**New Immigrant Destinations and Wage Outcomes for Recent Low-Skill Chinese Immigrants in the United States**

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# ABSTRACT


The increased diversification of immigrant settlement in the United States is by now well established.   However, there have not been sufficient efforts to examine socioeconomic consequences of this new settlement pattern for low-skilled immigrant workers.   Using two surveys in NYC's Chinese community and other data sources, we explore the extent to which moving away from the traditional settlement location of NYC to other parts of the country brings significant improvement in salary.  Drawing on literature on immigrant enclaves, migration networks, and compensating wage differentials, we develop testable hypotheses.   Our results show that for low-skilled Chinese restaurant workers, moving away from the NYC Chinese community has led to significant financial gains.  We also find that low-skilled Chinese immigrants who work in locations with higher crime rates receive higher pay.

**Introduction**

For a long time, waves of immigration to the United States shared two major characteristics in terms of settlement patterns: they tended to settle in traditional destinations along the east coast or in big cities such as New York, Chicago, San Francisco, and they often stayed in neighborhoods with earlier waves of immigrants (Waldinger, 1989). Some well-known studies reflect these characteristics of immigrant setttlement: polish peasants in Chicago (Thomas and Znaniccki, 1984), Irish and Italian immigrants in Boston (Gans, 1982; Handlin, 1972), Italians in Chicago (Suttles, 1968), Koreans in LA, Chinese in San Francisco and NYC (Chen, 1992; Guest, 2002; Lin, 2000; Min, 1995; Nee and Nee, 1973; Zhou, 1990). The concentration of immigrants in these gateway destinations certainly facilitated immigrant adaptation in the United States. In neighborhoods and communities with concentrations of immigrants, information on jobs and housing can be shared quickly, and residents can communicate in their native languages. From the assimilation perspective, the concentration of immigrants in one location or neighborhood raises concerns. For example, Massey (1995) shows that, compared to earlier waves of European immigrants, today's immigrants from Asian and Latin American countries are more concentrated. This causes concern for future prospects of learning English and adaptation to the American society.

Beginning in the 1990s, the geographical concentration of immigrants took a different turn. In 1990, 35% of recent immigrants resided in California; the percentage declined to 20% by 2000. Likewise, 13.4% of immigrants resided in New York in 1990, while that percentagedropped to 5.9% by 2000. [1] This dramatic shift in settlement patterns has stimulated increasing research in this area. Massey and Capoferro (2008) suggested four explanations for this diversification of settlement patterns. The firstfocuses on the effect of legalization due to

the Immigration Reform and Control Act of 1986 that resulted in the saturation of the labor market, especially in California. Second, he passage of Proposition 187 in 1994 made California a less welcome environment for immigrants. The third factor is "selective hardening of the border" that deflects immigrants to other destinations. However, immigrants also have a choice to move to other states (the gateway destinations as they had been doing for a long time) once they cross the border. But they seem to settle in new destinations at least for a while. The last factor is the changing geography of labor demand, as a result of the restructuring of production. The restructuring of production often means deunionization of the workforce, subcontracting of labor, and relocation of plants to non-metropolitan areas to avoid unions. As a result of this restructuring, jobs become less attractive to native workers and immigrants become a more reliable and flexible workforce. Several recent studies have provided evidence that is consistent with this perspective (Parrado and Kandel, 2008; Leach and Bean, 2008). In the case of California, Light's (2006) recent work points to the role of local government in creating an unwelcome context that encourages relocation of immigrants to non-gateway destinations.

In the last decade or so, a growing body of research has examined this new pattern of geographic diversification (Fisher, 2011; Licther, 2011; Konick, 2012; Muller, 2012, see Fong et al. (2005) for the case of Chinese in Canada). However, most studies focus on Latino immigrants. In addition, much of this line of research examines settlement patterns and racial-ethnic relations with local residents. What is not clear is the mechanism by which immigrants move to non-gateway destinations. Is that driven by some sorts of network or by recruiting agencies? This paper contributes to this line of research by directing attention to socio-economic consequences for immigrants who work in these non-gateway destinations. Combining data sets collected in NYC and data from the US Census Bureau, we aim to examine the extent to which

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immigrants receive income gains by moving away from NYC. We will begin with a

discussion of the relevant literature that motivates our work. This is followed by discussion of

our data collection efforts in New York City and methodology. The paper ends with a discussion

of future challenges for Chinese immigrants in these non-gateway destinations.


**Background and Hypotheses**

Employment Agencies, Immigrant Networks, and Wages

Given that most low-skilled Chinese immigrants work for Chinese employers, we need to

first understand how Chinese entrepreneurs start businesses in non-gateway destinations. We

find current perspectives on location choices of business facing challenges to explain the case of

Chinese restaurants in these remote locations. First, for any ethnic business, there is a major

issue of recruitment of workers. In some sense, there is a spatial mismatch between these

Chinese restaurants in non-traditional destinations and the supply of immigrant workers often

located in gateway locations (i.e. New York City). The emergence of employment agencies in

Chinatown in Manhattan precisely fills this gap.

The recruitment process for immigrants is rarely discussed in the current literature on

non-gateway destinations.[1] In the Chinese case, this is the story of the employment agency (EA).

In the three or four blocks around East Broadway and Eldridge Street in Manhattan's Chinatown,

there are 30-40 EAs. The EAs are important players in facilitating the process of settlement in

new destinations. Like any recruitment agency, EAs in Chinatown reduce transaction costs for

employers (Williamson, 1975). More importantly, staff members in EAs provide much-needed

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[1] Massey (2008) mentioned in passing on p. 345 for the case of Mexican immigrants but did not elaborate.

information about non-gateway destinations, and even work with bus companies to provide bus service to new locations.. Since they have the most up-to-date information on the restaurant job market, EA staff can relay information to bus companies and suggest new routes.

To the extent that EAs in Chinatown provide information to potential immigrant workers, there is still another challenge, namely spatial mismatch. This is because most of the newly-established Chinese restaurants are located far from Chinatown in NYC, while potential workers tend to concentrate in the NYC area. The mismatch between jobs and workers is a central focus of many recent studies on minority groups, and has been proposedas one of the leading causes of unemployment for minority and some immigrant groups (Kasinitz and Rosenberg, 1996; Wilson, 1987, Mourw, 2000). For example, Wilson (1987) argues that the unemployment rate for blacks is high because of the spatial mismatch between inner city blacks and job growth in suburban areas. In the case of Chinese restaurant jobs, one way to solve the spatial mismatch of jobs and employees is the creation of Chinatown bus, mentioned earlier (Newman, 2005). Chinatown bus began as a way to provide convenient transportation for restaurant workers who venture into different parts of the country. In the process of starting businesses, Chinese entrepreneurs also created a transportation network in the U.S.

EAs have played an important role by introducing market mechanisms into the settlement pattern of Chinese immigrants. The traditional process of settlement and employment is primarilykinship-based, i.e. immigrants work for relatives or relatives' friends and thus they may be exploited and cannot complain or relocate (Sanders and Nee, 1987).[2] The introduction of EAs has fundamentally changed the employment opportunity structure for immigrants. They now have more choice in terms of location, type of jobs, and salary scale (all job-related

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[2] We note other researchers hold a different view for the enclave economy (Wilson and Portes, 1980; Zhou, 1992).

information is posted on a bulletin board in the employment agency). Jobs in non-gateway

destinations may also be attractive because most employers provide room and board, whereas

jobs in NYC restaurants provide only free food. With market mechanisms, immigrant salary is

more likely to reflect market prices. A recent report suggests this is indeed the case in that chefs

in Chinese restaurants in non-gateway locations are paid about $2,300-$2,700, as compared to

chefs in NYC who are paid about $2,000-$2,300/month (Zeng, 2009). Employers who offer

below-market wages receive fewer applications when job seekers know the salary level of other

job listings. Furthermore, job mobility is facilitated when immigrants can leave for other,

higher-paying positions without the constraints imposed by relatives. The opportunities for

business formation may be enhanced as well. Most business owners will stay in close contact

with their employees, and may provide shuttle service to the workplace. Business tips may be

exchanged on the way to work. Thus the training system for entrepreneurship may work more

effectively in new destinations than in New York City, where the employer's main concern is

that workers get the job done (Bailey and Waldinger, 1991).


Crime and Immigrant Wages.

Immigrants' salary is determined by human capital, experience in the labor market, and

local context. Following the tradition of the Chicago school of sociology, Fong et al. (2005)

suggest that, according to the human ecology perspective, immigrant businesses are likely to be

located in "transition zones" in cities characterized by a high level of poverty and social

disorganization. In our fieldwork, conducted in 6 states (Texas, Pennsylvania, Florida, Ohio,

Virginia, and North Carolina), we find a variety of locations for Chinese entrepreneurs, with a

majority located in middle-class neighborhoods. But we also find, in Philadelphia, a large

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percentage of Chinese businesses  in communities with high levels of poverty and unemployment, including some with a majority black population and an unemployment rate of 45% . Nevertheless, many Chinese restaurants operate in these neighborhoods, sometimes in close proximity to one another. Given the substantial variation in the neighborhood business environment, , we explore the extent to which immigrant workers' salary is affected. .  In particular, we consider a community's crime rate, as this has been the focus of much earlier research.

The fundamental idea behind the link between crime rate and wages can be traced as far back as Adam Smith (Duncan, 1980; Shoren, 1986).  As Braakmann argued (2009), "workers that have to work in regions that are characterized by a high crime rate area compensated for the high risk of harm and theft (p.218)."  In addition, high crime areas also mean that it is likely immigrant workers prefer not to work in these areas or employers may experience a high rate of turn over.   Thus the linkage between crime and wages sounds quite convincing.   However, there is a small piece of puzzle we need to unpack.   To the extent that employers have to make a reasonable profit to pay higher wages for immigrant workers in these high crime neighborhoods, why these Chinese business owners (often restaurant owners) can make a good profit in these neighborhoods.  Our fieldwork in Philadelphia shows this is a combination of the nature of the Chinese restaurant business and the characteristics of people and families who live in these neighborhoods.  First, the Chinese restaurants in these neighborhoods serve mostly take-out Chinese food, with a very reasonable price $5-6 a meal for the most part.  Thus low-income households can afford it without much difficulty.  Second, for a typical family in middle class neighborhood, we can expect the family goes to a Chinese restaurant or order Chinese take-out for a family meal during weekend.   However in these communities with high unemployment

rates and high rate of single parenthood, the life style is quite different. We learned from interviews with Chinese restaurant owners that it is very often people come to order take out every day, and some people even order twice a day. In addition, these Chinese restaurants tend to open very late into the night some open until 2 am, which suggests business volume is good in early morning hours. Thus the business model of "small margin of profit but large business volume" works in this case.

Economists have done most of this line of research linking wages with neighborhood quality such as crime rate. Rodack (1982) shows a positive impact of crime on wages. Bloomquisat et al (1998) also found a positive relationship between crime rates and wages. The most big effect of crime on wages is offered by Smith (2005). There are also other studies that find effects of crime rate on wages in US and other countries are not statistically significant (Braakman, 2009). In addition to crime rate, we will also consider other characteristics of community such as: population size, distance of business from NYC (another major interest of our study), percent Asian American in the community, cost of living among other variables.

**Data and Methods**

Data Sources

*(1) Job listings from ESAs*

In September 2010, we carried out a survey of employment agencies in Chinatown in Manhattan; these are shown in Map 1. They mainly are located on Eldridge Street, Division Street, and East Broadway. Some call East Broadway "Fuzhou Street," implying that there are a large number of immigrants from Fujian province. Employment agencies are concentrated in these streets in order to serve the employment needs of Fujianese immigrants. At each agency,

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we recorded specific information for each job offered: location (by phone area code), salary level, type of job (chef or food delivery) or any other information (how tips are distributed, any preference for immigrants from different parts of China).   We surveyed 10 employment agencies out of total of 32 located in Chinatown in Manhattan, and obtained information on 2,147 jobs.

*(2)  Phone Area Code data and County Level Data.*

When analyzing business location choices, we use area code level as our unit because job listings are classified by area code.  The idea is to examine how area code level characteristics are related to number of Chinese restaurants in a particular area code zone.  We use county level data to generate area code level data for analysis (procedure discussed below).   Three kinds of county level data will be used:  county-level poverty and income data, county-level current business patterns (CBP) data, and county-level crime data.  The first two data sets were downloaded from US Census Bureau and County level crime data are downloadable from US Department of Justice.[3]

(3) Survey of  Chinese Immigrant Workers in NYC

In addition to a survey of employment agencies, we conducted a survey of immigrants in 2004 (for details on the survey, see Liang et al. (2008)).  Important information from this survey includes job history (duration on the job, type of job, and salary for each job), and location of

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[3]  See website (http://www.fbi.gov/ucr/cius2007/data/table_10.html).

job.   Thus we can identify if the job was in NYC or another location. Location of a job and salary are key variables for our subsequent data analysis.

Analytic Strategy

*(1) Mapping of Business Locations and Construction of Area Code level Data*

Our urvey of 10 EAs  resulted in a list of jobs identified by phone area codes.  Using counts of jobs in Chinese restaurants located in specific area codes, we mapped the distribution of business locations .   We also mapped patterns of job distribution by other characteristics (i.e. median household income, poverty level, and crime rate) of the area code zone.  To do this, we need   county-level data converted to the area code level.    Both telephone area code boundary and county level boundary files are available from ESRI Data and Maps.[4]   With these two sets of files, we can generate approximate attributes for each relevant telephone area code zone. Basically, by overlaying the area codes with the county boundaries we can visually identify the composition of each area code (or polygon in GIS terms) by the counties involved (also polygons). Thus, we can roughly aggregate the county level data into telephone area level attributes. For example, if telephone area code 555 (hypothetical) roughly corresponds to the combination of two adjoining counties A and B, then we can sum up the attributes for counties A and B such as population size and number of businesses, and the totals will become the attributes for telephone area code 555.  However, this procedure can be complicated by the fact that sometimes a county polygon is not entirely contained within a single telephone area code, instead being split between more than one area code.  For example, county C may cross over

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[4] The website location is http://downloads2.esri.com/support/whitepapers/ao_/J9509_ESRI_DataandMaps2006.pdf.

telephone area code 555 and 666.  In that case, we will have to split the attributes (such as population size, etc.) of county C proportionally according to the area distribution of county C polygon between telephone area codes 555 and 666 (it is possible that there is GIS application to compute the precise allocation of county C spatial size between telephone area code 555 and 666, but the proportional allocation of the polygon attributes such as population has to be done manually). Whether it is combining or splitting the county attributes, this process is largely a manual process that ultimately aims to create area code level data.   Using this method, we can "convert" all county level data into area code data file.


(2) Regression models

    A.  Using wages at the area code level as dependent variable

Given the nature of our dependent variable at the area code level and potential spatial dependency among variables, we performed some spatial diagnostic test using Moran's I and other spatial test statistics.   The results are presented in Appendix.  Essentially, our diagnostic test of spatial dependency in the OLS regression shows that Moran's I is 1.421 and it is not statistically significant (see Appendix).  In fact, none of the other test statistics are statistically significant.   It appears that the independent variables we have also appropriately take into account any spatial dependency in the data.  Therefore it is not necessary to estimate spatial models.

    We should also note that a key methodological advantage of using wage level at the area code level is that this is the wage offered by employers and is NOT subject to typical selection bias.  In other words, if we compare salary difference between immigrant workers who work in

non-gateway destinations vs. NYC, we have to consider potential selection effect—that is the possibility that immigrant workers who moved to non-gateway destinations are more able or highly selected on some unmeasured characteristics (such as ambition).

There are two key variables for this part, distance from NYC to non-gateway destination. This distance is measured by distance between centroid of 212 area code to centroid of any other area code where job is located. The second important variable is crime rate which is obtained from FBI website.

B. Using Survey of Chinese Immigrant Workers

For this part of our analysis we use data on wage (logged) for the most recent job as our dependent variable. Independent variables include: age, education, gender, legal status, owner status, job search method (market based, social networks, other), English language, duration of stay in the US, working hours per week. One variable of interest is if the job is located in NYC or not. We realize this is not an ideal measure of employment location. This is one limitation of this measure. From our survey of employment agencies we know that most non-NYC jobs are located in other states. Thus, a Non-NYC job location is a good indicator that immigrants have moved away from the Chinese community in NYC.

Another important variable is how immigrant workers got the current job. We combine employment agency and newspaper (as a way to get job) into one single category: by market mechanism (in contrast to getting job information from friends or migrant networks).

Compared to models using salary at the area code level, the main advantage of using data from survey of immigrants is that we can include workers who got jobs from a variety of channel

(employment agency, immigrant networks, and other). In addition, we are also able to consider other individual level characteristics mentioned earlier.

**Results**

Table 1 shows the distribution of jobs at the area code level from our Chinatown survey. About 23% of area codes contain 1-4 jobs and 20% of area codes contain 5-14 jobs. We also note that 35% of the area codes do not contain any jobs. For the most part, area codes with no jobs tend to be located along the west coast and in the Rocky Mountain region. This suggests that employment agencies in NYC do not serve these parts of the country. Map 1 shows how salary is distributed geographically. Locations in the mid-west and south that are distant from NYC tend to have significantly higher salaries. This broad pattern is consistent with our hypothesis. Another important finding is that immigrant workers who work in higher crime rate areas are paid significantly more than others.

Table 2 shows the results from OLC regression of monthly salary (logged) using the survey of immigrant workers. One of the variables of interest is distance from Manhattan to a second area code where a given job is located. The result shows that the further away a job from NYC, the higher the salary. In Figure 1, we did a simulation of predicted salary by distance based on the assumption that other variables all take on their respective mean values. In general, for every 500 miles away from NYC, immigrant workers would receive an additional $80/month. That translates into about $960 per year in salary gain. In addition, as we expected, immigrant workers who work in areas with higher crime rates get paid more than workers who work in lower crime areas. Thus, immigrant workers are compensated for working in dangerous areas and neighborhoods.

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It should be noted that results from Table 2 are concerned only with immigrant workers who found jobs using an employment agency. A natural question is whether this finding is true for other immigrants who utilized other channels such as migrant networks to find jobs. For this we rely on a survey of 410 Chinese immigrants done in NYC. Table 3 provides a basic portrait of the sample. 62% of the sample is men with mean age of 37. The sample immigrants have a mean duration of U.S. residence of about 12 years, and mean work hours of about 61 hours/week. This is roughly 10 hours per day, given that most of these immigrants take one day off per week. Most workers are not highly educated: only 20% have an education level of senior high school and above. Most of them (54%) were still undocumented at the time of the survey. For the two variables of our main interests: 63% of them work in NYC and 46% found jobs through employment agencies. Thus this earlier survey clearly complements our survey of employment agencies. About 6% of the sample own their own business. This gives us the opportunity to test if employers receive higher reward if they move out of NYC.

Table 4 shows the results from OLS regression model of logged wages. As we expected, immigrants who work in NYC make less money than outside of NYC. We also entered an interaction term between NYC location vs. employer/employee status. The results show that employers who work in NYC actually make more than others who work outside of NYC. This finding echoes earlier work by Nee and Sanders (1989) who suggested that ethnic enclaves benefit employers but not employees. Our fieldwork in NYC suggests that immigrant workers have a strong preference to stay in NYC for several reasons. One is to stay close to family and friend networks. Second, major services (accountant and especially health care) can be done in Chinese. Third as our survey shows, a substantial proportion of immigrants are still undocumented. The perception among many low-skilled Chinese immigrants is that

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immigration officials in non-gateway destinations often inspect documents and arrest undocumented immigrants. This issue is becoming a major concern among immigrant-rights advocates in recent years (New York Times, editorial, 2013). Thus immigrants are willing to be paid a lower wage to stay in NYC, leading to higher profits for employers.

Other variables are all in expected directions. Following the human capital model, to the extent that age indicates more experience in the labor market, it does show a positive effect on wages. It is somewhat surprising that education does not have any impact on wages. It is understandable given the fact that restaurant workers in general do not need high education. As expected, immigrant workers who speak English well receive a wage premium.

We should note that, unlike in a true experimental study design, where the assignment of treatment is random, in observational studies like the current one we do not have control over who receives the treatment (in this case, job location in NYC) and who does not. This will introduce "selection bias" into the study. Propensity score analysis can help reduce the bias (Kurth et al., 2009). [5]

Propensity score is estimated by fitting a multivariate logistic regression predicting whether a job location is in New York City. The independent variables are age, gender, education, legal status, job search methods and English ability. Test statistics suggest that the balancing property of propensity score is satisfied. Then, the estimated propensity scores are used in regression (covariate) adjustment. That is, we re-ran the original OLS regression models of logged monthly wage with a newly added control variable--the estimated propensity score. Results suggest that the effect of the major independent variables of interest (e.g. job location and its interaction term with

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[5] We should also note that our earlier model using area code level data does not have selection bias issue when studying wage and location, but individual model using individual level wage and location does have this issue, which explains the rationale for our propensity score analysis.

business owner status) remains the same after entering propensity scores in the model. This result is presented in Table 5.


**Summary and Conclusion**

The major aim of this paper has been to examine the extent to which recent diversification of immigrant destinations has socioeconomic consequences for immigrant workers. We use low-skilled Chinese workers as a case study. One important player in this study is employment agencies. The growth of employment agencies and their dominance in job search is a significant departure from the traditional method of relying on kinship and migrant networks. The key implication of the role of employment agencies is that they operate by market mechanism. Thus salary for any particular job must reflect market conditions. Given the fact that most Chinese immigrants prefer to stay close to the Chinese community in NYC, jobs located at a distance must pay market rate to attract workers. Our results do show that distance from NYC has a statistically significant impact on salary level— namely, the further away from NYC, the higher the salary for immigrant workers.

One limitation of our data is that it only includes jobs obtained through Chinese employment agencies, and does not account for jobs obtained through     other channels such as newspapers, kin and family  networks. We supplement our analysis with a survey of Chinese immigrants conducted in NYC. Taking advantage of rich information on individual- level characteristics such as migration experience and English language proficiency, we are able to take these into account when considering job location and salary. Again, this part of our analysis shows very consistent results of a salary premium based on distance from NYC. Taken

together, we have strong evidence that moving out means moving up for these immigrant workers.

Our paper also speaks to the debate on ethnic enclaves that dominated the literature on immigration in the late 1980s (Wilson and Portes, 1980; Sanders and Nee, 1989; Zhou and Logan, 1989; Portes, 2006). The debate hinges on the role of ethnic enclaves in the well-being of immigrant workers and employers. One side of the debate stresses the positive role of the enclave in terms of returns to human capital and benefits for immigrants who become business owners, whereas the other side argues that ethnic enclaves mainly benefit employers. Our paper enters this literature in a unique position. In our case, if we define the enclave as workers who work in NYC, then the results do support the assertion that the enclave economy benefits employers more than employers in non-gateway destinations.

Let's extend the discussion of spatial location of jobs and implications a little more. Either in NYC or non-gateway destinations, immigrant workers in our sample work for Chinese employers. Clients of these businesses (restaurants) in NYC are more likely to be a mixture of Chinese and other customers who speak English only. But clients of businesses in non-gateway destinations are local residents for the most part. Thus immigrant workers in non-gateway destinations are more likely to interact with English speakers, improving their language skills. . Another potential benefit of working in a non-gateway destination is more time to interact with Chinese employers during and after work. Most Chinese employers provide housing for workers, and often provide transportation to and from work. As we know, none of the Chinese employers in NYC provide employee housing. More time spent with the employer enhances the opportunity for workers to learn about immigrant business operations. If we think about one benefits of working in the enclave economy as a training system (Zhou, 1990 and Baily and

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Waldinger, 1992), working in a non-gateway destination would seem to better promote this kind of training opportunity.  In some sense, our paper provides a very positive story about working in non-gateway destinations.   However, there are clearly challenges for these workers.   Our paper shows financial reward for these workers to work in high crime and distressed neighborhoods. Of course, money is not everything.  These neighborhoods can indeed be dangerous at times.   In fact from 2000 to 2005, in northern Philadelphia where we are carrying out fieldwork right now, there were 10 Chinese restaurant workers and in some cases owners were murdered.   This does not include many sad stories of violence and crime (i.e. beating Chinese delivery boys on the street, robbing cash under the gun point).   For restaurant owners, there is also constant struggle with customers who are not always honest and minority school age children who make trouble in and around Chinese restaurants.   There has been a rich tradition of sociological research on this topic that deals with interactions between Jewish business owners, Korean business owners with minority customers in poor areas (Min, 1995, Lee, 2002).   This is clearly a major topic for further sociological research.

From an immigrant perspective, working in non-gateway destinations presents many challenges.  One is the difficulty of practicing religion.   In NYC, immigrants can often participate in religious services offered in the Cantonese, Mandarin, or Fuzhou dialects;    this is likely not available in other locations. .  In some places with a relatively large number of Chinese immigrants (such as Virginia and North Carolina), immigrants work closely with local church leaders to rent a local church for services in Chinese language.   Second, many immigrants  who work in non-gateway locations  leave other family members behind in NYC. This may create psychological stress for immigrants and their children.   Third, navigating the

new health care environment can be a challenge to obtaining medical care. We hope future

research will explore these issues as well.

**Table 1. Descriptive Statistics of Variables and Distribution of Jobs at the Phone Area Code Level (N=273)**

| Number of jobs in the area code | Frequency | Percent |
|---|---|---|
| 0 | 98 | 35.77 |
| 1-4 | 64 | 23.36 |
| 5-14 | 55 | 20.07 |
| 15-24 | 31 | 11.31 |
| 25-34 | 16 | 5.84 |
| 35+ | 10 | 3.65 |
| **Variables Used in Regression Analysis** | **Mean** | **Std. Dev** |
| Monthly Wage | 1695.96 | 1298.68 |
| Proportion of Asian (%, 2005) | 4.35 | 4.73 |
| Distance from Area Code 212 (Mile) | 1005.97 | 747.66 |
| Population (in 100,000s, 2005) | 14.69 | 10.65 |
| Proportion of Unemployment Population (%, 2005) | 4.75 | 0.93 |
| Crime Rate (2010) | 0.03 | 0.008 |
| Proportion in Labor Force (%, 2005) | 50.25 | 35.21 |
| Cost of Living (2010) | 906.64 | 282.00 |

Sources: New York City Chinatown Employment Agency Survey 2010; ICPSR 20660: County Characteristics, 2000-2007 [United States]; Uniform Crime Reporting Program Data 2010.

**Table 2. Coefficient from OLS Regression Model of Monthly Wage (logged) in Each Area Code**

| Independent Variables | Coefficient | | SE |
|---|---|---|---|
| Distance From NYC | 0.0000664 | *** | 0.0000123 |
| Total Crime Rate | 1.656031 | * | 0.7386938 |
| Percent Asian | -0.0032857 | | 0.0029096 |
| Labor Force Participation Rate | -0.1459285 | | 0.1706737 |
| Cost of Living | -0.0000103 | | 0.0000358 |
| Unemployment Rate | -0.0005796 | | 0.0068435 |
| Population Size | 0.0002043 | | 0.0006262 |
| Constant | 7.904098 | | 0.1010966 |
| N | | | 192 |

Note：*p<.05; **p<.01; ***p<.001

**Table 3. Descriptive Statistics of Variables Used in the Analysis of Chinatown Data**

| Categorical Variables | Frequency (%) |
|---|---|
| Gender | |
| Male | 234 (62.4%) |
| Female | 141(37.6%) |
| Education | |
| Primary School or less | 154 (41.1%) |
| Junior High School | 143 (38.1%) |
| Senior High School or above | 78 (20.8%) |
| Legal Status | |
| Legal | 171 (45.6%) |
| Illegal | 204 (54.4%) |
| English Ability | |
| Poor | 232 (61.9%) |
| Good | 143 (38.1%) |
| Job Search Method | |
| Social Network Based | 173 (46.1%) |
| Market Based | 175 (46.7%) |
| Others | 27 (7.2%) |
| Location | |
| NYC | 235 (62.7%) |
| Non-NYC | 140 (37.3%) |
| Business Owner Status | |
| Yes | 23 (6.1%) |
| No | 352 (93.9%) |
| **Continuous Variables** | **Mean (S.D.)** |
| Age | 37.79 (10.3) |
| Duration of Stay | 12.1 (4.6) |
| Working Hours Per Week | 61.5 (14.9) |
| Monthly Wage | 1780.3 (928.2) |
| N | 375 |

**Table 4. Regression Analysis of Monthly Wage**

| Independent Variables | Coefficient | | SE |
|---|---|---|---|
| Age | 0.0318125 | *** | 0.0096002 |
| Age2 | -0.0004582 | *** | 0.0001145 |
| | | | |
| Gender | | | |
| Male | 0.39857 | *** | 0.0390262 |
| Female (Reference) | -- | | -- |
| | | | |
| Education | | | |
| Junior High School | 0.0536343 | | 0.0375248 |
| Senior High School and Above | 0.0181141 | | 0.0476983 |
| Primary School and Below (Reference) | -- | | -- |
| | | | |
| Legal Status | | | |
| Legal | -0.0502321 | | 0.0360266 |
| Illegal (Reference) | -- | | -- |
| | | | |
| Job Location | | | |
| NYC | -0.0928637 | * | 0.0375216 |
| Non-NYC(Reference) | -- | | -- |
| | | | |
| Owner Status | | | |
| Yes | 0.1985291 | | 0.14926 |
| No (Reference) | -- | | -- |
| | | | |
| Location*Owner Status | | | |
| Owner*NYC | 0.336651 | * | 0.1603515 |
| | | | |
| Job Search Method | | | |
| Market Based | -0.0296901 | | 0.0349456 |
| Others | 0.0223524 | | 0.077818 |
| Social Network Based (Reference) | -- | | -- |
| | | | |
| English Language Ability | | | |
| Good | 0.1486955 | *** | 0.0404358 |
| Poor (Reference) | -- | | -- |
| | | | |
| Duration of Stay | 0.0106013 | * | 0.004623 |
| | | | |
| Working Hours per Week | 0.0103261 | *** | 0.0012766 |

| | | | |
|---|---|---|---|
| Constant | 5.844446 | *** | 0.2120397 |
| N | | | 375 |

Note: *p<.05; **p<.01; ***p<.001

**Table 5. Regression Analysis of Monthly Wage with Propensity Score Adjustment**

| Independent Variables | Coefficient | | SE |
|---|---|---|---|
| Age | 0.0104752 | | 0.0148608 |
| Age2 | -0.0002839 | | 0.0001471 |
| | | | |
| Gender (reference=female) | | | |
| Male | 0.5364288 | *** | 0.0831309 |
| | | | |
| | | | |
| Education (reference=primary school&below) | | | |
| Junior High School | 0.0778114 | * | 0.0395519 |
| Senior High School and Above | 0.0379049 | | 0.0486885 |
| | | | |
| Legal Status (reference=illegal) | | | |
| Legal | -0.0442303 | | 0.0360434 |
| Location (reference=non-NYC) | | | |
| NYC | -0.0961065 | * | 0.0374308 |
| | | | |
| | | | |
| Owner Status | | | |
| Yes | 0.0878178 | | 0.1600163 |
| No (Reference) | -- | | -- |
| | | | |
| Location*Owner Status | | | |
| Owner*NYC | 0.3608822 | * | 0.1603141 |
| | | | |
| Job Search Method | | | |
| Market Based | -0.073169 | | 0.0360688 |
| Others | -0.0386939 | | 0.0840957 |
| Social Network Based (Reference) | -- | | -- |
| | | | |
| English Language Ability | | | |
| Good | 0.243322 | *** | 0.0645529 |
| Poor (Reference) | -- | | -- |
| | | | |
| Propensity Score | 0.8970283 | | 0.4780794 |
| | | | |
| Duration of Stay | -0.0027945 | | 0.0084967 |
| | | | |
| Working Hours Per Week | 0.0147037 | *** | 0.0026574 |
| | | | |
| Constant | 5.595532 | *** | 0.2494937 |

| N | 375 |
|---|---|

Note: *p<.05; **p<.01; ***p<.001

**Map 1. Mean Salary offered by Phone Area Code**



Salary in different areacodes

Legend

areacode2
EXPSALARY

- .00
- .01 - 2467.80
- 2467.81 - 2676.67
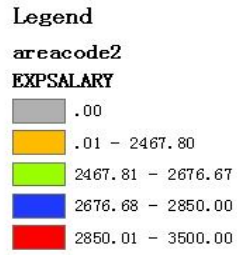- 2676.68 - 2850.00
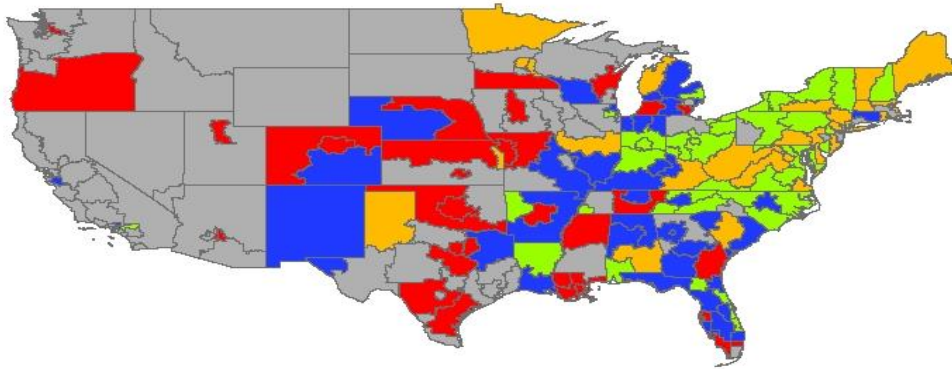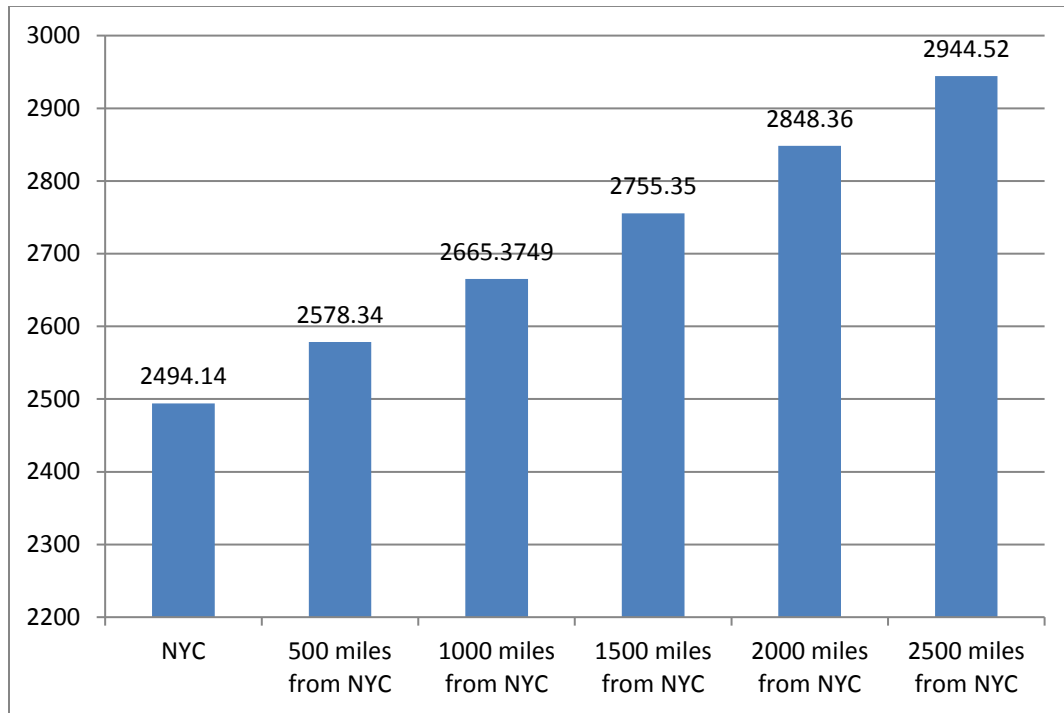- 2850.01 - 3500.00

**Figure 1. Predicted Monthly Salaries by Distance Increment of 500 Miles**



Note: all other independent variables are set to the mean.

**Appendix: Spatial Diagnostics**

**Table A1. Global Measure of Spatial Autocorrelation**

| Variables | Moran's I | E(I) | S.D.(I) | Z | P-Value |
|---|---|---|---|---|---|
| Salary (logged) | 0.289 | -0.005 | 0.013 | 23.068 | 0.000 |
| Distance From NYC | 0.580 | -0.005 | 0.013 | 45.912 | 0.000 |
| Total Crime Rate | 0.246 | -0.005 | 0.013 | 19.639 | 0.000 |
| Percent Asian | 0.163 | -0.005 | 0.013 | 13.337 | 0.000 |
| Labor Force Participation Rate | 0.225 | -0.005 | 0.013 | 18.033 | 0.000 |
| Cost of Living | 0.406 | -0.005 | 0.013 | 32.248 | 0.000 |
| Unemployment Rate | 0.215 | -0.005 | 0.013 | 17.219 | 0.000 |
| Population Size | 0.032 | -0.005 | 0.012 | 2.982 | 0.003 |

**Table A2. Test of Spatial Dependency in OLS Regression**

| Test | Statistic | Degree of Freedom | P-value |
|---|---|---|---|
| Spatial Error | | | |
| Moran's I | 1.421 | 1 | 0.155 |
| Lagrange Multiplier | 0.025 | 1 | 0.875 |
| Robust Lagrange Multiplier | 0.024 | 1 | 0.877 |
| | | | |
| Spatial Lag: | | | |
| Lagrange Multiplier | 0.070 | 1 | 0.792 |
| Robust Lagrange Multiplier | 0.069 | 1 | 0.793 |

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[1] This shift towards non-traditional immigrant destinations is also taking place in Canada (Fong, et al., 2005; Fong et al., 2007).