



2007

Measuring the Economic Impact of a Nonprofit Small Business Kitchen Incubator: A Cast Study of Nuestra Culinary Ventures

Emma Hall
University of Pennsylvania

Follow this and additional works at: http://repository.upenn.edu/senior_seminar

 Part of the [Urban Studies and Planning Commons](#)

Hall, Emma, "Measuring the Economic Impact of a Nonprofit Small Business Kitchen Incubator: A Cast Study of Nuestra Culinary Ventures" (2007). *Senior Seminar Papers*. 10.

http://repository.upenn.edu/senior_seminar/10

Suggested Citation:

Hall, Emma. "Measuring the Economic Impact of a Nonprofit Small Business Kitchen Incubator: A Cast Study of Nuestra Culinary Ventures." University of Pennsylvania, Urban Studies Program. 2007.

This paper is posted at ScholarlyCommons. http://repository.upenn.edu/senior_seminar/10
For more information, please contact libraryrepository@pobox.upenn.edu.

Measuring the Economic Impact of a Nonprofit Small Business Kitchen Incubator: A Case Study of Nuestra Culinary Ventures

Abstract

Combining food, entrepreneurship, and economic development, Nuestra Culinary Ventures (NCV) appeals to people's hearts and stomachs. Operated by Nuestra Comunidad Development Corporation, NCV is a nonprofit small business kitchen incubator located in Boston. NCV provides culinary entrepreneurs (CEs) with a low-cost, shared-use, commercial kitchen facility and a source of technical assistance. While more than 100 CEs have started food businesses at NCV, success is elusive for most. In addition, NCV has proven unsustainable, never generating enough income from kitchen rental to cover its costs. After surveying 20 CEs about their business activities from January 1 to August 31, 2007, I concluded that NCV's economic impact does not justify its high operating costs. A majority of the businesses created unstable, part-time jobs and hardly generated enough sales to sustain a part-time employee, let alone a full-time worker. This indicates that kitchen incubators are not the way to create full-time job opportunities for the underserved. None of the survey respondents had taken out small business loans during the time period studied, suggesting minimal future business growth. If Nuestra Comunidad keeps NCV open, they need to seriously restructure the program. NCV fails to provide a replicable and sustainable model for economic development and job creation. Culinary entrepreneurs must tackle the same challenges that every entrepreneur faces, and the provision of affordable kitchen space is only one ingredient in the recipe of creating financially viable food businesses.

Keywords

Urban Studies; small business

Disciplines

Social and Behavioral Sciences | Urban Studies and Planning

Comments

Suggested Citation:

Hall, Emma. "Measuring the Economic Impact of a Nonprofit Small Business Kitchen Incubator: A Case Study of Nuestra Culinary Ventures." University of Pennsylvania, Urban Studies Program. 2007.

Measuring the Economic Impact of a Nonprofit Small Business Kitchen Incubator

A Case Study of Nuestra Culinary Ventures



Emma Hall
December 19, 2007
URBS 400 - Senior Thesis
Advisor: Dr. Norman Glickman

Abstract

Combining food, entrepreneurship, and economic development, Nuestra Culinary Ventures (NCV) appeals to people's hearts and stomachs. Operated by Nuestra Comunidad Development Corporation, NCV is a nonprofit small business kitchen incubator located in Boston. NCV provides culinary entrepreneurs (CEs) with a low-cost, shared-use, commercial kitchen facility and a source of technical assistance. While more than 100 CEs have started food businesses at NCV, success is elusive for most. In addition, NCV has proven unsustainable, never generating enough income from kitchen rental to cover its costs. After surveying 20 CEs about their business activities from January 1 to August 31, 2007, I concluded that NCV's economic impact does not justify its high operating costs. A majority of the businesses created unstable, part-time jobs and hardly generated enough sales to sustain a part-time employee, let alone a full-time worker. This indicates that kitchen incubators are not the way to create full-time job opportunities for the underserved. None of the survey respondents had taken out small business loans during the time period studied, suggesting minimal future business growth. If Nuestra Comunidad keeps NCV open, they need to seriously restructure the program. NCV fails to provide a replicable and sustainable model for economic development and job creation. Culinary entrepreneurs must tackle the same challenges that every entrepreneur faces, and the provision of affordable kitchen space is only one ingredient in the recipe of creating financially viable food businesses.

Table of Contents

Preface.....	4
I. Executive Summary.....	5
II. Introduction.....	8
III. Literature Review.....	10
Introduction.....	10
History of Small Business Incubators.....	11
Definition of a Small Business Incubator.....	12
Objectives of a Small Business Incubator.....	13
Classification of Small Business Incubators.....	14
Small Business Incubator Case Studies.....	15
Success Factors.....	16
Performance Measures.....	17
Incubators as Tools of Development.....	18
Economic Impact Analyses.....	19
Job Creation and Community Development Corporations.....	21
Conclusion.....	22
IV. Background of Nuestra Culinary Ventures (NCV).....	23
History of NCV.....	23
NCV's Financial Situation.....	23
Monthly Kitchen Usage.....	25
Number of Culinary Entrepreneurs.....	27
Average Monthly Kitchen Usage per Culinary Entrepreneur.....	29
Business Growth of Current Entrepreneurs.....	31
NCV Graduates.....	32
Social Impact of NCV.....	33
Conclusion.....	34
V. Methodology for Measuring the Economic Impact of NCV.....	35
Time Frame.....	35
Population.....	35
Data Collection.....	36
Survey Response Rate.....	38
VI. Data Analysis to Measure the Economic Impact of NCV.....	40
Introduction.....	40
Key Findings.....	40

Full-Time Employment Labor Force Analysis.....	41
Part-Time Employment Labor Force Analysis	42
Full-Time Equivalent Employment Analysis.....	43
Number of Catering Events.....	44
Total Gross Sales.....	45
Loan Status.....	46
Business Satisfaction Ratings.....	47
Cost per Job Created.....	48
Conclusion of Background and Survey Data.....	48
 VII. Recommendations for the Improvement of NCV.....	 49
 VIII. Conclusion.....	 52
 Bibliography.....	 53
 Appendix 1: NCV Financial Statements.....	 55
 Appendix 2: NCV Background Data.....	 55
 Appendix 3: Monthly NCV Membership from January 2007 to August 2007.....	 56
 Appendix 4: Data Collection.....	 57
 Appendix 5: Data Analysis.....	 63
 Appendix 6: Recommendations for the Improvement of NCV.....	 70

Preface

I would like to thank Valerie Bockstette, Eileen Yang, Kristi Komendant, and Carter Romansky at New Sector Alliance for giving me the opportunity to work at NCV during the summer of 2007. I must also thank my supervisor Shoma Haque for providing me with crucial information and advice to get my thesis off to a good start, and Jeffery “JayDee” Walker for his support and encouragement. Additionally, I would like to thank my mom, who convinced me that I was working in the midst of a senior thesis topic, and that all I had to do was open up a file cabinet to discover it – and that is exactly what I did!

After I decided to write my thesis about NCV, I spent extra time at the kitchen to collect any data that I thought might be helpful once the semester started. On my last day of work, I stayed until after 8:00 P.M. making photocopies. While the copier whirred away, one of the culinary entrepreneurs, busily typing up new catering menus at the computer, stopped to give me a few words of advice. “Emma,” he said in his thick Somali accent, “I see you work very hard, but remember to relax and take time off to reflect on your experiences.” While not always relaxing, this thesis certainly gave me the opportunity to reflect on the wider impact of my work this summer at NCV, allowing me to step back and question commonly held assumptions about the effectiveness of economic development projects. He continued, “When you cook food too long, it loses all of its flavor...remember, burnt food doesn’t taste good!” And with the NCV experience fresh on my palate, I decided to spend my last semester at Penn examining how much flavor this kitchen incubator really had.

Bon appétit!

I. Executive Summary

Combining food, entrepreneurship, and economic development, the concept of Nuestra Culinary Ventures (NCV) appeals to people's hearts and stomachs. Operated by Nuestra Comunidad Development Corporation, NCV is a nonprofit small business kitchen incubator located in the neighborhood of Jamaica Plain in Boston, Massachusetts. NCV provides culinary entrepreneurs with a low-cost, shared-use commercial kitchen facility, allowing individuals to start up a business with less capital than would otherwise be needed to venture into the food industry. Furthermore, NCV provides technical assistance and resources for the entrepreneurs to support their ventures through the early years, when small businesses are most vulnerable. While more than 100 culinary entrepreneurs (CEs) have started food businesses at NCV, success is elusive for most, and only about ten businesses have graduated to start their own restaurants or move into larger facilities. In addition, NCV has proven unsustainable, never generating enough income from kitchen rental to cover its costs. After injecting nearly \$800,000 in the program to keep it afloat, Nuestra Comunidad decided to close NCV in the summer of 2006 until the City of Boston provided enough funds to keep the kitchen open. In 2007, kitchen usage remained low, and Nuestra Comunidad must continue to provide NCV with nearly \$10,000 per month to help cover its staffing costs. When confronted with an empty kitchen, I began to question whether NCV's economic impact justified its high operating costs. Thus, I set out to answer: what is the economic impact of NCV?

A review of the literature surrounding the small business incubator industry revealed that a case study of NCV would add a new dimension to past research. Few analyses have examined the value of incubators as drivers of economic growth and job creation, or surveyed entrepreneurs to assess an incubator's impact. Furthermore, case studies have focused on technology incubators, shedding little light on the unique aspects of kitchen incubators like NCV and other non-profit community development incubation programs. In addition, Nuestra Comunidad has not measured NCV's capacity for job creation recently, nor have they conducted a thorough assessment of NCV's culinary entrepreneurs within the last two to three years. Thus, this report will not only add a new dimension to incubator literature, but also provide helpful information for Nuestra Comunidad and other organizations interested in starting their own kitchen incubators.

A review of background data shows that low monthly kitchen usage and financial difficulties stem largely from NCV's focus on recruiting large numbers of entrepreneurs, rather than focusing on a small number of dedicated CEs. High levels of CEs have overstretched the incubator's staff, leaving them little time to provide technical assistance or develop NCV's fundraising and publicity activities. In order to measure NCV's economic impact, I surveyed 35 CEs about their businesses: 26 current CEs and nine former CEs/graduates. Sixty-five percent of current CEs and 33 percent of former CEs responded to the survey, and they represented the most active users of the kitchen. Thus, the data analysis provides a relatively accurate assessment of NCV's economic impact for the period from January 1 to August 31, 2007.

Overall, NCV's economic impact does not justify its high operating costs. The current CEs' businesses employed 12 full-time and 66 part-time employees during the eight months I studied, but this translated into only 20 full-time equivalency positions. This finding suggests that the businesses only created unstable, part-time employment and indicates that kitchen incubators are not the way to create full-time job opportunities for the unemployed and underserved. Furthermore, median total gross sales for current CEs was about \$9,500, a figure that could hardly sustain a part-time employee let alone provide a decent salary for a full-time employee. Current CEs were also largely dissatisfied with their businesses, and nearly all felt that "business was slow." In contrast, the three graduate survey respondents employed a total of six full-time and 15 part-time employees. Their businesses created 16 full-time equivalent jobs, indicating that their businesses provided legitimate employment opportunities. However, this study did not include the five former members whose businesses appeared to have closed, skewing the results of analysis to make it seem that graduates succeed at a greater rate than they actually do. None of the survey respondents had taken out small business loans during the time period studied, suggesting that either their businesses were self-sustaining or were not growing at a fast enough rate to justify additional investment for expansion. In addition, the cost per FTE position for current CEs was \$9,117.94 - about \$360 more than the median gross sales for those businesses. In examining these figures, it is possible to assert that most of the CEs would be better off financially if the money flowing into NCV was instead divided and offered to them as a gift!

Overall, NCV's economic impact is quite limited in comparison to the large sums of money needed to sustain the program each month. Thus, Nuestra Comunidad needs to seriously

restructure the program or evaluate whether NCV should even exist because the money invested in NCV every month could be spent on more productive projects. Possible improvements that would help both NCV and the CEs include refining the screening process for new CEs, offering more business assistance, and expanding NCV's network by recruiting mentors for the CEs. Overall, NCV fails to provide a replicable and sustainable model for economic development and job creation. Other organizations that want to start their own kitchen incubator projects must seriously consider whether they are prepared to financially support the program for the long-term and to deliver more than just a room of shiny, stainless steel appliances. Culinary entrepreneurs must tackle the same challenges that every entrepreneur faces, and the provision of affordable kitchen space is only one ingredient in the recipe of creating financially viable food businesses.

II. Introduction

“If you want to see what this state could be, head down to the former Haffenreffer Brewery complex in Jamaica Plain and knock on the door at Nuestra Culinary Ventures... The people who sign up for kitchen time here are immigrants and locals. They are Latino, African-American, and white. They are men and women. They are middle class and low income... Outside this red brick building, Boston -- in fact, the whole state -- remains remarkably balkanized... Which is why the sight of all of these people working side by side at Culinary Ventures is such a beautiful thing.”

- Yvonne Abraham, “Nurturing a dream city” in *The Boston Globe* on July 25, 2007

In July of 2007, *Boston Globe* columnist Yvonne Abraham declared Nuestra Culinary Ventures (NCV) to be one of the few places in Boston where a true cross-section of the city’s diverse population comes together. NCV provides culinary entrepreneurs with a low-cost, shared-use commercial kitchen facility, allowing individuals to start up a business with less capital than would otherwise be needed to venture into the food industry. Within this kitchen incubator, men and women from all over the world work side by side in an attempt to translate their gastronomic passions into moneymaking businesses. However, in a country where sustenance is plentiful and cheap, the challenges of breaking into the food industry are formidable, and success proves elusive for many of NCV’s entrepreneurs.

Nuestra Comunidad Development Corporation opened NCV in June 2002 with the mission “to create business opportunities, employment, and multicultural economic activity throughout Boston’s neighborhoods” (Nuestra Culinary Ventures). While more than 100 culinary entrepreneurs have started businesses at NCV and a number have graduated from the program, NCV has proven unsustainable, never generating enough earned income to cover its costs. After injecting nearly \$800,000 into the program to keep it afloat, Nuestra Comunidad decided to close NCV in the summer of 2006. However, Mayor Thomas Menino came to NCV’s aid with a \$75,000 Boston Redevelopment Authority grant, and local companies like Citizen’s Bank gave \$50,000 more.

Today, about 30 entrepreneurs use NCV, and the revenue generated from kitchen usage, storage space rentals, membership fees, and workshop fees largely covers facility costs.

Nevertheless, Nuestra Comunidad must pay NCV's staffing costs. I worked at NCV during the summer of 2007, and days went by when only one or two entrepreneurs came to use the kitchen. As a result, I often thought about whether the economic activity NCV generated was significant enough to justify the amount of money needed to keep it open. I set off to answer the question that I pondered when faced with an empty kitchen: what is [the economic impact of Nuestra Culinary Ventures?](#)

The project first reviews the literature surrounding the small business incubator industry and economic impact analyses of nonprofit organizations to determine how best to measure NCV's success. Then, the paper provides a brief background of NCV and evaluates NCV on several performance metrics, including monthly kitchen usage and the number of CEs, using existing data from the organization. NCV has not recently evaluated the businesses operating from the facility, and the core of NCV's economic impact lies in the CEs and their ventures. Thus, I surveyed 35 CEs to measure job creation and to evaluate the overall health of their businesses. After reviewing the data, I concluded that NCV's economic impact is limited, and it does not justify the incubator's high operating costs. Nuestra Comunidad needs to seriously restructure the program in order to make NCV sustainable and to increase its economic impact. If it decides not to overhaul the program, then the organization should consider closing NCV because the money would have more impact if spent on other economic development programs. On a larger scale, these findings provide insight into the effectiveness of the small business kitchen incubator model and question whether it should be replicated further.

III. Literature Review

Introduction

While Nuestra Culinary Ventures (NCV) is one of only eight urban kitchen incubators in the country, more than 1200 business incubator programs operate in the United States today (Novak 2007). The incubator concept became popular in the mid 1980s, and most incubators have opened within the past 25 years. As a result, the body of literature surrounding the concept is limited, and many aspects of the small business incubator industry have not been studied. Research focuses on recounting incubator history and refining the definition of an incubator and its objectives. Furthermore, academics have conducted surveys to develop an incubator classification system and to suggest performance measures and success factors for incubators. However, most incubator research revolves around case studies of technology incubators with little attention paid to other incubators run by community development corporations, such as NCV. Furthermore, research largely overlooks the entrepreneurs and the actual outcomes of incubators (Hackett and Dilts 2004). Thus, a study of the economic impact of NCV not only provides a case study of a non-profit community development incubator but it also shifts the focus of research to the entrepreneurs in order to determine the overall achievements of NCV.

History of Small Business Incubators

The business incubator concept emerged after World War II as a new use for abandoned factories and served as a revitalization tool for declining manufacturing centers (Aernoudt 2004). Real estate developer Charles Mancuso founded the first small business incubator in Batavia, New York in 1959 in an 850,000 square foot facility vacated by a large manufacturing firm (Hackett and Dilts 2004, Aerts et al 2007). Unable to find a tenant to rent the entire space, Mancuso subdivided the factory and rented smaller sections to a variety of tenants (Hackett and Dilts 2004). When several of these tenants began to ask Mancuso for business advice and help in raising capital, the first small business incubator was born (Hackett and Dilts 2004).

Small business incubators spread slowly during the 1960s and 70s, but interest in the concept grew as governments looked for new instruments to stimulate economic development and job creation. In the 1960s, the University of Pennsylvania constructed the University City Science Center to encourage academic research to produce commercially viable technologies (O'Neal 2005). During the 1970s, the National Science Foundation's Innovation Centers Program began to fund other projects that mimicked the University City Science Center concept (Hackett and Dilts 2004). Following the creation of the first small business incubator in 1959, few additional incubators were established, but growing support for the idea converged with a number of factors in the 1980s to cause a small business incubator boom.

American industry fell into decline during the 1980s as developing countries began to industrialize and utilize their cheap labor to capture manufacturing markets that the United States once dominated (Merrifield 1987). America's "unique climate for entrepreneurial activity" enabled the nation's economy to adjust to the shift, sparking a "small business revolution" that generated more than enough jobs, wealth, and tax revenues to offset the decline in older industries (Merrifield 1987, 278). Sure enough, the U.S. Small Business Administration released a study in 1984 concluding that small businesses created a majority of new jobs (O'Neal 2005). However, the failure rate of new businesses increased over 200% from 1967 to 1983, far greater than the rate of new business creation (Lumpkin and Ireland 1987). Lumpkin and Ireland observe that these disappointingly high failure rates led to the rise of the small business incubator, intended to provide support for new businesses to improve their chances of success (1987).

New government policies further contributed to the rise of the small business incubator in the 1980s. Congress clarified the process for commercializing solutions found through federally-

funded research through the passage of the Bayh-Dole Act in 1980, encouraging universities to develop new ways to bring their knowledge to market (Hackett and Dilts 2004). Furthermore, the legal system began to recognize “the importance of innovation and intellectual property rights protection,” encouraging entrepreneurship and invention (Hackett and Dilts 2004, 58). The U.S. Small Business Administration organized a series of conferences in 1984 and 1985 to promote small business incubation, and the National Business Incubation Association (NBIA) formed soon thereafter to provide support for the rapidly increasing number of American incubators (Allen and McCluskey 1990). Before 1980, ten small business incubators existed in the United States (Allen and McCluskey 1990). Within five years, 55 more incubators had been created, and 385 incubators operated in 1990 (Allen and McCluskey 1990). The rapid growth of incubators continues, and O’Neal observes, “New incubators have been opening at the rate of about one a week since 1986” (2005, 11).

Definition of a Small Business Incubator

The definition of a small business incubator evolved as the incubator industry grew and diversified. The U.S. Small Business Administration provided one of the earliest definitions of the small business incubator in the 1980s, stating that “a business incubator is generally understood to be a facility with adaptable space which small businesses can lease on flexible terms and reduced rents” (Kuratko 1987, 49). Once incubator research began in earnest in 1984, researchers added to this definition, noting that incubators enabled entrepreneurs to reduce overhead costs by sharing facilities and equipment with other businesses (Kuratko 1987, Merrifield 1987). They also recognized that incubators generally provided tenants with business assistance and help in obtaining capital (Kuratko 1987). Some incubators possessed graduation policies that required firms to leave the incubator within a certain period of time, often three to five years (Kuratko 1987). During the early years of the incubator industry, the networking opportunities and supportive environment for entrepreneurs within incubators were of secondary importance to the shared real estate aspects of the facilities.

Over time, researchers recognized that incubators that simply provided cheaper rents and shared facilities were not as successful as incubators that offered extensive business support. As a result, the definition of a small business incubator evolved to focus less on shared facilities and more on the nurturing environment that incubators offered to entrepreneurs (Allen and

McCluskey 1990). Allen and McCluskey identified the “synergistic effect” unique to incubators, and later researchers built upon this concept (1990, 61). For example, O’Neal stated, “the incubator is not simply a shared-space office facility, infrastructure, and mission statement...[it] is also a network of individuals and organizations” (2005, 13). While NCV provides commercial kitchen and storage facilities to entrepreneurs, the networking and knowledge-sharing opportunities also help launch businesses.

Since the rise of business incubation in the 1980s, the definition evolved from a concept anchored in real estate to a more flexible form based on networking and support. Today, the National Business Incubation Association (NBIA) defines business incubation as “a business support process that accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with an array of targeted resources and services” (NBIA 2007).” It goes on to define an incubator as a program that provides “management guidance, technical assistance and consulting tailored to young growing companies...[as well as]...access to appropriate rental space and flexible leases, shared business services and equipment, technology support services and assistance in obtaining the financing necessary for company growth” (NBIA 2007). In addition to the commercial kitchen and storage facilities, NCV provides entrepreneurs with free small business development workshops that cover a variety of concepts from product marketing to financial management. In addition, NCV staff assists the entrepreneurs with a range of issues, from refining their business strategy to finalizing catering menus and perfecting recipes. The fate of NCV depends on the success of the ventures of the culinary entrepreneurs, and the organization strives to provide as much support as it can to ensure the survival of its fledgling food businesses.

Objectives of a Small Business Incubator

While an incubator’s objectives can differ depending on its mission and operating structure, all small business incubators aim to support start-up firms during their vulnerable early years and to enable tenants to graduate from the program as viable companies capable of operating independently. Small business incubators rose to prominence in the 1980s because they helped reduce high rates of small business failure through assistance during the start-up period (Kuratko 1987). Lumpkin and Ireland elaborated on this concept, stating, “the main objective of an incubator is to facilitate the development of conditions and support systems that

will ensure successful business operations” (1988, 60). Aernoudt clarified what entailed “successful firms” as businesses that “will leave the incubator financially viable and free-standing without reasonable delay” (2004, 128). Over 100 culinary entrepreneurs have started businesses at NCV since the kitchen opened in June 2002, and about fourteen individuals have graduated from the program to open their own restaurants or to move into larger facilities.

Small business incubators strive to positively affect their local community and contribute to economic growth. For example, NCV seeks “to create business opportunities, employment, and multicultural activity throughout Boston’s neighborhoods” according to its mission (NCV 2007). However, incubators served initially as a tool to revitalize empty buildings and to create jobs (Aernoudt 2004). While many incubators still aim to fuel job creation, additional objectives include enhancing regional economic competitiveness, fostering innovation, and creating a more entrepreneurial environment in the community (Aernoudt 2004). For example, a survey of 107 European business incubators found that they most often aimed to increase the competitiveness of the local economy and to stimulate entrepreneurial spirit, which marks a departure from job creation as the main objective (Aerts et al. 2007). Overall, the goals of small business incubators, beyond nurturing start-ups to create viable graduate businesses, vary depending on the operating structure of the facility.

Classification of Small Business Incubators

Operated by a non-profit community development corporation, NCV represents just one of several types of small business incubator. Researchers began to develop a classification system for small business incubators during the 1980s. In 1987, Kuratko identified four types of incubators: public, nonprofit, university or private (1987). One year later, Lumpkin and Ireland developed Kuratko’s basic taxonomy, adding objectives for each type of incubator. They combined public and private non-profit incubators into one category because they felt both aimed to create jobs, diversify the economy, contribute to the community, and utilize vacant property (Lumpkin and Ireland 1988). University-sponsored incubators served to commercialize research, while private, for-profit incubators sought to earn returns from investments in tenant firms and generate income from rents and services (Lumpkin and Ireland 1988). However, these classifications presented problems. For example, public-private partnerships often ran incubators,

and incubators operated by universities and private corporations also sought to create jobs. Furthermore, non-profit incubators needed to generate income in order to cover operating costs.

After surveying 127 incubators in 1990, Allen and McCluskey developed the most widely used business incubator continuum. The continuum identifies four types of incubator: for-profit property development, non-profit development corporation, academic, and for-profit seed capital (Allen and McCluskey 1990). An incubator operated as a non-profit development corporation, such as NCV, seeks to create jobs while also trying to diversify the community's economic base and to generate enough income from tenants to sustain the facility. Allen and McCluskey claim that economic development officials and politicians are the only stakeholders in non-profit incubators; however, this grossly misrepresents the situation facing non-profit incubators who must also deal with the entrepreneurs, the incubator staff, and the wider community (1990). Despite the model's limits, the continuum continues to influence how researchers differentiate and examine small business incubators.

Small Business Incubator Case Studies

Since small business incubator research began in the 1980s, case studies have focused primarily on incubators for technology businesses, largely because these incubators dominate the industry (O'Neal 2005). Mian observes, "the development of new research/technology-based firms has become increasingly important in today's competitive economies" (1996, 1). As a result, governments, business leaders, and universities have cooperated to create incubators that link talent, technology, and capital to develop new firms and to encourage the commercialization of technology (Mian 1996). Case studies include examinations of technology incubators at universities (Mian 1996, O'Neal 2005), government-funded incubators in Hong Kong (Sun et al. 2007), and non-profit technology incubators in Finland (Tötterman and Sten 2005). While they shed light on the wider incubator industry, other programs, such as kitchen incubators, exist that have not been examined in scholarly literature. Thus, this case study of NCV will provide a new dimension to incubator research, providing insight into an unstudied segment of the industry.

Success Factors

Since the 1980s, researchers have investigated factors that contribute to the success of incubators. Kurtako identified five essential dimensions that every incubator needs for success: a sponsor and clear objectives coordinated with the goals of the community; a building; a well-defined and well-screened set of tenants; structured and result-oriented rent, fee, and graduation policies; and business support services (1987). In order to define the tenant base, incubators began to specialize in the late 1980s to serve specific industries (Lumpkin and Ireland 1988). Specialization, such as focusing on catering, baking, and specialty food production, creates sets of tenants with shared interests, allowing them to learn more from one another than if they worked in an incubator with a mix of tenants (Aerts et al. 2004). Furthermore, staff with experience in the incubator's sector provide more expertise and increase the value of the incubator to the entrepreneurs (Aerts et al. 2004). Nuestra Comunidad strives to hire individuals with extensive experience in the food business to run NCV. Drawing on over 20 years of experience as a gourmet chef, restaurant consultant, and founder of his own catering business, NCV's current director can provide invaluable advice to the culinary entrepreneurs. Thus, specialization is a key element of success for a small business incubator because it encourages knowledge sharing among entrepreneurs and promotes the hiring of staff that is better equipped to assist the entrepreneurs.

The success of an incubator depends on the performance of its tenants, and applicant screening processes help create a community of dedicated entrepreneurs within an incubator. Kuratko first identified that a value of a screening process to increase incubator success, but he did not provide any guidance on how to actually screen applicants (1987). Lumpkin and Ireland helped clarify the screening process, asserting that an incubator should evaluate tenants along three dimensions: management team experience, financial strength, and business concept (1988). Furthermore, Tötterman and Sten assert, "companies must not be selected just to fill up empty space," but NCV tends to accept anyone who fills out an application and takes the necessary steps to set up their business (2005, 506). This focus on the quantity, rather than quality, of entrepreneurs contributes to NCV's financial difficulties. While this paper does not focus on the provision of recommendations for the improvement of NCV, steps should be taken to improve its screening process.

While specialization and a thorough screening process contribute to creating a supportive environment within an incubator, an incubator's connections to the outside world contributes most to the entrepreneurs' success (Hansen 2000). In a study of technology incubators, Hansen observed that incubators that "offer little more than a place to set up shop" will fail (2000). However, "networked incubators" with connections to external experts, consultants, and potential business partners are more likely to succeed (Hansen 2000). Tötterman and Sten's findings from a study of three non-profit technology incubators in Finland support Hansen's claims (2005). They found "entrepreneurs who have received substantial support for the creation of business networks are more satisfied with the services provided by the business incubators than those who have not attained such support" (Tötterman and Sten 2005, 505). The creation of strong networks is not instantaneous, and Allen and McCluskey found that older incubators tended to have better results than younger facilities (1990). While an incubator can specialize in its early stages, the development of an effective screening process and a strong network can take several years. Thus, an incubator's length of existence also contributes to the success of the program and its entrepreneurs.

Performance Measures

While researchers have used various measures of success, no standard performance measure exists for small business incubators (Phan et al. 2005). Allen and McCluskey asserted that occupancy rates, job creation, graduation rates, and the state of graduated firms are useful metrics to measure success (1990). They noted that job creation should count the positions created by graduate firms. O'Neal underscored the importance of graduates and their success as a key performance measure, stating that "The existence of a graduate is...possibly the most important performance milestone" (2005, 15). Nevertheless, he still measured job creation, firm revenue, the intellectual capital of tenants, and the number of incubator staff to assess a program's success (O'Neal 2005).

In a study of the businesses located within two Swedish science parks, or areas constructed for start-up technology-based firms that provide less support than incubators, Ferguson and Olofsson compared the survival and growth rates of tenants to non-tenants over a ten year period (2004). They defined survival as the continued legal existence of the firm and growth as measured by employment and gross sales (Ferguson and Olofsson 2004). Phan noted

that incubator graduation rate as a dependent variable cannot be examined in isolation, but instead rates of different incubators need to be compared like Ferguson and Olofsson did (Phan et al 2005).

While academics measure incubator success using a variety of metrics, the National Business Incubator Association (NBIA) provides much more straightforward guidelines for measuring an incubator's impact. They outline ten basic metrics covering the most basic requests of funding sources: number of current entrepreneurs, total number of graduates since program inception, number of graduate firms that are still in business or that have merged or been acquired, number of people currently employed full-time (greater than 32 hours/week), number of people currently employed part-time (less than 32 hours/week), current monthly salaries and wages, gross revenues for the most recent full year, dollar amount of debt capital, dollar amount of equity capital raised, and dollar amount of grants raised by entrepreneurs (NBIA 2007). Furthermore, the NBIA suggests that special focus incubators, like NCV, should also gather data on the number of women, minorities, and low-income entrepreneurs (NBIA 2007).

In this paper, the number of current entrepreneurs, the number of graduates, the state of graduate firms, and the social composition of entrepreneurs will be covered in the review of NCV's background. Research gathered information regarding employment, gross revenues, and loan status, and the findings are included in this paper.

Incubators as Tools of Development

While researchers identify factors that contribute to incubator success and suggest ways to measure an incubator's achievements, few have actually assessed the actual outcomes (Hackett and Dilts 2004). Allen and McCluskey evaluated 127 incubators to conclude that they were poor real estate investments because 100 percent occupancy could never be achieved due to entrepreneur turnover and graduation (1990). Nevertheless, they found that the results from the performance analysis of the incubators were "impressive enough to justify continued incubator development" (Allen and McCluskey 1990, 64). In a comparison of the performance of technology firms located within science parks to off-park businesses, Ferguson and Olofsson found that on-park firms had higher survival rates than off-park firms (2004). However, little else has been done evaluate how well incubators meet their objectives of creating jobs and generating economic growth. Continued interest in small business incubators suggests that they are effective

tools of development, as organizations should strive to invest their money in the most productive programs. Unfortunately, money is wasted every day on doomed initiatives, and it is crucial to evaluate the effectiveness of small business incubators as engines of economic development. Thus, an economic impact analysis of NCV contributes to the scant body of literature surrounding small business incubator performance assessment.

Economic Impact Analyses

As public and private funders increasingly demand quantitative evidence of a nonprofit's impact on the community to justify funding, organizations turn to economic impact analyses to measure the effects of their activities. In a study intended to measure the economic impact of community-based homeownership programs on neighborhood revitalization, changes in single-family home prices, mortgage values, retail sales, commercial real estate sales, and crime rates over a decade were used to measure the effect of new affordable housing in five communities across the United States (Higgins 2001). While Higgins determines that the housing development positively influenced four of the five cities, the changes might have occurred due to other factors. In addition, he notes that measuring the fiscal impact of an organization requires extensive data collection in order to capture the indirect impacts, such as tax revenue increases, of the organization's spending. However, these figures are difficult to quantify, and the multipliers in such input-output analyses are often exaggerated. In light of this study, the examination of NCV does not attempt to measure the indirect impacts of the businesses on the city, such as the sales of their products at grocery stores or the purchases of ingredients, because it was too complex for the amount of time allotted for the project. Furthermore, research criticizes the gross impact analyses undertaken by arts and culture organizations, suggesting that such an analysis would overestimate NCV's true impact on the community.

Research evaluating economic impact analyses concentrates on nonprofit arts and culture organizations (NACOs), and key lessons can be taken from these studies to help design a model to measure NCV's economic impact. Throsby identifies two main impact models for NACOs (2004). Firstly, analysts demonstrate the economic activity that a project generates by comparing scenarios with and without the project. However, he states that many of these studies are poorly executed and biased, rather than objective economic analyses. Unfortunately, NCV's small size and lack of data would make it difficult to develop a scenario showing the economic outcomes

with and without NCV. Secondly, studies have been conducted to measure the contribution of the entire industry to the economy. Such analyses use input-output analyses, which show how NACOs interact with other sectors “to depict the ways in which output is produced and distributed in the economy” (Throsby 2004, 190). Input-output analyses require large amounts of detailed data. However, this has not deterred groups like Americans for the Arts to conduct such analyses to demonstrate the importance of arts and culture in the nation’s economy. In the case of NCV, an input-output analysis would require extensive cooperation from the culinary entrepreneurs, who would most likely be unwilling to participate. Thus, the narrow scope of this analysis focusing on the culinary entrepreneurs, NCV’s primary stakeholders, and their businesses is justified when time constraints and data availability are taken in account.

When American for the Arts conducted a large-scale study measuring the economic impact of NACOs and their audiences, they concluded that the arts and culture industry generates \$166.2 billion in economic activity every year (AFA 2007). They used an input-output model to measure impact, capturing both the initial expenditures of organizations and their audiences but also indirect effects of “respending” this money in the economy. For example, the model includes the effects of a NACO spending \$20 on a gallon of paint at a hardware store where the money would then help pay an employee’s wages that could then be spent at a local grocery store. The final figures incorporate total expenditures of NACOs and their audiences, full-time equivalent jobs, resident household income, local and state government tax revenue and federal income tax revenue. However, Sterngold strongly criticizes this gross impact analysis because it does not take substitution into account (2004). Consumer spending on arts and cultures means that households are spending less on other leisure activities. Thus, the gains trumpeted by NACOs are offset by losses from other sectors, resulting in minimal net impact at the national level (Sterngold 2004). Furthermore, the rationale for a gross impact analysis is size equals degree of importance, but “there is little evidence that industry size is an indicator of an industry’s significance to an area’s economic development or well-being” (Sterngold 2004, 180). Thus, Sterngold asserts that gross impact analyses are deceiving because net flows should be measured rather than total amounts.

The weaknesses of a gross impact analysis justify the different approach taken to measure NCV’s economic impact. The data required for a gross impact analysis would not only be challenging and time-consuming to collect, but it would also yield a result that could

overestimate NCV's impact. While this study's focus on the employment generated by the culinary entrepreneurs' ventures might underestimate NCV's impact, the result will be less inflated and more credible than other analyses.

Job Creation and Community Development Corporations

NCV serves as the main economic development project of Nuestra Comunidad, a community development corporation (CDC) headquartered in Roxbury, Massachusetts. Created by local community members, CDCs emerged in the 1960s to bring capital back into poor neighborhood in order to create jobs and improve the lives of residents (Halpern 1995). They have spearheaded countless projects in towns and cities across the United States, including small business financing and the development and management of retail, commercial, and residential spaces. Furthermore, many CDCs strive to improve access to quality education, healthcare, job training, and social services (Halpern 1995). In the realm of economic development, NCV functions as just one example of the great diversity of projects initiated by CDCs. Despite their myriad of efforts, CDCs have achieved "only modest success in job creation" (Halpern 136, 1995).

Boothroyd and Davis observe that CDCs largely operate to promote growth "in jobs, income, or business activity (1993, 232). CDCs began to spur job creation by encouraging businesses to set up manufacturing facilities in poor communities. However, Halpern found that "each job created required enormous financial and human effort" and that "creating one job could cost fifteen thousand dollars or more, not including training costs" (1995, 136). As a result, CDCs moved towards providing business assistance to existing firms and encouraging entrepreneurship (Boothroyd and Davis 1993). Nevertheless, CDCs face tremendous challenges in promoting microenterprises, or businesses run by one person, as evidenced by NCV's troubled past. Microenterprises require intensive, long-term support, and entrepreneurship programs prove expensive relative to the number of jobs created. Furthermore, "they also require that individuals have a certain degree of initiative and confidence in their ability to defy the odds and make it on their own, a rare enough commodity anywhere" (Halpern 1995, 142). NCV continues to experience all of these obstacles, and the cost of each job created must be determined in order to thoroughly evaluate the incubator's economic impact.

Conclusion

A review of the literature surrounding small business incubators explains their emergence as economic development tools and yields information regarding their objectives, different forms, and best practices. However, few academics have examined the value of incubators as drivers of economic growth and job creation. While researchers suggest that the success of entrepreneurs and their businesses reflect incubator performance, hardly any studies have actually examined tenants to measure incubator impact. Furthermore, case studies have focused on technology incubators, shedding little light on the unique aspects of kitchen incubators like NCV and other non-profit community development incubation programs. In addition, academics have largely supported incubators, but this study casts a more critical eye on the value of incubators using NCV as a case study. This study will also provide insight into whether the costs of operating microenterprise programs, such as NCV, justify the number of jobs created. Thus, this study of NCV will add a new dimension to incubator literature through the examination of a non-profit community development incubator's performance as measured by relevant employment and sales data from the culinary entrepreneurs' businesses.

IV. Background of Nuestra Culinary Ventures

History of NCV

Nuestra Comunidad Development Corporation (Nuestra) opened Nuestra Culinary Ventures (NCV) after a long period of planning in June 2002. Founded in 1981, Nuestra focuses primarily on affordable housing development in Roxbury, MA. In addition, Nuestra manages programs intended to foster entrepreneurship and self-sufficiency in underserved populations of Boston. In spring 1998, Nuestra inaugurated the Village Pushcarts Program with the purchase of ten pushcarts, which they rented to low-income residents of Roxbury and Dorchester. Program participants then sold products, such as books, jewelry, and incense, from pushcarts stationed around the Dudley Square Bus Station. The entrepreneurs became interested in selling food from their pushcarts, but Nuestra soon discovered that the food needed to be prepared in a commercial kitchen facility and that the pushcarts could only be stored in a licensed commissary. As a result, Nuestra began to explore to the possibility of opening a small business kitchen incubator.

Nuestra based NCV on a successful small business kitchen incubator operated by the Denver Enterprise Center in Colorado. They rented a former taco production center in the Jamaica Plain Neighborhood Development Corporation Brewery Small Business Complex and converted the space into a 5,000 square foot facility with a commercial kitchen, commissary storage, and office space. In addition to providing a suitable space for small-scale food entrepreneurs, NCV also offers small business development workshops and technical assistance to entrepreneurs to help them grow their businesses and eventually graduate from the facility.

NCV's Financial Situation

Nuestra planned to cover operating costs, such as rent, utilities, maintenance, and staff salaries, with revenues generated from renting the kitchen and storage space to entrepreneurs. Nuestra did not expect NCV to break even until Year Five (2006-2007) of operation, but they underestimated NCV's actual losses. Nuestra projected that NCV would lose \$68,000 in 2004 and \$595 in 2005. However, NCV lost about \$176,000 in 2003, \$75,000 in 2004, \$62,628 in 2005, and \$162,424 in 2006. While NCV's earned income has typically covered basic operating costs, NCV has been unable to generate enough revenue to pay for staff salaries. As a result, Nuestra has lent NCV approximately \$800,000 since 2002 to pay largely for salaries and fringe

benefits, according to Deputy Director Shoma Haque, and this money will most likely not be recouped.

Unfortunately, NCV's financial situation in 2007 has not vastly improved from past years. From January 1 to August 31, 2007, NCV generated \$66,112.40 in revenues from kitchen rents, class fees, storage space rents and membership fees. However, NCV paid \$89,480.34 in program expenses and \$65,668.14 in salaries and fringe benefits. Furthermore, administrative expenses amounted to an additional \$27,210.24. Thus, NCV's total expenses totaled \$182,358.72 in this time period before depreciation, and NCV generated only just enough income to cover staffing costs. Nuestra Comunidad donated \$75,200 and grants provided \$36,687.51 to help cover the remaining \$116,246.32 in expenses. While NCV's net income was negative \$53,493.44 as of August 31, Nuestra Comunidad expected NCV to fare even worse, predicting a negative net income of \$91,096.84. Thus, NCV is far from self-sustaining but it appears to be moving in a positive direction in comparison to Nuestra's predictions of its performance. (Appendix 1)

Monthly Kitchen Usage

NCV's financial difficulties are reflected in total monthly kitchen usage, or the total number of hours that culinary entrepreneurs (CEs) rent kitchen space in a month. NCV's monthly income consists mostly of kitchen rental fees, and this metric gauges the overall health of the incubator. Furthermore, it indicates the performance of the culinary entrepreneurs' businesses with low monthly usage suggesting that business is for the CEs. I compiled monthly kitchen usage for January 2005 to August 2007, and I did not examine NCV's early years because I could not find the data (Figure 1, Appendix 2.1).

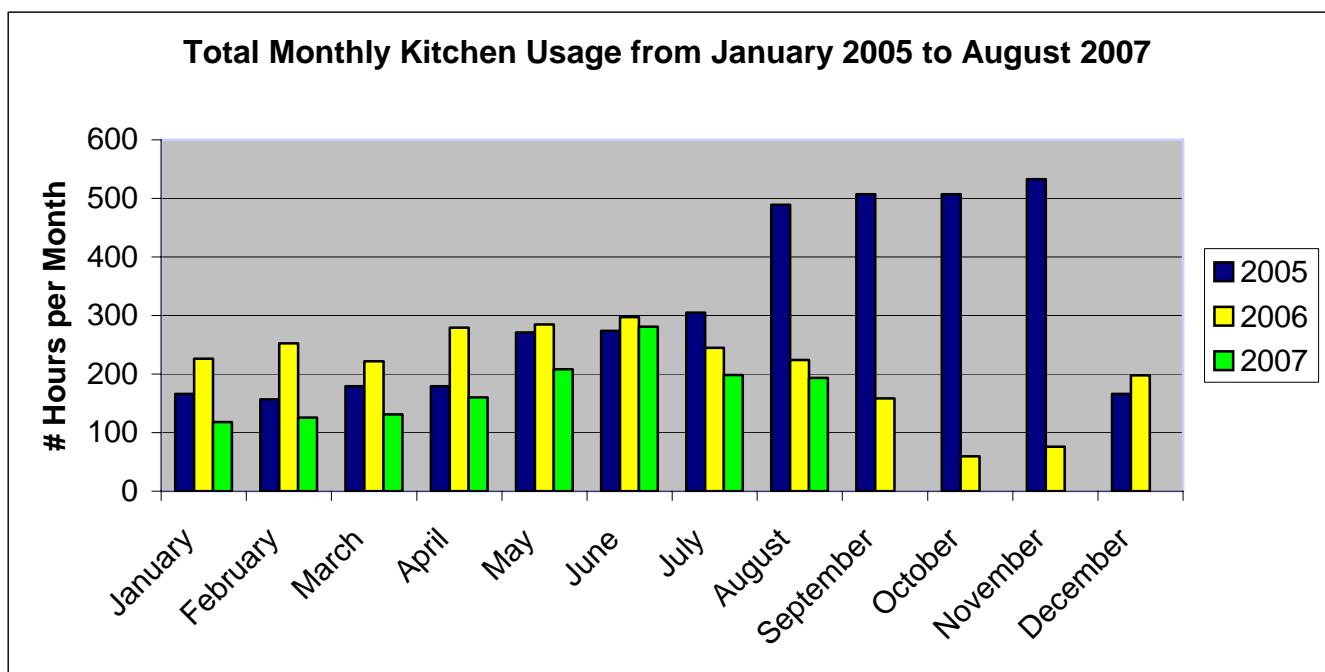


Figure 1: A chart comparing the total number of hours CE's rented the kitchen each month from January 2005 until August 2007. (Source: 2005 and 2007 data from NCV internal records, 2006 data from invoices billed to CE's for monthly kitchen rent)

According to an evaluation conducted by Nuestra in early 2006, 1152 rental hours per month (with depreciation) or 852 hours (without depreciation) would be required for NCV to breakeven. Unfortunately, NCV's usage peaked in November 2005 at 533 hours. Usage then fell precipitously in December 2005 to 166 hours, and it still had not broken 300 hours by August 2007. Low usage in early 2006 contributed to Nuestra's decision to close the kitchen in mid-2006, and kitchen usage fell gradually from June 2006 as culinary entrepreneurs left the program in search of new space. When Nuestra publicly announced NCV's closure at the end of 2006 in November, Boston's Mayor Menino provided NCV with a \$75,000 Boston Redevelopment

Authority grant and rallied support from local companies to give \$50,000 more. As a result, NCV remained open, and kitchen usage slightly rebounded from its all-time low in October 2006. However, many culinary entrepreneurs who left NCV did not return. Due to a combination of fewer entrepreneurs and less developed businesses, monthly kitchen usage from January to August 2007 fell below figures for the same period in 2005 and 2006, indicating that NCV's recovery from the near-closure in 2006 will take time.

Number of Culinary Entrepreneurs

The NBIA asserts that the number of tenants in an incubator is a key metric of impact. The number of culinary entrepreneurs (CEs) at NCV indicates how many businesses NCV has incubated and helps assess its financial health. For example, the greater the number of CEs, the larger the base of businesses to rent the kitchen and generate income for NCV. On the other hand, NCV has been historically understaffed, and with more businesses, the staff has less time to assist each entrepreneur in developing their business. Thus, NCV has found itself with a large number of slowly growing businesses rather than the ideal of a smaller number of well-performing ventures. When there are fewer businesses, staff can spend less time on administration and more time on organizing business development workshops, mentorship programs, and fundraisers. I collected data regarding the total number of CEs per month at NCV in several ways. I uncovered internal records for 2005 showing the number of CEs each month, but I could not find similar records for 2006 or 2007. Thus, I used invoices to recreate a list of active businesses and their monthly usage for 2006, and 2007 data was compiled from internal records (Figure 2, Appendix 2.2).

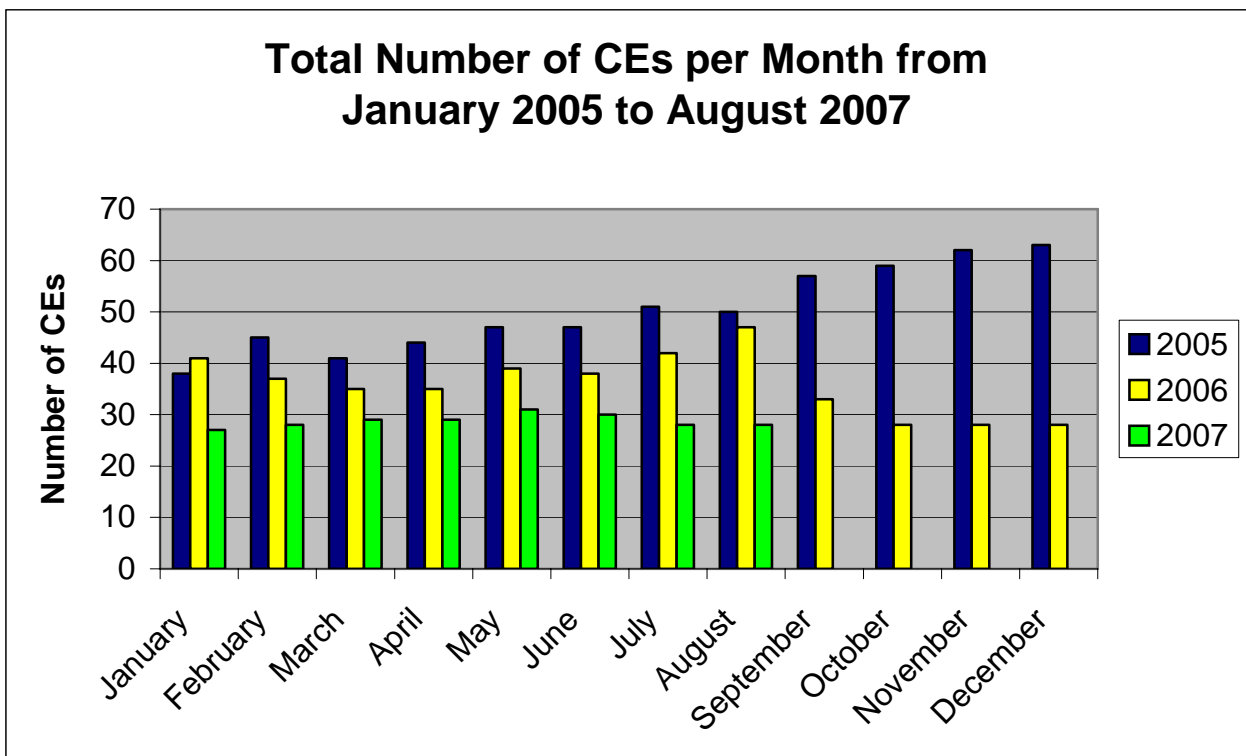


Figure 2: A chart showing the total number of culinary entrepreneurs who were members of NCV each month from January 2005 until August 2007. (Source: 2005 from NCV internal records of monthly membership numbers, 2006 derived from invoices billed to the CEs for kitchen rent, 2007 derived from NCV internal records of monthly kitchen records)

The number of CEs at NCV increased over 2005, reaching a peak of 63 in December. The drop from 63 to 41 in January 2006 can be partially explained by the method of counting the number of CEs working at NCV. The 2005 internal records did not explain how they reached each month's total; thus, I developed a new method to analyze the 2006 and 2007 data. I counted only CEs who had rented an hour or more of kitchen space in 2006 and 2007 in the January 2006 total, leaving out a number of businesses who still appeared in NCV records but who did not rent kitchen space during that time (Appendix 3). The number of CEs hovered around 35 to 39 from February to June 2006, and then increased to 42 in July and 46 in August as new CEs joined NCV. However, Nuestra announced to CEs in August that the facility would close at the end of the year, and twelve businesses that had joined NCV between May and August 2006 promptly left. An additional seven businesses established before May 2006 left NCV by September 2006, contributing to the decline in the number of CEs from 46 in August to 28 in October. However, the level of CEs remained the same through November and December after the announcement that NCV would stay open. Two businesses left NCV at the end of 2007, but another CE joined and the level of CEs fell to 27 in January. Through August 2007, the number of CEs at NCV has ranged from 27 to 31.

Since January 2007, NCV still has not been able to generate enough rent to cover its costs, making it clear that the program needs to change. In the past, the focus has been on recruiting more CEs; however, this has led to high business failure rates. The strategy has now shifted to strengthening current businesses to increase their need for kitchen space and to encourage graduation. Thus, NCV is in the process of focusing impact on a smaller number of dedicated entrepreneurs to ensure higher rates of success rather than spreading its resources over a larger number of businesses.

Average Monthly Kitchen Usage per Culinary Entrepreneur

A CE’s monthly kitchen usage is a helpful indicator of the state of their business - the more time spent in the kitchen, the better their business is most likely faring. The average number of hours of monthly kitchen usage per CE can be calculated using total monthly kitchen usage and the total number of CEs per month. This analysis provides insight into the overall health of the businesses at NCV from January 2005 to August 2007 (Figure 3, Appendix 2.3).

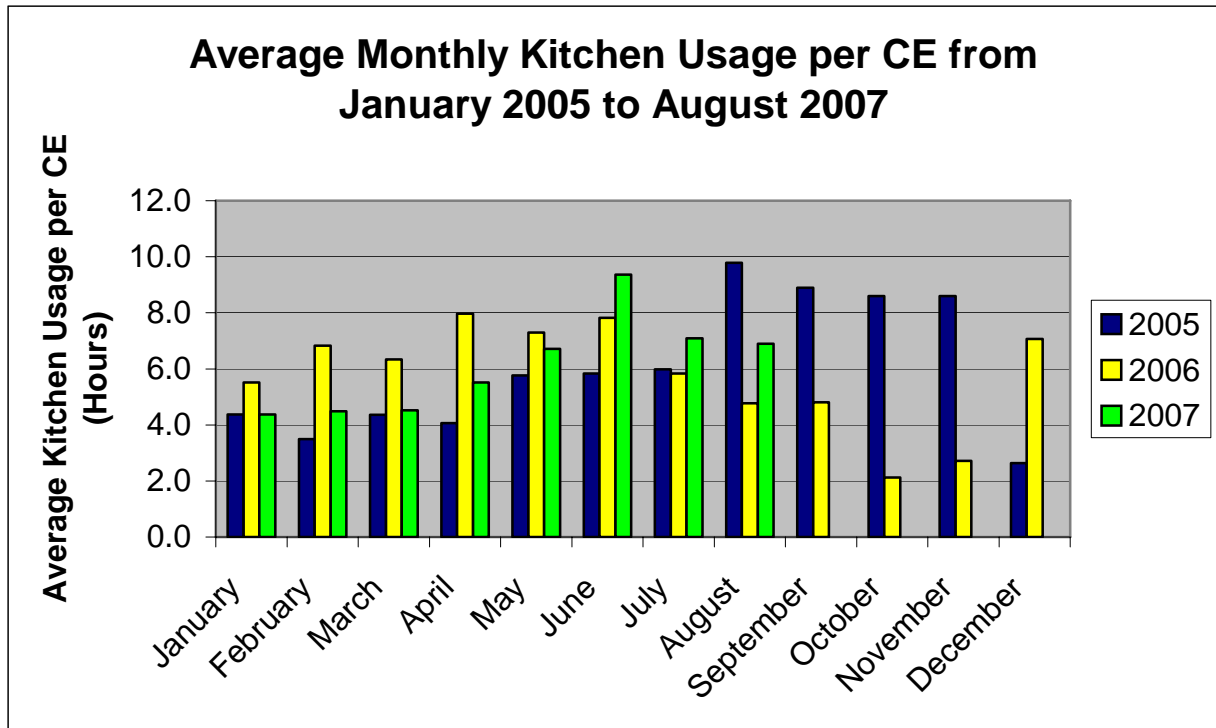


Figure 3: A chart comparing average monthly kitchen usage in hours per CE from January 2005 to August 2007. (Source: Divided total monthly kitchen usage by total number of CEs per month)

Average kitchen usage per CE never rose above ten hours per month over the course of the 32 months. This figure is somewhat alarming, as I doubt whether any full-time employment or how many stable part-time jobs could arise from businesses using the kitchen so little. In 2005, kitchen usage was at its highest levels with an average monthly usage of 311 hours in comparison to 210 hours per month in 2006 and 118 hours in 2007. However, 2005 also had the highest number of CEs using the kitchen with an average monthly total of 50, in contrast to 36 in 2006 and 29 in 2007. Average monthly kitchen usage per CE in 2005 was less than or equal to corresponding 2007 figures from January to July, indicating that NCV’s current businesses are larger and more active than the ventures in 2005. Furthermore, this supports the assertion that

NCV should focus resources on developing a smaller number of businesses, rather than aiming to sign up as many CEs as possible.

In 2006, the average monthly kitchen usage per CE from January to August was 6.6 hours, in contrast to 6.1 hours for the same period in 2007. While average monthly usage in 2006 was greater than average usage in 2007 through May, the 2007 average surpassed corresponding 2006 figures in June. Sure enough, 2007 has the highest overall average monthly usage per CE of 6.1 hours in contrast to 5.8 for 2006 and 6.0 for 2005. NCV has fewer CEs now than it did in both 2005 and 2006, further suggesting the importance of focusing on the quality, rather than the quantity, of CEs. Nevertheless, six hours of kitchen usage per month is hardly enough to support a business that can generate stable full-time jobs. While average monthly usage per CE is improving, NCV must continue helping CEs to grow their businesses, which will hopefully increase kitchen usage and augment NCV's monthly income.

Business Growth of Current Culinary Entrepreneurs

While data regarding graduation rates and graduate survival is limited, information like total kitchen usage over time can be used to illustrate the growth of current businesses. Eight CEs used NCV from January 2006 through August 2007, and a comparison of their total kitchen usage from January through August 2006 to the same time period in 2007 provides insight into the development of their businesses within NCV. I removed two businesses from the analysis because neither kept track of their hours of kitchen usage. However, one of these businesses graduated and the other has grown significantly, operating from NCV but manufacturing products elsewhere. Thus, this analysis focuses on the six CEs still working at NCV (Figure 4, Appendix 2.4).

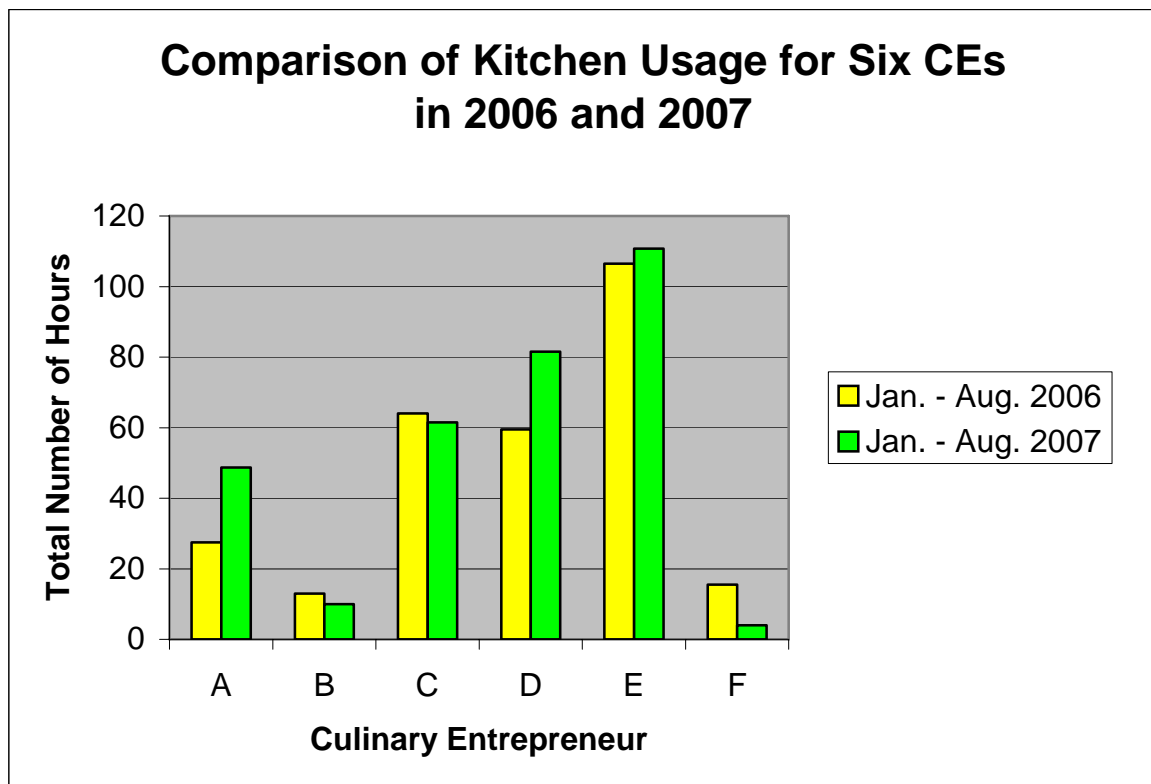


Figure 4: A chart comparing the total kitchen usage in 2006 and 2007 from January to August for six CEs. (Source: 2006 data from invoices billed to CEs for kitchen rent, 2007 data from NCV internal records of kitchen use)

Amongst the culinary entrepreneurs in the comparison, kitchen usage increased for three businesses (A, D, E) and decreased for three businesses (B, C, F). Kitchen usage increased 3 hours for E, dropped 3 hours for B, and 2.5 hours for C, suggesting that the size of those businesses has remained about the same from 2006 to 2007. F's kitchen usage dropped

dramatically from 15.5 hours to 4 hours, but this decrease is largely due to the fact that the culinary entrepreneur had a baby, leaving her with less time for the business. Kitchen usage increased about 20 hours for both A and D, indicating that their businesses are growing. Overall, two businesses appear to be growing strongly, while three appear to be stagnant and one is decreasing in size. This analysis indicates that NCV should provide more assistance to older businesses to help them graduate from the program.

NCV Graduates

Both academic literature and the NBIA emphasize that the number of incubator graduates is a critical measure of an incubator's success. Unfortunately, NCV has not kept track of its graduates. After going through old files and following up with possible success stories, I compiled a list of graduates this past summer. While more than 100 businesses have started at NCV according to their literature, an initial search only yielded 10 definite graduates. Two caterers have started restaurants in the Boston area, three bakers have opened their own kitchens, and two specialty food producers now operate their own manufacturing facilities. An additional caterer, baker, and specialty food producer have moved into different kitchens, but their businesses continue to operate. Three additional businesses are considered graduates, but very little is known about their current state. Thus, about 10 businesses have graduated from NCV in the past five years and appear to remain viable. This roughly translates into a 10 percent graduation rate, and NCV's survival rate is slightly higher because there are several businesses that have survived more than two years but have not yet graduated from the program. In contrast, 67 percent of new employer firms across the country last two years, and 44 percent last more than four (U.S. Small Business Administration 2006). Ideally, NCV's graduation and survival rates would be compared to that of other kitchen incubators but collecting such data fell outside of the realm of this project. Nevertheless, it is safe to say that none of those businesses could have started without NCV, and additional research in this area would be valuable in gaining a greater understanding of NCV's impact.

Social Impact of NCV

Nuestra Comunidad strives to enhance “the physical, economic and social well-being of Roxbury and other underserved population in greater Boston” (Nuestra Comunidad Development Corporation). In reflection of this mission, key metrics of NCV’s impact are the percentage of entrepreneurs who are female, minorities, Boston residents, and/or low- to moderate-income. In order to assess NCV’s social impact, I compared data found in an early 2006 internal evaluation of NCV to data about NCV’s members in August 2007 (Figure 5, Appendix 2.5).

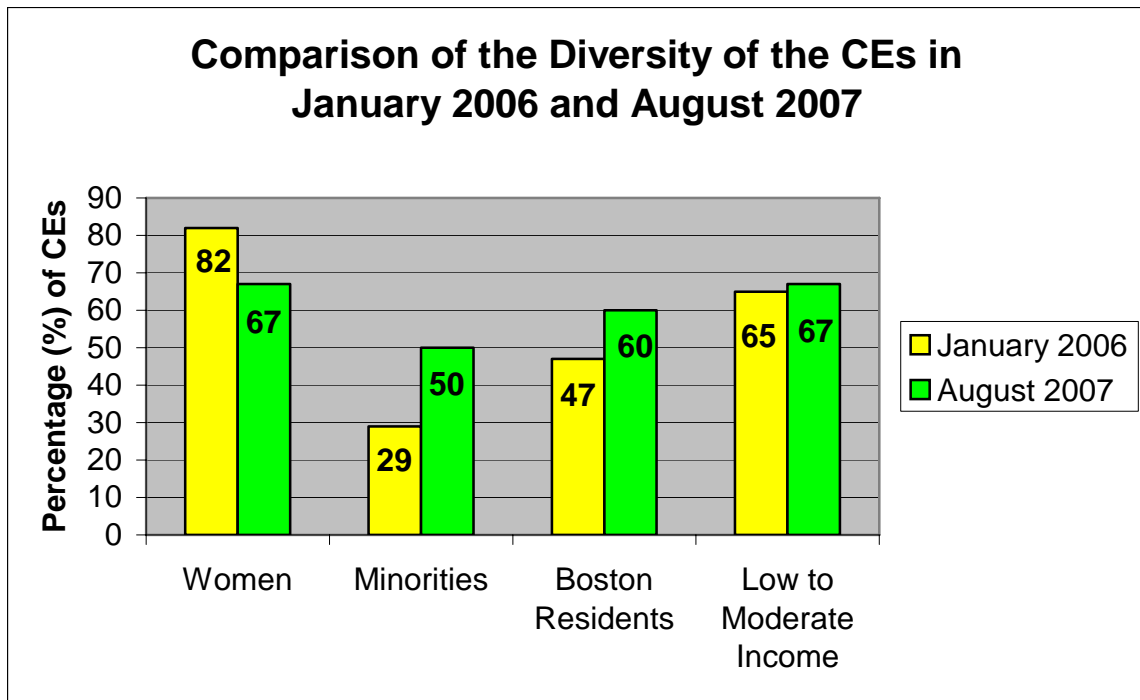


Figure 5: A chart showcasing the diversity of NCV’s membership. (Source: 2006 data from NCV internal evaluation, 2007 data compiled from various internal documents about CEs who were NCV members in August 2007)

Overall, the profile of culinary entrepreneurs has grown more in line with Nuestra Comunidad’s mission from January 2006 through August 2007. Half of the CEs belong to a minority group (Hispanic, Black, Asian, or Other), two-thirds more than the proportion of minorities in January 2006. Furthermore, a majority of CEs now live in Boston, rather than its wealthier suburbs. The percentage of female entrepreneurs fell 15 percentage points over this period; however, this greater balance between men and women better reflects the composition of the wider population. The percentage of CEs from low to moderate-income households slightly increased, indicating that NCV has succeeded in providing economic opportunities for Boston’s

underserved populations. While NCV has struggled financially, its base of culinary entrepreneurs reflects its mission and captures the diversity of the city.

Conclusion

A review of total monthly kitchen usage, total number of CEs, average monthly kitchen usage per CE, business growth for six CEs, NCV graduates, and the composition of the CE population contributes to a greater understanding of the root of NCV's financial troubles. Furthermore, the analysis yielded possible improvement strategies for NCV, such as focusing on building a solid base of dedicated CEs rather than a large base of infrequent users and hobbyists. However, none of these metrics provide relevant data about the state of the individual businesses. Job creation, gross sales, and loan status are key measures of economic impact that NCV has not examined. Thus, I sought to gather this data about the businesses operating at NCV from January 1 to August 31, 2007 in order to determine NCV's economic impact on the community.

V. Methodology for Measuring the Economic Impact of NCV

Time Frame

Data collection focused on the business activities of the CEs who used NCV's facilities at any point from January 1 to August 31, 2007. I selected this time frame for a number of reasons based on the history of NCV and the availability of data. Firstly, Shoma Haque was available to provide financial statements for NCV for this time period, allowing me to determine the cost of running NCV. In order to determine the economic impact of NCV, I needed to gather information from the CEs. As I know many of the current CEs through my summer internship, I concluded that I was much more likely to get responses from them compared to members from previous years. Furthermore, most current CEs joined NCV during 2007, so their businesses would not have existed before this year. In addition, the survey's focus on business information from 2007 increased the chances that the CEs would be able to answer the questions without needing to look back at their records, in turn increasing the chances that they would respond to the survey.

Population

The target population targeted for surveys consisted of all CEs who used the kitchen for at least one hour from January 1 to August 31, 2007. Using both invoices and internal records, I determined that 38 culinary entrepreneurs fell into this category. NCV staff began to record monthly kitchen usage for each culinary entrepreneur in March 2007. Thus, I partially used internal records to compile the list of CEs for my survey population. In order to determine which CEs used the facilities in January and February 2007, I reviewed invoices within the accounting system. NCV sends out invoices to culinary entrepreneurs when they use the kitchen; thus, the invoices provide information about which businesses are using the facility and for how long. As a result, the invoices allowed me to complete the list of culinary entrepreneurs who used NCV's facilities at any point from January 1 to August 31, 2007.

I compiled contact information for each entrepreneur from various internal documents. If I could not find contact information in NCV records, I used the information supplied on each entrepreneur's membership application. I then removed several CEs from the initial population of 38 entrepreneurs. I did not contact one business because all of its kitchen usage from January

to August 2007 consisted of product testing, and she sold no units during that time. I removed two additional businesses from the population because they were not current members and they had only used the kitchen for 1.5 hours or less in the eight-month period. Thus, I contacted 35 culinary entrepreneurs: 26 current members and 9 former members.

Data Collection

I used surveys to gather information about the different businesses operating at NCV from January 1 to August 31, 2007 in order to measure the economic impact of NCV. Firstly, the surveys sought to capture the number of jobs created by each firm, as job creation is a key measure of economic impact. Secondly, the survey intended to measure the scale of each firm as demonstrated by the number of catering gigs completed or by the number of units sold, as well as total gross sales for the time frame. Thirdly, it asked whether the entrepreneur had received a loan because taking out a loan signals business growth. Lastly, the survey asked the entrepreneurs to rate how satisfied they were with the business and to explain why they felt this way. I believed that this question would help measure the health of businesses at NCV. I used two surveys in the research, one targeted towards current CEs, or people still at the kitchen today, and the other towards former CEs, or individuals who graduated from NCV sometime between January and August 2007. Both surveys asked the same questions but with slightly different wording.

Current CEs

I initially sent surveys to 26 current CEs via email. I defined current CEs as individuals who had rented kitchen space for at least one hour from January to August 2007 and who were still members of the kitchen on August 31, 2007. A CE remains a member of NCV until they formally leave the program and receive their deposit back. Thus, while several entrepreneurs had used the kitchen for only one to two hours during the eight-month period, I still considered them current members because they had not officially left the program.

I sent an introductory email to all 26 current CEs on Friday, October 12. The email explained the research project and contained the survey both within the body of the email and as an attachment. I sent different surveys to caterers and to bakers/specialty food producers. While people were welcome to reply via email, I explained that I would follow-up with a phone call

over the next week. I intended to conduct most surveys over the telephone, as I knew from my experiences working the CEs this past summer that they would not be very responsive to an email. (Appendices 4.1 - 4.3)

Two entrepreneurs responded to the email with the completed survey, and a third requested that I set up an online survey to ensure that the responses were anonymous. Thus, I created a survey on SurveyMonkey (www.surveymonkey.com) and resent the link to all current CEs who had not yet responded to my email (Appendix 4.4). I collected all surveys through email, over the phone, or from the online survey.

Former CEs

I initially requested nine former CEs to complete surveys. All of the former CEs had left NCV at some point between January and August 2007. Five CEs had graduated from the program into bigger facilities, and three entrepreneurs left NCV for other reasons. I sent an introductory email to all of them on Thursday, October 18. The email explained the research project and included a link to an online survey. I also said that I would follow-up with a phone call over the next week as I expected that most of them would not be responsive. (Appendices 4.5 - 4.6)

Survey Response Rate

Fifty-seven percent of CEs in the total survey population of 35 responded to the surveys: 17 current members out of 26 (65 percent response rate) and three former members out of the nine initially targeted (33 percent response rate). The collected data represents the core of active businesses at NCV. Thus, the data analysis yields relevant results that solidly reflect NCV's true economic impact.

Among the nine current members who did not respond to the survey, one business rented only 3.5 hours of kitchen time solely for recipe testing during the first eight months of 2007, and it had not sold any products by August 31, 2007. Three businesses each rented less than four hours of kitchen space over the entire eight-month period, indicating that their businesses were not successful or merely just "hobbies." Such businesses would generate no permanent full-time or part-time jobs, thus they were deemed "unnecessary" for data collection. An additional nonrespondent used the kitchen for only 38.5 hours over a single weekend during the entire eight months. Similar to the businesses mentioned above, this seasonal business generated minimal lasting economic activity, and it would not add to the overall analysis of NCV's economic impact. Shoma Haque noted that two other nonrespondents had left NCV with unpaid bills and that they would not respond to the survey for this reason. Both businesses rented 15 to 30 hours of kitchen time over the course of the eight months, much less than NCV's other more active businesses. Lastly, two additional culinary entrepreneurs chose not to participate in the survey. However, one nonparticipant used the kitchen less than ten hours over the eight months, and the other nonparticipant used the kitchen sporadically, suggesting that the business was more of a hobby rather than a source of employment. Thus, all of the businesses that did not respond to the survey generated minimal economic impact, and they would have had little effect on the final results of the analysis.

Among former members, this year's three most notable graduates responded to the survey. One nonrespondent only used the kitchen for one month before leaving NCV, and another left NCV after two months with unpaid bills. Two more active kitchen users graduated from NCV, but it appears they are no longer operating their businesses because both company websites have closed. Due to the unfortunate state of their businesses, it was expected that these culinary entrepreneurs would not respond to the survey. Furthermore, their businesses generated little economic activity to add to the analysis. An additional culinary entrepreneur graduated

from NCV during the past eight months, and the business is performing well so far in its new facility. Unfortunately, she did not respond to the survey, and the NCV's economic impact will be slightly underestimated without this data.

Overall, the survey received a positive response rate from the culinary entrepreneurs, and the gathered data represents a cross section of the businesses at NCV, including both daily users and individuals who use the kitchen every few months. Except for one, the businesses that did not respond to the survey would have added minimal data to the analysis. For example, some had not yet started to sell products, while others used the kitchen so infrequently that it would have been impossible for the businesses to employ any permanent full-time or part-time employees. Thus, the following data analysis provides a fairly accurate portrayal of NCV's economic impact on the community.

VI. Data Analysis to Measure the Economic Impact of NCV

Introduction

I conducted the following analyses for data from both current and former members: full-time employment labor force analysis, part-time employment labor force analysis, full-time equivalency (FTE) analysis for full-time and part-time employment, number of catering events, total gross sales, loan status, and current business satisfaction ratings and comments. Finally, I calculated the cost per job created by NCV. The subsequent sections contain more detailed data analyses, but the key findings are listed below.

Key Findings

	Current CEs	Former CEs
Employment:	n = 17	n = 3
<i>Total Full-Time Employees</i>	12	6
<i>Total Part-Time Employees</i>	66	15
<i>Total FTE Positions</i>	20	16
Gross Sales:	n = 14	n = 3*
<i>Total Combined Gross Sales</i>	\$251,530.72	\$310,000
<i>Median</i>	\$9,476.86	\$42,000
<i>Range</i>	\$2000 - \$65,000	\$18,000 - \$250,000
<i>Total Combined Profits **</i>	≈ \$25,000	≈ \$31,000
Loan Status:	n = 17	n = 3
<i># Loans Taken Out</i>	0	0
Business Satisfaction:	n = 15	n = 3
<i>Average Satisfaction Rating</i>	5.33	9
Cost per Job Created:	\$9,117.94	5,065.52 ***

* Two former CEs reported total gross sales, and I estimated the third's total gross sales from number of units sold and cost per unit.

** Assuming 10% profit margin

*** Cost per job based on total number FTE positions created by current and former CEs divided by \$182,358.72, NCV's total expenses from January 1 – August 31, 2007

Full-Time Employment Labor Force Analysis

A full-time employment labor force analysis provides the total number of part-time employees hired by all of the survey respondents. However, it does not take into account how many part-time employees are hired in a typical week or how many hours they work. In order to provide some depth to this analysis, I evaluated full-time employment data alongside total gross sales, units of product sold, and number of hours worked in a typical week.

Current CEs

Initial survey results showed that nine businesses created 12 full-time jobs. However, I needed to qualify these claims by examining each business's total gross sales, units of product sold, and kitchen usage for the period of study to determine the quality of the full-time jobs. One business brought in \$65,000 in total gross sales, indicating that the business could indeed support two full-time employees. Two additional businesses had total gross sales of \$20,000 - \$25,000, suggesting that both firms could each provide one full-time job. After joining NCV in April 2007, another business had generated about \$10,000 in sales and the CE left her job to dedicate herself to the venture, supporting the business's claim to one full-time employee. Another CE has recently left her job to dedicate herself to her business, creating one more full-time job. A sixth business did not provide total gross sales but did report 150,000 total units sold, adding that the upcoming holiday season was the busiest time of year. This large number of sales implies that the business could also easily provide the one full-time job it reported. Lastly, one business chose not to provide total gross sales data, but it did cater 26 events during the eight-month period, which could support two full-time jobs. Thus, an examination of the data for seven businesses determined that they could plausibly support the nine full-time jobs they reported.

(Appendix 5.1)

The two remaining businesses appeared to overstate the employment they generated. One business reported one full-time job with \$15,000 in sales and 10,000 units of product sold through August 31. However, the employee only worked 15 hours in a typical week, which suggests that this should be considered a part-time job. Similarly, another business reported two full-time employees and \$30,000 in gross sales, but each employee worked only 2.5 hours in a typical week. Furthermore, the business had only rented 10 hours of kitchen time at NCV from January to August 2007. This business appears to be a hobby, and it does not generate any stable

employment, full or part-time. In order to take into account the huge variation in the reported number of hours a full-time employee works in a typical week, a full-time equivalent analysis will be conducted to more fully examine NCV's economic impact.

Former CEs

The businesses of NCV's three graduates employed six full-time employees from January 1 to August 31, and their gross sales data support their employment claims. The first business reported \$42,000 in gross sales, demonstrating that the business could indeed employ a full-time employee. The second CE believed his business had generated \$250,000 in gross sales, which is enough to employ four full-time employees. While unsure of total gross sales, the third business had sold several thousand units of product and graduated from NCV into his own facility, implying that the business had indeed created one full-time job. The businesses of NCV's recent graduates generated six full-time jobs overall. (Appendix 5.2)

Part-Time Employment Labor Force Analysis

A part-time employment labor force analysis provides the total number of part-time employees hired by all of the survey respondents. However, it does not take into account how many part-time employees are hired in a typical week or how many hours they work.

Current CEs

Fifteen CEs reported hiring a total of 66 part-time employees. However, they hired only 40 part-time employees in a typical week, and these employees worked anywhere from 2.5 to 18 hours per week. Due to the variation among the number of part-time employees and hours worked, a full-time equivalency analysis is needed to help clarify the part-time employment situation in a typical week. (Appendix 5.3)

Former CEs

Initial survey results reported that three businesses employed 15 part-time employees. However, they hired only 12 part-time employees in a typical week, and these employees worked between 10 and 30 hours. One business employed eight workers, each working 20 hours every week. The second business reported five part-time employees. However, only two people

worked for 30 hours each in a typical week. The third business hired two part-time employees per week to work 10 hours each. The variation in the number of part-time employees and the amount of time they work necessitates a full-time equivalency analysis to assess part-time employment properly. (Appendix 5.4)

Full-Time Equivalent Employment Analysis

A full-time equivalency analysis multiplies the number of individuals employed in a typical week by the number of hours they each work in a typical week and then divides the value by 32 to determine how many full-time equivalent jobs are created. I used 32 hours, instead of 40 hours, because the NBIA considers 32 hours or more of work per week as a full-time job when calculating an incubator's job creation. This analysis provides insight into the true amount of employment created by NCV's entrepreneurs because it takes into account the wide range of working hours for people employed in a typical week. However, it does not take into account how many typical weeks there are for each CE. I conducted the analysis separately for full-time and part-time employment data to assess the quality of the jobs created within each category.

Current CEs

A labor force analysis of the employment data for 17 current CEs yielded 12 full-time jobs and 66 part-time positions. Furthermore, 40 part-time employees were hired in a typical week. Due to the wide range in the number of employees hired each week and the amount of time they worked, an analysis was conducted to determine the number of full-time equivalent jobs (FTEs) created in a typical week. The analysis yielded a total of 20 FTEs: nine FTEs from the full-time employment data and 11 FTEs from the part-time employment data. The staggering difference between the number of reported jobs and the number of FTEs suggests that most of the businesses do not provide sufficient part-time employment, let alone full-time employment, for the culinary entrepreneurs. Furthermore, most of the jobs are one-time opportunities that fail to provide any sort of stable employment. (Appendices 5.5 - 5.6)

Former CEs

A labor force analysis of the employment data for three NCV graduates yielded six full-time positions and 15 part-time jobs. A full-time equivalency analysis for a typical week yielded 16 FTEs: eight FTEs from the full-time employment data and eight FTEs from the part-time employment data. The similarity between the reported number of jobs and the number of FTEs indicates that these businesses are maximizing their workers and creating solid full-time and part-time employment opportunities. (Appendices 5.7 - 5.8)

Number of Catering Events

I asked the CEs the number of units sold or the number of catering events completed over the eight-month period to provide an additional measure of business size, which I felt would be helpful if they did not reveal their total gross sales. While units of product differ, catering events are more standard, and they can be compared among businesses, providing insight into the size and activity of the businesses.

Current and Former CEs

Ten respondents were caterers, and they catered a total of 238 events over the eight-month study. The average number of events per caterer was about 24, and the median was 20. However, the number of catered events ranged from one to 106 events. Over the course of 35 weeks, all but one caterer averaged less than one catering job a week. Drawing on data from gross sales, the average revenue for one catering event was about \$1700. If a caterer only completed one event for \$1700 every week, their business would generate \$59,500 in total gross sales and profits would be much lower. Only one caterer is above this level of total gross sales, suggesting that business is slow for nearly all of NCV's current caterers. In contrast, NCV's graduate caterer completed about 250 events in the same time period, catering the same number of events in a week as all of the current CEs combined. (Appendix 5.9)

Total Gross Sales

According to the Shoma Haque, the CEs would not want to provide profit data, but they proved more willing to share total gross sales for the period of study. Total gross sales indicate the size of the business and help clarify employment data.

Current CEs

The combined total gross sales for the 14 culinary entrepreneurs who answered the question were \$251,530.72. The average total gross sales for the eight-month period of study were \$17,966.48. The median value was \$9,476.86, and total gross sales ranged from \$2,000 to \$65,000. These figures do not take costs into account, and actual business profits are not known. In order to determine how satisfied the culinary entrepreneurs are with their businesses and sales, I examined the satisfaction ratings of their businesses. Furthermore, during these eight months, NCV needed \$116,246.32 from Nuestra and grants to cover its expenses, roughly half the amount of total gross sales generated in the same period. (Appendix 5.10)

Former CEs

I estimated that \$310,000 was the combined total gross sales for the three respondents. One business generated \$250,000 and a second culinary entrepreneur reported \$42,000 in total gross sales. The third business was unsure but reported “several thousand” units sold. Assuming several thousand is about 3000 units and learning from his website that per unit price is \$6, then his total gross sales for the period of study was approximately \$18,000. While these businesses reported much higher combined gross sales than the 14 current CEs, all are still quite small businesses with no more than one to four full-time employees. (Appendix 5.11)

Loan Status

The act of taking out a loan indicates that a firm is performing well and looking to expand in the future. In order to obtain a loan, entrepreneurs must have a business plan and demonstrate their dedication to the venture. Thus, I asked CEs if they had received a small business loan at any point from January 1 to August 31, 2007 to assess whether any businesses were hoping to expand in the near future.

Current CEs

None of the 17 respondents had received a small business loan from January 1 to August 31, 2007. One CE mentioned that NCV loaned her \$2000 when she started her business in 2003, and another CE had received a loan from Acción USA in the past. Nevertheless, no businesses at NCV took out loans during the period of study. While some of the businesses might be privately financed, I doubted this because over half of the CEs earn low- to moderate-incomes. This absence of loans suggests that most of NCV's current businesses are in their early stages of development without a proper business plan.

Former CEs

None of the three respondents received a small business loan during the period of study. This finding is somewhat surprising as two graduated this year to open their own production facilities. Nevertheless, they are currently in the process of transitioning to their new locations, and they may seek out loans in the future once they have settled down. The third CE took out a loan in the past to open a restaurant, and he may not need for a loan at the moment. Thus, I reasoned that they do not need loans presently but that they might obtain one in the future as their businesses continue to grow.

Business Satisfaction Ratings

The CEs were asked to rate their satisfaction on a scale of 1 to 10, where 1 meant that a CE was extremely unsatisfied with the current state of his or her business and 10 meant that he or she was extremely satisfied. They were then asked to elaborate on why they felt this way in order to provide some qualitative data to add to the quantitative findings.

Current CEs

The average satisfaction rating was 5.33 for 15 CEs. The median rating was 5, and responses ranged from 3 to 9. Except for one CE who did not provide a number rating, nearly all of the CEs, regardless of their satisfaction rating, felt that business was slow. Two respondents mentioned that they could not dedicate more time to their businesses because they needed to work full-time in order “to pay the bills.” Several CEs mentioned that their businesses faced financial difficulties, including cash flow problems, failure to break even, and lacking money to pay salaries. Some CEs also struggled with marketing and strategy. Two mentioned that they were having trouble with marketing their products, while another was unsure about what the next step for her business should be. Overall, only two people appeared to be content with the state of their business, but one of the two still wanted more work. Thus, current CEs do not appear very satisfied with the state of their businesses, indicating that NCV needs to provide more technical assistance. (Appendix 5.12)

Former CEs

NCV’s former members are much more satisfied than current members, with an average rating of 9. Two graduates rated their satisfaction at a perfect 10, and both are posed to expand their businesses. One commented that he is “now at a place to set new goals and expand the business,” while the other believed his business is “positioned for greater growth and product development opportunities” in the new facility. Rating his satisfaction at a 7, the third graduate admitted, “Well, it’s tough not knowing if you're going to get another job but business is looking up.” (Appendix 5.13)

Cost per Job Created

NCV's total expenses from January 1 to August 31, 2007 totaled \$182,358.72 before depreciation. Program costs, including staff salaries, kitchen rent, and utilities, added up to \$155,148.48. Administrative expenses, largely incurred by Nuestra Comunidad, totaled \$27,210.24. During this same time period, NCV created 20 FTE jobs for current CEs, and graduate firms generated 16 FTE employees. If I only take into account the 20 FTE jobs that current CEs created, each job cost \$9,117.94 to create. If I also consider 11 FTE jobs that graduates created, it required \$5,065.52 to produce each job. In comparison, the median gross sales of current CEs were only \$9,476.86, and profits were much less. Thus, I assert that the cost of creating each job was far more than the benefit the CEs derived from their businesses.

Conclusion of Background and Survey Data

Overall, NCV's economic impact does not justify its high operating costs. While the profile of NCV's CEs is more diverse than in the past, total kitchen usage and total number of CEs in 2007 are lower than they were in 2005 and 2006. CEs are renting more kitchen time, on average, than in the past, but current businesses are creating few stable full-time jobs. Current CEs are also largely dissatisfied with their businesses, nearly unanimously feeling that business is slow. In contrast, the graduates are performing much better, creating stable and substantial employment opportunities. However, the five former members whose businesses appear to have closed did not respond to the survey, making it seem that graduates succeed at a greater rate than they actually do. Furthermore, a rough estimate of combined total profits for both current and former CEs is only \$56,000, much less than the \$116,246 from grants and funds from Nuestra Comunidad needed to keep NCV afloat from January 1 to August 31, 2007. In addition, the cost per FTE position for current CEs was \$9,117.94; about \$360 more than the median total gross sales for those businesses. Thus, it appears that most of the CEs would be better off financially if the money sustaining NCV each month was instead distributed among them! Overall, NCV's economic impact is quite limited in comparison to the large sums of money needed to sustain the program each month. Thus, Nuestra Comunidad needs to seriously restructure the program or to evaluate whether NCV should even exist because the money could be spent on more productive projects.

VII. Recommendations for the Improvement of NCV

While an analysis of the data suggests that NCV should close because its economic impact does not justify its high operating expenses, the program could be improved to try to increase monthly kitchen usage and generate more revenues. I drew the following recommendations from the literature review and from an interview I conducted with Caleb Zigas, Program Director of La Cocina in San Francisco, during the summer of 2007 (Appendix 6.1). Opened in 2005 and sponsored by the Women's Foundation of California, La Cocina is a small business kitchen incubator like NCV that has already produced two successful graduates from a group of only about 20 entrepreneurs. La Cocina has received positive widespread media coverage, and it appears to be one of the more successful urban kitchen incubator programs in the country. Thus, its policies and practices provide compelling guidance for how NCV can be improved.

1. Increase number of staff at NCV

La Cocina employs three full-time staff: an executive director, a program director, and a culinary director. It also hires one part-time facilities manager and an additional hourly worker to run the La Cocina booth at the Ferry Plaza Farmer's Market. While La Cocina employs three full-time staff to help 16 entrepreneurs, NCV has consistently employed only one full-time staff member to assist anywhere from 30 to 60 CEs. An NCV director's additional duties include operating the facility, recruiting new CEs, promoting the program, and setting up resources for the businesses. NCV's high employee turnover suggests that this is all too much for one person to handle. Thus, if funds became available, NCV should try to hire more staff, giving employees more time to develop NCV and to help the CEs build their businesses.

2. Diversify CE base

As of August 2, 16 low-income female entrepreneurs ran businesses from La Cocina and rented kitchen time for about \$10-15 per hour. In contrast, NCV rents kitchen time to the CEs for \$35 per hour. La Cocina rents space for much higher rates to about six commercial tenants, allowing them to subsidize kitchen rental for the low-income entrepreneurs. While NCV does not differentiate among businesses like La Cocina, NCV should try to attract more established businesses that will predictably rent kitchen time. Most of NCV's CEs are inexperienced, and

most never rent more than a couple hours of kitchen time per month. Larger tenants would supply a stable source of income for NCV, as well as provide advice to less experienced CEs. Thus, a more diversified base of CEs would enable NCV to generate more revenue from larger tenants, which would help sustain the facility for the fledgling entrepreneurs that NCV seeks to serve.

3. Improve CE screening process

Over time, NCV has become increasingly less selective when admitting new CEs in the program in its attempt to increase kitchen usage by increasing the number of CEs using the kitchen. However, this strategy has proven fruitless as many of the CEs leave NCV without renting the kitchen for more than a couple of hours. Some quickly realize that entrepreneurship is not for them, and others discover that they are unprepared to produce the scale of products required to make a business viable. Other CEs find that their products or catering services do not attract as many customers as they expect. Among the CEs that do remain at NCV, most work full-time jobs and run food businesses on the side. Others do not need to support themselves financially, and their ventures simply serve as hobbies. Overall, NCV has experienced a high rate of CE turnover and low usage among the CEs that do remain in the program.

In contrast, La Cocina enforces a strict intake process to ensure that it maintains a quality pool of dedicated entrepreneurs that strive to graduate from the program. The first step of La Cocina's process requires all applicants to turn in an application, business plan, cash flow projections, resume, and proof of income. NCV only asks applicants to complete an application, but most do a poor job of completing it. La Cocina's program director, culinary director, and two to three additional advisory board members who specialize in the applicant's business area then interview prospective entrepreneurs. They seek to screen applicants for entrepreneurial spirit, culinary and commercial kitchen experience, product viability, and marketing and financial knowledge. In contrast, NCV staff meets with any one who has turned in an application to talk to them more about their business concept and to instruct them on the necessary steps for setting up a business in Boston. La Cocina applicants who progress past the second round then enter the six-month pre-incubation stage where they must meet a series of goals in each of the following areas: marketing, production, finance, operations, and sales. Possible goals include learning how to cook rice for 200 people or learning to decipher a balance sheet. Once the participant has

satisfactorily met all of the goals, she is then accepted into the program. In comparison, CEs can begin to use NCV's facilities once they have registered their business with the City of Boston, obtained proper insurance, and attained suitable licenses from the food inspector. Thus, NCV must learn from La Cocina and become more stringent in screening applications in order to improve its base of CEs, who would hopefully rent more kitchen time and increase NCV's revenues.

4. Expand NCV's network

The literature review revealed that "networked incubators" that connect their entrepreneurs to external experts, consultants, and potential business partners are more successful than incubators with few outside connections (Hansen 2000). La Cocina serves as an excellent example of a networked incubator, while NCV has a very limited network in comparison. Zigas asserts that La Cocina relies incredibly on volunteers to provide assistance for the entrepreneurs. La Cocina assigns two to three volunteers from its advisory board of 15 to 20 food industry experts to assist each entrepreneur once she enters the pre-incubation plan. Volunteers also help entrepreneurs in every aspect of operating a food business, from food safety techniques to bookkeeping and business planning. For example, graphic designers volunteer to design promotional materials, labels, and packaging for each business. In addition to providing individual business assistance, volunteers also lead workshops twice a month, and La Cocina recently began recruiting mentors for the entrepreneurs. Despite 25 years of combined experience in the food industry, neither the program director nor the culinary director has ever started a business. Thus, La Cocina seeks to partner each program participant with an established entrepreneur to provide her with additional guidance and support. In contrast, NCV did not have an established mentorship program, and there were no volunteers to help the entrepreneurs while I worked there during the summer of 2007. Most of NCV's networking efforts focused on finding business, such as catering opportunities, for the CEs, and little attention was paid to finding volunteers to support NCV's overstretched staff. NCV should invest more energy into building its external network in order to provide enhanced resources to the CEs, which will help grow their businesses and increase kitchen usage.

VIII. Conclusion

Combining food, entrepreneurship, and economic development, the concept of Nuestra Culinary Ventures appeals to the hearts and stomachs of the public and the politicians hungry for their support. The Oxford American Dictionary declared “locavore” as the 2007 Word of the Year, and public interest in food produced locally by familiar faces, rather than manufactured in a commercial factory and shipped from another continent, grows everyday. NCV not only serves up local food, but it also provides opportunities for low-income individuals to “pull themselves up by their boot-straps” - or apron strings – and become entrepreneurs. Mistrusting of welfare and government handouts, Americans support economic development initiatives that allow the poor to help themselves by starting businesses and creating jobs. Thus, Mayor Thomas Menino most likely rescued NCV in 2006 because he believed that it would attract votes and positive publicity, and not necessarily because he had great faith in NCV’s ability to generate jobs and business opportunities in Boston.

Despite the originality of the concept, NCV’s troubled past prompted me to investigate its actual economic impact. After surveying 17 current CEs and three former CEs, I concluded that the number of jobs created by the businesses operating at NCV failed to justify its high operating costs and losses of nearly \$14,000 per month in 2007. Thus, I believe that Nuestra Comunidad should either seriously overhaul to program or consider closing NCV open because funds would be used more effectively elsewhere. However, I base my claim on data largely from NCV’s current CEs, leaving out most of NCV’s graduates. My methods failed to capture the full extent of NCV’s effect and underestimated its overall economic impact. Nevertheless, NCV depends solely upon current members’ kitchen rental and membership fees, and their activities have never been enough to sustain the kitchen. Despite its appeal to the hearts and stomachs of the public, NCV demonstrates that the kitchen incubator model is very difficult to execute successfully. Organizations considering whether to start a kitchen incubator should seriously evaluate if they are prepared to financially support the project for the long run as the incubator will most likely never generate enough revenues to cover its expenses. While *Boston Globe* columnist Yvonne Abraham declared NCV as one of the few places in Boston that brings “a true cross-section of the population together,” NCV fails to deliver a replicable model for economic development and job creation alongside its culinary creations.

Bibliography

- Aernoudt, Rudy. 2004. Incubators: Tool for Entrepreneurship?. *Small Business Economics* 23, (2): 127-135. <http://www.proquest.com/>. (accessed October 6, 2007).
- Aerts, Kris, Paul Matthyssens, and Koen Vandenbempt. 2007. Critical role and screening practices of European business incubators. *Technovation* 27, (5) (5): 254-267.
- Allen, David N., and Richard McCluskey. 1990. Structure, policy, services, and performance in the business incubator industry. *Entrepreneurship: Theory & Practice* 15, (2) (Winter): 61-77.
- Americans for the Arts. 2007. Arts & economic prosperity III: The economic impact of nonprofit arts and culture organizations and their audiences. http://www.artsusa.org/information_resources/research_information/services/economic_impact/default.asp (accessed October 6, 2007).
- Boothroyd, Peter, and H. Craig Davis. 1993. Community Economic Development: Three Approaches. *Journal of Planning Education and Research* 12: 230-240.
- Ferguson, Richard, and Christer Olofsson. 2004. Science Parks and the Development of NTBFs-- Location, Survival and Growth. *Journal of Technology Transfer* 29 (1) (January 1): 5-17. <http://www.proquest.com/> (accessed October 22, 2007).
- Hackett, Sean M., and David M. Dilts. 2004. A Systematic Review of Business Incubation Research. *Journal of Technology Transfer* 29 (1) (January 1): 55-82. <http://www.proquest.com/> (accessed October 19, 2007).
- Halpern, Robert. "Community Economic Development." In *Rebuilding the Inner City: A History of Neighborhood Initiatives to Address Poverty in the United States*. New York: Columbia University Press, 1995.
- Hansen, Morten T., Henry W. Chesbrough, Nitin Nohria, and Donald N. Sull. 2000. Networked incubators. *Harvard Business Review* 78, (5): 74-84.
- Higgins, Lindley R. 2001. *Measuring the economic impact of community-based home ownership programs on neighborhood revitalization*. LISC, <http://www.lisc.org/content/publications/detail/899/> (accessed October 6, 2007).
- Hongyi Sun, Wenbin Ni, and Joseph Leung. 2007. Critical success factors for technological incubation: Case study of Hong Kong science and technology parks. *International Journal of Management* 24, (2) (6): 346-363.
- Kuratko, Donald F., and William R. LaFollette. 1987. Small Business Incubators For Local Economic Development. *Economic Development Review* 5, (2) (July 1): 49. <http://www.proquest.com/> (accessed October 19, 2007).

- Lumpkin, James R., and R. Duane Ireland. 1988. Screening practices of new business incubators: The evaluation of critical success factors. *American Journal of Small Business* 12, (4) (Spring): 59-81.
- Merrifield, D. Bruce. 1987. New business incubators. *Journal of Business Venturing* 2, (4) (0): 277-284.
- Mian, Sarfraz A. 1996. The university business incubator: A strategy for developing new research/technology-based firms. *Journal of High Technology Management Research* 7, (2) (Fall): 191.
- Novak, Laura. 2007. For Women, a Recipe to Create a Successful Business. *New York Times*, June 23, Business section, Online edition, <http://www.nytimes.com/2007/06/23/business/smallbusiness/23cocina.html?adxnnl=1&adxnnlx=1193679846-x8D4MVKVLvFUAvdSdbIxsA> (accessed October 29, 2007)
- National Business Incubation Association. "Suggested Metrics." National Business Incubation Association, https://www.nbia.org/impact/suggested_metrics.php (accessed November 14, 2007).
- Nuestra Comunidad Development Corporation. "Welcome." Nuestra Comunidad Development Corporation, www.nuestradc.org (accessed November 14, 2007).
- Nuestra Culinary Ventures. "History of NCV." Nuestra Culinary Ventures, www.ncvkitchen.org (accessed November 14, 2007).
- O'Neal, Thomas. 2005. Evolving a successful university-based incubator: Lessons learned from the UCF technology incubator. *Engineering Management Journal* 17, (3) (9): 11-25.
- Phan, Phillip H., Donald S. Siegel, and Mike Wright. 2005. Science parks and incubators: Observations, synthesis and future research. *Journal of Business Venturing* 20, (2) (3): 165-182.
- Tötterman, Henrik, and Jan Sten. 2005. Start-ups: Business incubation and social capital. *International Small Business Journal* 23, (5) (10): 487-511.
- Sterngold, Arthur H. 2004. Do economic impact studies misrepresent the benefits of arts and cultural organizations? *Journal of Arts Management, Law & Society* 34, (3) (Fall): 166-187.
- Throsby, David. 2004. Assessing the impacts of a cultural industry. *Journal of Arts Management, Law & Society* 34, (3) (Fall): 188-204.
- U.S. Small Business Administration. "Small Biz Stats & Trends" SCORE, http://www.score.org/small_biz_stats.html (accessed December 13, 2007).

Appendix 1: NCV Financial Statements

1.1 NCV Year to Date Income Statements

Please see pages 75 -76.

Appendix 2: NCV Background

2.1 Total Monthly Kitchen Usage in Hours from January 2005 to August 2007

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2005	166	157	179	179	271	274	305	489	507	507	533	166
2006	226	253	222	279	285	297	245	224	159	60	76	198
2007	118	126	131	160	208	281	199	193				

Source: January – December 2005 and January – August 2007 data from NCV internal records, January – December 2006 data gathered from invoices billed to CEs for monthly kitchen rent

2.2 Total Number of CEs per Month from January 2005 to August 2007

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2005	38	45	41	44	47	47	51	50	57	59	62	63
2006	41	37	35	35	39	38	42	47	33	28	28	28
2007	27	28	29	29	31	30	28	28				

Source: January – December 2005 from NCV internal records of monthly membership numbers, 2006 derived from invoices billed to the CEs for kitchen rent, 2007 derived from NCV internal records of monthly kitchen records

2.3 Average Monthly Kitchen Usage per CE from January 2005 to August 2007

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2005	4.4	3.5	4.4	4.1	5.8	5.8	6.0	9.8	8.9	8.6	8.6	2.6
2006	5.5	6.8	6.3	8.0	7.3	7.8	5.8	4.8	4.8	2.1	2.7	7.1
2007	4.4	4.5	4.5	5.5	6.7	9.4	7.1	6.9				

Source: Divided total monthly kitchen usage by size of membership from January 2005 to August 2007.

2.4 Comparison of Kitchen Usage for Six CEs in 2006 and 2007

CE:	A	B	C	D	E	F
Jan. – Aug. 2006	27.5	13	64	59.5	106.5	15.5
Jan. – Aug. 2007	48.8	10	61.5	81.5	110.8	4

Source: 2006 data from invoices billed to CEs for kitchen rent, 2007 data from NCV internal records of individual kitchen use

2.5 Comparison of the Diversity of the CEs in January 2006 and August 2007

	January 2006	August 2007
Women	82%	67%
Minorities	29%	50%
Boston Residents	47%	60%
Low to Moderate Income	65%	67%

Source: 2006 percentages reported in NCV internal evaluation, 2007 data compiled from various internal documents about CEs who were NCV members in August 2007

Appendix 3: Monthly NCV Membership from January 2006 to August 2007

Please see pages 77 - 79.

Appendix 4: Data Collection

4.1 Introductory email sent to current members

Dear _____,

After a great summer working at NCV, I am now back in Philadelphia finishing up my senior year at Penn. The requirement now standing between me and graduation is my senior thesis, and I have decided to write my thesis about NCV!

More specifically, I would like to measure the economic activity generated by the businesses at the kitchen in order to determine the economic impact of NCV. The information that I gather will not only be used for my thesis but also to help Nuestra Comunidad keep and attract more funding for NCV! However, I will need your help!

I have attached a short survey for you to complete. If you would prefer to complete it on the computer and email it back to me, that is great. Otherwise, I will call you within the next week, and I will conduct the survey over the phone. I have also included the survey at the bottom of this email.

I must assure you that the information you give me will be anonymous and confidential, and only aggregate data will be used - your identities are protected!

If you have any questions or concerns, please do not hesitate to contact me. You can reach me by email at emmaehall@gmail.com or by phone at (973) 615 - 0521.

Thank you very much for your hoped for participation and I will be in touch!

Sincerely,

Emma Hall

4.2 Survey attached to introductory email sent to current caterers

The survey aims to gather information regarding NCV's economic impact on the community. **NCV needs this information to help keep and attract more funding for the kitchen!**

Please note that this information is anonymous and confidential, and it will only be used in aggregate when included in my thesis and/or presented to the Nuestra Comunidad board and funders.

Survey for Caterers

1. How many employees did your business employ from January 1 – August 31, 2007?
_____ Number of full-time employees
_____ Number of part-time employees
2. In a typical week, how many full-time employees does your business employ? _____
3. In a typical week, what is the average number of hours a full-time employee works? _____
4. In a typical week, how many part-time employees does your business employ? _____
5. In a typical week, what is the average number of hours a part-time employee works?

6. How many catering jobs did you complete from January 1 to August 31, 2007?

7. What were your total gross sales from January 1 to August 31, 2007?
\$ _____
8. Did you receive a loan for your business at any point from January 1 to August 31, 2007?

Yes No

a. If yes, how much was the loan? \$ _____
9. On a scale of 1 to 10 (1 = not at all satisfied; 10 = extremely satisfied), rate how you feel about the current state of your business. _____
10. Based on your response to #9, why do you feel this way about your business?

4.3 Survey attached to introductory email sent to current bakers/specialty food producers

The survey aims to gather information regarding NCV's economic impact on the community. **NCV needs this information to help keep and attract more funding for the kitchen!**

Please note that this information is anonymous and confidential, and it will only be used in aggregate when included in my thesis and/or presented to the Nuestra Comunidad board and funders.

Survey for Bakers and Specialty Food Producers

1. How many employees did your business employ from January 1 – August 31, 2007?
_____ Number of full-time employees
_____ Number of part-time employees
2. In a typical week, how many full-time employees does your business employ? _____
3. In a typical week, what is the average number of hours a full-time employee works? _____
4. In a typical week, how many part-time employees does your business employ? _____
5. In a typical week, what is the average number of hours a part-time employee works?

6. How many units of product did you sell from January 1 to August 31, 2007?

7. What were your total gross sales from January 1 to August 31, 2007?
\$ _____
8. Did you receive a loan for your business at any point from January 1 to August 31, 2007?

Yes No

a. If yes, how much was the loan? \$ _____
9. On a scale of 1 to 10 (1 = not at all satisfied; 10 = extremely satisfied), rate how you feel about the current state of your business. _____
10. Based on your response to #9, why do you feel this way about your business?

4.4 Survey made on SurveyMonkey for current members

Website: http://www.surveymonkey.com/s.aspx?sm=sKFimBwSTX2ldm4pJ3CO9Q_3d_3d

The survey aims to gather information regarding NCV's economic impact on the community. NCV needs this information to help keep and attract more funding for the kitchen!

Please note that this information is anonymous and confidential. It will only be used in aggregate when included in my thesis and/or presented to the Nuestra Comunidad board and funders.

1. Please select the designation that best describes your business.

- Baking
 Catering
 Specialty Food Production

2. How many employees did your business employ from January 1 – August 31, 2007?

Number of full-time employees _____

Number of part-time employees _____

3. In a typical week, how many full-time employees does your business employ? _____

4. In a typical week, what is the average number of hours a full-time employee works? _____

5. In a typical week, how many part-time employees does your business employ? _____

6. In a typical week, what is the average number of hours a part-time employee works? _____

7. Bakers/Specialty Food Producers: How many units of product did you sell from January 1 to August 31, 2007? _____

Caterers: How many catering jobs did you complete from January 1 to August 31, 2007? _____

8. What were your total gross sales from January 1 to August 31, 2007? _____

9. Did you receive a loan for your business at any point from January 1 to August 31, 2007? If yes, how much was the loan? _____

10. On a scale of 1 to 10 (1 = not at all satisfied; 10 = extremely satisfied), rate how you feel about the current state of your business. Why do you feel this way about your business?

4.5 Introductory email sent to former members

Dear _____,

My name is Emma Hall, and I worked at Nuestra Culinary Ventures where I understand you were a culinary entrepreneur there for a month or two earlier this year. After a great summer working at NCV, I am now back in Philadelphia finishing up my senior year at Penn. The requirement now standing between me and graduation is my senior thesis, and I have decided to write my thesis about NCV!

More specifically, I would like to measure the economic activity generated by the businesses at the kitchen in order to determine the economic impact of NCV. The information that I gather will not only be used for my thesis but also to help Nuestra Comunidad keep and attract more funding for NCV! However, I will need your help!

While I understand that you are no longer working at NCV, I would greatly appreciate if you would complete a short survey for me. The link the survey is below:

http://www.surveymonkey.com/s.aspx?sm=0buG9QR6zfSKjCUyxsFDLA_3d_3d

I must assure you that the information you give me will be anonymous and confidential, and only aggregate data will be used - your identity is protected!

If you do not want to complete the survey, please let me know and I will stop bothering you! You can reach me by email at emmaehall@gmail.com or by phone at (973) 615 - 0521.

Thank you very much for your hoped for participation and I will be in touch!

Sincerely,

Emma Hall

4.6 Survey made on SurveyMonkey for former members

Website: http://www.surveymonkey.com/s.aspx?sm=0buG9QR6zfSKjCUyxsFDLA_3d_3d

Please answer every question!

The survey aims to gather information regarding NCV's economic impact on the community. NCV needs this information to help keep and attract more funding for the kitchen!

Please note that this information is anonymous and confidential. It will only be used in aggregate when included in my thesis and/or presented to the Nuestra Comunidad board and funders.

Thank you very much for your participation!

1. Please select the designation that best described your business at NCV.

Baking Catering Specialty Food Production

2. While at NCV, how many employees did your business employ in 2007?

Number of full-time employees _____ Number of part-time employees _____

3. While at NCV, how many full-time employees did your business employ in a typical week? _____

4. While at NCV, what was the average number of hours a full-time employee worked in a typical week? _____

5. While at NCV, how many part-time employees did your business employ in a typical week?

6. While at NCV, what was the average number of hours a part-time employee worked in a typical week? _____

7. Bakers/Specialty Food Producers: How many units of product did you sell in 2007 while you were a member of NCV? _____

Caterers: How many catering jobs did you complete in 2007 while you were a member of NCV?

8. What were your total gross sales in 2007 while working at NCV? _____

9. Did you receive a loan for your business at any point in 2007? If yes, how much was the loan? _____

10. On a scale of 1 to 10 (1 = not at all satisfied; 10 = extremely satisfied), rate how you feel about the current state of your business. Why do you feel this way about your business?

Appendix 5: Data Analysis

Note: While each letter stands for one CE, I did not intentionally assign letters to CEs in order to protect their identities. I gathered all data from the surveys.

5.1 Full-Time Employment Labor Force Analysis for Current CEs (n = 9)

	# Full-Time Jobs	Hrs/Typical Wk	Units or Events	Total Gross Sales (\$)
A	2	40	26 events	
B	2	30	30 events	65,000
C	1	20		25,000
D	1	30	20 events	20,000
E	1	30	4585 units	9593.76
F	1	8	150,000 units	
G	1	15	10,000 units	15,000
H	2	2.5	20 events	30,000
I	1	40	8 events	9359.96
Total	12			

5.2 Full-Time Employment Labor Force Analysis for Former CEs (n = 3)

	# Full-Time Jobs	Hrs/Typical Wk	Units or Events	Total Gross Sales (\$)
A	1	80	Several thousand units	Unsure
B	1	60	1000 units	42,000
C	4	32	300 events	250,000
Total	6			

5.3 Part-Time Employment Labor Force Analysis for Current CEs (n = 15)

	# Part-Time Jobs	# Part-Time Employees in a Typical Week	Hours Worked in a Typical Week
A	1	1	18
B	3	1	6
C	2	2	10
D	5	5	5
E	3.5	1.5	13.5
F	3.5	1	6.5
G	1	1	4.5
H	2	2	20
I	20	10	15
J	1	1	7.5
K	1	1	8
L	10	5	2.5
M	3	2	10
N	9	5	4
O	1	1	3
Total	66	39.5 ≈ 40	

5.4 Part-Time Employment Labor Force Analysis for Current CEs (n = 3)

	# Part-Time Jobs	# Employees in a Typical Week	Hours Worked in a Typical Week
A	2	2	10
B	5	2	30
C	8	8	20
Total	15	12	

5.5 Full-Time Equivalency Analysis for Current CEs from Full-Time Employment Data

	# Full-Time Employees in a Typical Week	Hours Worked in a Typical Week	FTE [(#Employees x #Hours) / 32]
A	2	40	2.5
B	2	30	1.875
C	1	20	0.625
D	1	30	0.9375
E	1	30	0.9375
F	1	8	0.25
G	1	15	0.4
H	2	2.5	0.46875
I	1	40	1.25
Total	12		9.24 ≈ 9 FTE

5.6 Full-Time Equivalency Analysis for Current CEs from Part-Time Employment Data

	# Part-Time Employees in a Typical Week	Hours Worked in a Typical Week	FTE [(#Employees x #Hours) / 32]
A	1	18	0.5625
B	1	6	0.1875
C	2	10	0.625
D	5	5	0.78125
E	1.5	13.5	0.63
F	1	6.5	0.2
G	1	4.5	0.14
H	2	20	1.25
I	10	15	4.6875
J	1	7.5	0.23
K	1	8	0.25
L	5	2.5	0.39
M	2	10	0.625
N	5	4	0.625
O	1	3	0.09375
Total	39.5 ≈ 40		11.28 ≈ 11 FTE

5.7 Full-Time Equivalency Analysis for Former CEs from Full-Time Employment Data

	# Full-Time Employees in a Typical Week	Hours Worked in a Typical Week	FTE [(#Employees x #Hours) / 32]
A	1	80	2.5
B	1	60	1.88
C	4	32	4.0
Total	6		8.38 ≈ 8 FTE

5.8 Full-Time Equivalency Analysis for Former CEs from Part-Time Employment Data

	# Part-Time Employees in a Typical Week	Hours Worked in a Typical Week	FTE [(#Employees x #Hours) / 32]
A	2	10	0.625
B	2	30	1.875
C	8	20	5
Total	12		7.5 ≈ 8 FTE

5.9 Number of Completed Events for Current Caterers

	# Completed Catering Events	Average # Events/Week (# Completed Events / 35)	Total Gross Sales (\$)	Average Revenue/Event
A	1	0.03	4600	4600
B	2	0.06		
C	5	0.14	3000	600
D	8	0.23	9359.96	1170
E	20	0.57	3000	150
F	20	0.57	20,000	600
G	20	0.57	30,000	1500
H	26	0.74		
I	30	0.86	65,000	2166.67
J	106	3.03	58,888	555.55
Total	238 events	6.8 ≈ 7 events	\$193,847.96	\$11742.21
Average per CE	23.8 ≈ 24 events	0.68 events	\$27,692.57	\$1677.46
Former CE	250	7.14 ≈ 7 events	250,000	1000

5.10 Total Gross Sales for Current CEs (n = 14)

	Total Gross Sales (\$)
A	2089
B	2000
C	3000
D	3000
E	4000
F	4600
G	9359.96
H	9593.76
I	15,000
J	20,000
K	25,000
L	30,000
M	58,888
N	65,000
Total	\$251,530.72
Average	\$17,766.48
Median	\$9,476.86

5.11 Total Gross Sales for Former CEs (n = 2)

	Total Gross Sales (\$)
A	42,000
B	250,000
C	18,000*
Total	\$292,000

*I estimated total gross sales for C, assuming he sold 3000 units for \$6 each.

5.12 Business Satisfaction Ratings and Comments from Current CEs (n = 15)

	Rating (1-10)	Comments
A	4	My sales thus far this year are far below what I had hoped at year's start. I feel paralyzed by the stress of constantly investing money into the business and not yet breaking even, when it ought instead to force me to work even harder. I realize now clearly that I'm very uncomfortable with financial risk (probably not good for an entrepreneur just starting their business, haha). With no employees, I'm more lonely walking this path of business startup and growth than I'd expected. I feel challenged by cold calling to make contacts with people for sales, or with walking into stores to see if they'll host tastings of my babyfood. On the upside, I feel positive when I step back to look at all the hard work and research that went into the work so far, and that I was the one who developed the business almost single-handedly this far (product development, cooking and deliveries, research, customer recruitment, website development, marketing etc.). I think sales are slowly increasing, and that I'm learning what types of marketing efforts yield a result (booths at festivals don't, flyers in kids' stores don't, but articles do and doing baby food tastings at mom's groups are the most focused and best ways of connecting to new customers). I've learned that parents need to meet me and taste the food and talk about the products in order to "trust" it.
B	3	Business is too slow.
C	3	My wife and I still hold additional full-time jobs, so it's understandable that we haven't made more progress in sales and marketing due to lack of time and effort available, but despite that we had hoped to be doing five to ten times our current revenue by the end of our first two years, which was in April of 2007. We won't get much further until I can cut back or eliminate hours worked at another job and become a full-time BakerGuy. We've got some work to do...!
D	5	This year was slow because I was very sick and couldn't do much for the business.
E	7	The business is becoming self-sufficient, but I would like more sales to generate more income for my business. This way I could afford to pay myself and employees
F	6	I think a lot about giving up the food business and going into something less physically difficult. I'm almost 60 and the long hours, constant standing and lifting heavy things is not as much fun as it used to be.
G	9	Because the jobs I get, I accomplish them in a good way. I have a good ratio of spending and earning, and I feel like I have perfected the system. I wish I had more work, but customers are satisfied and the first priority is to make money and I have perfected the system.

H	7	We spent most of the time developing Menu and exploring new clientele.
I	4	I sold my restaurant and took a year off and I'm just getting back into my catering (started in 2006) and I'm not satisfied with how its going at all.
J	7	After being presented with the opportunity to build a manufacturing facility to grow my business and realizing at that time that I didn't actually desire to be in the manufacturing business, it's been a labyrinth trying to figure out how to leverage what value the business/brand has, hoping to eventually move into a co-packing situation or look for a suitable sale of the business.
K	5	My product is so highly specialized that it takes a lot of marketing to get started. It has been hard to be patient yet remain diligent (and to work other jobs to pay the bills)
L	5	Need more clients
M	4	I'm stuck in a financial situation that isn't working and I'm not moving forward. I'm paying NCV \$2000 a month and with that I could have a small business somewhere but it doesn't seem to have worked out like that.
N		Great. Most of my sales are from 9/07 - 12/07.
O	5	You need a lot of time to devote to the business to really get it off the ground and I was dedicating much more time to my business before I had my son, but I just don't have the time anymore.
P	6	Moving forward, but anxious about the success of the cafe when it opens and hoping for continued growth without extreme cash flow problems note that the one employee is me, and I hire people only for when I need help with a large event. I hired one person in this time frame.
Average	5.33	
Median	5	

5.13 Business Satisfaction Ratings and Comments from Former CEs (n = 3)

	Rating (1-10)	Comments
A	10	Have accomplished all of my initial goals and am now at a place to set new goals and expand the business – NCV allowed the opportunity to get this far so I am very pleased with their support over the 2.5 years working there.
B	10	We feel this way because of the growth and positive feedback our business has experienced over the last three years. Now that we are in our own production kitchen and working with Cornell University's Agriculture Experiment Station we are positioned for greater growth and product development opportunities.
C	7	Well, its tough not knowing if you're going to get another job but business is looking up.
Average	9	

Appendix 6: Recommendations for the Improvement of NCV

6.1 Notes from Interview with Caleb Zigas, Program Director of La Cocina in San Francisco, on August 2, 2007

Contact:

Caleb Zigas
caleb@lacocinasf.org
(415) 824 - 2729 ext. 303

Brief History

- 1999: Workforce development organization did a study and found that lots of Latino women had created business plans with the help of nonprofit organizations but that they could not start these businesses for lack of a commercial kitchen space
- 2001: Broke ground but organization realized that the project would be more “micro-enterprise” than workforce development so they abandoned the project
- Women’s Foundation of California stepped in and took on the project
- 2005: La Cocina opened, fiscally sponsored by the Women’s Foundation
- Currently:
 - o In operation for 2 years
 - o 16 businesses (capacity for about 4 more) who are program participants
 - o 5-6 commercial tenants who subsidize program
 - o 2 graduates

Operations

- \$500,000 a year budget
- 3 full-time staff
 - o Executive Director: Valeria Perez Ferreiro
 - o Program Director: Caleb Zigas
 - “Responsible for managing our tenant technical assistance program and helping tenants connect with new market opportunities” - website
 - o Culinary Director: Jason Rose
 - Jason is from Boston and would love NCV to give him a call!
 - Responsible for managing the kitchen and delivering culinary training and product-related technical assistance to our program participants
 - Manages La Cocina’s booth at the Ferry Plaza Farmer’s Market (about 1/hr of work per week)
- 1 part-time janitor/facilities staff
- 1 employee hired to run the weekly La Cocina booth at the Ferry Plaza Farmer’s Market and do administrative tasks related to booth (i.e. QuickBooks)
- “Incredible reliance on volunteers”
 - o La Cocina recruits volunteers from industry and people have come to them looking to volunteer

La Cocina Program Details

- Originally, La Cocina was too “non-profit” oriented, focusing more on workforce development but they realized that this was not the point of a business incubator so they restructured last year
- Program provided for free, participants just pay for the kitchen time
 - o La Cocina will even subsidize outside services i.e. refer entrepreneurs to business plan writing service that charges \$50/hr where La Cocina pays \$35 and business pays \$15
- Program
 - o Recruitment of entrepreneurs
 - Most entrepreneurs are referred to them by organizations that help people write business plans
 - Monthly orientation sessions that are publicized in usual ways (i.e. fliers, etc.)
 - Favor those already with business plans because they are looking for people with a clear idea who are really ready to dedicate themselves to the business 100%
 - o Step 1: Initial screening
 - Screen applicants for product viability and income (they are looking for low income applicants)
 - o Step 2: Interview with advisory committee
 - Advisory committee of 15-20 people from different areas of food business who can provide insight
 - Applicants who have passed step 1 are interviewed by the program director, the culinary director and 2-3 additional people from the advisory board who are experts in the applicant’s product area (i.e. If the person wants to be a caterer, they bring in big-shot caterers from their advisory board)
 - Screen the applicant for:
 - Entrepreneurial spirit
 - Culinary and commercial kitchen experience
 - Product viability
 - Marketing and financial knowledge
 - o Step 3: Pre-Incubation Plan
 - If applicants pass the interview, then they are accepted in the pre-incubation plan, which lasts for 6 months
 - Extensive plan drafted by the advisory committee (program director, culinary director, plus the 2-3 advisory board members) that provides input/advice about:
 - Marketing
 - Productions
 - Finance
 - Operations
 - Sales

- Hope to be solidly established in 5-10 years within the San Francisco foodie community
 - Always have been very consistent with message
 - Big firm donated their services and they are in the process of rebranding
- Marketing to new entrepreneurs is more “subtle,” relying on people to be sent to them from outside organizations
- Marketing of program participants/entrepreneurs
 - Heavy emphasis on marketing because they feel that finding your market and marketing your product is integral to a successful food business
 - First 1-1.5 months is spent on marketing plan - developing corporate philosophy, broad identity and collateral materials
 - Annual ExpoCocina
 - Invite about 300 industry people to come in for tastings
 - Brings a lot of business
- Catering Outreach
 - Don’t really do any but they are going to start doing that later this year
 - Get about 10 calls per month, mostly from nonprofits, to do catering gigs
 - Program Director handpicks the caterer and works with them every step of the way to make sure the event is a success
 - Once Caleb has walked the caterer through 3 events and they get his mark of approval, they then are able to seek and complete jobs more independently
- Ferry Plaza Farmers’ Market: La Cocina Booth
 - Opened in January 2007
 - Worked on it for one year before opening
 - Very intensive project
 - Purpose:
 - Not the bottom-line
 - Increase visibility of La Cocina and create their presence on the food scene
 - Access to wealthy customers
 - Customer education – educate people about what La Cocina is and what they do because it is challenging to explain the concept of a shared-use, commercial kitchen facility
 - Operations:
 - Not making any money, hope to make money within a year but it won’t be more than \$25-50 per month
 - Buy goods from entrepreneurs wholesale and sell it at retail
 - Operates every Saturday
 - Hired girl for \$10 per hour and 10% commission to run booth
 - Caleb thinks he is paying her too much and that cuts a lot into margins

Fundraising

- Have not done much fundraising at all [Doesn’t sound like they need it]
- Planning a party in the kitchen for later this year

- Kitchen is beautiful, no need to rent a space when you can do it in the kitchen
- Additional Events
 - Planning a Mother's Day event to thank the board

1.1 NCV Year to Date Income Statement

Nuestra Culinary Ventures
Year to Date Income Statement
Compared with Budget and Last Year
For the Eight Months Ending August 31, 2007

	Current Year Actual	Current Year Budget	Variance Amount	Variance Percent	Last Year Actual	Change from Last Year	Percent Change	Annual Budget
Revenues								
Grants (Unrestricted)	\$ 36,687.51	\$ 10,000.00	26,687.51	266.88	\$ 6,666.66	30,020.85	450.31	110,000.00
Nuestra Comunidad -Donated Rev	75,200.00	75,200.00	0.00	0.00	0.00	75,200.00	0.00	112,800.00
Kitchen Rent	34,310.51	47,801.00	(13,490.49)	(28.22)	48,588.30	(14,277.79)	(29.39)	93,337.00
Sponsorship Fee	0.00	5,000.00	(5,000.00)	(100.00)	0.00	0.00	0.00	30,000.00
Class at NCV	536.00	0.00	536.00	0.00	1,287.00	(751.00)	(58.35)	-
Commissary Rent	25,051.89	20,500.00	4,551.89	22.20	24,000.00	1,051.89	4.38	33,600.00
Membership Fee	6,214.00	8,400.00	(2,186.00)	(26.02)	0.00	6,214.00	0.00	16,000.00
Interest	2537	0.00	25.37	0.00	42.25	(16.88)	(39.95)	-
Total Revenues	178,025.28	166,901.00	11,124.28	6.67	80,584.21	97,441.07	120.92	395,737.00
Program Expenses								
Salaries & Fringe Benefits	65,668.14	77,803.72	(12,135.58)	(15.60)	78,241.60	(12,573.46)	(16.07)	112,908.00
Rent - kitchen	35,600.00	38,000.00	(2,400.00)	(6.32)	35,192.95	407.05	1.16	59,578.00
Utilities - kitchen	26,754.61	24,666.64	2,087.97	8.46	25,194.98	1,559.63	6.19	37,000.00
Security Services	1,315.24	1,000.00	315.24	31.52	694.10	621.14	89.49	1,500.00
Cleaning	11,127.28	6,000.00	5,127.28	85.45	6,955.00	4,172.28	59.99	10,000.00
Equipment repairs & maintainanc	3,257.62	4,000.00	(742.38)	(18.56)	999.46	2,258.16	225.94	6,000.00
Insurance	3,242.00	3,333.36	(91.36)	(2.74)	0.00	3,242.00	0.00	5,000.00
Permits/Fees	18.50	325.00	(306.50)	(94.31)	0.00	18.50	0.00	325.00
Pest control	685.00	480.00	205.00	42.71	220.00	465.00	211.36	720.00
Supplies - kitchen	3,352.63	5,333.36	(1,980.73)	(37.14)	6,253.22	(2,900.59)	(46.39)	8,000.00
Serve Save Material	99.00	0.00	99.00	0.00	0.00	99.00	0.00	-
Food Kitchen	318.49	802.00	(483.51)	(60.29)	410.19	(91.70)	(22.36)	1,222.00
Waste removal	3,709.97	2,000.00	1,709.97	85.50	2,071.00	1,638.97	79.14	3,000.00
Total Program Expenses	155,148.48	163,744.08	(8,595.60)	(5.25)	156,232.50	(1,084.02)	(0.69)	245,253.00
Administrative Expenses								
Advertising/marketing	50.00	800.00	(750.00)	(93.75)	65.00	(15.00)	(23.08)	1,000.00
Bank fees	620.19	666.64	(46.45)	(6.97)	924.75	(304.56)	(32.93)	1,000.00
Legal and audit	2,040.00	3,000.00	(960.00)	(32.00)	881.26	1,158.74	131.49	3,000.00
Conference and meetings	0.00	300.00	(300.00)	(100.00)	97.87	(97.87)	(100.00)	400.00
Consultants	2,764.00	17,900.00	(15,136.00)	(84.56)	432.50	2,331.50	539.08	37,900.00
Education/staff development	0.00	250.00	(250.00)	(100.00)	0.00	0.00	0.00	500.00

11/14/2007 at 8:11 PM

For Management Purposes Only

Page: 1

1.1 NCV Year to Date Income Statement Continued

Nuestra Culinary Ventures
Year to Date Income Statement
Compared with Budget and Last Year
For the Eight Months Ending August 31, 2007

	Current Year Actual	Current Year Budget	Variance Amount	Variance Percent	Last Year Actual	Change from Last Year	Percent Change	Annual Budget
Office expense	315.04	333.36	(18.32)	(5.50)	507.66	(192.62)	(37.94)	500.00
Postage	0.00	156.00	(156.00)	(100.00)	822.01	(822.01)	(100.00)	234.00
Printing	296.00	400.00	(104.00)	(26.00)	1,489.57	(1,193.57)	(80.13)	600.00
Telephone	2,187.52	2,666.64	(479.12)	(17.97)	3,028.02	(840.50)	(27.76)	4,000.00
Travel	20.00	133.36	(113.36)	(85.00)	17.00	3.00	17.65	200.00
Bad debt	0.00	333.36	(333.36)	(100.00)	0.00	0.00	0.00	500.00
Administrative Overhead	7,096.42	7,780.40	(683.98)	(8.79)	17,013.31	(9,916.89)	(58.29)	11,290.84
Interest Expense	11,821.07	11,000.64	820.43	7.46	13,000.48	(1,179.41)	(9.07)	16,501.00
Total Administrative Expenses	27,210.24	45,720.40	(18,510.16)	(40.49)	38,279.43	(11,069.19)	(28.92)	77,625.84
Total Expenses before Depreciation	182,358.72	209,464.48	(27,105.76)	(12.94)	194,511.93	(12,153.21)	(6.25)	322,878.84
Depreciation	49,160.00	48,533.36	626.64	1.29	48,496.00	664.00	1.37	72,800.00
Net Income	(\$ 53,493.44)	(\$ 91,096.84)	\$ 37,603.40	(41.28)	(\$ 162,423.72)	108,930.28	(67.07)	\$ 58.16

3.1 Monthly NCV Membership from January 2006 to August 2007

This data was used to determine the total number of CEs per month in 2006 and 2007 when internal records were not recorded.

Source: 2006 and early 2007 data from invoices, 2007 data from NCV internal records

CE #	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07
1																		41.3	87	32.5
2						START							7	10	17.5		4	14.50		3.5
3	5.00	6.25	2.5		4.75		6.5	2.5	17	10.5	5.5	5.5	6.5	1.5	2	1.5	13	13.00	1.75	9.5
4						10														
5							START													
6																	2.5		6	
7		9.75	12.5												2					
8																9.5	14.5			
9														7			1.5		12.75	2.25
10					START		3.5	13	15.5	7	9.5	6	13.5			2	11.5	4.00	12	
11			2			2.5	2													
12				2.5		7		3.5				2							10.00	
13	46.75	20.75	30.5	39.00	22.00	22.5	16.5		16.5		22	18	15	13.5	22.75	16	1			
14							START													
15	3.50	1.5		6.5	3			1.5												
16								START			23	15			7	1.5	21.5	17.00	5.25	9
17			8.25	21	16.25	11.5		6.75	2.5											
18					10		5	5				9			5	5	10	2.00		
19				3											1.5	1.5	3	2.00		
20			9	1	12.5	15.5		26	10.5			11.5	4.5		3	5	13	31.50		4.5
21		2.5	2.5		3.5			2.5	2.5											
22															20.5	5	20	13.50	10.75	8.5
23																				
24								START												
25	7.00	3	12	15.75	12.5	12.5	8	5.5	3.5											
26	16.50	8	13.25	15.75	26	22(-1.5?)	23	30	6	8		8	2		18.5		11	25.00		

27								34.25											38.5	
28								START				10								
29				5.5		10	9		7.5											
30		2			3															
31		34.75	18.75	37.5	25	12														
32	6.00	12	3	2	1.5	28.5	9.5	25.5		27.5	4	3		1			31.00	28.5	18	
33								START												
34								START	8.5											
35	11.25					4		3				11.75								
36																				
37																				
38			4		4.5				2.5								1.50			
39	3.50			2	2	4	5		2											
40	57.50	37.95	43.1*	7.5*	19.5*	16.5*	2	9	15			18	14		25.75	19	30.5	12.50	1	8
41					2.75															
42				2.5		2.5		3							1					
43								START												
44								START												
45				4	10.5	3.5	2		2											
46																				
47																		8.50	10.5	9.5
48															3	13.5	13.00	14	10	
49	3.00	3																		
50															1.5					
51																6.5				
52	56.25	42	44.25	47.5	64	45.5	50.75	10	25			11.5						22.75		
53	1.50																			
54				4		2.75		3					2						2	
55								START												
56					2.75		13.75					2			4	13				
57		4			4													4.50	2.5	
58		1.5																		
59			7.25	9.5	2.75	22.5	34	22	10	6.5					2			4.00		
60							4													

61																			3.5
62					START	2	1.5												
63															5.5				
64	7.50	28	15.75	33.75	15.5	23.75	16.75	7.5			16	37.5	14						28.5
65			6		2	2		5.5									1.00	1	2
66			3	1			1	1.5											
67		3	2	4			6.5		3.5			3		3.5		11.75	8.50	3.5	3
68					START				8.75							1			2.5
69		32.75	24	13.75	14.5	16.25	15.75	2.25	8			25			9				
70	1.00																		