

*Contemporary Changes of Chinese  
Entrepreneurship in Hong Kong*

Raymond Sin-Kwok Wong  
University of California-Santa Barbara

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## Introduction

The magnitude and influence of Chinese entrepreneurial activities have been expanding at an astonishing pace since the end of WWII. Initially, Chinese entrepreneurial activities were most noticeable in a few countries in East Asia (Hong Kong, Singapore, and Taiwan) dominated by ethnic Chinese. After mainland China opened its economic door in 1978 and became “the global factory,” the volume of economic activities by ethnic Chinese multiplied exponentially. Concomitantly, with the spread of global capitalism, Chinese entrepreneurial activities also flourished elsewhere in the Pacific Rim region, particularly in Southeast Asia. The range of their economic activities has also expanded from petty trading and low value-added products to include high-technology and high value-added products and services. A few Chinese-owned business firms even become global conglomerates and play an important economic role in the Pacific Rim region and beyond.

Such flourishing activities have led to increasing interests in why and how ethnic Chinese from divergent political, economic, and social contexts come to similar entrepreneurial enthusiasm and achievement. The conventional understanding favors a culturalist explanation, attributing Chinese entrepreneurial vigor to (post-)Confucian ethics that stress the importance of family and kin-based networks (Berger and Hsiao 1988; Bond and Hofstede 1990; Hofstede 1980; Kahn 1979; Rozman 1991; Vogel 1991). It is commonly thought that unlike western Protestant ethics that emphasize individualism, competitiveness, and maximization of self-interests, Confucian ethics stress the importance of interpersonal relatedness, harmony, and obligations/responsibility. Built on these ethics, Chinese business practices highlight social embeddedness. Business ties are structured by pre-existing interpersonal ties, and these personalized networks (*quanxi*) are instrumental in facilitating and enhancing economic

transactions (Chen 1986; Fukuyama 1995; Hamilton and Kao 1990; Huang 1988; Redding 1987). Thus, Chinese entrepreneurs generate a complex web of personalistic networks linking the firms backward to sources of supply and forward to consumers (Chan 1982; Omohundro 1981, Wong 1985). This *quanxi*-driven business practice is believed to be shared by ethnic Chinese all over the world, including the Communist China (Bian 1997, 1999; Walder 1986; Yang 1994, 2002).

Associated with traditional Chinese familism that stresses collectivism, obedience, and obligation, Chinese entrepreneurs are generally characterized as predisposed toward paternalistic management and their firms as small family entities that rely on family members for financial and labor support (Espy 1970; King and Man 1974; King and Leung 1975; Lau 1982; Redding 1980, 1990; Redding and Wong 1986; Sit, Wong, and Kiang 1979; Redding 1990; Redding and Tam 1985; Whitley 1991; Wong 1979, 1985, 1989). In sum, business organizations operated by ethnic Chinese tend to be small, family dominated, centralized, informally but effectively coupled, paternalistically organized, and antithetical to professional management. There is a close overlap of ownership, control, and family (Redding 1990; Redding and Whitley 1990).

However, much of the literature on Chinese business culture and practices, particularly those pertaining to the experience of Hong Kong entrepreneurs, are dated. They are based largely on works conducted in the 1960s and 1970s, and may be over-generalized as few of them are based on comparative or temporal investigations. Furthermore, their findings are drawn exclusively from non-representative samples of entrepreneurs, say small industrial owners, rather than the entire population of owners. With the importance of the manufacturing industry faded and that of the business and financial service industry rising rapidly, there is clearly a need for reassessment. In other words, any information about the social composition of industrial owners can hardly be representative of the entire population. Finally, with the adoption of advanced technology in

production that is usually both capital and skill intensive as well as the growing influence of conglomerates, the organization of production and business in contemporary Hong Kong may be very different and render the reliance of personalized network less effective and beneficial. Indeed, some recent studies cast doubts on the culturalist interpretation and suggested changed conditions in the contemporary economic setting for Chinese entrepreneurs.

In my previous work on business organizations and business entrepreneurs in Hong Kong, I find several tendencies that contradict the conventional understanding (Wong 2004). First, the degree of organizational complexity of Hong Kong firms, in terms of number of vertical levels, formalization, decentralization, and departmentalization, has become remarkably similar to the national sample of firms in the United States. Second, contrary to the understanding of the typical Chinese firm as a family firm, no more than two-thirds of the business establishments in Hong Kong satisfy at least one of three criteria in the classification scheme – having family members and relatives in the company; self-identification as family firm; and intention to pass business to next generation. While the figure may still seem high, it is by no means unique and is indeed comparable to figures found in Great Britain and Canada (Family Firm Institute 2000). Third, while some entrepreneurs still support the hiring of family members and relatives, a large proportion, particularly those born in Hong Kong, view negatively such practices and Chinese family firms in general. In sum, even if family firms were indeed the norm in the past, the current organizational environment is dramatically different and business entrepreneurs are more open to western management and organizational strategies.

In this paper, we seek to provide an historical understanding of the changes in the social composition of entrepreneurs in Hong Kong during the past thirty years. Owing to the lack of public data, our analysis is based on the one-percent sample of the decennial data in 1971, 1981,

1991, and 2001, provided by the Hong Kong Census and Statistics Department. Admittedly, the amount of information available from the decennial censuses is limited. On the other hand, the number of entrepreneurs included in each census is representative and large (ranging from 1,288 in 1971 to 3,426 in 2001). By restricting the analysis to those who are economically active, the distinction between workers, self-employed workers, and employers should provide a better understanding of characteristics associated with the social composition of entrepreneurs and their possible changes over time.

*Table 1 About Here*

The distinction between self-employed workers and employers is an important one. First, they differ significantly in terms of the amount of human and financial capital involved. The entry barriers for self-employment usually range from weak to non-existent. Self-employment is financially attractive, particularly among those who lack sufficient human capital to advance in the corporate hierarchy. Second, there is a strong theoretical (neo-Marixan and neo-Weberian) tradition in the stratification literature to distinguish them (Erikson and Goldthorpe 1992; Goldthorpe 1987; Wright 1995). Third, their motivations and desires of entrepreneurship can be different. Self-employed workers may be drawn toward entrepreneurship because of the promise of autonomy and independence whereas financial success and the boss mentality are important attractions for employers. In fact, the figures reported in Table 1 indicate clearly that while the incidence rates for entrepreneurship have remained stable, there are significant internal changes as the rise in the proportion of employers is offset by the decline in self-employed workers.

The analysis reported in this paper is restricted only to those who were aged between 15 and 70 and economically active in the non-farm sector. As the Hong Kong society becomes increasingly urbanized, the proportion of workers in the agricultural sector shrinks considerably.

Our interest of investigation is individual employment status. For the sake of convenience, family members working with or without pay are classified under the worker category. Table 1 provides a detailed breakdown of the number of valid cases from the four censuses. Because each household can have more than one member active in the labor force, the data cannot be treated as if they were drawn from simple random sampling. In the multivariate analysis section, all statistical models are estimated with robust standard errors to correct for household clustering.

### **Industrial Diversification and Occupational Upgrading**

Hong Kong has undergone phenomenal transformation since it began as a small fishing port several centuries ago. Much of the changes, however, occurred after the end of the Second World War, culminated by the large influx of refugees and capitalists from socialist China, with ebbs and flows depending on the political conditions in the mainland. With the talent, skills, and capital from many fleeing Shanghainese industrialists and elsewhere, most of the economic activities between 1950s and early 1970s were concentrated in manufacturing, from basic processing of textiles and plastics to garments and electronics. Even the composition of the manufacturing industry changes rapidly as well, sometimes within a few years such as the wig production in the 1960s, responding rapidly to the changing demand in the global market.

As of 1971, more than half of the non-farm population was engaging in the manufacturing industry (see Table 2).<sup>1</sup> The proportionate share of jobs in the manufacturing industry probably peaked around the mid-1970s. But within just three short years since China opened her economic door to foreign investments, its share reduced drastically to 45 percent in 1981. As economic reform in China intensified, the trend became irreversible with more and more capitalists (big and small) moved their entire production to China, mostly to the nearby Shenzhen and the larger

Pearl River Delta region. The proportion of manufacturing workers dropped to less than 29 percent in 1991 and slightly more than 12 percent in 2001.

The rate of decline of entrepreneurs working in the manufacturing industry, however, is far less dramatic. Much of the decline was among self-employed workers (31 to 7 percent between 1971 and 2001) whereas the decline among employers was still significant but subdued, from 36.6 to 20.5 percent. This is hardly surprising given that the decline of manufacturing jobs in Hong Kong does not equate a decline in manufacturing activities; only the nature of the organization of production has been transformed. Although the locations of industrial production were shifted to China and Southeast Asia, the coordination of manufacturing activities, such as order processing, research and development, production planning, and shipment, largely remained in Hong Kong. This “new division of labor” also resulted in flourishing entrepreneurial activities in the import and export trading sector. Together with the rise of the service economy, particularly in the financial, insurance, and real estate (FIRE) sector, the economic mix of Hong Kong society today is much more diversified. This industrial diversification has also resulted in profound transformation of the occupational structure, as we shall see shortly.

Together, the two service industries (personal and social; and finance, insurance, and real estate) constituted less than 19 percent of the working population in 1971. By 2001, their share increased to 42 percent. More significantly, since 1991, no single industry had more than 30 percent of the working population – clearly another healthy sign of economic diversification. Generally speaking, the changes in the distributions of entrepreneurs over time mirror the trend of industrial diversification observed earlier. In 2001, slightly more than three-quarters of employers are concentrated in five industries, namely, manufacturing (20.5%), wholesale and retail (19.9%), import and export (15.8%), financial and business service (11.1%), and social and

personal service (10.0%) whereas over fourth-fifths of self-employed workers are concentrated in transport, storage, and communication (27.4%), wholesale and retail (21.4%), social and personal services (15.7%), financial, business, and real estate (11.6%), and import and export (8.2%). Changes in the composition of self-employed workers were particularly noticeable in the wholesale and retail industry, whereas roughly half of them were engaging in such activities in 1971 and 1981 and the proportion declined dramatically to only 20% in 2001. We believe that a significant proportion of them in the two earlier censuses were street hawkers instead. It is noteworthy to observe that contrary to the conventional rhetoric of the important role of manufacturing in Hong Kong economy, entrepreneurial activities were prominent in the wholesale and retail industry in the 1960s and 1970s. Ironically, it was during the 1980s and 1990s that the manufacturing industry had the highest representation of employers.

*Table 2 & 3 About Here*

In addition to industrial diversification, there is also a gradual trend in occupational upgrading in white-collar and professional occupations. As the proportion of professional and managerial workers doubled from 14 to 30 percent between 1971 and 2001, the share of manual workers declined precipitously from 67 percent to 20 percent over the same period. One can gauge similar conclusion from two measures of occupational rankings: the international socioeconomic index (ISEI) and the standard international occupational prestige scale (SIOPS) (Ganzeboom, De Graaf, and Treiman 1992; Ganzeboom and Treiman 1996; Treiman 1977).<sup>2</sup> The improvement in status or prestige rankings among self-employed workers mirrors that of the general population. There is, however, some sign of polarization as recently as 2001, with a slightly greater representation in the semi- and unskilled categories as a result of the economic slowdown and



record unemployment. On the other hand, the improvement among employers is marginal as many of them were already occupying managerial positions.

The trend toward industrial diversification and occupational upgrading can have profound implications for entrepreneurship. Such transformations, for example, would transform and create new environments that demand different sets of skills and perhaps even styles and types of entrepreneurship. Most entrepreneurs in the finance, insurance, and real estate industry today, for instance, are professionals themselves, with relevant credentials, training, and experience. Paradoxically, an important consequence of occupational upgrading is the increasing returns to education. Increasing job security, pay, and promotion in an expanding economy, particularly during the 1980s and early 1990s, may inhibit entrepreneurship among those who are better equipped with human capital. The extent to which the social composition of entrepreneurs may have changed over time is the focus of the next section.

### **Changing Demographic Composition of Entrepreneurs**

Do entrepreneurs today differ from their counterparts in the 1970s and 1980s in any significant manner? In terms of education attainment, contemporary Hong Kong business entrepreneurs are definitely better educated and its improvement mirrors that of the larger society. In 1971, an overwhelming majority of self-employed workers (80 percent) had primary or lower education, with only two percent had at least some form of tertiary training (see Table 4). By 2001, only slightly more than 20 percent continued to have primary or lower education but the proportion with at least some form of tertiary training increased six times to 12 percent. Despite such improvement, the road to self-employment remains attractive among those who lack proper credentials for upward mobility. Relative to the general population, a disproportionately large segment continued to be drawn from individuals with primary and lower secondary education. In

an increasingly formalized labor market, self-employment nonetheless provides a viable alternative or channel for career advancement and economic success. On the other hand, employers were substantially better educated than anyone else, especially during the 1960s and 1970s where the extent of over-representation for those who had some college or more was two to four times higher than the general population. This educational gap has narrowed considerably in the 1980s and 1990s. By 2001, the two distributions become virtually indistinguishable. One can draw similar conclusion by comparing the average number of years of education as well.

*Table 4 About Here*

Similar to the experience of women in many countries, their representation in entrepreneurship is relatively low. They are more likely to become self-employed workers rather than employers, though the discrepancies between the two sexes narrowed over time. The odds for women to become self-employed workers as opposed to employers were almost 3:1 in 1971. They declined to 2:1 in 1981 and were close to parity in 1991 and 2001. Although women have made significant inroads, entrepreneurship is still dominated by men. In 2001, there is still only one female entrepreneur to four male entrepreneurs.

Results from Table 4 also confirm previous findings that entrepreneurs in the 1960s, whether they were self-employed or not, were much more likely to be drawn from the immigrant population. On the other hand, more and more of them today are natives, mirroring the demographic experience of the larger population. In 1971, less than 15 percent of entrepreneurs were born in Hong Kong, relative to 36 percent among workers. The proportion increased to over 24 percent in 1981, but the proportion among workers increased to 49 percent. During the 1990s, an exclusive reliance of immigrant talents was no longer the case and there is virtually no distinction between the pool of entrepreneurs and workers in 2001 by immigrant status. Together

with the improvement in schooling, this indigenous growth of entrepreneurs implies that the new generation of owners has greater exposure and influence by western culture, practices, lifestyles, and philosophy and may adhere less to the so-called “traditional” Chinese cultures.

Generally speaking, business entrepreneurs tend to be older, have more experience<sup>3</sup>, and more likely to be married. Differences among self-employed workers and employers in these characteristics are minor. On the other hand, employers are much more likely to be able to speak English, though the difference between employers and workers becomes negligible in 2001.<sup>4</sup> Given that self-employed workers are more likely to be drawn from those with less than lower secondary education, it is not surprising to observe that few of them can speak or use English regularly. However, it is pertinent to recognize that the ability to speak English is not synonymous with educational attainment. There is a substantial overlap between them but they are not identical. In the next section, we will explore how each factor can exert independent influence on employment status.

### **Correlates of Employment Status: Multivariate Analysis**

While the above descriptions may be informative, they do not assess their relative importance, especially when the influences of other factors are examined simultaneously. The latter can only be achieved through multivariate analysis. Since our interested variable, employment status, is categorical in nature, the multinomial logistic regression model offers the most appropriate statistical technique for further examination.<sup>5</sup> Two models are presented separately for each census year. Model 1 is the main effects model whereas Model 2 includes interaction effects as well. In all four census years, the interaction model is preferred because it adds explanatory power to our understanding.

To aid the search for possible interactions, the following procedure has been adopted. First, only one interaction term, say, between female and industry or between born in Hong Kong and education, is added to the main effects model. Any interaction term that is statistically significant at the 0.10 level is retained. Second, all plausible interactions retained in the first step are added to the main effects model simultaneously. They are then deleted sequentially using the backward selection strategy. It should be noted this modeling exercise is exploratory as the goal is not to establish causal relationships. Rather, we want to pinpoint significant factors or correlates that are associated with entrepreneurship.

#### *Results from the 1971 Census*

Relative to workers, there is an over-representation of entrepreneurs (self-employed workers and employers) in manufacturing, wholesale, retail, import, and export, and service industries (see Table 5). However, women entrepreneurs were particularly disadvantaged in manufacturing and service industries. Among entrepreneurs themselves, there is a larger presence of male employers in manufacturing and restaurant and hotel industries than self-employed workers whereas female employers outnumbered self-employed workers in the personal and social service industry. Although the reference category includes a number of residual industries, in terms of absolute size, it composes largely of individuals in the construction and transport, storage, and communication industries.

*Ceteris paribus*, the role of education in the decision of self-employment is small and negligible. The only exception is that women with secondary education (Form 1 to Form 6) had much lower representation than their male counterparts. In particular, the odds for women with Form 4 to Form 6 education were only 0.13 times ( $e^{-2.040}$ ) as that of men with identical background whereas women with Form 1 to Form 3 education fared slightly better, 0.34 times as

likely as their male counterparts. Note that the influence of women is negative in the main effects model (Model 1) but positive in the interaction model (Model 2). It means that had we failed to consider gender interactions, we would have missed an important fact that less educated women were actually more likely to become self-employed than their male counterparts with similar background. On the other hand, the coefficients of all educational dummies are positive for employers and their strengths increase as education rises. Given that their interactions with gender are not statistically significant, one can conclude that both male and female employers were much better educated than their counterparts in the worker category. For instance, the odds for university graduates to become employers are 5.5 times ( $e^{1.699}$ ) as likely as those with primary or less education.

Although the ability to speak English is related to educational background, each exerts independent influence. Apparently, such ability is not as critical as one would imagine in entrepreneurship during the 1960s. The coefficient for speaking English among employers is practically zero whereas its relationship with self-employment is negative. Given the limited range of economic activities of self-employment (as street hawkers, for instance) at the time and its almost exclusive recruitment from individuals with primary education, the ability to speak English is immaterial. For those who were equipped with such capability, they would have fared much better in the labor market. As we will see shortly, the effects of English speaking capability are not constant and change over time.

*Table 5 About Here*

As expected, the relationship between labor force experience and entrepreneurship has an inverted U-shape, reaching maximum with 44 and 45 years of experience for self-employed workers and employers, respectively. While the numbers may seem high in today's standard, it is

important to recognize that most individuals at this time period began their working careers at very young age. In fact, the number could have been even higher had we not set the minimum working age at 15 in constructing the variable. Finally, entrepreneurs are much likely to be married than otherwise. It is difficult to gauge whether this is the cause or effect of entrepreneurship. But granted that most entrepreneurs tended to be older and had been in the labor force longer, the chances for them to be married should be high as well.

#### *Results from the 1981 Census*

In terms of industrial concentration (see Table 6), there is a dramatic turnaround from over-representation to under-representation for male self-employed workers in the manufacturing industry. The opening of economic border in the north has proved to be disastrous to independent manufacturers as they have to rely on orders from their larger counterparts. Although male employers were able to preserve their strong presence in manufacturing, the extent was much more subdued than an earlier period. For women entrepreneurs, their presence in the manufacturing industry was still meager.

The empirical evidence continues to support the notion that the decision to strike it out on their own as self-supporting economically was driven primarily by their lack of human capital. Better educated workers, especially women with upper secondary education or those with at least some form of tertiary training are far less likely to join the rank of self-employment. For instance, the odds for individuals with college or higher education are only about 0.41 times as likely as those with primary or less education to engage in self-employment. Note that this is the period when the availability of higher education was still extremely limited and the economy was expanding rapidly. Viewed under such light, it is perhaps understandable why many well-

educated workers preferred not to take the plunge to trade job security and promotion chances with autonomy and independence.

For employers, the effect of education on entrepreneurship is exactly the opposite. While it was the less educated who joined the rank of self-employment, better educated men and women were more attracted to become employers. Among male employers, education continued to play an important role in facilitating successful entrepreneurship. Compared with their male counterparts with comparable education, only women with university training were particularly more successful (2.7 times) in becoming employers. Significant obstacles remained for those who were not better positioned educationally. Note again that the coefficient of women dropped precipitously from the main effects model to the interaction model. The latter model is preferred as it provides insights and pinpoints the sources of under-representation of women in entrepreneurship.

*Table 6 About Here*

Controlling for other effects, native-born men in 1981 were no longer under-represented in the employer category as in 1971 while native-born women continued to be disadvantaged. For the first time, we witness that native-born men and women with lower secondary education (that is, the first three years of secondary education) had greater likelihood in engaging in self-employment. The odds were 1.7 times higher than those who were not born locally. The relationship between entrepreneurial activities and labor force experience and married behaved similarly as an earlier period. The likelihood of entrepreneurship increased with years of labor force, peaked at age 40 and 37 for self-employed workers and employers, respectively, and then declined thereafter. Finally, there is a far greater representation of married entrepreneurs than

workers. Unfortunately, the variable that measures English language ability was not included in the 1981 census and it is impossible to gauge its influence.

### *Results from the 1991 Census*

Results from the 1991 census (see Table 7) indicate that after the manufacturing industry began its wholesale relocation outside of Hong Kong in the 1980s, the number of self-employed workers in this sector reduced dramatically. On the other hand, we find their presence in the wholesale, retail, import, and export industry instead. While similar pressures of relocation are equally applicable to employers, only the nature of production arrangements was transformed. As a result, male employers continued to be over-represented in the manufacturing industry. At the same time, it is important to recognize that their dominance in wholesale, retail, import, and export industry is substantially weaker than before.

The relationship between education and entrepreneurship changed again in the 1980s. In the case of self-employment, the role of education was negligible for men, though women with secondary education (Form 1 to Form 5) were under-represented and those with higher education were over-represented. However, the actual extent of over-representation is severely curtailed because of the negative main effect of gender. As a result, the overall pattern of gender differences in the effect of education is quite different from 1981 but similar to 1971 discussed earlier. Because of the existence of interaction between education and those who were born in Hong Kong, the interpretation is further complicated. The relatively weak influence of education refers mainly to self-employed workers who were non-native born. For native born, there is some slight disadvantage with post-secondary education (Form 6 and Form 7 education). On the other hand, women with some form of secondary education were under-represented in self-employment but those with university education are more likely to engage in self-employment



than their male counterparts. The effect of education on employer status is generally positive. That is, the higher the education, the greater the likelihood of becoming employer. Native born with upper secondary and university education had lower probability to become employers. Similarly, women with upper secondary education are also slightly penalized or under-represented.

*Table 7 About Here*

Labor force experience again displays an inverted U-shape relationship with entrepreneurship. For self-employment, the probability reaches a maximum of 38 years for men and 52 for women. In other words, the chance of entrepreneurship pretty much increases with labor force experience until retirement. Among employers, the probability reaches a maximum at 36 years of labor force experience, disregarding their sexes. Those who can speak English had greater likelihood of becoming employers rather than workers (the odd is 1.6). Since the comparable effect was negligible in 1971 and the variable does not exist in the 1981 census, it is unclear when the fundamental shift actually occurred. Interestingly, the strong negative effect of English speaking ability in self-employment found in 1971 is no longer important in 1991. Perhaps, as the economy transformed from an industrial-based to a service-based one and with a steady educational upgrading of the population, the number of jobs that demand English speaking skills increase for both workers and self-employed workers alike (take the case of accountants and lawyers, for instance). The ability to speak English therefore no longer constituted as a distinguishing factor for these two types of workers. On the other hand, the success of employers continues to depend heavily on their ability to maneuver complex transactions locally and globally. The ability to speak English constitutes an invaluable asset.

### *Results from the 2001 Census*

Comparing the 2001 results with previous years, changes in the concentration of male and female entrepreneurs in specific industries were even more dramatic and extensive. For instance, men were now under-represented as self-employed workers and employers in finance, insurance, and real estate and service industries and over-represented in wholesale, retail, import, and export industry (see Table 8 for details). Self-employed workers continued to be under-represented in manufacturing though significantly greater proportion of male employers was still engaging in manufacturing activities relative to their female counterparts. Women entrepreneurs, on the other hand, were over-represented in wholesale, retail, import, and export; finance, insurance, and real estate; and service industries as self-employed workers and under-represented in manufacturing; wholesale, retail, import, and export; finance, insurance, and real estate; and service industries as employers. It thus appears that male and female entrepreneurs have segmented participation in different types of economic activities and they do not share identical economic space. In other words, gender segregation at the workplace applies to workers and entrepreneurs alike (for similar observation in western countries, note the works by Luber and Leicht 2000; Boden and Nucci 1997; and Mauser and Picot 1999).

#### *Table 8 About Here*

The effect of education was once again relatively minor in the case of self-employment. In fact, the 2001 pattern is very similar to 1971, except that the incidence for self-employment was higher as more men and women from various educational backgrounds were seizing the opportunity to make it in the business world. For employers, the role of education is positive, with tremendous advantages conferred to those with postsecondary or higher education. At the same time, we should note that the effects of higher education (some college or more) in 1991

and 2001 were significantly weaker than those observed in 1971 and 1981, probably because of the competition and reward in the salaried and waged sector. Despite persistent inequalities against women, better educated women with some college or higher education were able to circumvent some of these obstacles in entrepreneurship. At the same time, native born men and women with comparable education were expected to be under-represented. In fact, the model predicts that non-native born individuals with college education had the greatest likelihood to become employers than native-born.

Finally, consistent with findings from earlier years, the relationship between labor force experience and entrepreneurship has an inverted U-shape. Similar to the findings in 1991, the importance of English was only applicable to employers and had no effect in self-employment. The strength of relationship, however, is considerably weaker. Those who can speak English is 34 percent more than non-speakers to become employers, which is substantially smaller than 57 percent found in 1991. Nonetheless, this does not necessarily indicate the declining significance of English among employers. Much of its influence is likely to be derived directly from education, as we already noted the advantages conferred by tertiary education earlier.

## **Conclusion**

The nature of business entrepreneurship in Hong Kong has changed dramatically in the past three decades. Entrepreneurs today are no longer concentrated in one or two economic areas (such as manufacturing and wholesale, retail, and import, and export industries in the 1960s and early 1970s) but are well diversified into different spectrums. Thus, Hong Kong Chinese entrepreneurs has satisfied the Schumpeterian definition of entrepreneurship; that is, it is inherently dynamic and business entrepreneurs must be quick to switch from one economic activity to another when new opportunities arise.

Based on the results presented in this paper, we can make the following observations about changes of entrepreneurship in Hong Kong. First, paralleling the experience of educational and occupational upgrading in the general population, contemporary entrepreneurs are better educated and well-diversified. The ability to attract individuals with university education to become employers in the past ten years is an important development and may promise a new way to rejuvenate the stagnant economy. More importantly, their exposure to western education can also open up the possibility to adopt western philosophy and management practices into their organizational structure. We interpret the positive role of the ability to speak English among employers in 1991 and 2001 as collaborative support of this particular argument.

Historically, immigrants from mainland China formed an important pool of business entrepreneurs in Hong Kong. The empirical results from the two earlier censuses certainly lend strong support for this interpretation and validate findings from previous works. For instance, we find that non-Hong Kong born residents in 1971 were 55 percent more likely to become employers than native-born residents. However, that is only part of the story as the social composition of entrepreneur changes dramatically over time as well. By the late 1980s, this advantage has diminished significantly to only 17 percent. As the large and periodic influx of immigrants was effectively curtailed since the mid-1970s and Hong Kong has attained a large and stable stock of local residents, more and more entrepreneurs (and residents as well) today are born and educated in Hong Kong and the importance of immigrant entrepreneur declines. Although better educated native-born residents may prefer stable and secure employment than risky bets to strike it out of their own, the new generation of Chinese entrepreneurs nonetheless would have more exposure toward western ideas, tastes, and preferences than traditional Chinese cultural and business practices.

Generally speaking, entrepreneurial activities remain dominated by men. Although women had made some inroad into entrepreneurship, they still made up less than one-quarter of entrepreneurs in 2001. It appears that the types of economic activities that male and female entrepreneurs involved are rather segregated. It also appears that only women with university or higher education are better positioned to circumvent persistent gender hurdles to have slightly better chances in entering entrepreneurship. Despite significant strides made, gender inequality in entrepreneurship is certainly one area that needs improvement. Finally, empirical findings from this paper clearly suggest that the distinction between self-employed workers and employers is a fruitful one. Not only do the two groups differ in terms of size and scale of business activities, their demographic composition differ rather dramatically and so are their changes over time. Future research on entrepreneurship should continue to maintain a clear distinction between them.

## Notes

1. To facilitate comparison over time, the classification of industries of each census is first mapped into the 1988 Standard Industrial Classification scheme developed by the International Labour Office (ILO 1989) and they are then aggregated to form major industries.
2. The occupational codes in each census are first coded into the 1988 International Standard Classification of Occupation (ISCO) codes. They are then mapped into the CASMIN class categories (Erikson and Goldthorpe 1992), status scores, and prestige scores.
3. Labor force experience is calculated by subtracting years of education and six from age and by setting that the minimum working age to 15. This procedure can introduce errors to some who worked during early childhood, particularly in 1971 and 1981 censuses. Since 1970, the official minimum working age was 15.
4. The 1981 data do not contain information about the ability to speak English or other languages.
5. In all multinomial logistic models, workers are chosen as the reference category.

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Table 1 Basic Statistics from the One-Percent 1971, 1981, 1991, and 2001 Censuses

|                              | 1971  | 1981  | 1991  | 2001  |
|------------------------------|-------|-------|-------|-------|
| Number of Unique Households  | 7617  | 10740 | 13975 | 17746 |
| Total Working Individuals    | 13952 | 21400 | 26258 | 32153 |
| # Working Members/Households | 1.83  | 1.99  | 1.88  | 1.81  |
| Employment Status            |       |       |       |       |
| Worker                       | 12644 | 19442 | 23485 | 28737 |
| Self-Employed Worker         | 905   | 1170  | 1232  | 1315  |
| Employer                     | 383   | 788   | 1541  | 2101  |
| Proportion Entrepreneur      | 9.2%  | 10.1% | 10.6% | 10.6% |
| Self-Employed                | 6.5%  | 5.5%  | 4.7%  | 4.1%  |
| Employer                     | 2.7%  | 4.6%  | 5.9%  | 6.5%  |

Table 2 Industrial Diversification in Hong Kong, 1971-2001

| Major Industry                        | 1971   |       |          | 1981  |        |       | 2001     |       |  |
|---------------------------------------|--------|-------|----------|-------|--------|-------|----------|-------|--|
|                                       | Worker | SE    | Employer | Total | Worker | SE    | Employer | Total |  |
| Mining & Quarrying                    | 0.003  | 0.003 | 0.000    | 0.003 | 0.001  | 0.000 | 0.000    | 0.001 |  |
| Manufacturing                         | 0.520  | 0.309 | 0.366    | 0.502 | 0.447  | 0.127 | 0.268    | 0.423 |  |
| Electricity, Gas, & Water             | 0.006  | 0.002 | 0.003    | 0.006 | 0.007  | 0.002 | 0.001    | 0.007 |  |
| Construction                          | 0.058  | 0.011 | 0.016    | 0.054 | 0.090  | 0.035 | 0.065    | 0.086 |  |
| Wholesale & Retail                    | 0.059  | 0.536 | 0.308    | 0.097 | 0.065  | 0.519 | 0.338    | 0.100 |  |
| Import & Export                       | 0.032  | 0.012 | 0.112    | 0.033 | 0.031  | 0.016 | 0.127    | 0.034 |  |
| Restaurant & Hotel                    | 0.051  | 0.010 | 0.042    | 0.049 | 0.066  | 0.084 | 0.047    | 0.066 |  |
| Transport, Storage, & Communication   | 0.077  | 0.041 | 0.021    | 0.073 | 0.078  | 0.129 | 0.055    | 0.080 |  |
| Finance, Insurance, & Real Estate     | 0.019  | 0.003 | 0.013    | 0.018 | 0.055  | 0.010 | 0.044    | 0.052 |  |
| Community, Social, & Personal Service | 0.174  | 0.072 | 0.120    | 0.166 | 0.161  | 0.078 | 0.056    | 0.153 |  |
| Agriculture                           | 0.001  | 0.000 | 0.000    | 0.001 | 0.000  | 0.000 | 0.000    | 0.000 |  |
| Mining & Quarrying                    | 0.001  | 0.000 | 0.000    | 0.001 | 0.000  | 0.000 | 0.001    | 0.000 |  |
| Manufacturing                         | 0.288  | 0.179 | 0.322    | 0.285 | 0.118  | 0.067 | 0.205    | 0.122 |  |
| Electricity, Gas, & Water             | 0.007  | 0.002 | 0.001    | 0.006 | 0.006  | 0.000 | 0.001    | 0.005 |  |
| Construction                          | 0.073  | 0.033 | 0.073    | 0.071 | 0.075  | 0.069 | 0.077    | 0.075 |  |
| Wholesale & Retail                    | 0.082  | 0.309 | 0.193    | 0.099 | 0.096  | 0.214 | 0.199    | 0.108 |  |
| Import & Export                       | 0.039  | 0.062 | 0.115    | 0.044 | 0.069  | 0.082 | 0.158    | 0.076 |  |
| Restaurant & Hotel                    | 0.084  | 0.029 | 0.055    | 0.080 | 0.086  | 0.018 | 0.059    | 0.082 |  |
| Transport, Storage & Communication    | 0.097  | 0.167 | 0.056    | 0.098 | 0.108  | 0.274 | 0.087    | 0.113 |  |
| Finance, Insurance, & Real Estate     | 0.114  | 0.065 | 0.084    | 0.110 | 0.169  | 0.116 | 0.111    | 0.163 |  |
| Community, Social, & Personal Service | 0.214  | 0.149 | 0.099    | 0.204 | 0.272  | 0.157 | 0.100    | 0.256 |  |
| Agriculture                           | 0.002  | 0.004 | 0.003    | 0.002 | 0.001  | 0.003 | 0.004    | 0.002 |  |

Table 3 Occupational Upgrading in Hong Kong, 1971-2001

| Major Occupations               | 1971   |        |          | 1981   |        |        |          |        |
|---------------------------------|--------|--------|----------|--------|--------|--------|----------|--------|
|                                 | Worker | SE     | Employer | Total  | Worker | SE     | Employer | Total  |
| Professional & Managerial       | 0.116  | 0.232  | 0.729    | 0.140  | 0.105  | 0.139  | 0.709    | 0.129  |
| Routine Non-Manual              | 0.171  | 0.460  | 0.042    | 0.186  | 0.188  | 0.514  | 0.047    | 0.201  |
| Skilled Manual & Supervisors    | 0.377  | 0.202  | 0.144    | 0.359  | 0.246  | 0.121  | 0.112    | 0.234  |
| Semi- & Unskilled Manual        | 0.337  | 0.106  | 0.086    | 0.315  | 0.461  | 0.226  | 0.132    | 0.436  |
| Occupational Status (Ranking)   | 34.189 | 33.131 | 45.554   | 34.433 | 36.414 | 33.711 | 45.850   | 36.614 |
| Occupational Prestige (Ranking) | 34.336 | 32.203 | 44.963   | 34.489 | 35.275 | 31.071 | 44.279   | 35.376 |
|                                 |        |        | 1991     |        |        |        | 2001     |        |
| Professional & Managerial       | 0.185  | 0.356  | 0.720    | 0.225  | 0.269  | 0.310  | 0.689    | 0.299  |
| Routine Non-Manual              | 0.471  | 0.371  | 0.144    | 0.447  | 0.538  | 0.322  | 0.173    | 0.505  |
| Skilled Manual & Supervisors    | 0.104  | 0.076  | 0.048    | 0.010  | 0.061  | 0.056  | 0.041    | 0.059  |
| Semi- & Unskilled Manual        | 0.240  | 0.197  | 0.088    | 0.229  | 0.132  | 0.312  | 0.097    | 0.137  |
| Occupational Status (Ranking)   | 38.940 | 40.786 | 49.204   | 39.629 | 41.460 | 40.189 | 48.294   | 41.854 |
| Occupational Prestige (Ranking) | 36.281 | 38.390 | 46.663   | 36.989 | 37.495 | 38.019 | 45.515   | 38.041 |

Table 4 Changing Demographic Composition of the Labor Force in Hong Kong, 1971-2001

| Variable                | 1971   |        |          | 1981   |        |        | 2001     |        |  |
|-------------------------|--------|--------|----------|--------|--------|--------|----------|--------|--|
|                         | Worker | SE     | Employer | Total  | Worker | SE     | Employer | Total  |  |
| Education (Years)       | 6.238  | 4.534  | 8.146    | 6.182  | 7.534  | 5.605  | 8.976    | 7.481  |  |
| Primary or Less         | 0.638  | 0.798  | 0.444    | 0.643  | 0.461  | 0.681  | 0.382    | 0.470  |  |
| Lower Secondary (F1-F3) | 0.132  | 0.084  | 0.141    | 0.129  | 0.202  | 0.169  | 0.154    | 0.199  |  |
| Upper Secondary (F4-F5) | 0.176  | 0.097  | 0.266    | 0.173  | 0.229  | 0.096  | 0.230    | 0.222  |  |
| Postsecondary (F6/F7)   | -----  | -----  | -----    | -----  | 0.043  | 0.012  | 0.056    | 0.041  |  |
| Some College/Non-BA     | 0.030  | 0.008  | 0.052    | 0.029  | 0.029  | 0.009  | 0.043    | 0.029  |  |
| University or More      | 0.025  | 0.013  | 0.097    | 0.026  | 0.036  | 0.033  | 0.136    | 0.040  |  |
| Female                  | 0.341  | 0.229  | 0.081    | 0.326  | 0.380  | 0.189  | 0.100    | 0.359  |  |
| Born in Hong Kong       | 0.357  | 0.148  | 0.149    | 0.338  | 0.490  | 0.239  | 0.266    | 0.468  |  |
| Age                     | 34.352 | 44.339 | 42.984   | 35.237 | 33.515 | 44.709 | 43.454   | 34.493 |  |
| Labor Force Experience  | 18.712 | 29.021 | 26.569   | 19.597 | 17.521 | 29.214 | 26.628   | 18.496 |  |
| Married                 | 0.530  | 0.815  | 0.838    | 0.557  | 0.519  | 0.816  | 0.874    | 0.548  |  |
| Speak English           | 0.297  | 0.114  | 0.392    | 0.287  | -----  | -----  | -----    | -----  |  |
| Education (Years)       | 9.247  | 8.450  | 9.949    | 9.251  | 10.540 | 9.606  | 10.692   | 10.512 |  |
| Primary or Less         | 0.278  | 0.364  | 0.238    | 0.280  | 0.173  | 0.229  | 0.154    | 0.174  |  |
| Lower Secondary (F1-F3) | 0.205  | 0.221  | 0.203    | 0.206  | 0.192  | 0.265  | 0.219    | 0.197  |  |
| Upper Secondary (F4-F5) | 0.316  | 0.258  | 0.317    | 0.313  | 0.336  | 0.292  | 0.319    | 0.333  |  |
| Postsecondary (F6/F7)   | 0.085  | 0.054  | 0.064    | 0.083  | 0.098  | 0.094  | 0.101    | 0.098  |  |
| Some College/non-BA     | 0.045  | 0.025  | 0.034    | 0.043  | 0.044  | 0.026  | 0.041    | 0.043  |  |
| University or More      | 0.071  | 0.078  | 0.144    | 0.076  | 0.156  | 0.094  | 0.167    | 0.154  |  |
| Female                  | 0.403  | 0.209  | 0.182    | 0.381  | 0.471  | 0.252  | 0.221    | 0.446  |  |
| Born in Hong Kong       | 0.587  | 0.429  | 0.472    | 0.573  | 0.626  | 0.579  | 0.548    | 0.619  |  |
| Age                     | 35.341 | 42.094 | 41.281   | 36.006 | 37.408 | 42.823 | 44.084   | 38.066 |  |
| Labor Force Experience  | 18.661 | 25.734 | 24.220   | 19.319 | 19.977 | 26.063 | 26.647   | 20.662 |  |
| Married                 | 0.578  | 0.775  | 0.857    | 0.604  | 0.594  | 0.738  | 0.829    | 0.616  |  |
| Speak English           | 0.424  | 0.308  | 0.468    | 0.421  | 0.538  | 0.434  | 0.527    | 0.533  |  |

Table 5 Multinomial Logistic Regression for Entrepreneurship in Hong Kong, 1971

| Variable                                 | Model 1       |           | Model 2       |           |
|--|---------------|-----------|---------------|-----------|
|  | Self-Employed | Employer  | Self-Employed | Employer  |
| Intercept                                | -5.243***     | -6.844*** | -5.217***     | -6.824*** |
| Manufacturing                            | 0.766***      | 1.545***  | 0.936***      | 1.586***  |
| Wholesale/Retail/Import/Export           | 3.044***      | 2.977***  | 2.893***      | 2.897***  |
| Restaurant/Hotel                         | -0.659        | 1.284***  | -0.818#       | 1.252***  |
| Financial/Insurance/Real Estate          | 0.108         | 0.873     | 0.040         | 0.840     |
| Service                                  | 0.422*        | 1.085***  | 0.820***      | 1.117***  |
| Married                                  | 0.309*        | 0.634**   | 0.279*        | 0.628**   |
| Experience                               | 0.099***      | 0.079***  | 0.093***      | 0.077***  |
| Experience Squared (x 10 <sup>-2</sup> ) | -0.117***     | -0.089*   | -0.105***     | -0.085*   |
| Female                                   | -0.391***     | -1.399*** | 0.585***      | -0.785*   |
| Born in Hong Kong                        | -0.111        | -0.437**  | -0.117        | -0.440**  |
| Lower Secondary (F1-F3)                  | -0.100        | 0.715***  | -0.006        | 0.636***  |
| Upper Secondary (F4-F6)                  | -0.268        | 0.940***  | -0.084        | 1.010***  |
| Some College/Non-BA                      | -0.648        | 1.257***  | -0.688        | 1.240***  |
| University or More                       | -0.257        | 1.702***  | -0.266        | 1.699***  |
| English                                  | -0.798***     | -0.052    | -0.766***     | -0.040    |
| Female*Manufacturing                     |               |           | -1.415***     | -0.951*   |
| Female*Service                           |               |           | -2.617***     | -0.669    |
| Female*Lower Sec (F1-F3)                 |               |           | -1.069*       | 0.803#    |
| Female*Upper Sec (F4-F6)                 |               |           | -2.040***     | -1.380    |
| Log-Likelihood                           | -3953.54      |           | -3901.72      |           |
| Model Chi-Square                         | 2251.37       |           | 2355.00       |           |
| df                                       | 30            |           | 38            |           |
| Pseudo R-Squared                         | 0.222         |           | 0.232         |           |

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05, #p<0.10

Note: The standard errors are robust standard errors after correction for clustering.

Table 6 Multinomial Logistic Regression for Entrepreneurship in Hong Kong, 1981

| Variable                                 | Model 1       |           | Model 2       |           |
|--|---------------|-----------|---------------|-----------|
|  | Self-Employed | Employer  | Self-Employed | Employer  |
| Intercept                                | -4.570***     | -6.487*** | -4.544***     | -6.520*** |
| Manufacturing                            | -0.874***     | 0.354**   | -0.614***     | 0.462***  |
| Wholesale/Retail/Import/Export           | 2.069***      | 2.183***  | 1.916***      | 2.159***  |
| Restaurant/Hotel                         | 0.347         | 0.362#    | 0.314*        | 0.283     |
| Financial/Insurance/Real Estate          | -0.660*       | 0.410#    | -0.668*       | 0.330     |
| Service                                  | 0.422**       | -0.659*** | -0.279*       | -0.657*** |
| Married                                  | 0.460***      | 0.932***  | 0.458***      | 0.935***  |
| Experience                               | 0.112***      | 0.137***  | 0.110***      | 0.138***  |
| Experience Squared (x 10 <sup>-2</sup> ) | -0.141***     | -0.184*** | -0.139***     | -0.185*** |
| Female                                   | -0.697***     | -1.455*** | -0.497*       | -0.646*   |
| Born in Hong Kong                        | -0.078        | -0.002    | -0.159        | 0.071     |
| Lower Secondary (F1-F3)                  | -0.141        | 0.334**   | -0.339**      | 0.295*    |
| Upper Secondary (F4-F5)                  | -0.868***     | 0.674***  | -0.639***     | 0.652***  |
| Postsecondary (F6/F7)                    | -0.951***     | 1.216***  | -0.966***     | 1.211***  |
| Some College/Non-BA                      | -0.917**      | 1.336***  | -0.895**      | 1.336***  |
| University or More                       | -0.248        | 1.732***  | -0.261        | 1.614***  |
| Female*Manufacturing                     |               |           | -1.534***     | -1.410*** |
| Female*W/R/I/E                           |               |           | 0.545*        | -0.586#   |
| Female*Services                          |               |           | -0.890*       | -0.668    |
| Female*Born in Hong Kong                 |               |           | -0.146        | -0.700*   |
| Female*Upper Secondary                   |               |           | -1.363***     | 0.364     |
| Female*University or More                |               |           | 0.083         | 1.008*    |
| Born in HK*Lower Secondary               |               |           | 0.529**       | 0.059     |
| Log-Likelihood                           | -5982.37      |           | -5919.65      |           |
| Model Chi-Square                         | 3770.73       |           | 3896.17       |           |
| df                                       | 30            |           | 44            |           |
| Pseudo R-Squared                         | 0.240         |           | 0.248         |           |

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05, #p<0.10

Note: The standard errors are robust standard errors after correction for clustering.

Table 7 Multinomial Logistic Regression for Entrepreneurship in Hong Kong, 1991

| Variable  | Model 1       |           | Model 2       |           |
|---|---------------|-----------|---------------|-----------|
|   | Self-Employed | Employer  | Self-Employed | Employer  |
| Intercept                                       | -4.407***     | -5.779*** | -4.395***     | -5.855*** |
| Manufacturing                                   | -0.404***     | 0.720***  | -0.235*       | 0.800***  |
| Wholesale/Retail/Import/Export                  | 1.372***      | 1.568***  | 1.353***      | 1.543***  |
| Restaurant/Hotel                                | -1.013***     | 0.236     | -1.087***     | 0.204     |
| Financial/Insurance/Real Estate                 | -0.282*       | 0.084     | -0.262#       | 0.083     |
| Service   | -0.115        | -0.248*   | -0.191#       | -0.301*   |
| Married   | 0.247**       | 0.944***  | 0.293***      | 0.955***  |
| Experience                                      | 0.102***      | 0.116***  | 0.097***      | 0.115***  |
| Experience Squared (x 10 <sup>-2</sup> )        | -0.130***     | -0.163*** | -0.127***     | -0.159*** |
| Female  | -0.800***     | -1.028*** | -0.656***     | -0.694*** |
| Born in Hong Kong                               | -0.089        | 0.016     | -0.019        | 0.161*    |
| Lower Secondary (F1-F3)                         | 0.106         | 0.348***  | 0.162#        | 0.323***  |
| Upper Secondary (F4-F5)                         | 0.143         | 0.587***  | 0.296*        | 0.793***  |
| Postsecondary (F6/F7)                           | -0.008        | 0.356*    | 0.282         | 0.369#    |
| Some College/Non-BA                             | -0.086        | 0.434*    | -0.045        | 0.820***  |
| University or More                              | 0.452**       | 1.193***  | 0.168         | 1.072***  |
| English   | -0.161#       | 0.428***  | -0.120        | 0.454***  |
| Female*Manufacturing                            |               |           | -0.952***     | -0.512*** |
| Female*Experience Squared (x 10 <sup>-2</sup> ) |               |           | 0.033**       | -0.011    |
| Female*Lower Secondary                          |               |           | -0.452*       | -0.009    |
| Female*Upper Secondary                          |               |           | -0.672***     | -0.365*   |
| Female*University or More                       |               |           | 0.845***      | 0.368     |
| Born in HK*Upper Secondary                      |               |           | -0.072        | -0.320*   |
| Born in HK*Postsecondary (F6/F7)                |               |           | -0.682*       | -0.149    |
| Born in HK*Some College/non-BA                  |               |           | -0.197        | -0.855**  |
| Log-Likelihood                                  | -9413.00      |           | -9359.11      |           |
| Model Chi-Square                                | 2693.59       |           | 2801.37       |           |
| df  | 32            |           | 48            |           |
| Pseudo R-Squared                                | 0.125         |           | 0.130         |           |

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05, #p<0.10

Note: The standard errors are robust standard errors after correction for clustering.



Table 8 Multinomial Logistic Regression for Entrepreneurship in Hong Kong, 2001

| Variable  | Model 1       |           | Model 2       |           |
|---|---------------|-----------|---------------|-----------|
|   | Self-Employed | Employer  | Self-Employed | Employer  |
| Intercept                                       | -3.647***     | -5.144*** | -3.709***     | -5.197*** |
| Manufacturing                                   | -1.044***     | 0.739***  | -0.973***     | 0.814***  |
| Wholesale/Retail/Import/Export                  | 0.337***      | 1.210***  | 0.294***      | 1.275***  |
| Restaurant/Hotel                                | -1.939***     | 0.103     | -1.932***     | 0.254*    |
| Financial/Insurance/Real Estate                 | -0.669***     | -0.184#   | -0.870***     | -0.262*   |
| Service   | -0.713***     | -0.543*** | -0.908***     | -0.400*** |
| Married   | -0.005        | 0.426***  | 0.130         | 0.571***  |
| Experience                                      | 0.073***      | 0.132***  | 0.067***      | 0.126***  |
| Experience Squared (x 10 <sup>-2</sup> )        | -0.064***     | -0.154*** | -0.058***     | -0.153*** |
| Female  | -0.722***     | -0.943*** | -1.285***     | -0.846*** |
| Born in Hong Kong                               | 0.014         | -0.124*   | 0.147#        | 0.048     |
| Lower Secondary (F1-F3)                         | 0.016         | -0.022    | 0.036         | -0.028    |
| Upper Secondary (F4-F5)                         | -0.125        | 0.146     | 0.085         | 0.285*    |
| Postsecondary (F6/F7)                           | 0.138         | 0.360**   | 0.135         | 0.370**   |
| Some College/Non-BA                             | -0.359#       | 0.317*    | 0.167         | 0.739***  |
| University or More                              | -0.211        | 0.604***  | 0.138         | 0.593***  |
| English   | 0.050         | 0.273***  | 0.057         | 0.291***  |
| Female*Manufacturing                            |               |           | 0.101         | -0.573**  |
| Female*W/R/I/E                                  |               |           | 0.746**       | -0.462*   |
| Female*Restaurant/Hotel                         |               |           | 0.584         | -0.837**  |
| Female*FIRE                                     |               |           | 1.329***      | 0.163     |
| Female*Service                                  |               |           | 1.029***      | -0.726*** |
| Female*Married                                  |               |           | -0.321*       | -0.330*   |
| Female*Experience Squared (x 10 <sup>-2</sup> ) |               |           | 0.016         | 0.044***  |
| Female*Upper Secondary                          |               |           | -0.294#       | 0.310*    |
| Female*Some College/non-BA                      |               |           | -0.385        | 0.757**   |
| Female*University or More                       |               |           | -0.023        | 0.703***  |
| Born in HK*Upper Secondary                      |               |           | -0.179        | -0.357**  |
| Born in HK*Some College/non-BA                  |               |           | -0.597        | -0.962*** |
| Born in HK*University or More                   |               |           | -0.581**      | -0.306*   |
| Log-Likelihood                                  | -11660.69     |           | -11594.64     |           |
| Model Chi-Square                                | 3004.80       |           | 3136.89       |           |
| df  | 32            |           | 58            |           |
| Pseudo R-Squared                                | 0.114         |           | 0.119         |           |

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05, #p<0.10

Note: The standard errors are robust standard errors with correction for clustering.