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High Risks and Low Benefits for Workers in the New York City Restaurant Industry

– SEPTEMBER 11, 2009 –

By the Restaurant Opportunities Center of New York, the Restaurant Opportunities Centers United, the New York City Restaurant Health and Safety Taskforce, and the New York City Restaurant Industry Coalition

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EXECUTIVE SUMMARY

The restaurant industry is one of the largest and fastest-growing industries in New York City, despite the current economic crisis. However, most workers in this industry work in restaurants that put them at high risk of injury and illness, and provide them with little or no benefits to cope with these challenges. These conditions increase the likelihood of workers committing dangerous practices that place the health of the dining public at risk.

TWO ROADS TO PROFITABILITY

Our study reveals that there are two roads to profitability in New York City's restaurant industry – the "high road" and the "low road." Restaurant employers who take the "high road" are the source of the best jobs in the industry – those that enable restaurant workers to support themselves and their families, remain healthy, and advance in the industry. Taking the "low road" to profitability, on the other hand, creates low-wage jobs with long hours and few benefits. It ultimately harms workers, other restaurant employers, consumers, public health, and taxpayers.

1. OUR FINDINGS

Our study explored how occupational health exposures and job benefits determine health status and health behaviors of restaurant workers.

1) Stressful workplace conditions –demanding environments, exposure to toxic chemicals, and more - put workers at high risk of injury and illness. As a result, New York City restaurant workers reported that injuries and illnesses such as cuts, burns, chronic pain, and fatigue occurred frequently on the job.

   - **82% of all workers surveyed reported being required to do a job that makes them feel they might be at risk of injury.**
   - **36% of all workers surveyed had been cut on the job.**
   - **27% of all workers surveyed had been burned on the job.**
   - **Almost two-thirds of all restaurant workers (63%) reported having stiffness, pain, tightness, aching, or soreness in their legs, knees, and feet.**
   - **A strong correlation was found between being forced to do fast, repetitive work and being burned at the current job.**

2) Workers with the most physically and mentally demanding jobs were least likely to have job benefits such as health insurance and paid sick days.

   - **Workers without job benefits were significantly more likely to have suffered from musculoskeletal symptoms and respiratory symptoms.**

3) Work-related injuries and illnesses such as burns, cuts, or falls, in combination with little or no access to health benefits, increased the likelihood of workers committing actions that put the health of the general dining public at risk.

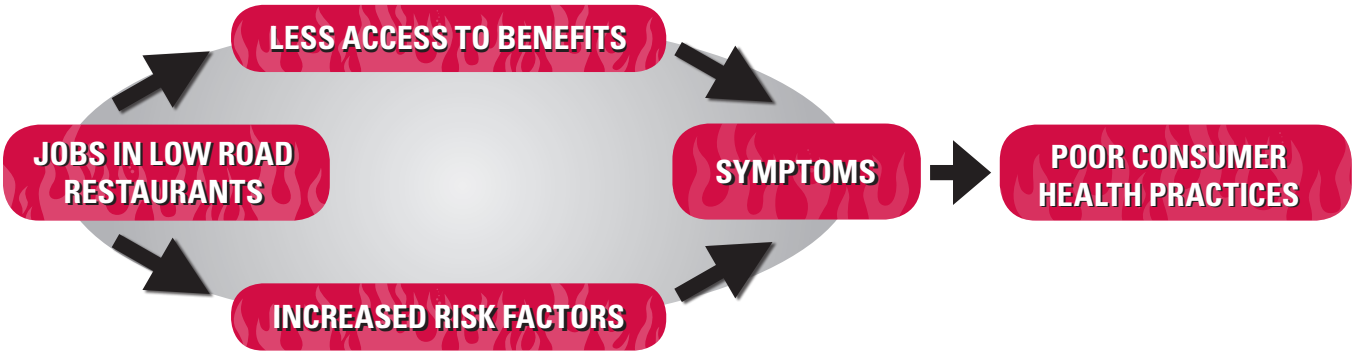
   - **98% of all workers who sneezed or coughed into the food did not have paid sick days, compared to 91% of all workers surveyed did not have paid sick days.**
   - **80% of all workers who sneezed and coughed into the food had no access to health insurance, compared to 62% of all workers surveyed who had no access to health insurance.**
   - **In total, 65% of all workers who engaged in any dangerous consumer health practice had no access to benefits, compared to 52% of the entire set of respondents who had no access to any benefits.**

Health Outcomes for NYC Restaurant Workers

	Total (n=502)
Injuries (missing = 5)	
Ever had a burn at current job	27%(135)
Ever suffered a cut at current job	36%(180)
Injured while slipping/falling at current job	12%(61)
Physically attacked while working at current job	3%(15)
Accident while delivering food (Delivery workers only, n=134)	13%(17)
Doctor-Diagnosed Health Condition (missing = 5)	
Sleeping problem	19%(101)
High cholesterol	9%(47)
Asthma	8%(40)
Injured back/ neck/ arm/ leg	7%(38)
High blood pressure	6%(33)
Nerve problems in hand/wrist	4%(20)
Blood clots in legs	2%(10)
Symptoms (past 6 months)	
Fatigue	52%(260)
Headaches	47%(238)
Leg Cramping	40%(200)
Trouble sleeping	28%(138)
Stiffness in hands	18%(92)
Heat Exhaustion	18%(88)
Poor Vision	11%(54)
Shortness of breath	8%(42)
Rash on hands	8%(42)
Chest Pain	6%(32)
Wheezing in the chest	4%(22)
Stiffness, Aching, Soreness, Pain (past month) (missing = 50)	
Legs, knees, feet	63%(317)
Lower back	56%(282)
Neck/Upper Back	49%(244)
Most frequently used hand	45%(226)
Most frequently used wrist	44%(221)
Most frequently used shoulder	37%(183)
Most frequently used forearm	32%(158)
Most frequently used elbow	21%(106)

Workers in 'low-road' restaurants are more likely to experience strenuous work environments and little access to benefits, while workers with job benefits have better mechanisms to cope with their health symptoms. Direct intervention to reduce stressful, fast-paced working conditions in restaurants would reduce injury and illness in these workplaces. However, access to benefits such as health insurance and paid sick days are also a necessity. The ability to take time off from jobs and see a physician for prompt care of injury and illness could shorten illness duration and help prevent future injury and illness. Since over three-quarters of surveyed restaurant workers reported receiving low wages, most workers who do not have paid sick days are unlikely to take a day off to recuperate and are unlikely to receive timely medical attention unless desperately ill if they do not have paid health insurance.

In New York City and many other urban areas, the majority of workers in the restaurant industry are immigrants and people of color. Because they are overrepresented in high-risk, low-wage jobs, immigrants and workers of color disproportionately experience the combination of poor job conditions, high workplace risk factors and low access to employment benefits.



2. DANGEROUS DINING: IMPLICATIONS FOR THE CONSUMER

Our study has important implications not only for workers, but also for employers, taxpayers, policy-makers, and dining consumers. High rates of injury and illness among workers cost employers productivity, including time taken off of work for illness and injury, and having to pay higher workers' compensation insurance rates in New York State. Low levels of access to health benefits for workers means that they tend to rely on the public health system. Risks are also posed for dining consumers. **For example, we found that a worker lacking job benefits such as paid sick days was more likely to cough or sneeze into food than a worker with such benefits. Focus groups and interviews reveal that workers without benefits, such as paid sick days tend to have to work while sick, and are thus more likely to cough or sneeze into the food they are cooking and serving.**

> "You know it's one of the jokes in the restaurant industry: the restaurant industry keeps New York City sick because we don't take days off. We single-handedly keep New York sick during the winter months because we don't take days off…We're passing on all the illnesses to the customers."
>
> – Restaurant Owner, Manhattan

We suspect that the magnitude of health problems and unsafe practices may be higher than found in this study. Workers without access to health care may under-report symptoms or illnesses that have not been confirmed by a health care provider. Also, many workers may be reluctant to admit, even in a confidential survey or focus groups, that they engage in behaviors that harm the public, such as sneezing in food and serving food that has dropped on the floor.

Methodology

From August 2005 until July 2009, with primary funding from the National Institute for Occupational Safety and Health, the Restaurant Opportunities Center of New York and the New York City Health and Safety Task Force conducted a four-year study of the occupational safety and health of New York City restaurant workers. In addition to ROC-NY, the Task Force included the Queens College Center for the Biology of Natural Systems, the Mt. Sinai School of Medicine, the New York Committee for Occupational Safety and Health, the NYU Center for the Study of Asian American Health, and Make the Road New York. The Task Force conducted 502 surveys of restaurant workers, 10 focus groups with workers of different ethnic groups, and 35 one-hour employer interviews. Surveys were collected in strict proportion to 2000 Census race and gender demographics of the New York City restaurant industry. As part of the study, ergonomist Jonathan Dropkin of the Mt. Sinai School of Medicine worked with ROC-NY to engineer ergonomic features into COLORS Restaurant, ROC-NY's worker-owned cooperative restaurant, and conducted pre- and post-assessments with COLORS worker-owners on the effects of their work organization.

3. OUR RECOMMENDATIONS

Restaurants should offer workers safer workplaces and conventional job benefits, including health insurance, paid sick days, paid vacations, and workers' compensation insurance. Without these improvements, the industry will continue to put both workers and consumers at risk. Our specific policy recommendations are to:

1. **Initiate and support local and/or state legislation that would provide greater access to health insurance for low-wage workers, and require employers to provide paid sick days.**
2. **Provide education for employers and restaurant workers to help them identify workplace risks and ways to reduce these risks, including rights to workers' compensation insurance, strategies to re-organize workplaces to be more ergonomic, and the importance of providing benefits.**
3. **Improve workplace safety and health conditions for restaurant workers, by having the Occupational Safety and Health Administration (OSHA) develop a special emphasis program to reduce injuries and illnesses in the industry, and encourage employers to follow ergonomic guidelines outlined in this report.**
4. **Provide all workers with greater access to better jobs with improved benefits through promotions policies and anti-discrimination monitoring,**
5. **Publicize model occupational safety and health employer practices to provide much-needed guidance to other employers.**
6. **Support collective organizing among restaurant workers to improve working conditions for all workers in the industry, including better wages, access to health care and insurance, and other benefits.**

I. INTRODUCTION AND OVERVIEW

A. Overview of the New York City Restaurant Industry

With an estimated 12.8 million workers nationwide, the restaurant industry is one of the nation's largest private sector employers. It is also one of the largest and fastest-growing segments of the New York City economy. With 200,000 workers, the New York City restaurant industry has been one of the greatest contributors to the City's overall job growth over the last several years, surviving volatile economic cycles. According to the 2009 United States Bureau of Labor Statistics, though the current recession has resulted in an overall national job loss of 1.9% between December 2007 and December 2008, the restaurant industry experienced only a 0.5% job loss over the same period. While the 2001 recession negatively impacted local employment in general, the New York City restaurant industry was able to rebound – and fully recover all the jobs lost – in only two years.

Providing many jobs and creating great revenue, the restaurant industry has great potential to benefit nearly all New Yorkers, including those that work, those that own and manage, and those that dine in the City's 15,000 restaurants.

B. About This Study

From August 2005 until July 2009, with primary funding from the National Institute for Occupational Safety and Health, the Restaurant Opportunities Center of New York and the New York City Health and Safety Task Force conducted a four-year study of the occupational safety and health of New York City restaurant workers. Besides ROC-NY, the Task Force also included the Queens College Center for the Biology of Natural Systems, the Selikoff Center for Occupational and Environmental Medicine at Mt. Sinai School of Medicine, the New York Committee for Occupational Safety and Health, the Center for the Study of Asian American Health at New York University School of Medicine, and Make the Road New York. The Task Force conducted 502 surveys of restaurant workers, 10 focus groups with workers of different ethnic groups, and 35 one-hour employer interviews. As part of the study, ergonomist Jonathan Dropkin of the Mt. Sinai School of Medicine worked with ROC-NY to engineer ergonomic features into COLORS Restaurant, Restaurant Opportunities Center of New York (ROC-NY) worker-owned cooperative restaurant, and conducted pre- and post-exposure assessments with COLORS worker-owners on the effects of their work organization.

The survey was administered by staff, members, and volunteers of the (ROC-NY) and Make the Road New York, both community- based organizations with significant contacts among restaurant workers and access to workplaces in the industry. A total of 502 surveys were conducted with workers. Surveys were collected in proportion with race and gender demographics in the 2000 Census. (See Appendix 1 for a more detailed description of methodology.) Focus groups were also conducted ensuring representativeness of different industry segments and racial groups, by using interview guides that covered wages, work organization, health and safety conditions, and more.

C. Who are the workers?

As mentioned above, we tabulated our 502 surveys by Census demographics in terms of race. Table 1 summarizes the study population with regard to demographics, restaurant employment characteristics, and wages and benefits. Surveyed participants were mostly foreign-born (66%), largely male (62%), and people of color (78%). Mirroring 2000 Census demographics for the New York City restaurant industry, the dominant racial/ethnic groups were Hispanic (34%) and Asian (25%). By contrast, non-Hispanic Whites and Non-Hispanic Blacks constituted only 22% and 13% of the surveyed population, respectively. Surveyed restaurant workers worked an average of 4.9 years.

Table 1: Demographics, Wages, Benefits, and Job Characteristics, New York City Restaurant Workers

	Number	Percent
Age (missing = 31)		
0-≤20	21	5%
20-≤30	279	59%
30-≤40	116	25%
40-≤50	43	9%
50-≤60	12	3%
Gender (missing = 5)		
Male	310	62%
Female	184	37%
Transgender/Other	3	1%
Race/Ethnicity (missing = 5)		
Asian	123	25%
Hispanic	167	34%
White	107	22%
Black	62	13%
Other	38	8%
Birth Status (missing = 5)		
Foreign-born	326	66%
U.S.-born	171	34%
Years as Restaurant Worker (missing = 19)		
0-<1	13	3%
1-<5	265	55%
5-<10	148	31%
10+	57	12%
Industry Segment (missing = 5)		
Family Style	218	44%
Fine Dining	173	35%
Quickserve	101	20%
Average Hourly Wage (missing = 59)		
Mean = $11.67 Std Dev = $6.20	--	--
<Minimum Wage (<$7.15/hr)	86	19%
Poverty ($7.15 - $9.93/hr)	129	29%
Low Wage ($9.94 - $14.91/hr)	129	29%
>Livable Wage (>$14.92/hr)	99	22%
Benefits (missing = 3)		
Sick Days	47	9%
Vacation Days	103	21%
Health Insurance	184	37%
Front Of House (missing = 20)	282	59%
FOH 1	177	37%
FOH 2	105	22%
Back Of House (missing = 20)	200	42%
BOH 1	96	20%
BOH 2	104	22%

D. What do the Jobs Look Like?

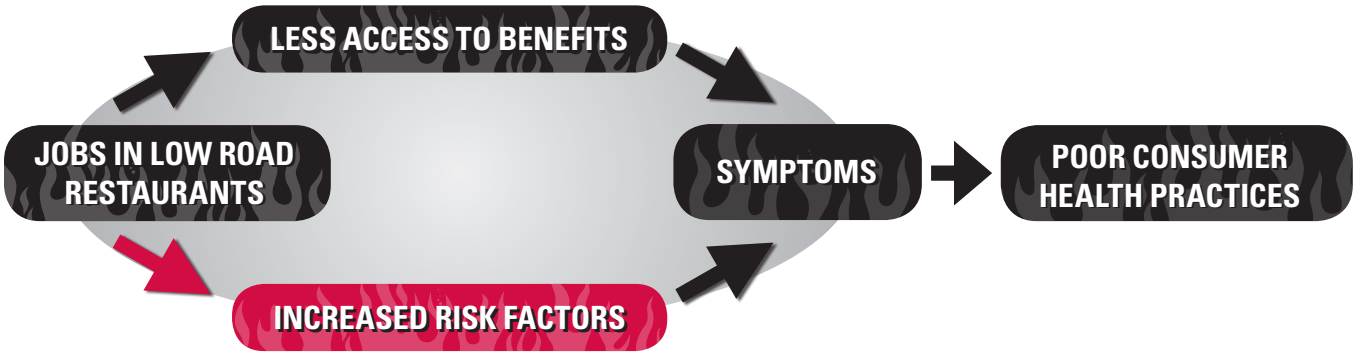
Census data demonstrates that restaurant workers in New York City are largely immigrants of color. Our survey data indicates that these workers are concentrated in low-wage jobs that are unsafe, financially insecure, and provide little opportunity for career development. In our sample, the majority of workers were young and persons of color (Table 1.) The majority of workers are also foreign-born (66%) and have been in the restaurant industry between 1 and 5 years. Only 22% of the surveyed workers reported earning a livable wage, while over 48% were earning less than minimum wage. Dismal earnings were coupled with a lack of benefits. For example, only 9% of workers surveyed reported receiving paid sick days; only 21% received vacation days, and only 37% of workers were insured.

TWO ROADS TO PROFITABILTY

Our study reveals that there are two roads to profitability in New York City's restaurant industry – the "high road" and the "low road." Restaurant employers who take the "high road" are the source of the best jobs in the industry – those that enable restaurant workers to support themselves and their families, remain healthy, and advance in the industry. Taking the "low road" to profitability, on the other hand, creates low-wage jobs with long hours and few benefits. It ultimately harms workers, other restaurant employers, consumers, public health, and taxpayers.

The Restaurant Opportunities Center of New York (ROC-NY) is a non-profit organization that has promoted the 'high road' by partnering with responsible employers and opening their own high road restaurant. ROC-NY was founded after September 11th, 2001, to support restaurant workers displaced by the World Trade Center tragedy. Over the last several years, ROC-NY has worked to develop a high road model restaurant of its own, through the development of its cooperative restaurant, COLORS. COLORS was founded in January 2006 by ROC-NY and 40 immigrant workers, many of whom were displaced from Windows on the World, the restaurant at the top of the World Trade Center. Using COLORS as a base, ROC created the Restaurant Industry Roundtable, a regular convening of 'high road' restaurants. Since that time, ROC has used COLORS as a space to educate other employers about responsible employment practices. For example, COLORS has a comprehensive employee manual that provides workers with transparency about their possibilities for advancement. As the restaurant was being designed, ROC worked with ergonomist Jonathan Dropkin of the Mt. Sinai School of Medicine to include elements of ergonomic design into the restaurant.

II. JOBS IN LOW-ROAD RESTAURANTS: HIGH IN RISK, LOW IN BENEFITS



A. Low Road Jobs are High in Risk of Injury and Illness

OUR STUDY SHOWS THAT:

- **84% of all workers surveyed reported that their job required them to work very fast.**
- **Two-thirds (63%) felt under constant time pressure due to a heavy work load.**
- **82% of all workers surveyed reported being required to do a job that makes them feel they might be at risk of injury.**

1. WORKERS' PERSPECTIVES

DEFINITIONS:

"Front-of-the-House" and "Back-of-the-House":• These terms refer to the placement and function of workers in a restaurant setting. Front-of-the-house generally represents those interacting with guests in the front of the restaurant, including bartenders, waitstaff, bussers, and runners. Back-of-the-house generally refers to kitchen staff, including chefs, cooks, food preparation staff, dishwashers, and cleaners – those less visible to the guests.

Ergonomics: Ergonomics is a science that involves designing the work environment to fit the worker, rather than having the worker fit into the work environment. When ergonomics is applied correctly in the work environment, visual and musculoskeletal discomfort and fatigue can be diminished.

A large majority of workers we surveyed reported working in fast, demanding and pressure-filled environments (Table 2). 84% reported that their job requires them to work very fast, and two-thirds (63%) felt under constant time pressure due to a heavy work load. Workers also reported having to do ergonomically challenging work. 88% stated that their job involves a lot of repetitive work, and two-thirds reporting having to work for long periods of time in an uncomfortable position. Most surveyed workers perceived potential work hazard: 82% reported being required to do a job that makes them feel that they might be at risk of injury. Notably, these conditions existed for both front and back of the house workers, though more commonly among workers in the front of the house (Table 2).

Table 2 :Exposures of New York City Restaurant Workers by Front versus Back of the House

	Total (n=502)	FOH % (no.) (n=282)	BOH % (no.) (n=200)
Exposures			
Work with Cleaning Chemicals (missing = 46)	33%(151)	33%(82)	31%(62)
Exposed to Smoke in the Kitchen (missing = 17)	24%(115)	19%(54)	30%(59)*
Exposed to Liquid Pesticides (missing = 42)	9%(41)	8%(23)	9%(17)
Psychosocial Factors (missing = 7)			
Working Very Fast	84%(416)	90%(255)	74%(148)**
Repetitive Work	88%(436)	89%(252)	83%(165)**
Physically Demanding	70%(347)	67%(190)	69%(137)
Work for Long Periods with Body in Physically Uncomfortable Position	66%(327)	38%(108)	27% (53)**
Pressured to Work Overtime	74%(366)	25%(71)	27%(54)
Constant Time Pressure Due to Heavy Work load	63%(312)	34%(94)	41%(81)
Feel I Might Be At Risk of Getting Hurt	82%(406)	13%(37)	23%(45)**

* p<0.05; ** p<.01 Sums may be less than totals due to missing values.

Restaurant workers also reported chemical exposures: one-third reported working with cleaning chemicals and one-quarter reported being exposed to smoke in the kitchen. As expected, smoke exposure was more common in the back of the house (i.e. the kitchen).

Every non-union worker in our ten focus groups reported that they had never received any workplace safety training. Workers in one focus group described simply being taken to the restaurant, shown how to operate the stove and oven and put to work. Another group of workers reported not knowing how to use knives, and suffering many knife injuries before learning from more senior workers about how to properly use knives. None of the workers interviewed had any idea how to use a fire extinguisher. The only workers who received any training were union workers, who received a complete orientation on workplace health and safety. This lack of training had serious consequences. For example, workers in another focus group reported an incident in which one worker got his hands caught up in a mixing bowl, breaking several bones in his arm. The worker visited the emergency room, but the company did not pay the worker for his time off of work. After the incident, the company posted a note on how to properly use the mixing bowl. These workers also reported other kinds of dangerous exposures in their restaurants, including slippery floors, crowded dining floors, lack of guards on cutting machines, blocked doors, and more.

2. EMPLOYER PERSPECTIVES

Employers tended to highlight slips, falls, cuts, and burns as the major exposures facing workers in the restaurant industry. Employers also noted having poor ventilation systems that impact respiratory problems and muscle strains faced by workers. Importantly, a majority of employers stated that these types of exposures were very rare and rarely "serious". When asked why they thought workers experienced workplace hazards, employers noted that the lack of workspace was one issue, as demonstrated by the following employer:

> "Probably the worst I've ever seen is two chefs lifting a rolling, boiling pot of meat and vegetable stock from a very high burner, and when putting it down, it fell and spilled all over, and one of the two cooks…[they were] really badly burned…[probably because of] speed…pace of work."

Other issues that were noted by employers include the pace of work and cramped working quarters faced by workers both in the front and back of the house. Some employers emphasized that they took precautions to avoid these types of hazards. For example, one employer states, "We had some accidents but when I am here I always make sure that the floor is dry and not slippery. I put carpets all over to avoid the accidents. We also had the renovation that helped to fix all the stuff which were (sic) a little bit dangerous here."

Training programs were not standardized across restaurant sites, and few of the employers interviewed integrated health and safety trainings into their overall training protocol for new-ly hired workers. For example, several employers noted that their restaurant had a training manual that included descriptions of positions, duties, legal rights, and harassment policies, but did not include a health and safety component. One employer noted that their manual included information on workers' compensation and health insurance policies, but nothing about health and safety training.

Some restaurants told us that they had a "basic" health training manual or training video. However, most employers explained that health and safety training tended to happen "on the job" or that workers were hired with the expectation that they already had a working knowledge of how to avoid hazard. One employer said that, in terms of health and safety training, "we don't do much of that here...[due to] lack of time, lack of budget, also. Luckily, we don't have many injuries or…we're very vigilant on that. The training is done really on a—how do you say it?---instances basis. When you see something you say, 'Don't do this because you're going to get hurt' you know what I mean? You don't go through a training session where you have slides and a show."

Worker Profile: Amrit Joy Singh

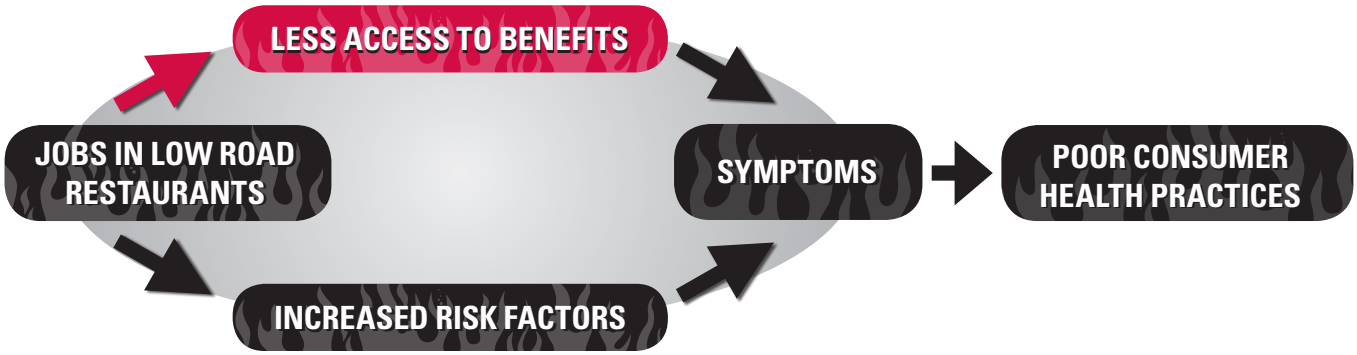
I've been working in restaurants for the last 25 years, in about 15 restaurants, mostly as a server. At my most recent place of employment, there was one day where the restaurant flooded and there was water everywhere, so the whole place was a hazard. The management did not seem to care, and we were told the day went on. At the same place, the stairs that went down to the supply room were always caked with grease, and the staff constantly fell. There were mice in the front of the restaurant, where the customers actually noticed them! The most significant thing there was the door to the kitchen – it was a swinging door with blind spots, so you could never tell if anyone was coming or going. One day, I was trying to get to the kitchen, and I was knocked over by someone exiting, and my back, which was already hurt from working at another restaurant, was further hurt.

The restaurant I worked at before was a big reason for my current back injury as well, although I think the condition I suffer from now is actually an aggregate of working in the industry for so long. In this particular establishment, servers had to bus their own tables, so we were always working fast, fast, fast. While hurrying, I slipped on a grease spot, hurt my back, and landed on my spine. I was in severe pain, but I was told "hey you can walk, so you can work," and that was that. Of course we didn't have any sort of health care that can help resolve the problem, but they did not even care about our health in the most basic way.

I also worked sometimes worked as a bartender at the restaurant, and they would overlap my bartending and serving shifts without a break. One of the most challenging things was that staff was not allowed to use the same bathrooms as the guests. The ladies bathroom was downstairs, and over a block's worth of walking to get to! There was only one key, and there was a time where it was a challenge to even get that key to be able to go to the ladies room.

After so many years in the industry, the injuries have caused me a stenosis of the spine. I cannot bend or even lift more than ten pounds. My left leg goes numb because of the spinal nerve that was pinched and the lack of circulation. I take a bunch of very strong medicines – muscle relaxer, nerve relaxer, and 1800 milligrams of ibuprofen daily. I don't think one specific restaurant has caused all this, but I do believe the last two places I worked at, combined with my other injuries, has caused all

B. 'Low Road' Restaurants Provide Low Levels of Access to Benefits



INDUSTRY SEGMENTS:

The restaurant industry can be broken down into three segments: fast-food or "quick-service," family-style and franchise, and fine-dining or "tablecloth."

Fast-food or Quick-Service restaurants provide limited table service and are often characterized by low-paying jobs and large employment of workers of color and youth.

Family-Style restaurants include those that are often considered "casual-dining" with moderately-priced meals and informal environments. This segment includes both chain restaurants and franchises such as Olive Garden or Applebee's, and smaller, independently-owned or family-owned establishments such as neighborhood restaurants.

Fine-Dining or "Table-Cloth" restaurants are often defined by a price point per guest of $40.00 or more including beverages but excluding gratuity. Restaurants within this segment are also known for high-quality service, talented – oftentimes celebrity – chefs, name recognition or notoriety, and unique restaurant concepts. Upscale, fine-dining establishments offer employment with the highest wages – especially via tips.

1. WORKERS' PERSPECTIVES

- **Most workers surveyed suffered under low wages and little or no access to benefits.**

Including income from tips, nearly one-half of workers earned poverty-level wages or less (defined as the hourly wage a worker needs to lift a family of four out of poverty, equal to $9.93 an hour in 2006), and fully three-quarters earned less than or equal to a low wage. In general, restaurant workers have no job benefits (Table 1). Two-thirds of all workers reported having no health insurance, four-fifths had no vacation days, and 91% had no paid sick days. More than half (52%) of all of surveyed workers receive no job benefits whatsoever.

- **Workers least likely to have access to any benefits are those in lower-level positions in both the front and back of the house.**

In the front of the house, higher-level positions are waitstaff and bartenders, and lower-level positions are bussers and runners. In the back of the house, higher-level positions include Chefs, Sous Chefs, and upper-level cooks, and lower-level positions include line cooks, prep cooks, and dishwashers. In all three industry segments (Fine-dining, casual/family style or franchi**se,** and quick serve**), workers in higher-level positions in both the front and back of the house had greater likelihood of having access to benefits**. This means that in the same restaurant, one worker may have access to benefits while another may not. In family style or franchise restaurants, 52% of all higher-level workers in both front and back reported having access to fringe benefits, while only 26% of lower-level workers reported having access. While 62% of upper-level back-of-house workers in family style or franchise restaurants reported having access to fringe ben-

efits, only 12% of lower-level back-of-house workers had such access. In fine-dining restaurants, 45% of all upper level front-of-house workers reported having access to fringe benefits, while only 35% of all lower-level front-of-house workers *also in fine-dining restaurants* had such access.

Table 3. Any Job Benefits

	Any Job Benefits		p value
	Yes	**No**	
	48%(233)	52%(254)	
Front of House (missing = 20)	**46.8%(137)**	**53.2%(156)**	
FOH 1	47.1%(81)	52.9%(91)	
FOH 2	44.6%(45)	55.5%(56)	
Back of House (missing = 20)	**48.4%(89)**	**51.6%(95)**	
BOH 1	49.5%(46)	50.5%(47)	
BOH 2	48.5%(49)	51.5%(52)	
Race/Ethnicity (missing = 5)			
Asian	29.2%(35)	70.8%(85)	p < 0.0001
Black	70.5%(43)	29.5%(18)	
Hispanic	42.8%(68)	57.2%(91)	
White	59.1%(62)	41.0%(43)	
Other	65.8%(25)	34.2%(13)	
Immigration Status (missing = 5)			
U.S. Born	63.5%(106)	36.5%(61)	p <0.0001
Foreign Born	39.4%(125)	63.5%(192)	

- **Immigrants and people of color are less likely to have access to benefits.**

White, U.S.-born workers were significantly more likely to hold positions in the 'Front of the House.' 21% of all front-of-house workers were white, as opposed to 9% of all back-of-house workers. Whites were also significantly more likely to hold higher-level positions within the front of the house (26% of all higher-level front-of-house jobs were held by whites, as opposed to 13% of all lower-level front-of-house jobs). While white U.S.-born workers were only 16% of all workers surveyed, they comprised 26% of all upper-level front-of-house positions, the highest paid positions with greatest access to benefits. Asian workers made up a full quarter (25%) of all survey respondents, yet they comprised only 18% of all upper-level front-of-house positions.

- **The concentration of white workers in the highest-level positions and immigrant workers in lower-level positions has implications on immigrant access to benefits.**

Asians and Hispanics report the lowest rates of access to benefits – only 12% of Asians and 13% of Hispanics report having paid vacation days, as opposed to 22% of whites. Similarly, only 22% of Asians and 35% of Hispanics report having health insurance, while 49% of whites report having access to health insurance. In total, 22% of Asians and 35% of Hispanics report having any benefits, while 66% of whites report having access to any benefits.

In addition to having less access to health insurance, paid vacations, or paid sick days, the immigrant workers in our focus groups reported that very few of their peers knew about workers' compensation insurance, and almost never attempted to access it. Workers in one focus group reported that several workers had injuries and severe hand cuts, but never sought out workers' compensation. One worker reported an incident in which a co-worker had a severe hand cut, was told to check the first-aid kit by his employer, found it to be empty, and then went to the emergency room. The worker was never offered any kind of workers' compensation insurance or even paid for his time off from work. Workers in another focus group reported

that delivery workers in the restaurants in which they worked were told never to go to the emergency room when they had an accident, to avoid informing any public agency that the injury occurred on the job, thus increasing an employer's workers' compensation insurance rates.

- **All of the immigrant workers in our focus groups also reported that when workers did incur injuries, they would never be paid by their employer for days off from work, thus creating a system in which workers find it necessary to continue to work even with injury and illness.**

The only workers to report being paid for time off from work for injuries were workers born in the United States. These workers reported knowledge of workers' compensation insurance and how to access it. However, workers in the U.S.-born focus group also stated that those who typically have the most injuries are immigrant workers, and that these workers tend not to know about workers' compensation insurance. Even if immigrant workers receive pay for time off from work due to an injury, they are not told about workers' compensation insurance. It then becomes difficult for these workers to later prove that their injury occurred on the job for purposes of obtaining workers' compensation.

In fact, one immigrant worker who worked at the same fine-dining restaurant company as several of the American-born workers in our focus group reported an incident in which he suffered a severe hand injury. The Chef took the worker to the hospital in his own car, but would not let the worker out of the car until he swore that he would not say that the injury occurred at work. These incidents seem to occur fairly regularly, according to almost all of the workers in our focus groups.

1. EMPLOYER PERSPECTIVES

- **Health benefits such as health insurance, paid vacation, and paid sick days are not standardized across the industry and are very much left to the discretion of individual employers.**

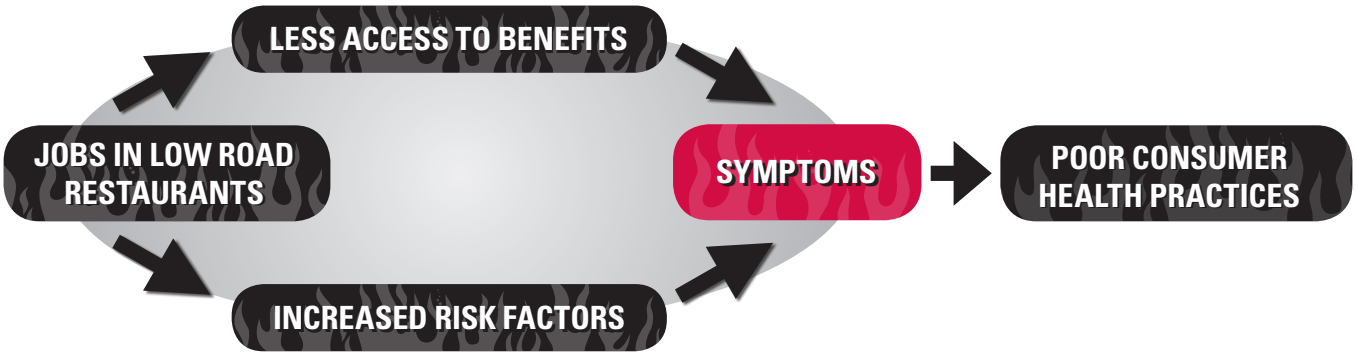
Interestingly, many employers did not even consider health benefits when asked by the interviewer about what types of benefits were provided. One employer stated, *"We offer health insurance to all our employees on a buy-in basis, so we do not offer a contribution, but we have a plan available that's really reasonable, that they can buy into on a rolling basis. Let's talk about front of the house first: there's no sick days, there's no holidays for tipped employees. We do offer them a meal and a uniform voucher that's given to them as we work through training, they can use in all of our restaurants. At the back of the house there is the same kind of buy-in for insurance, there are no paid holidays for all the employees, there are no paid sick days for all the employees, and there are no – we don't really – they don't benefit from training but we also offer discounts for all the employees to eat in any of the restaurants at a considerably cheap price and we're closed on Sunday, which I think is a big benefit."*

It was rare for employers to report paid sick days, particularly to hourly workers. It was more common for employers to provide such benefits to management and salaried staff. As one employer stated, "*I don't know a restaurant in New York that does paid sick days for front of the house. Salaried people, yes. But hourly people, no."*

Some employers that did not provide health benefits to their workers reported incidents of accident or injury where workers did not seek care. Surprisingly, these employers did not seem to make the connection between a lack of benefits and a reluctance in seeking care. For example, one employer who does not provide health benefits to their workers recounted an incident in which a worker chose not to seek medical attention. *"Somebody fell down the stairs last year, we called the ambulance, he refused to get in, walked away, came back to work the next day… He felt that,I don't know, I mean I called the ambulance, they came, and they waited, and they sat with him. We all sat with him for a while, and then he said he was feeling better. I I think it was a spasm, and then he got up and walked home, or walked to the subway. Said he didn't want to go."*

Some restaurants reported providing health insurance to workers. However, by and large, workers had to pay a portion of the costs, and were only eligible for such benefits after a probationary period, which ranged from 3 months to a full year. Given the high-turnaround in the restaurant industry, this may leave many hourly workers without health benefits, as verified by our survey findings. Nevertheless, since any benefits at all did reduce the likelihood of worker accident and injury, a limited benefits program would be preferable to no benefits at all.

III. THE RESULT: INJURIES AND ILLNESSES



A. The Symptoms of Jobs in Low-Road Restaurants

OUR STUDY FOUND THAT:

- **36% of all workers surveyed had been cut on the job**
- **27% of all workers surveyed had been burned on the job**
- **52% of workers reported suffering from fatigue**
- **Almost 2/3 of all restaurant workers (63%) reported having stiffness, pain, tightness, aching, or soreness in their legs, knees, and feet.**

All workers in our focus groups unanimously agreed that they suffered increased aches and pains and deteriorated health as a result of working in restaurants. All of these workers reported suffering pain in their knees, back, ankles, elbows, and head. Many reported stress, high blood pressure, and inability to sleep. Several reported getting blisters from long periods of standing, walking, and running. Several workers also reported witnessing injuries occur in their restaurants. One worker reported seeing a worker get a very deep cut from a slicer, necessitating a visit to the emergency room. Another worker saw a fellow delivery worker hit by a car in a 'hit and run' accident. Another worker witnessed a butcher losing a finger. Several workers reported a general deterioration in their health as a result of working in restaurants, including back ache, painful knees, ankles, headaches, and breathing problems. One group of immigrant workers reported an increase in asthma problems as a result of working hot kitchens. And even the U.S.-born workers reported chronic fatigue, foot pain, stress, wrist and back pain, knee pain, all from working as 'front of the house' waitstaff.

These health symptoms, especially acute injuries and musculoskeletal symptoms, were common in the survey study population (Table 4). More than one-third of all workers (36%) reported having been cut at the current job; 27% reported having suffered from burns; 12% reported slipping and falling at the current job. Cuts and burns are more common among back of the house workers than those who work in the front of the house. In addition, restaurant workers frequently reported non-specific symptoms that are plausibly associated with stressful jobs with irregular, longer shifts: fatigue (52%), headaches (47%) leg cramps (40%), trouble sleeping (28%), and heat exhaustion (18%).

Table 4: Health Outcomes of New York City Restaurant Workers by Front versus Back of the House

	Total (n=502)	FOH (n=282)	BOH (n=200)
Injuries (missing = 5)			
Ever had a burn at current job	27%(135)	22%(61)	35%(69)**
Ever suffered a cut at current job	36%(180)	31%(87)	43%(86)**
Injured while slipping/falling at current job	12%(61)	13%(36)	12%(23)
Physically attacked while working at current job	3%(15)	3%(8)	4%(7)
Accident while delivering food (Delivery workers only, n=134)	13%(17)	7%(4)	17%(13)
Doctor-Diagnosed Health Condition (missing = 5)			
Sleeping problem	19%(101)	21%(58)	20%(39)
High cholesterol	9%(47)	10%(29)	8%(16)
Asthma	8%(40)	10%(28)	6%(12)
Injured back/ neck/ arm/ leg	7%(38)	8%(22)	8%(16)
High blood pressure	6%(33)	6%(18)	7%(14)
Nerve problems in hand/wrist	4%(20)	4%(11)	5%(9)
Blood clots in legs	2%(10)	3%(7)	2%(3)
Symptoms (past 6 months)			
Fatigue	52%(260)	46%(138)	60%(114)**
Headaches	47%(238)	46%(140)	47% (90)
Leg Cramping	40%(200)	44%(134)	35% (66)*
Trouble sleeping	28%(138)	27% (83)	26% (50)
Stiffness in hands	18%(92)	15% (46)	24% (46)*
Heat Exhaustion	18%(88)	12% (35)	29% (56)**
Poor Vision	11%(54)	10% (29)	11% (21)
Shortness of breath	8%(42)	6% (19)	11% (21)
Rash on hands	8%(42)	5% (16)	13% (24)**
Chest Pain	6%(32)	8% (24)	4% (8)
Wheezing in the chest	4%(22)	5% (15)	4% (7)
Stiffness, Aching, Soreness, Pain (past month) (missing = 50)			
Legs, knees, feet	63%(317)	62%(175)	65% (130)
Lower back	56%(282)	59%(152)	64%(120)
Neck/Upper Back	49%(244)	49%(128)	53%(107)
Most frequently used hand	45%(226)	45%(114)	59% (106)**
Most frequently used wrist	44%(221)	44%(113)	57% (102)**
Most frequently used shoulder	37%(183)	37%(94)	44% (81)
Most frequently used forearm	32%(158)	30%(77)	43% (72)**
Most frequently used elbow	21%(106)	19%(49)	31% (54)**

* $p < 0.05$; ** $p < .01$ Sums may be less than totals due to missing values.

Despite the fact that the restaurant workers we surveyed were relatively young – our survey respondents had an average age of 29 years – they reported high rates of musculoskeletal pain and stiffness. (Table 4). Almost 2/3 of all restaurant workers (63%) reported having stiffness, pain, tightness, aching, or soreness in their legs, knees, and feet. One-half or more reported such pain in their lower back (56%) or in their neck and upper back (49%), as well as hand and wrist pain. One-third reported pain in the shoulder and forearm. All of these symptoms tended to be higher among back of the house workers than in the front, but were commonly reported by both groups (Table 4).

B. The Relationship Between High Risk Jobs and Symptoms

DEFINITIONS:

Psychosocial factors: A person's psychological response (that is, attitudes, coping mechanisms) to occupational and social factors, such as time pressure, extensive overtime, lack of job clarity, monotonous work, few opportunities for career development, lack of availability of materials, perceived lack of participation in job decision making, amount of support and cooperation among colleagues, poor social support of supervisor, unsatisfying work, exhaustion from work, social support not related to work, worry, anxiety, and family relations.

Chemical exposures: These arise from excessive airborne concentrations of mists, vapors, gases, dusts or fumes. These hazardous materials may be inhaled, may be toxic through skin absorption, or may act as skin irritants.

Respiratory symptoms: Inflammation of the nasal mucosa, shortness of breath, breathlessness on exertion, wheezing, sputum, chest tightness, bronchitis, coughing, and stuffy nose can all affect the nose, mouth, nasal passages and other parts of the respiratory system.

Musculoskeletal symptoms: Conditions in the muscles, tendons, ligaments, nerves, blood vessels, spinal discs, joints, bones, and connective tissue can all lead to pain, soreness, discomfort, fatigue, tingling, numbness, burning sensation, swelling, weakness, warmth, or snapping.

Restaurant workers who are exposed to 'psychosocial', or work organization, and chemical risks in the workplace are more likely to experience injuries, respiratory symptoms, and musculoskeletal complaints (Tables 5 and 6). **The strongest correlation was found between being forced to do fast, repetitive work and being burned at the current job.** We found that workers who reported working with cleaning chemicals or kitchen smoke reported a two-fold increase in shortness of breath, chest pain, and chest wheezing. (Table 5). Workers who had a high exposure to a number of different psychosocial factors – fast work, repetitive work, physically demanding work, times pressure, and the perception of vulnerability on the job --were more likely to report burns. Repetitive work, physically demanding work, and the perception of vulnerability on the job resulted in a two to four-fold increase in slips and falls.

Table 5: Odds Ratios of Respiratory Symptoms versus Inhalation Exposures, New York City Restaurant Workers

Exposures	Prevalence of Exposure	Shortness of Breath OR (95%CI) (n=42)	Chest Pain OR (95%CI) (n=32)	Chest Wheezing OR (95%CI) (n=22)
Work with Cleaning Chemicals (missing = 46)	32.9% (150/456)	2.32 (1.13-4.77)	1.61 (0.70-3.63)	2.36 (0.84-6.70)
Exposed to Smoke in the Kitchen (missing = 17)	23.7% (115/485)	2.01 (0.95-4.11)	2.52 (1.10-5.65)	2.08 (0.73-5.57)
Exposed to Liquid Pesticides (missing = 42)	9.1% (42/460)	2.33 (0.81-5.88)	2.22 (0.62-6.41)	2.07 (0.37-7.76)

Table 6: Odds Ratios of Injuries by Psychosocial Factors among New York City Restaurant Workers

Psychosocial Factors (missing = 7)	Prevalence of Exposure	Burns (n=135) OR (95% CI)	Cuts (n=180) OR (95% CI)	Slips/Falls (n=61) OR (95% CI
Work Very Fast	84% (417/495)	3.79 (1.75-9.37)	0.80 (0.48-1.36)	1.09 (0.50-2.60)
Repetitive Work	88% (436/495)	12.5 (3.2-106.6)	1.21 (0.66-2.30)	4.32 (1.09-37.5)
Physically Demanding	70% (347/495)	1.73 (1.07-2.84)	0.94 (0.62-1.43)	2.07 (1.02-4.55)
Work for Long Periods with Body in Physically Uncomfortable Position	66% (327/495)	1.03 (0.66-1.59)	1.24 (0.83-1.85)	1.77 (0.98-3.16)
Pressured to Work Overtime	74% (366/495)	1.45 (0.91-2.28)	0.94 (0.60-1.45)	1.44 (0.76-2.64)
Constant Time Pressure Due to Heavy Work load	63% (312/495)	2.26 (1.47-3.45)	.36 (0.91-2.01)	1.34 (0.74-2.39)
Feel I Might Be At Risk of Getting Hurt	82% (406/495)	1.81 (1.06-3.03)	1.99 (1.20-3.28)	.07 (1.60-5.70)

Our focus groups provided better descriptive information of exactly how these high-risk workplace environments lead to illness and injury. One group of workers reported that most of the accidents in their workplace occurred because of the fast pace of work. Frequently, they said, there would be a hazard such as spilt oil on the floor, but because of the fast and demanding pace of work, no one worker could afford to stop and clean the oil. As a result, slips and falls would occur. Workers in another focus group also reported that no one cleans spills on floor, and that since there are no mats in busy traffic areas, these are the main causes of slips, trips, falls. These workers agreed that the central root of the problem is the fast pace of work, and the need for more staff on busy nights to handle the workload. In several different focus groups, workers reported the exact same phenomenon – with so many people working so fast in the small kitchen spaces, it is difficult to notice and stop when spills occur, and this is how workers slip and fall. Workers noted the same issue with broken kitchen equipment – because of the fast pace of work, these items are not repaired, and injuries occur.

Certain workers reported that, as immigrants, they feel greater pressure than others to finish their work on time, and as a result they must cut corners to do the work. In a fast, unorganized kitchen, there are hot pans in the sink, and hot dishes and utensils everywhere. Workers frequently grab these items without realizing their temperature, and get burned. All of this occurs because of the fast pace of the work. Workers in one focus group reported that undocumented workers are frequently working a great deal of overtime at a very fast pace, and as a result, accidents occur. But even the U.S.-born workers reported the same problems, including spills that are not cleaned due to fast pace and understaffing, the lack of space to work, and the fact that spills, broken equipment, and other hazards are not corrected until after an accident occurs.

Worker Profile: Cherisse Rodriguez

As a Pastry Chef - or when you work in the kitchen - you have a lot to do and not enough time. You deal with people in the kitchen who are angry and stressed. You are constantly fighting. You're fighting for the oven, for your prep space, for time. You're fighting just to do your job. In the kitchens where I worked, in addition to being deprived of space, we also did not have the basic ingredients at times – we were not given help or resources needed to finish the job, but there is pressure to finish the job quickly. This push for time leads to cursing, verbal abuse, and even physical abuse. Management doesn't address it – they think their job is to save as many resources as possible and you have to figure out the rest.

When you come home, your hands are logged with cuts and burns on them. Burns are so normal and common that you get burned every single day and you don't even think of specific stories because there are so many. I worked at one place where the oven door was not working since the machine was secondhand. Since it did not close, we would constantly burn ourselves. It's just a part of the industry. Another place had a stove where a spoon was holding up a burner – another way people got burned regularly.

Also, working in the back of the house, when your back is out after lifting heavy things and you're in severe pain, they don't let you rest at all to recover. You just have to keep doing your job while they train someone else and then fire you because you're not quick enough. Places that I've worked at have had stairways that are so slippery that people fall down because it's wet and there are no rugs down.

All these conditions create such a tense atmosphere, with misdirected anger, which just serves to cause a division among employees. I feel that everyone in the kitchen suffers from a type of post-traumatic stress disorder from the abuse that's deemed part of the industry. My most vivid memory is when, in a rage, a coworker threw an egg at me, splattered everywhere, and the owner did not do anything about it. It was so painful – but it was just part of the violence that happens when employees are not treated like people. The physical injuries become mental, it wears people down, it hurts them, and they don't even realize it until they are not part of the industry anymore – and many times, by then, it's too late.

C. No Benefits = Working While Sick

Most restaurant workers do not receive job benefits such as paid sick days, health insurance, or paid vacation days. **Workers without job benefits were significantly more likely to have suffered from musculoskeletal symptoms and, to a lesser extent, from respiratory symptoms**. Workers without job benefits complained more frequently of pain stiffness, and discomfort in the upper and lower extremities than did restaurant workers with job benefits (Table 7). For example, twice the proportion of workers without job benefits reported pain or stiffness in the forearm or elbows than did workers with job benefits (Table 7).

Table 7: Prevalence of Health Insurance, Vacation, and Sick days According to Musculoskeletal Symptoms, Location of Restaurant Work and Demographic Factors, New York City Restaurant Workers

	Any Job Benefits		p value
	Yes	No	
	48%(233)	52%(254)	
Stiffness, Aching, Soreness, Pain (past month) (missing = 50)			
Legs, Knees, Feet	62.5%(135)	74.5%(178)	p = .005
Lower Back	58.4%(125)	63.7%(151)	p > 0.05
Neck/Upper Back	48.6%(103)	57.4%(136)	p = .06
Most frequently used hand	40.4%(84)	58.9%(136)	p < .0001
Most frequently used wrist	41.8%(86)	55.1%(129)	p = .005
Most frequently used shoulder	31.3%(66)	48.5%(113)	p = .0002
Most frequently used forearm	23.3%(48)	44.4%(103)	p < .0001
Most frequently used elbow	14.6%(30)	31.6%(73)	p < .0001

Sums may be less than totals due to missing values.

Workers without benefits were also somewhat more likely to suffer from respiratory symptoms and injuries on the job. 13% of workers without any benefit reported suffering from shortness of breath or wheezing versus 7% of workers who did have any benefit (p=.04). 40% of workers who had no benefits reported suffering from skin cuts, versus 32% of workers who had at least one benefit, a difference that approaches statistical significance (p = .08).

The ramifications of the findings are clear: **workers who suffered injuries and illnesses reported working in jobs in 'low-road' restaurants with strenuous work organization and little access to benefits that might allow them to cope with their health symptoms.** Clearly, reducing work stress would reduce injury and illness. However, in addition, given the well-documented relationship between psychosocial factors such as fast, demanding, repetitive jobs and injuries and illnesses, it is likely that the ability to take time off from these high ergonomic exposures, and if injured, to see a physician to medically manage the symptoms, could shorten current duration of illness and prevent further injury and illness. Since over three-quarters of those surveyed reported receiving low wages, most workers who do not have paid sick days are unlikely to take a day off to recuperate and, without paid health insurance, are unlikely to receive timely medical attention unless desperately ill. **Thus, they are working while sick.**

D.Employer Liability in the Low Road

Many employers expressed that promoting health and safety practices in the restaurant setting was a matter of liability for the restaurant, both financially and legally. Some employers spoke primarily about being able to meet the health and safety standards set forth by the New York City Department of Health and Mental Hygiene (DOHMH) and insurance carriers.

> "Oftentimes when you have a restaurant this large and you have insurance carriers and insurance brokers, they usually do a walkthrough [on] safety issues. The Department of Health has a lot of issues – a lot of things they look at when they come and do an inspection that are also health related but also safety related, but our insurance brokers – the companies, before they will issue a certificate of insurance, will come through and talk about our staircases, working conditions, etc., etc….. I think a lot of those issues are basic common sense."

In fact, several employers noted that the costs associated with being noncompliant with DOHMH safety standards were reason enough to promote high health and safety practices in the restaurants. One employer, speaking about the DOHMH, stated, "Before if they find [sic] an employee not wearing a hat, they used to let it go. They would just put a correction, like you have to tell your employee. But right now it's like a 200 dollar fine per employee. So things like that, you know so many things, which you don't have to pay for, they just let you pay for and it's getting higher and higher. And now I'm paying almost $2000.00 a year. Which I used to never do. For little things, that never happened before. It's not critical thing, it's just something you could rectify. That's it."

Other employers drew a direct connection between promoting high health and safety standards through training and reducing costs for the restaurant. For example, one employer stated, "*Every new hire, depending on the department in which they are hired, they go through a training program. They basically don't start in their positions on till they have successfully completed this training program. Just to insure that they know what they're doing so we can prevent future accidents or anything that might be job-related just cutting any human costs, any financial cost that might be associated with healthcare*."

In fact, employers expressed that though implementing strong health and safety training programs for workers may have some upfront costs, the restaurant came out ahead in the long run. For example, one employer who did offer health and safety training reported that if someone slipped and fell in the restaurant and broke something, "One they are out of work, you need to replace that employee, two you're insurance has to cover it, you know insurance isn't free, and the more often you use it, as far as workman's comp, I would assume the more you have to pay, the more you crash your car, the more your insurance goes up… [but] I think it all works out in the end; I think it actually works out better… money wise. You produce one video and the whole company gets one video, and you save 100 people from falling. I guarantee that didn't cost that much."

The concerns expressed by the employers that we interviewed regarding liability issues are reaffirmed in numerous trade articles from the restaurant industry. As cited in one major trade journal, "in an age when litigation is prevalent, restaurant owners and managers need to give some serious thought to the liability they are exposed to if they allow health and safety issues to go unchecked"(Bensky 2006). In 2005, More than 800 restaurants were found to have critical health code violations, resulting in major costs for the employers (Chain Leader 2005). For example, food-borne disease, which can sometimes be attributed to workers' illness, "can cost an establishment as much as $75,000 in legal fees, medical claims, lost employee wages, cleaning and sanitation, discarded food, and lost income" (Chain Leader 2005). Similarly, it has been reported that on the job cuts and burns experienced by restaurant workers cost the industry $300 million in medical fees and lost labor (Prewitt 2005). In fact, in 2003, 24,000 restaurant workers lost a day of work due to a cut, burn, or scald, and in total 62,000 restaurant workers hurt themselves badly enough to miss a day of work (Prewitt 2005).

Two factors that can contribute to the improvements in the health and safety of a worker are employee training programs and improvements in the physical space of the restaurant. Training of workers and managers is a critical component of food safety. Industry experts argue:

- **"Even the best training will go to waste if it is not enforced at the store level."**
- **"Ongoing training and leadership is so important."**
- **"No chain [restaurant] can afford to be without a training program regardless of whether or not the program is mandated" (Chain Store Age Executive with Shopping Center Age 1999).**

Training is also tied to employer liability. For example, restaurants that have food-borne incidents and get sued will be far better off financially if they can show they had a training program in place (Chain Store Age Executive with Shopping Center Age 1999).

Second, the ergonomic design of the kitchen must be considered to improve worker safety (Bensky 2006). Injuries in the kitchen usually result from trips on obstructions and uneven floors. This set-up is most hazardous to workers carrying heavy trays and food pans and to older workers working in kitchens. Proper kitchen design, housekeeping practices and training will prevent injury resulting from tripping on obstacles or uneven floors in restaurant kitchens. For companies to prevent such injuries from occurring, they should stress good construction details and subsequent maintenance (Frable 1999).

E. Employers Taking the High Road

It is possible for employers to take the high road in terms of creating an ergonomic workplace and thereby ensure a healthy and safe environment for their workers and their customers. Some employers noted that they implemented changes after realizing the problems caused by unsafe working environments. For example, one employer discussed their decision to provide non-slip shoes for their workers.

> "Slips were a huge problem here. Then we made a decision to buy shoes, replace shoes every year, for our employees. The last pair of shoes I bought for these guys were from Redwing Shoes, instead of like the shoes for crew companies. And they were double the price, and went from about $36 a pair to $72 a pair, times 18 pairs. So it's a big outlay. However…performance is good, I would even say a little better, and the life of the shoe… I'll have a shoe that will last a full year without diminishing in quality in any way. And that's what I really care about. These guys, when they put these shoes on, are protected day in and day out. Because the last thing that I'll want to be dealing with – I never want to file a comp case again, ever, and I usually don't. I will pay for the medical attention, if it's first aid, unless it's a major accident. Just like realize it's going to be disability and hospitalization and whatever."

Several of the employers we interviewed noted that they had implemented trainings and ergonomic improvements to create a better working environment for their workers, and ultimately, a better restaurant for their customers:

> Well, it's not just reducing costs. It's also making sure that they have an environment that is healthful, a good environment for them to work in. We also try to eliminate -- if you train someone how to properly sharpen [a] knife and to use a knife in a kitchen, chances are they are not going to cut themselves later on, which would obviously cause them pain and suffering and also causes the restaurant a financial burden as well. We also show them the proper listing techniques so somebody doesn't throw out their back, we try to install proper mats so there are no slips and falls. The stairs, we pay particular attention to make sure that they are clear and we put some skid resistance surfaces on those stairs so no one slides down the stairs. You know, always thinking about how to improve the restaurant so employees can perform their jobs and not have to worry about any hazards. So we just try to identify those and take care of them as quickly as possible. One thing that we did, and we've been doing this lately, is training about what to look for in what to do to prevent any hazardous conditions…..And also we do periodic inspections of the restaurant and just question everything. If we do find a deficiency it's taking care of as quickly as possible so as to prevent anything that might happen in the future…Different positions require different training, different skills. We also try to make sure that the employees know how to use the equipment and use it properly so that there are no injuries caused by that. And also we are very meticulous as to maintaining equipment as well as anything in the restaurant so that so that something that is not functioning properly or that is broken is not the cause of an accident. So everything is taken care of right away. And it's not a question of just avoiding financial costs. As well, it's to keep the morale high. You know, if the employees see that their supervisors are taking care of them they will apply themselves more and perform better in their job. It's beneficial to them as well as to us.

Employer Profile: La Palapa

La Palapa, an authentic Mexican Restaurant, with two locations in New York City, is owned by Executive Chefs Barbara Sibley and Margaritte Malfy. Having themselves worked in other restaurants for many years, they understand how vital their employees' health and welfare is in their business success. Since 2000, when they opened their first restaurant, they have committed to creating and maintaining a safe and healthy environment for their employees. "We do our best to take care of our employees. We try to create an atmosphere where they feel safe to say they cut their finger, their ingrown toenail is unbearable, their arm is hurting, or their lower back is aching," says Barbara Sibley.

La Palapa provides their employees with important benefits, such as paid sick days and partial health insurance, both of which they find necessary to protect the health and safety of their employees and their customers. "When you provide benefits such as health insurance and paid sick days to your employees, they have less anxiety, they are not forced to lie about having to miss work, they don't feel forced to come to work when they are sick, thereby, decreasing any chances of spreading diseases and putting their co-workers and the customers' health at risk, and they feel well taken care of," said Sibley.

La Palapa espouses the belief that by investing in their employees' well-being by providing benefits and trainings, this translates into happier and loyal employees, better food and service, and countless returns on investment.

La Palapa is a recipient of the 2009 Exceptional Workplace Awards given by the New York City Restaurant Industry Roundtable for going above and beyond what is required by the law to prioritize the rights and well-being of its employees.

THE COLORS ERGONOMIC DESIGN EXPERIMENT

From 2005 to 2008, ergonomist Jonathan Dropkin of the Mt. Sinai School of Medicine worked with ROC-NY to engineer ergonomic features into COLORS Restaurant, ROC-NY's worker-owned cooperative restaurant, and conducted pre- and post-ergonomic assessments with COLORS worker-owners on the effects of their work organization. The primary purpose of the ergonomic portion of the project was to empower immigrant restaurant workers in New York City with greater control over their work environment. Overall, this was achieved through the identification and understanding of occupational exposures, and injuries and illnesses in the restaurant industry. Specifically, this was achieved by characterizing the nature, context and extent of mechanical and psychosocial exposures and work-related musculoskeletal disorders among all sectors of restaurant workers in NYC, and through worksite exposure assessment and development and testing of ergonomic controls at Colors, a ROC-NY restaurant.

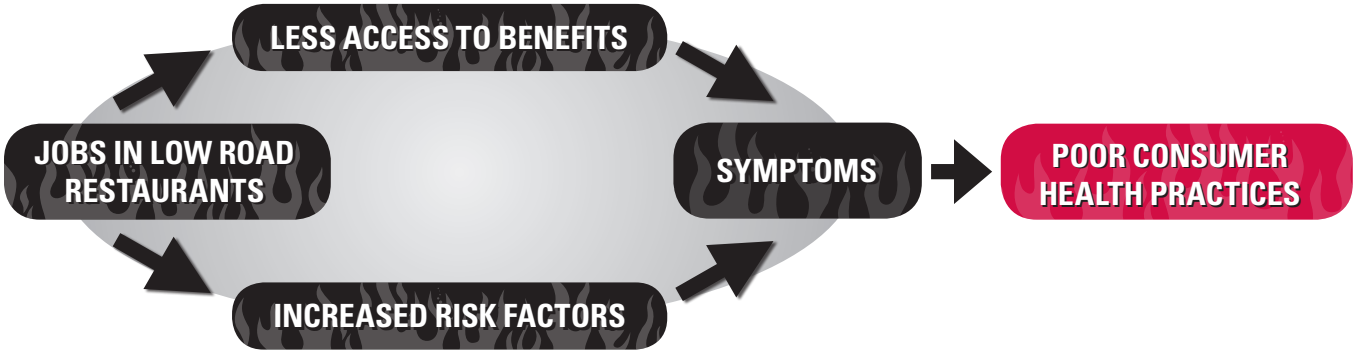
COLORS was designed to be a model restaurant for the industry, with improved ergonomic conditions and worker-friendly policies compared with conventionally owned restaurants. It provided a rare opportunity in the occupational health field, in which an ergonomic experimental laboratory could develop, test and evaluate specific engineering and work practice controls in a relatively controlled environment, that is, with the ability to have 100% worksite access and full cooperation from the cooperative in order to characterize ergonomic exposures and then implement and evaluate controls in order to reduce those occupational exposures. Working with COLORS cooperative owner-workers, ROC-NY, and an architect, the ergonomist helped design the kitchen, preparation area (downstairs), and dining room using state of the art ergonomic principles that, to the best of our knowledge, had not been done before in the restaurant industry.

Once the restaurant was open, the ergonomist helped make the following additional work organization modifications in the restaurant.

1. **The doorsill from the kitchen door to the hallway was slippery. The doorsill was replaced with material that increases the friction surface of the doorsill in order to reduce the chance of slips and falls.**
2. **The solid wooden door that leads into and out of the kitchen could have led to collisions and accidents. It was replaced with a curtain.**
3. **There was reduced visibility at the coffee station and at an ordering station. A light was installed in both locations.**
4. **There were two blind spots in the back of the house - at the runners' workstation, and at the fire escape stairway/kitchen junction. Two mirrors were installed at the runners' workstation, and one mirror was installed at the stairway/kitchen junction.**
5. **The bar door was too heavy to lift. It was replaced with a lighter bar door.**
6. **There was too little space at workstation #3. A menu box was installed - about 8 inches deep and approximately 60 inches wide - to hold the "check-presenter," wine list, napkins, and water glasses.**
7. **The coat racks were too high. Coat rack #1 was lowered 2 inches, and coat rack #2 was lowered 4 inches.**
8. **There was a sharp metal bar in the coat checkroom. The sharp metal bar on the left sided coat rack (when facing the coat check room) was removed.**
9. **There was a potential for an accident on the stairs because there was only one handrail. Two handrails, on both sides of each stairway, were installed.**
10. **There was a potential for an accident in the fire escape hallway, as lighting was dim. A brighter lighting system was installed.**
11. **Product and stock were manually handled during delivery. A utility truck was purchased to transfer stock from one end of the fire escape hallway to the other end.**

These modifications were practical, feasible and inexpensive, and helped ease the strain on COLORS worker-owners.

IV. POOR CONSUMER HEALTH PRACTICES



A. Worker Perspectives

OUR STUDY FOUND THAT:

- **98% of all workers who sneezed or coughed into the food did not have paid sick days, compared to 91% of all workers surveyed who did not have paid sick days.**
- **80% of all workers who sneezed and coughed into the food had no access to health insurance, compared to 62% of all workers surveyed who had no access to health insurance.**
- **In total, 65% of all workers who engaged in any dangerous consumer health practice had no access to benefits, compared to 52% of the entire set of respondents who had no access to any benefits.**

Restaurant workers sometimes engage in behaviors that may compromise the health of restaurant customers (Table 8). We found a high correlation between workers forced to work in jobs in low-road restaurants and poor consumer health effects, demonstrating that a 'low road' employer creates consequences for both workers and consumers. Those restaurants in which workers feel at risk for injury at the job are the same restaurants in which expired food is served, food is handled without handwashing, food is served that has fallen on the floor, and mops are cleaned in a sink used for food.

Table 8: Prevalence of Public Health Hazards According to Psychosocial Exposures, New York City Restaurant Workers

		Total (n=502)	Sneeze into food (n=56)	Serve dirty, leftover food (n=40)	Handle food without hand washing (n=134)	Serve food that's fallen on floor (n=58)	Clean mop in sink where food is washed (n=64)
Psychosocial Factors (missing = 7)							
Work Fast	Yes	84%(422)	9%(38)**	7%(31)	26%(111)	10%(42)**	9%(37)**
	No	16%(79)	23%(18)	11%(9)	28%(22)	20%(16)	34%(27)
Repetitive Work	Yes	88%(438)	10%(45)	8%(33)	28%(122)	11%(46)*	10%(45)**
	No	12%(60)	18%(11)	12%(7)	20%(12)	20%(12)	32%(19)
Physically Demanding	Yes	70%(345)	10%(35)	8%(28)	28%(97)	11%(39)	9%(31)**
	No	30%(150)	13%(19)	8%(12)	23%(34)	13%(19)	21%(32)
Work for Long in Physically Uncomfortable Positions	Yes	34%(167)	11%(18)	11%(18)	31%(52)	17%(28)	13%(21)
	No	67%(332)	11%(37)	6%(21)	24%(80)	9%(29)	13%(43)
Pressured to work over time	Yes	27%(133)	8%(11)	6%(8)	30%(40)	11%(14)	10%(13)
	No	74%(369)	12%(45)	9%(32)	26%(94)	12%(44)	14%(51)
Constant time pressure due to heavy workload	Yes	37%(185)	6%(11)**	8%(14)	28%(51)	13%(24)	11%(20)
	No	63%(313)	14%(44)	8%(25)	26%(81)	11%(33)	14%(44)
Feel I might be at risk of getting hurt	Yes	18%(87)	15%(13)	20%(17)**	40%(35)**	21%(18)*	21%(18)*
	No	83%(411)	11%(43)	6%(23)	24%(98)	10%(39)	11%(46)
Burn, Cut or Fall	Yes	52%(262)	12%(30)	11%(29)**	34%(89)**	15%(39)	15%(38)
	No	48%(240)	11%(26)	4.6%(11)	19%(45)	8%(19)	11%(26)
Any Respiratory Symptoms	Yes	13%(64)	14%(9)	16%(10)**	34%(22)	19%(12)	19%(12)
	No	87%(438)	11%(47)	7%(30)	26%(112)	11%(46)	12%(52)
Fatigue, Trouble Sleeping, or Headaches	Yes	75%(378)	14%(54)**	10%(38)**	31%(118)**	13%(50)*	15%(58)*
	No	25%(124)	12%(2)	2%(2)	13%(16)	7%(8)	5%(6)

* $p < 0.05$; ** $p < .01$ Sums may be less than totals due to missing values

Workers who report suffering burns, cuts or falls at the current job are more likely to serve expired food and handle food without washing hands than are workers who do not report such injuries. In addition, workers who report respiratory symptoms or non-specific symptoms such as fatigue, headaches or trouble sleeping are more likely to serve expired leftover food and handle food without washing hands than are workers who do not report such symptoms (Table 8).

Finally, there was a significant correlation between workers who do not have access to benefits and workers who engage in dangerous consumer health practices. 98% of all workers who sneezed or coughed into the food did not have paid sick days, compared to 91% of all workers surveyed who did not have paid sick days. 80% of all workers who sneezed and coughed into the food had no access to health insurance, compared to 62% of all workers surveyed who had no access to health insurance. In total, 65% of all workers who engaged in any dangerous consumer health practice had no access to benefits, compared to 52% of the entire set of respondents who had no access to any benefits. Restaurant workers' increased ability to access job benefits such as health insurance and paid sick days could therefore improve the dining experience for all.

B. Employer Perspectives

Employers acknowledged the connection between worker exposures, the lack of benefits, and consumer health risk. One employer joked, "Sick days. There aren't [sic] a set amount per year. You know it's one of the jokes in the restaurant industry: the restaurant industry keeps New York City sick because we don't take days off. We single-handedly keep New York sick during the winter months because we don't take days off…We're passing on all the illnesses to the customers. That's just a joke. You know, it all depends. Staff calls in sick all the time. It's kind of known as far as management goes is that you show up and then get sent home. No matter how sick you are: show up and then get sent home."

PRESS ON THE ISSUE

Unfortunately, the mainstream media is ripe with reports of the implication of bad workplace practices on consumer health. On April 30, 2009, a New York Times column by Judith Warner profiled a ROC member working as a server in a restaurant while sick with flu during swine flu season. Without paid sick days, the worker knew that she would lose her job if she did not go to work, despite the fact that she had both a fever and cough. The column reported that nationally, "only 14 percent of the people serving and handling food in restaurants can stay home from work when they're coughing and sneezing, without fear of losing their jobs."

Worker Profile: Antonio

When I came from Mexico 5 years ago, I was very excited to land my first restaurant job as a cook. At the time, I never imagined what the impact of that job would be on my life. All these years, I have been working 6 days a week for 12 hours a day, never receiving a single hour of overtime pay. As a result, I am now always very tired and short of breath. One time, I had a severe flu, but because my restaurant did not offer any sick days, and also because I badly needed the money, I went to work. For 3 days, I had to cough and sneeze around the food. The only protection of the food was my bare hands. And because the restaurant was very busy, I had to keep working without washing my hands. I was amazed to see that in order to save money, my employers would not only withhold paying overtime, but worse, they were keeping leftovers for several days and then selling them to the customers in order to save money! Not only did these employers not care for us; they didn't care for the well-being of the customers who were supporting their business. All these experiences weren't particular to one restaurant – it applied to my experiences in four separate restaurants that I worked at. Many of my friends in the restaurants industry also share the same experiences.

V. RECOMMENDATIONS

Some of the occupational safety and health conditions addressed in this report can be improved by educating workers and employers about best practices to avoid injury and illness on the job. However, to effectively address the high rates of injury and illness among workers, it is clear that education is not sufficient; while it will reduce the risks workers face in the workplace, workers need to be able to care for their health in any situation. These workers need benefits, including health insurance, paid sick days, and paid vacations. Without both education and intervention, the industry will continue to put both workers and consumers at risk.

1. **Benefits.** Workers who have access to fringe benefits are less likely to suffer injury or illness on the job. Since injury and illness is related to demanding work environments, having the ability to take time off or to see a doctor could prevent the appearance of new symptoms.

2. **Education for workers**. In our focus groups, several different workers suggested having someone on staff in a restaurant at all times to educate all other workers on health and safety matters. Many suggested that, instead of a manager, that this should be a lead worker in each department. Workers in our focus groups suggested that each worker be required to sign that they had attended a mandatory orientation, and also recommended that this orientation be paid time for workers, to ensure that all attended and understood its importance. All immigrant workers reiterated the need for materials in several different languages to be handed out to all workers, and that signs in appropriate languages be posted to warn workers about the potential dangers of particular hazards or the use of particular equipment. Workers in our focus groups suggested training for workers on how to use knives, how to clean glasses, and the importance of slip resistant shoes. They also suggested an orientation for all workers whenever new equipment arrived at the workplace, on how the equipment is to be properly used. All workers indicated the need for everyone to be educated on workers' compensation insurance, with language-specific written materials and verbal education.

3. **Safety and health conditions in restaurants need to be improved.** Through incentives or penalties, employers should be encouraged to follow the ergonomic guidelines outlined in this report, and generally provide safe, well-ventilated, well-organized environments for their workers to work; all employers should provide health and safety training to their workers. Occupational Safety and Health Administration (OSHA) standards for the restaurant industry should be improved and enforced. *See Appendix 2. Ergonomic Guidelines for the Restaurant Industry.*

4. **Education for employers and consumers.** Employers and consumers could benefit from learning the information gleaned from this study, to help employers avoid liability by re-organizing their workplaces and providing benefits, and to help consumers better understand what occurs behind kitchen doors.

5. **Greater access to better jobs.** Since it is clear that higher-level positions provide greater access to benefits, and that immigrants and people of color are underrepresented in these jobs, we should work toward more equal opportunity for these workers to obtain higher positions, including a formal and transparent protocol for workers to apply for promotion to higher-paying positions and the monitoring of discrimination.

6. **Model employer practices should be publicized to provide much-needed guidance to other employers.** With policy makers' support, research can be conducted and materials created to help employers understand the benefits of promoting from within and creating a safe and diverse work environment, as well as the negative consequences of failing to provide such opportunities. All focus groups reported that if employers were willing to spend even minimal time and money on safety, accidents and injuries could be avoided.

7. **Collective organizing among restaurant workers should be supported.** Rather than simply providing workers with access to living-wage jobs, we must simultaneously work to improve working conditions for all workers in the industry. Collective organizing efforts which foster better wages and working conditions enable restaurant workers to access health care insurance and other benefits, and facilitate advancement, investment and ownership in the industry.

APPENDIX 1. METHODS

The Restaurant Opportunities Center of New York (ROC-NY) is a restaurant workers' center dedicated to improving restaurant working conditions through organizing, research, advocacy and training. ROC-NY and a second community group, Make the Road New York, provided the interviewers, identified and approached prospective participants, and conducted the interviews. Collaborators from Queens College trained the interviewers and conducted data analyses.

The study used a convenience sample that was stratified to reproduce the overall proportions of New York City restaurant workers who belong to specific racial/ethnic categories: Hispanic, Asian, white, black, and other. Prospective restaurant worker participants were approached on subways, in workers' neighborhoods, inside restaurants, or near their workplaces during breaks or at the end of shifts. Questionnaire items included work quality issues, wage and hour practices, benefits, demographics, health symptoms, and ergonomic exposures. A modified version of the Job Content Questionnaire (JCQ) was used to assess work organization (Karasek et al 1985; Karasek et al, 1998). For the JCQ questions, a "high" value was assigned when the respondent "agree" or "strongly agreed," and a "low" value was assigned when the respondent "disagree" or "strongly disagreed."

We divided the industry into three major segments – 'fine-dining' or tablecloth restaurants with average per-customer price points of more than $40, 'family-style' restaurants that include both franchise and other casual restaurants, and 'quick-serve' or fast food and other restaurants that do not have waiter service. Within these segments, jobs generally fall into two categories: 1) 'Front of the house' (FOH) positions, including all staff who have direct contact with the customer; and 2) 'Back of the house' (BOH) positions, or those that do not regularly involve direct contact with customers, but are essential to a restaurant's functions. Within each house, higher-level positions (BOH1, FOH 1) provide greater pay and access to benefits than lower-level positions (BOH2, FOH2).

To the extent possible, we sought to reflect existing distributions of workers and employers within segments (fine-dining, family-style or franchise, and quick serve) of the restaurant industry, the racial and ethnic makeup of New York City's restaurant worker population, the proportion of workers employed in "front of the house" and "back of the house" positions, and the geographic distribution of restaurants across the city in our sample.

Data collection was anonymous. The full name of the respondent was not obtained. Verbal but not written informed consent was required. The study protocol and instrumnents were approved by the Institutional Review Board of Queens College, City University of New York.

The survey was translated and administered in Spanish and Chinese where required. Questionnaires of 502 people were completed.

Hourly wage was calculated as the sum of weekly tips and pre-tax weekly wage divided by weekly hours worked. Poverty level wage was defined in accordance with the Federal government poverty guidelines, i.e. - $20,654 for a family of four. A low wage was defined as between poverty level wage and 150% of poverty level wage. A livable wage was defined as above the low wage level.

Questionnaire data were entered into an Access database and analyzed with the statistical software package SAS Version 8 (SAS, Carey, North Carolina). We obtained frequency distributions and ran bivariate cross-tabulations. Statistical significance was tested using chi square analysis. We calculated prevalence odds ratios and associated 95% confidence intervals.

APPENDIX 2.

ERGONOMIC GUIDELINES FOR RESTAURANT EMPLOYERS AND WORKERS: *Engineering and Work Practice Controls*

To reduce the risk of musculoskeletal disorders (MSDs), an ergonomist designs the work environment to reduce workers' exposures to mechanical hazards. In the restaurant industry, mechanical hazards include non-neutral postures, repetitive motions, prolonged static standing, handling heavy dynamic loads (weight), and forceful muscle motions. Acute traumatic events, such as slips, trips, and falls, are also considered hazards in the restaurant industry. Although more difficult to control, psychosocial factors, such as high work pace, lack of participation in decision making, and few opportunities for career development, are also exposures in the restaurant industry that should be addressed. To help reduce the risk of MSDs in the restaurant industry, ergonomic engineering (equipment) and work practice controls are required.

To implement engineering controls in this industry, two approaches should be considered: installing controls prior to the restaurant opening, or modifying workspaces and equipment once the restaurant is open (for example, during renovations). Although the types of engineering controls are similar, logistical concerns make the former easier to achieve. That is, installing controls in the beginning is less problematic than having to retrofit controls into an existing and often busy work environment. For example, implementing engineering controls after a restaurant is open may require substantial construction, disturbance of workflow, or even short-term restaurant closure. Work practice procedures and controls, such as appropriately maintaining and storing knives, should be in place before the restaurant opens.

To ensure that restaurant design will enhance work performance and reduce the risk of MSDs, a multidisciplinary team should be involved, consisting of, but not limited to, an architect, back and front of the house workers, the general manager and the owner of the restaurant, an ergonomist, and purchasing.

Controls for back of the house (BOH) and front of the house (FOH) workers are listed below. Controls to reduce repetitive motions and forceful muscle motions for FOH workers are not described in these recommendations, as these exposures appear low for these job titles.

EXPOSURES AND CONTROLS

1. Non-neutral postures include bending, reaching, kneeling, squatting, lifting, lowering, carrying, and prolonged handling of a pot, pan, container or vat. To reduce these exposures and to reduce strain on the musculoskeletal system in the neck, upper back, shoulders, arms, trunk, low back, pelvis, legs, feet, implement:

A. Back of the House:

Engineering controls:

i. Adjustable height (crank mechanism), stainless steel, single surface workstations with two attached levels of shelving for dishes.
ii. Above knee to shoulder height refrigerators. Limit depth of refrigerators to approximately 18 inches.
iii. Dumbwaiters to transfer food product between floors.
iv. Above knee to shoulder height dish racks.
v. Hip height sinks for dishwasher.
vi. Pour assist devices, such as those used in the manufacturing sector.
vii. Aisles between workstations, or between workstation and grill, oven, stove, etc., at least 47 inches wide.
viii. Hand trunks and conveyors (gravity assist or electrical) to move product in and trash out.

ix. Hip to chest height shelves for runners.
x. Rolling stairs to retrieve high items.
xi. Anti-fatigue mats when kneeling.

Work practice and engineering controls:

xii. Store heavy items on racks between thighs to chest height to prevent lower back bending and arm reaching.
xiii. Reorient low work: raise or tilt work.
xiv. Sit on a milking stool for ground level work.
xv. Use tools with longer handles.
xvi. Organize work to reduce reaching, bending and squatting.
xvii. Use elevated work platform for high work.
xviii. Limit overhead storage to infrequently used items.
xix. Design reach-distances for shortest worker.
xx. Remove obstacles that impede work processes and flow.

B. Front of the House:

Engineering controls:

xxi. Chest height coat racks.
xxii. Adjustable height and angle touch screen computer workstations.
xxiii. Up-lighting system with dimmers at computer workstations.
xxiv. Chest height menu boxes.
xxv. Above knee to chest height storage space for glassware, dishes and cutlery.
xxvi. Above knee to shoulder height bar refrigerators. Limit depth of refrigerators to approximately 18 inches.
xxvii. Hip height bar sinks.
xxviii. Hip height ice storage at bars.
xxix. Hip to shoulder height alcohol bottle storage.
xxx. Not more than 22" bar counter distance between bartender and customer.

2. Repetitive motions involve using identical muscles, tendons, ligaments and nerves in the upper back, arms, hands, fingers, lower back, pelvis and legs to monotonously repeat similar movements in order to complete a work activity. To reduce these exposures and to reduce strain on the musculoskeletal system in these regions, implement:

A. Back of the House:

Work practice controls:

i. Daily maintenance schedule and procedure for sharpening knives.
ii. Spread work out over the day.
iii. Change hands to spread out repetitive movement. Ideally, use the right hand 50% of the time, and the left hand 50% of the time.
iv. Take recovery pauses.

3. Prolonged static standing increases strain on the musculoskeletal system in the lower back, pelvis, legs and feet:

A. Back of the House:

Work practice and engineering controls:

i. Anti-fatigue mats.
ii. Milking stools, or a low, small bench to rest one leg and foot.
iii. Recovery pauses (walk around).

B. Front of the House:

Work practice and engineering controls:

iv. Anti-fatigue mats for bar and coat check area.
v. Milking stools, or a low, small bench to rest one leg and foot.
vi. Recovery pauses (walk around).

4. Heavy dynamic loads (weight) increases strain on the musculoskeletal system in the neck, upper back, arms, lower back and pelvis:

A. Back of the House:

Work practice and engineering controls:

i. Dumbwaiters to transfer food product between floors.
ii. Hand or platform trucks, or carts to move food product in and trash out.
iii. Pour assist devices.
iv. Handrails on stairs on both left and right sides.
v. Proper lighting: high levels of brightness in hallways and alleys, and on stairs.
vi. Store heavy loads between hips and chest.
vii. Store lighter loads between chest and shoulders.
viii. Organize work to reduce reaching, bending and squatting.
ix. Obtain assistance from colleagues when handling food product or trash.

B. Front of the House:

Work practice and engineering controls:

x. Mobile, high-end service carts with handles to serve food.
xi. Obtain assistance from colleagues when handling food product and ice.
xii. When serving food to customers, use several servers to "swarm" all the drinks to the table at once, all the appetizers to the table at once (or some variation of the technique), all the main courses to the table at once, all the finished main course dishes from the table at once, and so on.

5. Forceful muscle motions increase strain on the musculoskeletal system in the upper back, arms and lower back:

A. Back of the House:

Work practice and engineering controls:

i. Daily maintenance schedule and procedure for sharpening knives.
ii. Oval or cylindrical handles on utensils (knives, spoons, ladles, forks) that are between 1.25-1.75 inches in diameter.
iii. Oval or cylindrical handles on utensils, with handle lengths at least 5 inches.
iv. Large, rubber coated handles on utensils to increase friction.
v. Factors that decrease grip strength include: bent wrists, slippery items, and cold hands. Controls include: grip objects, tools, equipment and cutlery with whole hand; pick up smaller loads; use carts or hand trucks; use lighter tools, keep wrists straight; use tools that promote neutral, straight wrists.
vi. Avoid pinch grips: pick up items from the bottom, using the whole hand; build up handles on small tools; put tool down when not in use; attach handles to heavy objects that must be lifted.

6. Slip, trip, and fall hazards may be due to low traction (friction), low lighting levels, inadequate handrails, clutter, wet floors, grease spills, and reduced vision. Addressing these hazards can reduce the chance of having an acute traumatic injury:

B. Back of the House and FOH:

Work practice and engineering controls:

i. Increase traction on stairways and walkways.
ii. Handrails on both sides of stairways.
iii. Rubber mats.
iv. Slip resistant shoes.
v. High levels of brightness on stairways and walkways.
vi. Housekeeping schedule to clean clutter, and mop wet floor and spills.

7. To reduce the risk of burn hazards and to reduce the chance of acute traumatic injuries:

A. Back of the House:

Work practice and engineering controls:

i. Potholders and mitts.
ii. Pour assist devices.
iii. Install burn fast aid kit.
iv. Dry food before placing in hot oil.
v. Don't leave hot oil unattended.
vi. Divide large vats of hot food into smaller batches before handling.
vii. Cool oil before handling.

B. Front of the House:

Work practice controls:

viii. Install burn fast aid kit.

8. Lacerations and machine hazards to reduce the chance of acute traumatic injuries:

A. Back of the House:

Work practice and engineering controls:

i. Install machine guards on slicers, mixers and similar types of equipment.
ii. Ice scooper, not glassware, to reduce risk of lacerations.
iii. Cut away from the body to reduce risk of lacerations.
iv. Keep knives sharpened through daily maintenance.
v. Store knives properly.
vi. Maintain machinery to reduce chance of malfunction.
vii. Separate broken glass from trash to reduce risk of lacerations.

B. Front of the House:

Engineering controls:

viii. Ice scooper, not glassware.

Additional comments:

The risk of injury increases if exposures are combined with one another.

Report symptoms as soon as possible. Early medical treatment is usually more successful than treating a chronic injury or an illness or disease. Acute illnesses can lead to chronic, severe health conditions, impairment and disability.

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Hotel Employees and Restaurant Employees' (HERE) Local 100
Jobs with Justice
Make the Road New York
National Employment Law Project
New York Committee for Occupational Safety and Health (NYCOSH)
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