

Baked in New York

Special Report to
the Consortium for Worker Education
and the Artisan Baking Center

February 2002



New York Industrial Retention Network



Consortium for Worker Education (CWE)

Founded in 1985, the Consortium for Worker Education (CWE) is a private not-for-profit agency committed to enriching the lives of all workers, their families, and their communities through both traditional and web-based Education, economic development, and empowerment programs locally, nationally, and globally.

CWE offers a variety of employment, education, training, retraining, and child care programs for union members, dislocated workers and public assistance recipients. CWE serves over 75,000 workers annually in partnership with a variety of public agencies, community-based organizations, labor unions, education and post-secondary institutions.

The New York Industrial Retention Network (NYIRN)

NYIRN is a city-wide, not-for-profit economic development organization. NYIRN's mission is to expand New York City's economy and increase employment opportunities for City residents by strengthening the manufacturing sector, saving manufacturing jobs and building the capacity of network participants. The network includes more than 150 local development groups, labor unions, environmental justice organizations, real estate managers and other stakeholders who share the goals of strengthening manufacturing companies, saving manufacturing jobs, and fostering an inclusive, collaborative economic development process.

Study Commissioned by

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Consumer interest in artisan breads and other specialty baked goods has grown steadily over the past decade in New York City as well as other urban areas. While New York City has lost several large scale manufacturers, the number of smaller bakeries with retail components has surged. At the same time, the industry has grown increasingly competitive and production wages have declined.

In the summer of 2001, the Consortium for Worker Education (CWE), Local 3 of the Bakery, Confectionery, Tobacco Workers & Grain Millers International Union and the newly formed Artisan Baking Center commissioned the New York Industrial Retention Network (NYIRN) to conduct a study of the baking industry in New York City. The objective of the study was to determine the overall health of the industry with particular attention to its prospects for expansion and work force training needs. These findings would help define the curriculum and marketing strategy for the Artisan Baking Center being established in Long Island City, Queens.

There are currently 12,414 people¹ employed in New York City's baking industry—wholesale and retail. The baking industry is a crucial component of New York City's food manufacturing sector. Baking companies paid over \$242 million in wages² and \$38.1 million in taxes³ in 1999.

Thirty-three companies, employing 1,510 persons, were interviewed as part of this study. The study group represents 19% of the baked goods manufacturers and 12% of the manufacturing and retail bakery workers in New York City. Of those 33 companies, 28 are planning to expand their product line and/or increase production volume within the next two years. This would require hiring 119 additional persons (an 8% increase).

The development of an Artisan Baking Center providing basic work-readiness courses, specialized vocational training and links to business assistance resources can help New York's baking companies and their workers to benefit from growing consumer demand for artisan breads and other specialty products:

- The ability to carry out business expansion hinges on acquiring new machinery and new employees. Over 80% of the companies that plan to expand are interested in new equipment;
- New sources of capital and additional space in which to grow are also key requirements for expansion according to the companies interviewed;
- Basic baking and work readiness skills, as opposed to highly specialized training, are employers' priority for current and new employees. Getting to work on time, the ability to follow instructions, and other "world of work" skills, along with literacy and previous baking experience are the leading requirements for new hires. Food safety, workplace

¹ NYS Department of Labor, 2000

² U.S. Census Bureau, County Business Patterns, 1999

³ New York City Department of Finance, Office of Tax Policy, *Annual Report on Tax Expenditures, Fiscal Year 2001*

health and safety, and ESL/Literacy are the top areas in which employers desire outside training assistance for their current work force;

- Employee training today is overwhelmingly carried out on-site. However, owners and managers are generally willing to work with an outside training organization to improve the skills of their work force. Seventy-three percent of the baking companies surveyed stated that they would allow employees to attend free outside training classes on company time;
- Employers expect that an increase in an employee's skill level will lead to increased compensation for the employee;
- A New York City location is, with few exceptions, considered essential to the successful operations of most bakers and few indicated that they contemplated leaving the City; and
- Companies cited high energy costs, high taxes and difficulty finding adequate space for production as the chief obstacles to remaining in New York.

The Artisan Baking Center has the capacity to become a valuable resource for New York City's baking industry. To increase utilization of its facilities and services, to ensure that its services are responsive to employer needs, and to retain and expand the availability of decent well-paying jobs in the industry, we make the following recommendations:

- The Artisan Baking Center should emphasize food and workplace safety, ESL/Literacy and basic work-readiness training during its initial phase of operations. This will provide an opportunity to introduce owners to the Baking Center, demonstrate its ability, and build confidence in the Center;
- The Artisan Baking Center should emphasize more specialized, vocational training during a second phase of operations. Vocational courses should focus on artisan and non-artisan bread, flour cake and non-assembled dessert baking;
- The Artisan Baking Center should offer seminars and classes for owners and managers, as well as employees. Topics of particular interest to employers include equipment maintenance and repair, setting price point, and new sources of capital;
- Employers should be invited to increase their participation in the governance of the Artisan Baking Center. Building a partnership with owners and managers will help to ensure that the curriculum is responsive and facilitate recruitment and placement of program participants; and
- The Artisan Baking Center should be marketed as part of a collaboration with other economic development organizations that can help address other high priority business needs. Owners and managers were particularly interested in obtaining assistance to select and acquire new equipment, lower energy costs and secure additional space.

With strong employer participation and a multi-faceted, flexible curriculum, the Artisan Baking Center can help both New York City employers and their employees to capitalize on positive market trends.

Purpose of Study

In the summer of 2001, the Consortium for Worker Education (CWE), Local 3 of the Bakery, Confectionery, Tobacco Workers & Grain Millers International Union and the Artisan Baking Center commissioned the New York Industrial Retention Network (NYIRN) to undertake a study of the baking industry in New York City. The purpose of the study was to ascertain the overall health of the baking industry in New York, its prospects for expansion, and its particular training and work force needs.

The need for this study arose when Local 3 and the CWE, in conjunction with metropolitan area baking businesses, received funding from the U.S. Department of Labor to establish an Artisan Baking Center in Long Island City, Queens. The Artisan Baking Center will provide general and specialized baking training for incumbent bakery workers and for new workers entering the industry, including those drawn from programs such as Welfare to Work, WIA Title I Adult, and Dislocated Workers. The findings of this study are intended to assist the Center in developing its curriculum and marketing strategy.

Artisan bread and other high-end¹ types of baking have the potential to generate relatively well-paying jobs that will remain in New York City. The City provides several significant markets for artisan bread. It is sold at the wholesale level to restaurants, hotels and catering services, and is carried at high and middle-end retail bakeries throughout New York. Handmade, specialized baked products command high prices and must be delivered to various New York City locations within a short time period from nearby production sites.

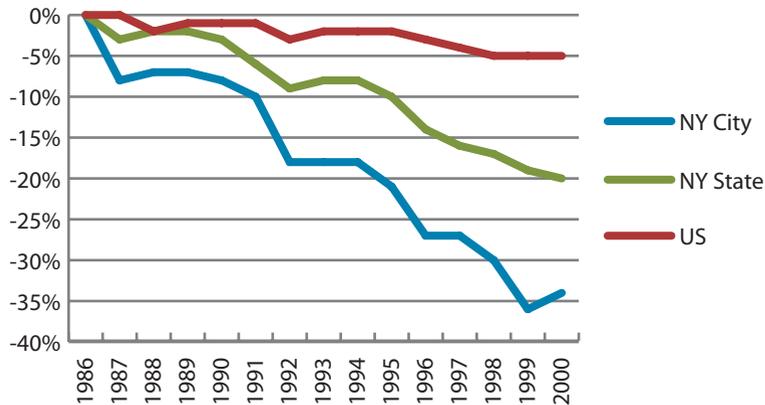
While the Artisan Baking Center is not limited to providing courses on artisan bread baking, there is a particular interest on the part of many New York City bakeries and Local 3 in this product because of its potential for generating employment. Both through enabling more bakeries to produce high quality artisan bread—and other products with growing demand—the Artisan Baking Center has the potential to bolster employment in New York City food manufacturing.

¹ “High-end” refers in this case to bakery products that are not mass produced, but instead are made in smaller batches using fresh, not pre-mixed, ingredients, that require hand work, and have a higher than average price point.

Demographic Trends: Manufacturers of Baked Goods vs. Retail Bakeries

Over the past decade and a half, employment in the manufacturing sector of the baking industry has declined not only in New York City and New York State, but also nationwide (Figure 3.1).

Figure 3.1: Baking Manufacturing Employment Percentage Decline Since 1986

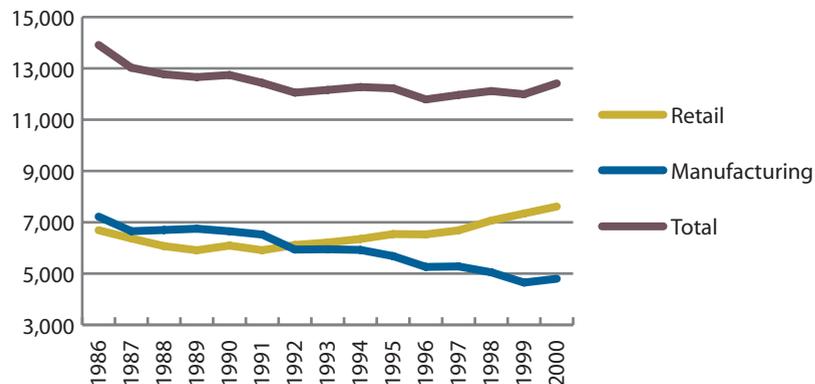


Source: Bureau of Labor Statistics

Of the three areas, New York City has experienced the sharpest decline in baking manufacturing employment. Manufacturing jobs in the baked goods sector decreased by 34% in New York City from 1986 to 2000, as opposed to a decline of 20% in New York State and 5% throughout the U.S.

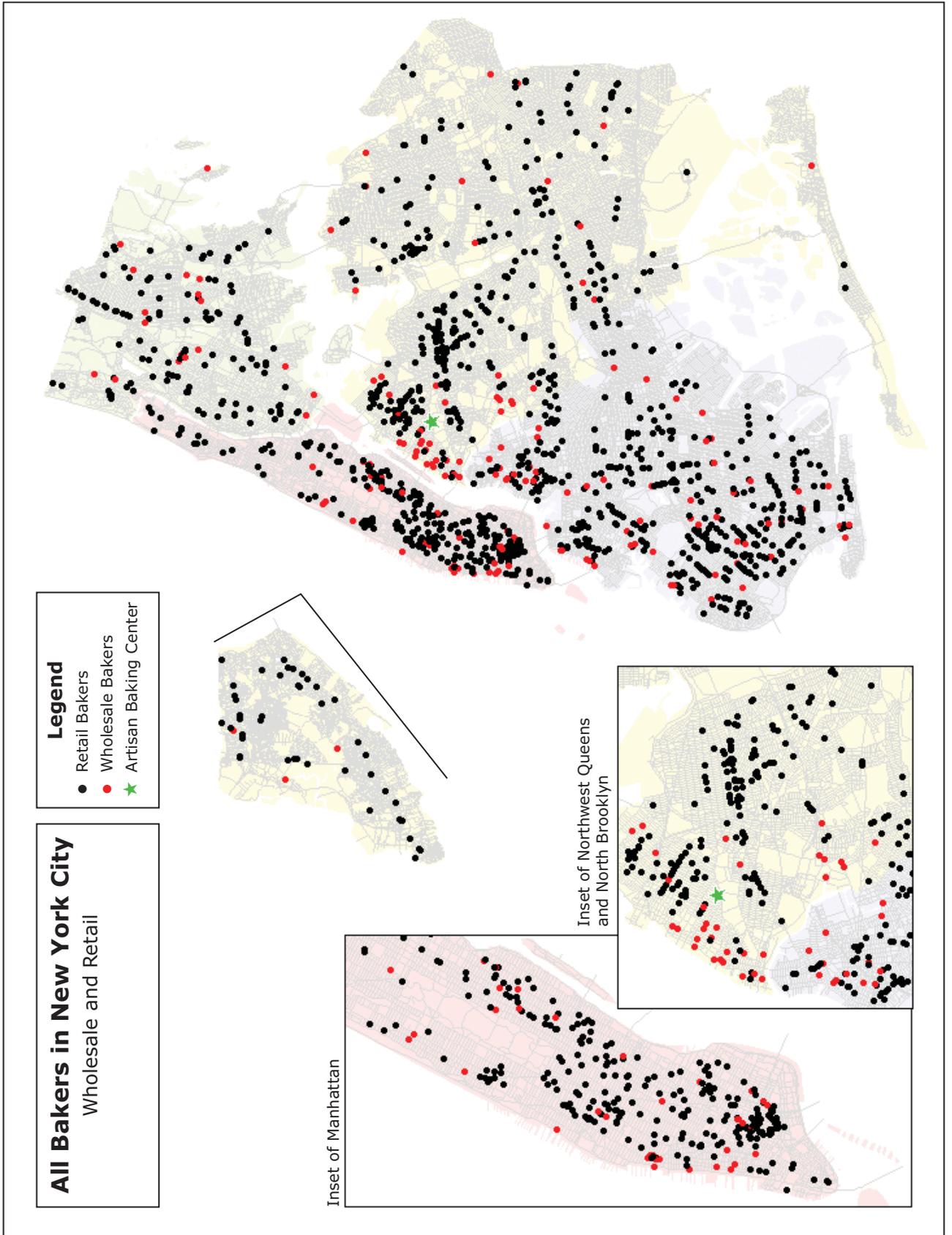
Employment in New York City retail bakeries, on the other hand, has steadily increased since 1991 (Figure 3.2).

Figure 3.2: Baking Manufacturing Employment and Retail Bakery Employment in New York City



Source: New York State Department of Labor

Map 1



When New York City manufacturing and retail bakery employment are combined, total employment climbed back from a low of 11,789 in 1996 to 12,414 in 2000, an increase of 625 jobs, or 5.3%. There is some ambiguity in how jobs are classified by the Department of Labor and the growth in retail employment, which fueled this overall increase, does include jobs in production and distribution. In addition, some New York City bakers (including artisan bread producers) combine retail, production and wholesale distribution functions in one facility.

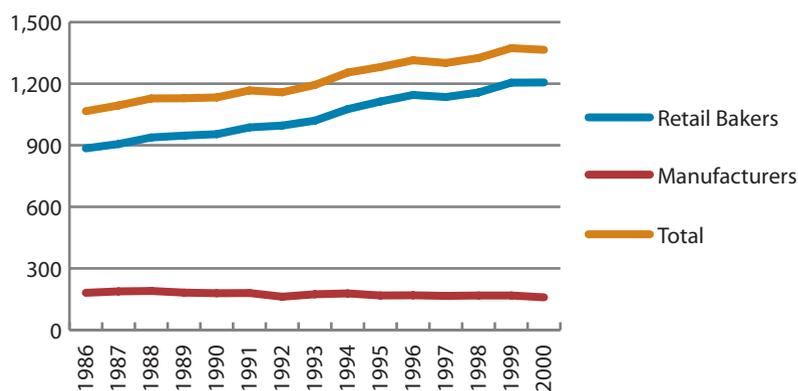
Workers in New York City's baking industry reflect the surge in the city's immigrant population in the 1990's. According to Local 3 of the Bakery Workers Union, 70% of unionized bakery workers in New York City are Latino. The majority of them are immigrants.

Despite a steady drop in employment, the number of baked good manufacturers has remained relatively stable over the same period. Interestingly, the number of retail bakeries in New York City has grown by 36% since 1986 (Figure 3.3). The growth of retail bakeries indicates a growing consumer preference for higher-end baked goods. Preferring to buy bread, for example, in a bakery as opposed to a pre-packaged loaf in a supermarket suggests a greater appreciation of quality, a willingness to pay more, and the motivation to go to an additional store for a premium product.

At the close of 2000, there were a total of 1,365 manufacturing and retail baking establishments in New York City, each employing an average of 9 persons.

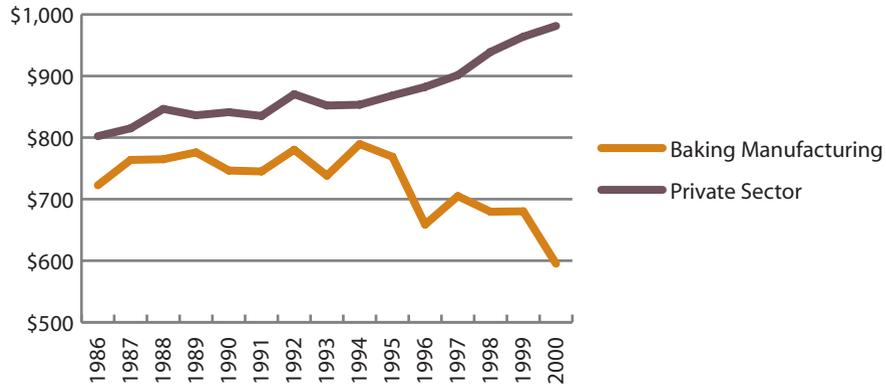
One noticeable trend in New York City is that the rate of job loss in the baked goods manufacturing sector is outpacing the rate of loss of baking manufacturers. This could indicate several things, including mechanization and/or poor business conditions. Interestingly, employment in retail bakeries is also growing at a slower rate (9.7%) than the rate of increase of number of retail establishments.

Figure 3.3: Baking Manufacturing Establishments and Retail Bakeries in New York City



Source: New York State Department of Labor

Figure 3.4: New York City Average Weekly Wages (Adjusted for 2001)



Source: New York State Department of Labor

Real wages in the New York City baked goods manufacturing sector have declined by 18% since 1986. This does not compare favorably with real wages in New York City's private sector overall, which increased by 22% during the same period. (Private sector wages in this case do not include jobs in securities and commodities exchange, which experienced an enormous increase in the 1990's.)

New York City's bakeries (retail and wholesale) paid over \$242 million in wages¹ in 1999 and \$38.1 million in taxes.²

Market Trends: Bread

The bread industry is moving toward a greater diversity and higher quality level of products. According to a 2000 report by Packaged Facts,³ the total market share of white bread has been decreasing. As of 1998, only 54% of principal shoppers in the U.S. purchased white bread and that market share had been decreasing yearly. On the other hand, wheat breads, bagels, and English muffins are increasing in market share. The 2000 study also noted that the market share of higher quality "specialty breads" is increasing. In order to tap into this market, some large-scale producers of bread are now making use of new machines that facilitate the production of "artisan style" breads. Many people in the industry argue, however, that the breads produced in this mechanized way do not match the consistency and taste of hand made artisan breads.

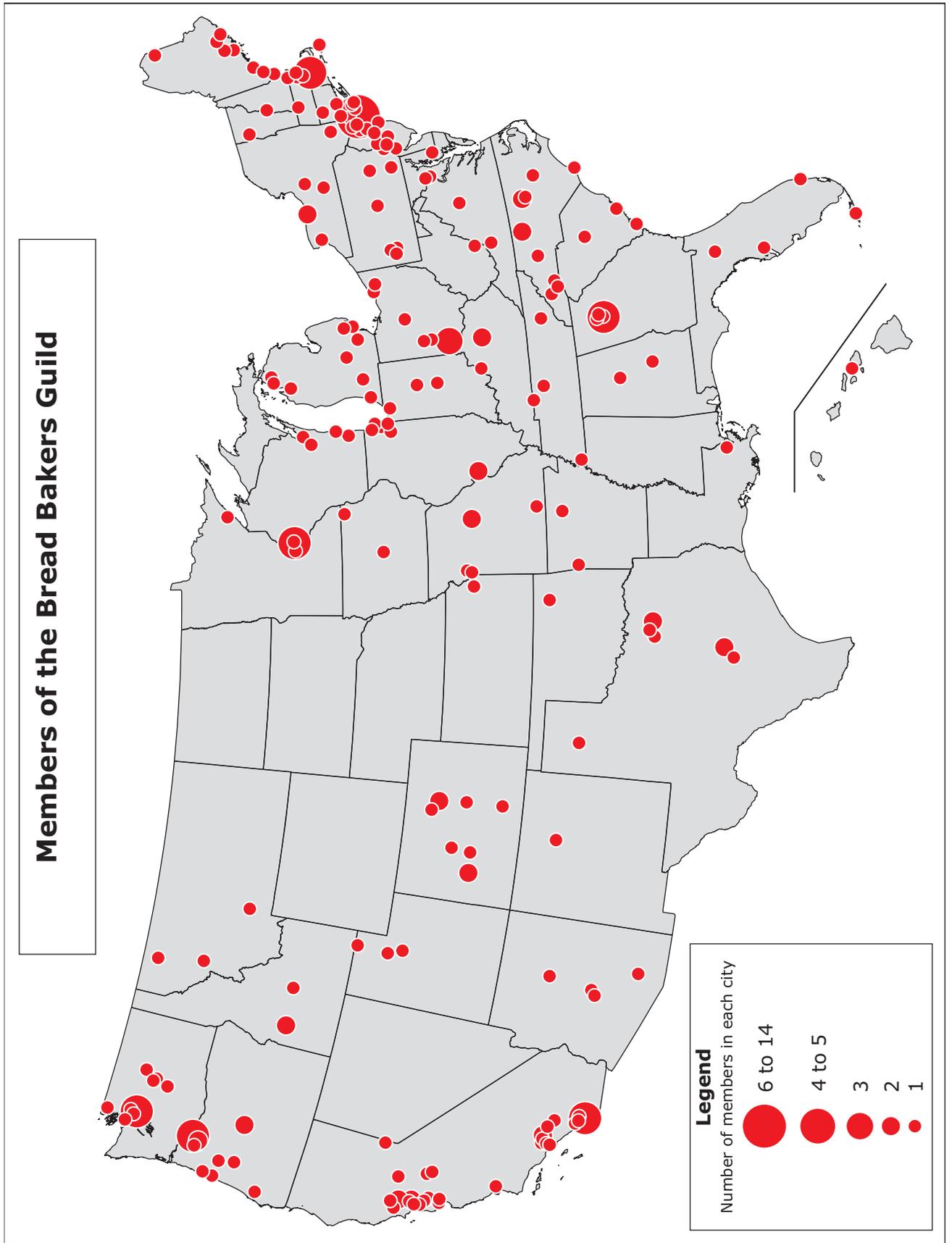
The movement away from packaged white bread on the part of consumers is a market trend that bodes well for the artisan segment of the baking industry. New York City, one of the major national foci of artisan bread baking, is in a position to benefit from this trend. Map 2 shows the nationwide distribution of membership in the Bread Bakers Guild of America, a trade group for commercial artisan bakers. While the Guild does not include every artisan baker in the country, the locations of its membership indicate where the market for commercially baked artisan bread is growing. There are four major concentrations of Guild members throughout the country (the Bay Area in California, and the Portland,

¹ U.S. Census Bureau, County Business Patterns, 1999

² New York City Department of Finance, Office of Tax Policy, *Annual Report on Tax Expenditures, Fiscal Year 2001*

³ Packaged Facts, *The U.S. Bread Market*, February 2000

Map 2



Chicago and New York metro areas). New York City has 14 Guild members, the largest number of Guild members in any American city.

Impact of the Current Recession

There is reason to believe that the growth and sales of artisan breads will remain strong even if the economy continues to falter, though different companies will feel the impact of the recession in different ways. Industry trade magazines have noted that high quality bread is an “affordable indulgence” that people will continue to buy even as they cut back on such extravagances as dining out.⁴ However, the retail and wholesale components of the artisan bread industry may be affected somewhat differently by an ongoing recession. Retail sales directly to consumers could remain stable because artisan bread is a relatively affordable luxury item. Wholesale activity, which includes sales to restaurants and hotels, could be severely affected as tourism falls and consumers reduce their discretionary spending in restaurants.

A representative of the New York State Association of Manufacturing Retail Bakeries stated that the market for artisan bread is growing slowly but steadily within the region.⁵ This was confirmed both by artisan bakers located in New York City and New Jersey, and the president of the Bread Bakers Guild of America. The New York State Association also noted that once consumers switch to higher quality breads, they will rarely switch back, and will buy bread as often as three times per week. There are challenges for artisan bakers, however. First, artisan bread is extremely labor intensive and is thus expensive to produce. Demand and prices must remain consistent to cover costs. Second, there are a growing number of retail establishments that are not bakeries, which are selling baked goods, including “artisan style” bread. This is a new source of competition for traditional wholesale and retail baking operations.

Table 3.1: Past and Projected Growth Rates for Sweet Baked Goods

Category	Annual Growth Rate 1995-1999	Projected Annual Growth Rate 1999-2004
Cookies	1.7%	3.2%
Pastries	2.1%	2.8%
Snack Cakes	1.9%	2.2%
Doughnuts	2.6%	3.2%
Cakes	5.7%	4.6%
Pies	1.0%	2.6%
Muffins	-0.4%	3.3%
Total	2.1%	3.1%

Source: *The U.S. Market for Sweet Baked Goods*, Kalorama Information, May 2000

Market Trends: Sweet Baked Goods

Sweet baked goods have shown steady sales growth and are likely to continue to do so in the next few years. The following table shows total projected retail sales growth of sweet baked goods in the U.S.

The growing consumer interest in specialty and higher quality items creates a potential for new growth in the baked goods industry, particularly in New York City. It is clear, however, that growing consumer interest has not yet translated into employment growth and wage gains for baking manufacturing workers on the whole.

The potential exists to improve the position and marketability of workers, and the Artisan Baking Center can play a key role in preparing workers for the growing segments of the industry.

⁴ Bishop, Martha, “Specialty Breads: A Recession-proof Product?” *Modern Baking*, v. 15, no. 10, Sept. 2001

⁵ The New York State Association of Manufacturing Retail Bakeries was interviewed as part of this study.

In addition to data generally available to the public from government sources, NYIRN conducted interviews with 33 baking companies within the five boroughs of New York City. We chose to focus on bakeries with a wholesale component because wholesale or whole-sale/retail bakeries have greater potential for expansion into new markets and products. Neighborhood-based, retail-only bakeries are normally limited to their local markets. We began our process of selecting potential interviewees by compiling a list of New York City bakers based on phone book entries, the Local 3 membership list, and databases from Harris Info Source, Dun & Bradstreet, and the American Institute of Baking. We tested this list by telephoning the companies to confirm that they were involved in the actual production of bakery products and that their business included a wholesale component.

The result was a list of 170 companies, to which we sent letters requesting an interview in order to administer our survey (see Appendix A). We followed up the mailing with phone calls to every baking company owner. Several interviews were arranged directly by Local 3. Twenty-three of the interviews were conducted in person, five were conducted over the telephone, and five of the surveys were completed and returned by fax.

The interviewed firms represent a wide variety of bakeries in the city (boutique, medium sized, and mass production). These bakeries produce a diversity of products that range from specialty items for particular ethnic groups and holidays, to baked goods for institutions such as schools and hospitals. Ten of the 33 bakeries are unionized.

The survey itself was developed by NYIRN in consultation with representatives from Local 3, the Artisan Baking Center staff and members of its employer board, and CWE. The survey was designed to examine four basic questions:

- What are the types and percentage breakdowns of bakery products produced by the interviewed firms?
- What are the expansion plans of interviewed firms in terms of their product line and production volume? Are additional amounts of basic inputs needed to actualize these plans? Space, machinery, employees, research and design capacity, and capital were selected as examples of basic inputs and firms also had the opportunity to add others if applicable.
- How do baking company owners recruit and train their workers? What are the training needs of the industry and what is the receptivity of owners to an outside training program?
- How does the industry perceive the value of being located in New York City and its ability to remain in New York? How important is a New York City location to a company's continued viability? What are the obstacles to doing business in New York City?

Product Line

The baked goods industry in New York City produces a wide range of products. We therefore grouped the products made by our subjects into the following categories:

- Non-Artisan Bread
- Artisan Bread
- International Breads, including matzoh, pita and challah
- Pastries
- Bagels
- Muffins
- Doughnuts
- Flour Cakes
- Assembled Desserts
- Non-Assembled Desserts

For the purposes of this study, artisan bread is defined as bread baked according to traditional European methods, including the use of scratch ingredients, no artificial leavening agents, hand rolling and hearth baking. Dough used to make artisan bread “must contain only flour, water, salt, and leavening (supplemental ingredients, such as walnuts or olives, are fine), undergo lengthy fermentation and be baked directly on a masonry hearth.”¹ The chewy quality of artisan bread results from its dark, thick outer crust. The inner part of the loaf often has holes and air bubbles that enhance the taste and texture.²

Desserts (excluding flour cakes) were divided in two basic groups. Dessert items that consist of baked and non-baked components such as crust or cake, combined with soft filling, were categorized as assembled desserts (mousse, tortes and cheesecakes). Dessert items that are baked as is and require minimal decoration were categorized as non-assembled (rugelach, cookies, and macaroons).

We also included an “other” category, which, in the end, contained only one company’s products—pastry dough and tart shells.

Work Force

One of the central tasks of the study was to examine the differential in skill level between baking production employees. We asked employers to divide their employees into three groups: unskilled, semi-skilled, and skilled. Because of the wide variety of companies that we interviewed, the definition of unskilled, semi-skilled and skilled was likely to vary. To reduce this ambiguity, companies were instructed to classify production employees as unskilled if they were performing the most basic tasks and had no responsibility for other employees. Semi-skilled production employees perform a wider range of tasks and have some level of responsibility for their co-workers. Skilled employees were defined as those who perform the most difficult tasks, who can carry out the broadest range of jobs, and who assist in training and supervising other workers. Owners were also asked to provide the hourly wages of their employees divided by skill group.

¹ *Fine Cooking Magazine*

² *Julia Child’s Eater’s Digest*

Company owners often cited basic work readiness, in addition to other specific skills, when asked what was required for their current hiring needs. Basic work readiness includes qualities such as punctuality, reliability, ability to follow instructions, and willingness to assist where needed.

Baking company owners were also asked about skills that their current employees lacked which could be addressed through training. Specialized (as opposed to introductory) baking skills were defined as those skills necessary to complete production (such as proofing or glazing), and the ability to create unique, small-batch items.

Future Plans

Companies were asked if they had ownership succession plans. An ownership succession plan prepares for the transition to a new owner in anticipation of the current owner's retirement, illness, etc. The existence of an ownership transition plan increases a company's long-term viability.

Logistics of Operations

When owners were asked about transportation issues in terms of doing business in New York City, this referred to the ability of workers and management to commute to work. Questions regarding distribution referred to delivering products to customers and markets.

STUDY PARTICIPANTS

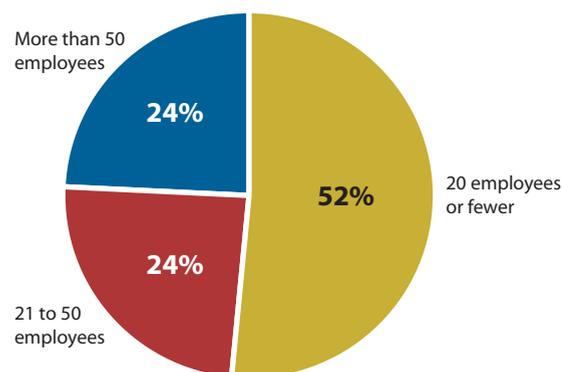
The firms interviewed for this study vary significantly in terms of their products and markets, reflecting the tremendous diversity that exists in the city's baking industry today. Some companies serve a particular part of the city or ethnic group, while others ship their goods throughout the region. The companies are located in all five boroughs, and are situated in commercial, industrial and residential areas (see Map 3). They are located in all of the city's major baking industry clusters: lower Manhattan; Long Island City and Maspeth, Queens; and Williamsburg and Greenpoint, Brooklyn.

Thirty-one of the 33 companies interviewed for this study had a wholesale/manufacturing component and they represent a significant share (19%) of the city's baked goods manufacturers.¹ Many of the companies also had a retail component. The interviewees employ 1,510 persons in total representing 12% of all New York City manufacturing and retail bakery workers.² Fifty-six percent of the employees of firms interviewed for this study are production workers. This compares with an average of 57% for bakery manufacturing employees citywide and 63% for retail bakery employees citywide.³

Company Size

Because of the fact that we interviewed a handful of very large companies, our averages for size of company and sales volume are somewhat higher than the averages for the entire city. The city's baking manufacturing/wholesale establishments employ an average of 30 persons per establishment.⁴ Our subjects employ an average of 46 persons per business. However, when we control for the largest company interviewed (with over 300 workers), our subjects employ 38 persons on average. Half of the companies interviewed had 20 employees or fewer (Figure 5.1).

Figure 5.1: Company Size by Number of Employees



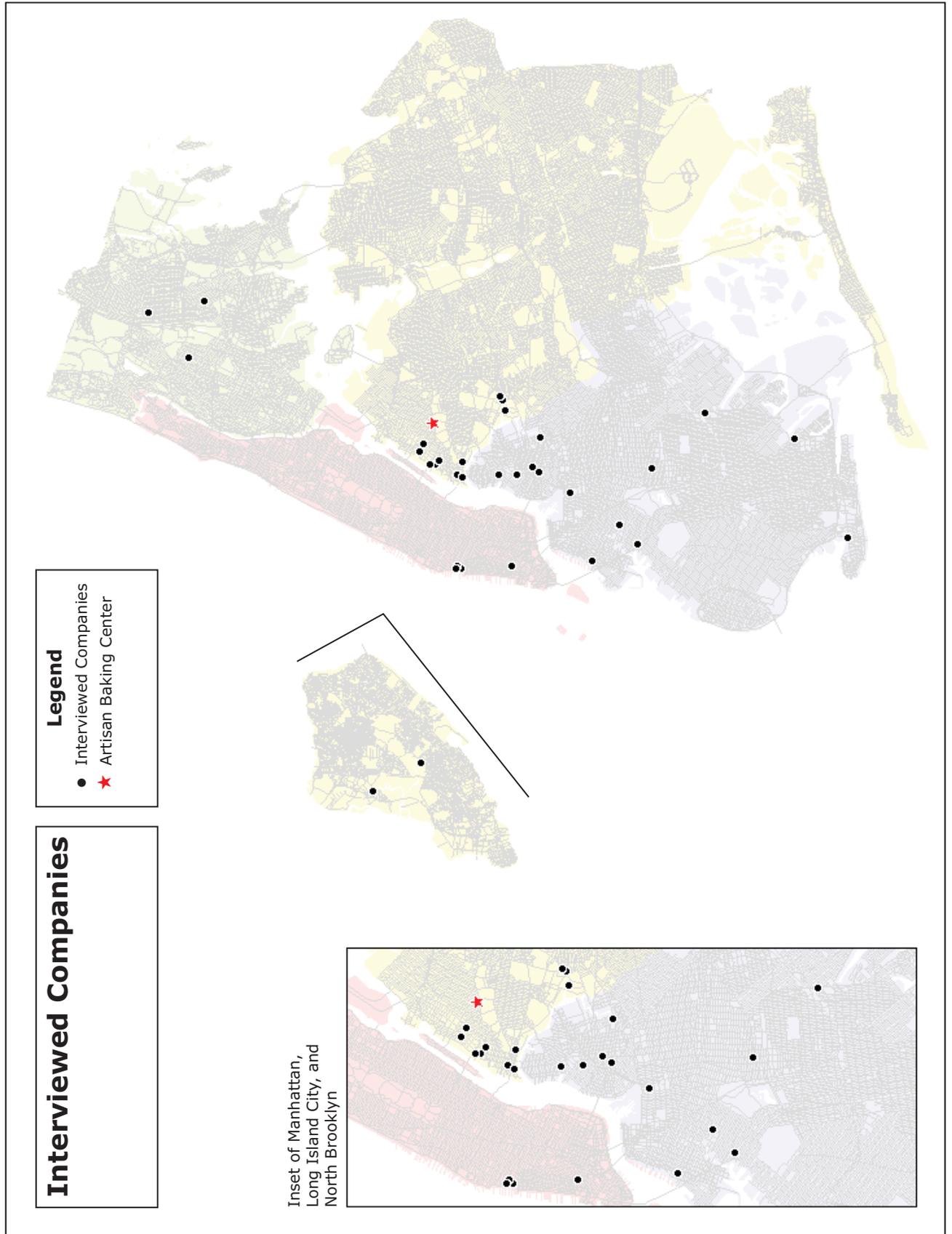
¹ NYS Department of Labor, 2000

² NYS Department of Labor, 2000

³ U.S. Census Bureau, Economic Census, 1997

⁴ NYS Department of Labor, 2000

Map 3

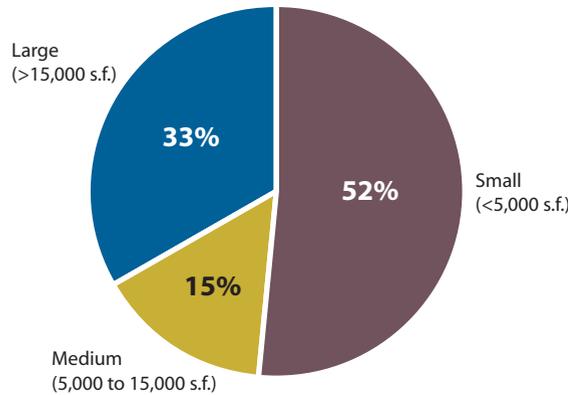


Use of Space

About one-third of the interviewed companies owned their spaces whereas almost two-thirds of the companies leased their spaces.

Size of spaces ranged from as little as 1,100 square feet to as much as 150,000 square feet. The average for all companies interviewed was 16,000 square feet, however, half of the companies surveyed had 5,000 square feet or less. In Figure 5.2, companies were categorized as small, medium, and large in terms of square footage.

Figure 5.2: Company Size by Square Footage



Among our subjects, breakfast product and bread makers consume on average twice the amount of space occupied by dessert and assorted baked goods producers (Figure 5.3).

Sales Volume

The average yearly sales volume of the 26 companies that answered the question was \$3.7 million. Yearly sales volumes ranged from \$100,000 to \$26,500,000. Forty-six percent of the respondents have sales volumes of \$1.5 million or less and fifty-four percent have sales volumes over \$1.5 million. Figure 5.4 illustrates average sales volume by top product.

Figure 5.3: Average Square Footage of Companies by Top Product

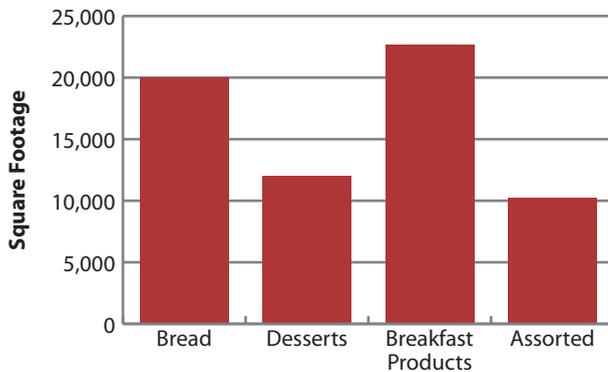
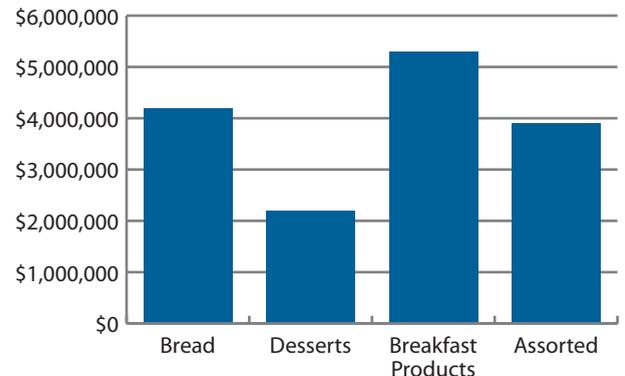


Figure 5.4: Average Sales for Companies by Top Product



The average 1997 sales volume for all manufacturing bakeries in New York City was \$2.09 million. The average 1997 sales volume for retail bakeries in New York City was \$251,500.⁵

Perception of a Competitive Market

Many companies noted that the baking industry was highly competitive. Twenty-five of 33 companies (76%) rated the market for their main product as very competitive (8 or higher on a scale of 1 to 10). Only four companies (12%) rated the market for their main product as uncompetitive (two to four on a scale of 1 to 10).

⁵ U.S. Census Bureau, Economic Census, 1997

PRODUCT LINE

The companies interviewed for this study frequently carried several products. Every company varied in terms of the assortment and percentage of products carried. This presented a challenge, particularly in terms of understanding the importance of a single product.

Table 5.1 indicates the number of interviewed companies involved in the production of each type of baked good. The third column shows the mean percentage of each item within the product assortment of all companies who make it. The fourth column shows the range of percentages for each item within its producers' assortments.

Flour cakes, non-assembled desserts and non-artisan bread were the most frequently carried products with 15, 14 and 13 companies making these items respectively.

The products made by the companies can also be grouped into three basic categories: Breads (all types); Breakfast Products (all types); and Desserts (all types). The largest number of companies interviewed were dessert makers (22), closely followed by those producing breads (19). Finally, 14 of the companies included breakfast items in their product line.

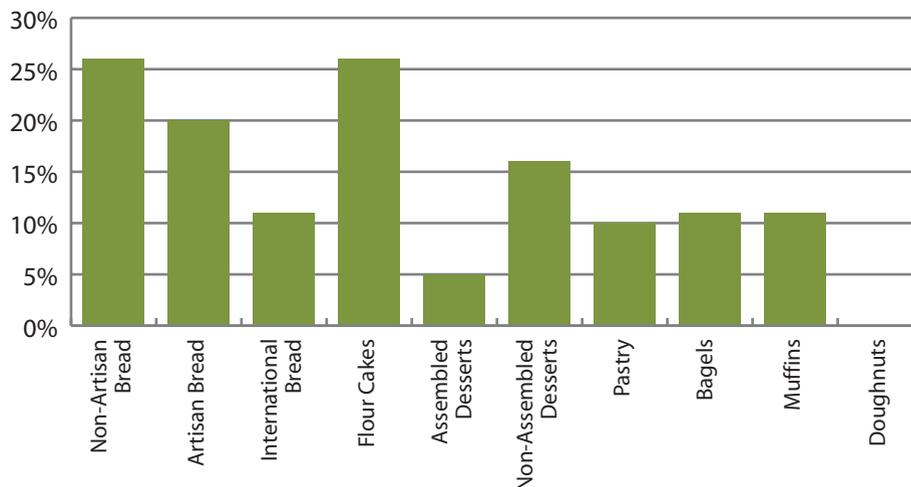
Certain products appeared to require a greater concentration of resources and attention. For those companies that produce bread of any type, bread tended to be a high percentage of their product lines: 60% for artisan bread, 59% for non-artisan bread and 46% for international breads. Conversely, companies producing pastry, doughnuts and bagels carried a relatively low percentage of these products, 22%, 15% and 12% respectively.

The fact that companies tend to dedicate more of their product line to bread could be caused by several different factors, among them, the labor intensity of bread baking, bread's profitability, market demand, or the wide difference in skills needed for other types of baking.

Table 5.1: Baked Goods Produced by Interviewed Companies

Type of Product	Number of companies making this product	Percent of this item within product assortment of all companies who make it	Range of this item within product assortment of all companies who make it
Non-Artisan Bread	13	59%	8% to 100%
Artisan Bread	5	60%	5% to 100%
International Breads	8	46%	2% to 100%
Breads (all types)	19	75%	2% to 100%
Bagels	2	12%	4% to 20%
Pastry	8	22%	5% to 60%
Doughnuts	4	15%	6% to 20%
Muffins	8	31%	3% to 80%
Breakfast Products (all types)	14	36%	3% to 80%
Flour cakes	15	28%	3% to 100%
Assembled Desserts	10	34%	4% to 75%
Non-Assembled Desserts	14	40%	3% to 100%
Desserts (all types)	22	60%	3% to 100%
Other	1	35%	35%

Figure 5.5: Expected Areas of Product Line Expansion



Among the producers of any particular product, there is a broad range in terms of the product's relative importance to the company's overall product assortment (see column four in Table 5.1). For example, assembled desserts can make up as little as 4% or as much as 75% of a company's product assortment. As we studied the needs of producers of particular products, such as dessert makers, it became necessary to distinguish between companies that carried minimal amounts of a product and others that dedicated significant resources to the same product. Unless stated otherwise, companies in this study are grouped according to their main product.⁶ This means, for example, that our analysis of dessert producers would not include a company who counts non-assembled desserts as only 3% of their product assortment.

When companies are classified according to their top product, our study interviewed 14 bread, 11 dessert, and only three breakfast product producers. Five companies were classified as "assorted" because they had no main product (one that generated at least 15% more in sales volume than any other product).

Plans for Expanding Product Line

Fifty-nine percent of the companies plan to expand their product line and 41% do not. Reasons for not expanding product line range from "too much uncertainty" in the economy to being "happy the way they are," to "already producing a large range of products."

Sixty-nine percent of all bread producers planned to expand their product line, as opposed to 45% of the dessert producers and 33% of the breakfast product makers. An impressive 80% of the assorted baked goods producers planned to expand product line.

Many companies ambitiously laid out their plans for product line expansion. One company insisted, for example, that "cookies are the wave of the future." Of the companies considering expanding their product line, non-artisan bread (chosen by 26% of the companies), flour cakes (26%), artisan bread (20%), and non-assembled desserts (16%) were the main areas of interest (Figure 5.5). No companies were willing to expand into doughnuts and only one said they were expanding into assembled desserts.

⁶ A company's "main product" must be at least 15% greater in terms of sales volume than any other product.

Our study also looked at expansion products of interest for each of the four company groups (bread, dessert, breakfast product and assorted good producers). Their answers were consistent with those of the overall group. They wished to expand into non-artisan bread, flour cakes and non-assembled desserts. However, there was also a very large interest in expanding into muffins on the part of the breakfast foods producers.

Companies who planned to expand their product line were asked what, if anything, was needed to do so. An overwhelming 90% needed more machinery (including depositors, ovens, and sheeters). Seventy-two percent of the companies required capital assistance.

Sixty-three percent needed additional employees—implying that they would create an additional 72 new jobs if they fulfilled their plans—and 55% needed higher skilled employees. Fifty-two percent of the companies responding to the question needed additional space, requiring an average of 9,080 additional square feet. Thirty-five percent were looking for more research and design capacity in order to expand product line.

When we looked at the needs of companies grouped according to their top product, a few interesting trends emerge. First, bread and assorted product producers have the greatest need for additional and higher-skilled employees in order to expand their product line. In addition, capital assistance is needed most by bread producers.

Plans for Increasing Production Volume

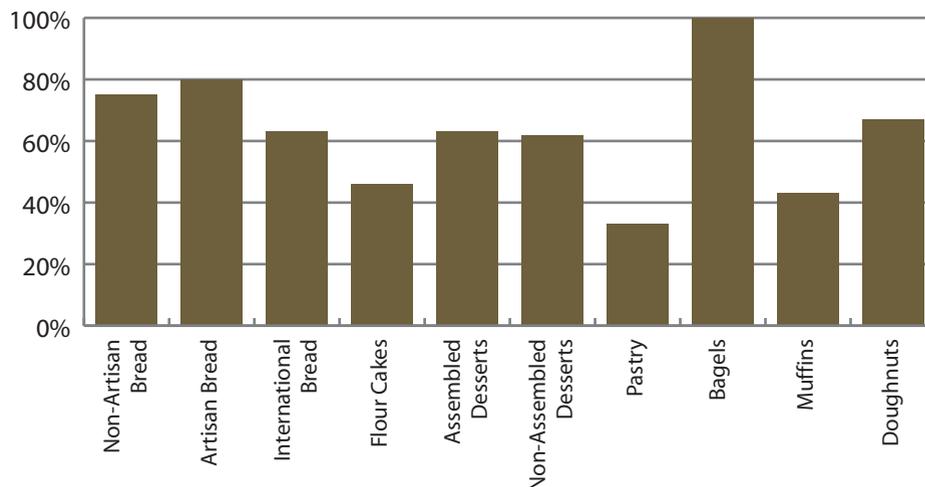
Eighty-seven percent of the companies surveyed indicated they planned to increase production⁷ volume of their existing products. Those not planning to expand production volume explained that it was “too hard to be profitable,” and that the economy was “in a recession—a crisis period.” One company relied on an independent sales force and had little control over where their product was placed.

Interest in increasing production volume was very strong within all four company groups. One-hundred percent of assorted product makers planned to increase volume of existing products, as opposed to 91% of the dessert makers, 85% of the bread producers and 67% of the breakfast product makers. As illustrated in Figure 5.6, several products were targeted by a majority of producers for increased volume. These were: artisan bread, bagels, doughnuts, international breads, non-artisan bread, breakfast pastry, flour cakes and assembled desserts.

Again, a lack of machinery was the chief obstacle to expansion, followed closely by a need for workers. Additional machinery was cited as a requirement to increase production volume by 81% of the companies answering the question. Ovens and mixers were mentioned most often. Seventy-seven percent of the respondents stated that they needed additional employees, with companies requiring from one to fourteen new employees, creating a total demand for 47 new employees. Capital assistance was required by 54% of the companies. More space was needed for 48% of the respondents, ranging from an additional

⁷ Although the survey originally asked questions about “sales volume,” the information we sought concerned changes in total production output.

Figure 5.6: Expected Areas of Production Volume Increase



1,000 square feet to as much as 17,500 square feet. Thirty-two percent of the companies needed greater research and design capacity. Three companies also mentioned marketing as necessary to help increase their production volume.

The need for additional employees was particularly strong among bread and assorted product makers. Interestingly, all of the breakfast product producers required additional machinery and research and design capacity to increase production volume. Bread makers as a group, again, appeared to have the greatest need for capital assistance.

WORK FORCE

The 33 baking companies interviewed employ a total of 1,510 persons, 844 of whom work in production.

These 33 companies had as few as four and as many as 315 total employees, with as few as three and as many as 100 production workers. Half of the companies had 20 employees or less. Likewise, half of the companies had 12 or fewer production employees. The companies had an average of 46 total current employees. Of these, 26 employees on average were production workers involved in the actual creation of bakery products.

Distribution of the Work Force by Skill Levels

In terms of skill/responsibility level, company owners classified the majority of production workers as unskilled or semi-skilled. The baking companies surveyed have an average of 12 unskilled, 14 semi-skilled, and eight skilled production workers.

Table 5.2: Proportion of Workers by Skill Level

Unskilled production workers	26%
Semi-skilled production workers	47%
Skilled production workers	27%

Wages by Skill Levels

Production wages in surveyed baking companies were positively affected by skill level.

Table 5.3: Salary Ranges by Skill Level

	Salary Range	Median Wage
Unskilled	\$5.20-\$16.00	\$7.00
Semi-skilled	\$5.40-\$18.00	\$10.00
Skilled	\$6.00-\$25.00	\$15.00

Unskilled production workers are paid a median of \$7.00 per hour and semi-skilled production workers earn a median of \$10.00 per hour. Skilled production workers earn a median of \$15.00 per hour.

Anticipated Hiring Activities

Over half (54%) of the baking companies surveyed anticipated hiring new production workers within the next 12 months. When companies were asked about skill levels required for hiring needs in the next 12 months, there was an equivalent demand for all three skill levels (unskilled, semi-skilled and skilled).

Baking companies use a variety of means to find production workers. Informal networks are the most important source of new employees, while employment agencies and unions are utilized the least. It is interesting to note that the use of informal hiring networks has gradually superseded what was, until the early 1970's, a more structured placement program administered by the bakery workers union.

Table 5.4: Sources of New Employees

Word of mouth/current employees	94%
Newspaper ads	42%
Employment agencies	21%
Union	15%

Other types of employment sources used by owners include culinary schools, the New York State Department of Labor and the Department of Employment, non-profit agencies, technical schools, and walk-ins from the street.

Certain non-baking skills are particularly important to employers when they make hiring decisions, but previous baking experience is also helpful. Surveyed baking companies seek

basic work readiness more than any other skill when hiring production workers. Previous baking experience, along with literacy, is required by half of the baking firms.

Owners cited additional skills needed for hiring purposes, such as courtesy, a positive attitude, Spanish speaking ability, and a willingness to work nights.

Table 5.5: Skills Sought in New Employees

Basic work readiness	86%
Literacy	56%
Previous baking experience	50%
Proficiency in English	43%
Specialized baking skills	18%
High school diploma/GED	6%

Skills Needed to Expand Company Product Line

We also asked companies to list the five additional employee skills most needed to expand their product line. Their responses fell into four general categories: basic baking skills, advanced baking skills, non-baking skills, and work readiness skills.

The basic baking skills needed for product line expansion were a knowledge of machinery (including ovens), food chemistry and baker's math, HACCP, and mixing and knife ability. Advanced baking skills sought included pastry and croissant baking, an ability to use new machinery, and assistance in product development.

Among the non-baking skills most in demand were literacy, English speaking ability, retail and telephone skills, and computer literacy. Bakery owners again placed a high degree of importance on general work readiness, which includes such traits as promptness, courtesy, reliability, commitment, hygiene, and speed.

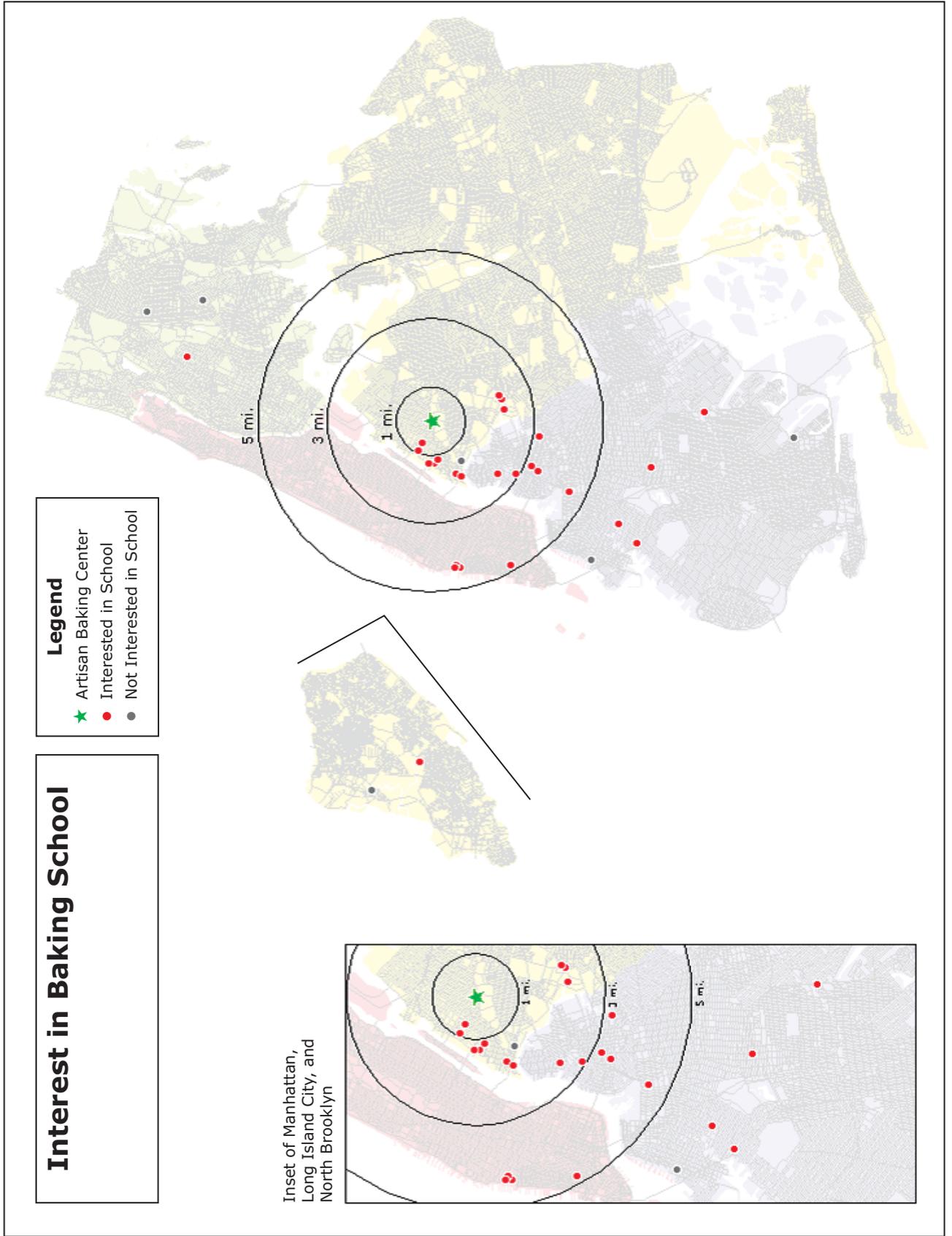
Attitudes Toward Training

An overwhelmingly majority of the companies carry out their own training. Virtually every baking company interviewed (97%) trains workers on the job (using foremen and co-workers as trainers). Ten percent of the firms also offer on-the-job apprenticeships. Only one of the interviewed firms uses off-site training facilities exclusively. In this instance, the manufacturer of the bakery's highly specialized machinery trains bakery employees at its headquarters. Thirteen percent of the companies use a combination of both on and off-site training sources.

Owners and managers typically had a positive response when asked about their willingness to work with an outside training organization. Seventy-three percent of the baking companies surveyed stated that they would allow employees to attend free outside training classes on company time. Companies allowing employees to attend outside training classes will do so for an average of 5.3 hours per week. Map 4 shows the location of interviewed baking companies with an interest in the Artisan Baking Center.

However, many owners did express doubts about sending their employees to an independent facility for classes. They were generally more open to classes that focused on non-baking skills because they believed that their company's production techniques were unique and, sometimes, confidential. Some owners were also concerned that as their employees' skill level increased, so would their marketability to other bakeries and their general expectations. Finally, there were concerns on the part of a limited number of owners that a union

Map 4



connected school could potentially be a vehicle for organizing campaigns and that there could be conflicts with owners.

Food safety and workplace health and safety are the top areas in which employers desire outside training assistance. Almost half of all baking company owners also stated, however, that assistance with training in all levels of baking skills was needed.

Table 5.6: Outside Training Needs

Food safety/HACCP training	75%
Workplace health & safety	66%
ESL/Literacy	60%
Baker's Math	47%
Introductory Baking Skills	47%
Specialized Baking Skills	42%

Ninety-six percent of all baking companies interviewed stated that as employees increase their skill level, a pay increase is standard procedure.

Bread Producers Compared to Other Companies

In comparing companies whose main product is bread (including artisan, non-artisan, and international bread) to all other companies, we found several important differences in the areas of work force and training. The average number of employees in a bread company is roughly the same as that in a non-bread company.⁸ However, interviewed bread companies have a slightly smaller proportion of their total employees in production: 52% of all employees in bread companies are production workers, while 70% of workers in non-bread companies are involved in production. Both bread and other types of bakers were 50% likely to be hiring workers within the next year. Bread companies, however, were more than twice as likely as other bakers to plan on hiring skilled employees.

Bread bakers also have different needs and interests with regard to training. Interest in outside training was substantially higher among bread baking companies than other companies. Eighty-two percent of companies whose primary product is bread would allow their employees to attend free outside training, as compared to only 64% of companies whose main product is not bread. Bread bakers expressed particular interest in receiving outside training help in the areas shown in Table 5.7.

Table 5.7: Outside Training Needs of Bread Bakers

HACCP	77%
Workplace Health	77%
ESL/Literacy	69%
Introductory Baking Skills	62%
Bakers' Math	62%
Specialty Baking Skills	50%

⁸ In calculating the average number of employees in bread companies, we removed one company whose total number of employees was over 300, making it an outlier among the rest of the sample.

PERCEPTIONS OF THE FUTURE

Thirty-percent of the companies interviewed have an ownership succession plan for the continuation of their business after the current owner retires. This does not compare favorably with other types of manufacturers in New York City. A 1999 NYIRN study of New York City manufacturers in all sectors found that 46% had ownership succession plans. We noted in 1999 that planning ahead is critical given that the typical New York City manufacturer is a small family-owned and managed company.⁹ This scenario would also apply to many of the bakeries that we visited in 2001.

Overall, a location within New York City is integral to the success of the businesses which participated in the study. On a scale of one to ten, one meaning “not at all important” and ten meaning “essential,” the average measure of importance assigned to a New York City location was 7.5. Fully half of the 32 companies that answered this question rated location within the city as 10, or absolutely crucial to their successful operation. Three companies, or 9%, rated the location as not at all essential, with an importance rating of one.

Bread bakers felt strongly that they need to be in New York City—71% of them said it was very important along with 64% of the dessert companies and all three of the breakfast product companies.

Those who felt it was important or essential to remain in New York City noted that the location makes it possible to deliver fresh products quickly to customers within the city. This is especially important for those whose customer base and reputation are mainly in New York. Producers of artisan and other high-end baked goods noted that the level of knowledge and awareness of their types of specialty products is greater in New York City than elsewhere.

Those who felt that remaining in New York City had little or no importance for their business felt that while operating in the city has many costs, it confers few if any benefits. Many producers of simple, packaged baked goods felt that the demand for their products is just as high outside the city, and if their business were located elsewhere, products could be delivered easily by truck both to New York City and the rest of the region.

When we asked companies whether they expected to be able to continue operating in New York City, 77% replied that they did.

Table 5.8: Obstacles to Doing Business in New York City

High energy costs	79%
Taxes	66%
Real estate pressures	63%
Cost of labor	42%
Difficulty in distributing product	36%
Lack of worker training programs	35%
Lack of skilled labor	28%
Lack of transportation for employees	19%
Cost of raw ingredients	19%

Nonetheless, there are many difficulties in operating in the city. The companies saw certain factors as obstacles. (Table 5.8)

Energy costs were the one difficulty cited at a high rate by all categories of bakers.

Real estate pressures cited include the cost and/or lack of available space. It is important to reiterate here that two-thirds of the com-

⁹ New York Industrial Retention Network, *The Little Manufacturer That Could: Opportunities and Challenges for Manufacturing in New York City*. May 1999

panies interviewed lease their spaces, making their real estate situation uncertain once their leases expire. With regard to taxes, several business owners identified New York State Workers Compensation deductions as an especially heavy burden.

While over a third of the companies were troubled by the cost of labor, many noted to the contrary that New York City has an unusually large pool of low-cost labor. The lack of skilled labor was cited as a problem to a far greater degree by bread producers. Half of the bread makers thought that a lack of skilled labor was a difficulty in New York whereas only 11% of non-bread bakers thought so.

Concerns with regard to distribution include such issues as traffic congestion, and lack of space for parking and loading/unloading.

We asked the companies where they might consider moving their businesses if they were not able to continue operating in New York City. Sixty percent indicated that they might consider moving the business to New Jersey, 32% to Long Island, 10% to Westchester County, 11% to upstate New York, and 11% outside the New York metropolitan region entirely.

Fifty-five percent of the employers believe that most or some of their employees would follow them if the business were to move to a new location outside New York City. However, we found that employers would be unlikely to pay relocation expenses for most of their employees. Thirteen percent of business owners speculated that they might pay the relocation costs for some of their employees, while 87% did not expect to pay any relocation expenses for employees in the event that the business left New York City.