an alignment due to the need to have some sort of leadership structure within each garden. One gardener each referred to educational, communal, and environmental alignment.

Areas of misalignment: All six gardeners mentioned the fact that the city's term limit on plots was problematic; for some it was simply too short and a greater number of years would suffice, but for others, the fact that there was a term limit at all was problematic. For two gardeners, the policy is too individualistic in nature (referring to the way single-family perspective on garden plots – one plot per family). One gardener stated that the 3-year term limit on plot usage has the effect of curbing potential long-term community cohesion. Another believed that the hierarchical nature of the entire program as run by the Conservation Commissioner was problematic and slowed progress (specifically thinking about access to other city offices and resources like water and waste pickup). Finally, one gardener stated that the qualifications in the policy weren't actually sufficient for determining who should be allowed to garden.
Ideas and Opportunities for program improvement

For this section, I've included all of the ideas and opportunities that were offered (though not necessarily in the order in which they appear).

Overall Administration Program Changes

» Create multi-person entity responsible for dealing with community gardens (could be internal, external, or partially city government). This entity could take on tasks such as:

- Coordinating growing options for people on community garden waiting lists
- Coordinating opportunities for waiting list people to contribute to community gardens and move up on the waiting list
- Creating a citywide food group that handled issues related to, but not restricted to community garden plots including: yardsharing, weeding, educational growing and environmental workshops, and delivering excess produce to pantries
- Provide an external committee that makes impartial recommendations about plot maintenance standards and works with individual coordinators to enforce them
- Actively seek out and develop new garden spaces (public or private)

» Create a mailing list or online message board for community garden
coordinators and members to connect across different gardens

- Hold regular meetings of coordinators and gardeners (for political organization and for resource coordination)
- Simplify administrative burden concerning verification of garden members

**Internal Garden Administration Program Changes**

- Allow gardens to determine their own policies internally (could have a high startup cost, but could be easier in the long-run)
- Unify garden operation policies across all gardens for consistency
- Enforce specific neighborhood boundaries as requirement participation in community gardens

**Program Expansion**

- Create a “Beautify Mass. Ave” program that connects willing gardeners with business owners who have excess space at their businesses along the Mass. Ave corridor
- Develop options for people on waiting lists (yardsharing, beautification days, cleanups, etc.)
- Find small usable spaces (pocket gardens)
- Establish more gardens
ATTITUDINAL CHANGES

» Policy should be encouraging, not discouraging (i.e. policy says what you can’t do but doesn’t outline options that it encourages)

» Develop a mentality of growing food and flowers all over the city, even in small spaces

EDUCATION

» Community gardeners or program could be responsible for organizing or offering trainings and skillshares (especially between gardeners and non-gardeners)

Conclusion

Given my small sample size and sampling bias, generalizability is not an option nor was it my intention. The amount of time and effort required to capture (via sampling or not) all of the opinions of Cambridge community garden participants was not reasonable for a study of this scope. However, despite my limited data, what I will demonstrate in the next chapter is that gathering even a small sample of community gardeners can create valuable insight and generate options for program improvement.
Discussion & Conclusion

CHAPTER OVERVIEW

In this section, I will discuss my research findings as they reflect three issues: (1) the conflicts between the gardeners and the city and between gardeners, (2) how parallel (or not) the conflicts discovered are to the conflicts discussed in Chapter 4, and (3) how these conflicts relate to the frameworks discussed in Chapter 1. I will then use these ideas to make a series of recommendations, many of which include the possibilities and opportunities illuminated by the gardeners. While these recommendations may be able to stand on their own, their purpose is to represent just the beginnings of what is possible if a full participatory process is undertaken (as I will suggest in the last part of this chapter).

The conflicts

There are two types of conflict that are most relevant for program improvement: (1) the conflicts between gardeners with differing viewpoints (sometimes even within a single gardener), and (2) the conflicts between gardeners and the city.

Conflicts among/between gardeners

The conflicts between gardeners are: (1) plot tenure, (2) type of production that should be prioritized, and (3) governance styles. Though a majority of the members of the focus group had been gardening in their plots for more than three years, they are mostly in gardens that are grandfathered in and don’t follow the current city policy. There was a clear divide between the gardeners that had only gardened in newer gardens that followed the current policy and those in older

...
gardens. This raises the question of whether or not the garden policy had an effect on the perspective of the gardeners in newer gardens. To some extent, this can’t fully be seen as a determinant because even some of the gardeners in the older gardens believe that the term limit policy is good to ensure fairness and access to all residents.

The second conflict that appeared is the type of production that should be allowed in the garden spaces. There are two extremes: either community garden plots should exclusively be used for food production (some even believe in maximum productivity) or community garden plots should be allowed to be determined by the gardener using the plot. The gardeners seemed fairly evenly distributed across this spectrum. Some had attempted food production for years and upon realization of the difficulty of that approach (and tiring of theft), they transitioned to flower and perennial production. Some gardeners started out exclusively producing flowers for economic reasons: when fruits and vegetables are in season, they’re cheap (so why grow them yourself?), but flowers are always expensive so growing them will always garner more value.

The final conflict among gardeners was on governance styles: should the garden policy be determined by the city or by each individual garden? Some gardeners are of the opinion that the city should determine the policy of all of the gardens and enforce it through the coordinators. Others, in classic northeastern “home rule” tradition, seem to want little city oversight, if any at all. One complexity arose here with the fact that some gardeners want home rule and individual garden determination of policy, but city enforcement, especially when problematic gardeners were involved. It can be difficult to enforce policy as a single actor (garden coordinator), but if the weight of the city could be leveraged, this was seen to be favorable.
Conflicts between city and gardeners

The most notable conflicts between the city and gardeners were almost exclusively related to fairness and access, though from several different angles. The largest conflict is around the issue of plot tenure: every focus group gardener identified the three-year term limit on plots problematic, even as they acknowledge the appropriateness of the need for fairness and equal access. One gardener stated that three years of growing “isn’t even gardening,” while another claimed, “it takes two years just to get to know your plot.”

Another conflict, related more to access, is the seeming individualistic bent of the city policy towards single-owner plots (see item 1. in the policy – Appendix A). Several gardeners mentioned the potential benefit of multiple users in a single plot, but stated that they avoid this tendency because it seems to be discouraged by city policy.

Conflict analysis

When compared to the types of conflicts between benefits described in Chapter 3, use conflicts and term-of-use conflicts are reflected by the focus group members. Physical space conflicts aren’t apparent in this group, but that doesn’t mean they aren’t occurring. This type of conflict may not appear until actors outside of the community garden system are consulted.¹

Although not described in the literature, the different priorities for production (food vs. flowers) can be classified as a use conflict. Some gardeners think community gardens should be exclusively for food production while other gardeners prefer to grow flowers. Given the history of gardens as food production sites,

¹ Some of the conflicts are more macro than the conflicts between benefits, such as the governance issues, and some of the conflicts between benefits don’t appear in this group of people (but may appear with a wider selection of gardeners).
growing flowers and perennials is a clear break in their historical purpose, but it does not necessarily mean the desire is invalid. It does mean that if differences in opinion exist, there needs to be some decision making process for determining which of these two groups is right or if each gardener should be allowed to grow whatever she would like. Additionally, there seems to be a trend that favors flower production the longer a gardener grows. This trend is currently unexplained but collective inquiry would be useful.

The term limit conflicts between gardeners and also between the city and gardeners falls neatly within the term-of-use conflict category. The most interesting issue here is that even among gardeners currently tending plots, the city’s desire to ensure equal or even equitable access to plots is regarded well. Unfortunately, the conflict between personal motives and the public good often default to prioritizing personal motives.

The conflicts concerning varying ideas about governance do not necessarily arise as a conflict between benefits.

Limitations

My focus group sample likely has an extreme convenience selection bias because the people whom I was able to gather were the ones that responded to my contact, almost none of which was in person. 5/6 of them spoke English fluently and 4/6 were over the age of 40. Unfortunately, this bias creates serious limitations for my findings. I have only captured a narrow range of possible responses and I want to plainly acknowledge this because it will take significant effort to get responses beyond the types I have collected in my limited study. Because I contacted most of my group members by email or phone, anyone whose information I wasn’t able to gather in that way was missed by my group. Additionally, the availability to partic-
ipate in a two hour session midday on a Saturday may be an indicator of class and lifestyle. Families or individuals that weren’t contacted or that were contacted and weren’t able to participate may have circumstances (such as work or childcare) that made them unable to participate. If that subset of people has motivations and perspectives that are significant, it will take purposeful thought and creative methods to elicit their input.

**Recommendations for further research**

During the process of crafting and carrying out my primary and secondary research, a number of significant questions arose that I simply didn’t have the time or energy to answer. Some of these could be full research projects or theses on their own while others would likely just take a small amount of extra effort.

**Objectives of people on community garden waitlists**

People on waiting lists for community garden are likely as varied as people in the gardens themselves and understanding their reasons for wanting to have garden plots could be a crucial part of determining purpose and policy for the community garden program. On one hand, if waitlisters objectives somewhat mirror the objectives of current gardeners, it is reasonable to assume that gardeners could stand for the waitlisters. Given the historical shift in overall objectives for community gardens (from neighborhood activism to recreation and environmentalism), it is likely that waitlister objectives differ from gardener objectives. Therefore, their participation in the conversations concerning garden purposes and policy is even more important.

On a related note, understanding the waitlister objectives is important to add critical information to the question of whether or not community garden
space should be specified for food insecure populations. It is a common belief that community gardens space should be specifically for poorer people who would benefit from greater access to the fresh food. To that end, garden space is effectively viewed as synonymous with increased access to fresh food. However, as any farmer or gardener will know, growing food is hard work and requires knowledge, time, and resources. To think that all food insecure families would choose to spend their time growing food as opposed to other things like childcare, education, or working, might simply be unrealistic.

Understanding interests of garden neighbors
Understanding the interests of people that live and/or work around the gardens could create a number of opportunities for program improvement. The few conversations I had with people who aren’t gardeners but are often around gardens demonstrated that if a garden has no reasons for non-gardeners to use the space, then no one except gardeners feel any loyalty to protect and preserve the space. However, gardens that benefit people other than gardeners tend to garner greater attention and therefore protection when gardeners aren’t around. This can help with both surveillance (to keep spaces from being misused), creating a higher use value for the space (particularly important if the land is public), and fostering more of the social connections that gardens are so often rumored to create.

Network analyses of gardens and their gardeners
Given that community gardens are often assumed to create beneficial social ties, it could be illustrative to document exactly which types of social connections are created and what sorts of benefits those connections create. The concept of information system analysis has been applied to farming networks, but has rarely

been applied to community gardens. A rigorous application of this analytical tool would be useful for proving (or disproving) anecdotal evidence about the benefits created through community garden connections such as increased food security and political capital.

This type of analysis will likely only be relevant to the local context in which they are completed. However, if those connections are well documented, the impacts of those connections could then be causally demonstrated and this could help make a powerful argument for community gardens and urban agriculture in general.

**Conclusion**

Community gardens exist all over the world and there are thousands in the United States alone. They boast benefits covering economic, environmental, social, and physical realms and they can be used to achieve a number of these in any specific situation. Whether utilized as a supplement to social assistance, an outlet for recreation, a mental illness prescription, or green space, community gardens can clearly bring a tremendous amount of benefit.

However, their flexibility is not to be confused with panacea or perfection; they are complex, complicated land-uses and should be treated as such. Community gardens have been created for different purposes depending on time period and specific local context. And since no two communities are created equal, their community gardens reflect this and shouldn’t be treated as if they are equal. The benefits each garden creates likely vary depending on the circumstance. The question, then, is how much does the city intervene and engage in changing what

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3 Kristen Loria, “Community Garden Information Systems.”

benefits the gardens should be trying to create.

I hope that my research has clearly laid out some concrete ways the Cambridge community garden program could be improved. In addition to my research with community gardeners, my brief overview of the history of community gardens and explication of their benefits has hopefully provided a context in which the recommendations make sense. And, in the case that none of the recommendations are practicable, I hope that I have provided enough of an understanding the pathway through which other ideas could be generated and implemented (via consensus building or principled negotiation).
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Appendix A: Current Community Garden Policy

City of Cambridge Community Garden Program
Policy for City-Owned Property
Revised March 2013

1. The City of Cambridge (hereinafter "City") reserves the right to revise this policy at any time. Only one community garden plot per household is permitted.

2. Cambridge Community Garden Program is for Cambridge Residents only. Residents interested in participating must submit a signed application.

3. Priority for garden use will be given to Cambridge households with no alternative access to land on which to garden. Cambridge residents with disabilities (where the disability results in the need for an accessible plot) will be given priority for accessible (e.g. raised bed) garden plots. If in any given year, no residents with disabilities apply for a given accessible plot, that plot may be assigned to a nondisabled applicant, with that applicant’s explicit understanding that the applicant will relinquish that plot in subsequent year(s) to a resident with a disability.

4. The distribution of plots will be based on a lottery system for each new garden, conducted by the City. The lottery system will be random distribution in two tiers: first preference will be for households who do not have land on which to garden. All of these names will be grouped together, and a random draw will be conducted. If there are more plots available than new households interested, a second draw will be conducted from a pool of applicants that includes community gardeners whose term has expired and wish to continue, and Cambridge property owners who do have land on which to garden. In no case may current gardeners apply for a second plot.

5. Gardeners will be given a plot for three years, with the exception of the initial plot distribution for a new garden where one-third of the gardeners will be given a plot for a two year term. In no case shall a gardener have a plot for more than five years. After the initial lottery plots will be given to the waitlist applicants in order of application submission.

6. A minimum of one-third of the plots must turn-over annually for all new gardens (e.g. 10 out of 30 plots). This one-third turnover can be met during the course of a year in one or more of the following manners:
   - non-compliance with garden policy
   - voluntary departure
   - random distribution of garden plots from gardeners who have had their plots the longest. Persons with plots for five years must give up their plots at the conclusion of the fifth summer gardening season. If the vacancies based on the above reasons do not total 1/3 of the plots, then additional plots will be randomly selected from gardeners with plots for four years. Again, if the vacancies based on the above reasons do not total 1/3 of the plots, then additional plots will be randomly selected from gardeners with plots for three years.

7. A Garden Coordinator must be elected annually by the community gardeners. A coordinator must be a community gardener in the garden for which s/he is the coordinator. Coordinators play a critical role in each garden, and in general, handle...
the following tasks: orient new gardeners to operating procedure, coordinate trash, mulch, composting activities and clean-up days, answer questions, settle disputes.

8. If a garden coordinator is elected to a term that exceeds the length of his/her garden term, the coordinator, subject to City confirmation, will be allowed to continue to garden on his/her plot for the next year not to exceed five years. (Example, the garden coordinator has a three year term for the garden plot. At the expiration of this term, the coordinator is elected for a next year. In this case, the coordinator may be allowed to garden for a fourth year.)

9. The City will conduct a site assessment and preliminary tests for the presence of lead and petroleum in the soil, prior to a garden being initiated.

10. Garden operations must be conducted safely. Herbicides and Pesticides are prohibited. Fertilizers must be used per manufacturers' instructions; and shall not be left on-site or unattended at any time. Tools must be stored off-site, unless otherwise approved by the City; installation of a shed or any other structure must be in compliance with zoning and building requirements, and approved by the City.

11. The City will provide composters for the community garden. Different composters may be used subject to City approval.

12. Community gardens (plot layout) shall be designed with the assistance of the City. Pathways (and other common areas) and watering facilities (and other shared features) within community gardens shall be accessible, consistent with Americans with Disabilities Act (ADA) and Massachusetts Architectural Access Board (MAAB) standards and shall follow universal design principles wherever possible. In newly established community gardens, a minimum of five percent (5%), but not less than one, of the garden plots shall have raised beds (minimum 18 inches above the ground). A three-foot high, black perimeter fence will be installed by the City, as well as an appropriate water service. The City does not discriminate on the basis of disability, and will provide auxiliary aids and services, written materials in alternative formats, and reasonable modifications in policies and procedures to persons with disabilities upon request.

13. Gardeners must make efforts to keep gardens clean. Fall clean up of the garden is required: at the end of the season, all material, including stakes, must be removed. Under no circumstances will locks be installed at the gardens or individual plots.

14. Applicants will only be contacted when a garden plot becomes available for their use. Typical wait is in excess of 2 years for a garden plot.
Section 1: Personal Questions
1. [ICEBREAKER] Introduce yourself and describe ONE of your favorite things about gardening.
2. Why do you have a community garden plot?

Section 2: City Questions
1. What do you think community gardens do for the city of Cambridge?
2. What, in your opinion, are the city’s objectives for community gardens?
3. (Handout city policy right before this question)
   How, in your opinion, does city policy align with your personal objectives?
   How does the city policy not align with your objectives as a gardener?

Section 3: Ideas for improvement
1. Is there room for mutual benefit or win-win improvements? If so, where?