

Spring 5-5-2016

## **Feminism Made in China: The Impact of Light Export Manufacturing on Rural Chinese Women**

Kathleen Marie Mackenzie  
*University of South Carolina - Columbia*

Second Reader: Robert Rolfe

Follow this and additional works at: [https://scholarcommons.sc.edu/senior\\_theses](https://scholarcommons.sc.edu/senior_theses)



Part of the [International Business Commons](#), and the [Marketing Commons](#)

---

### **Recommended Citation**

Mackenzie, Kathleen Marie, "Feminism Made in China: The Impact of Light Export Manufacturing on Rural Chinese Women" (2016). *Senior Theses*. 85.

[https://scholarcommons.sc.edu/senior\\_theses/85](https://scholarcommons.sc.edu/senior_theses/85)

This Thesis is brought to you by the Honors College at Scholar Commons. It has been accepted for inclusion in Senior Theses by an authorized administrator of Scholar Commons. For more information, please contact [digres@mailbox.sc.edu](mailto:digres@mailbox.sc.edu).

## Table of Contents

Summary.....	3
Literature Review.....	5
<i>Introduction</i> .....	5
<i>Feminist Economists</i> .....	6
<i>Neoclassical Economists</i> .....	14
<i>Contemporary Feminists</i> .....	21
<i>Conclusion</i> .....	24
Statistical Analysis.....	25
<i>Methodology</i> .....	25
<i>Results</i> .....	26
<i>Discussion</i> .....	28
<i>Conclusion</i> .....	32
<i>Limitations</i> .....	33
Future Work.....	34
Tables.....	35
References.....	38

## **Summary:**

While many people are familiar with the phrase “made in China”, most are not familiar with the Chinese workers who make their products. Since the late 1980s, China’s economy has grown significantly due to its increased participation in the manufacturing of products for export, focusing largely on light manufacturing products such as consumer goods and textiles. To accommodate its booming manufacturing industry, China has established many Special Economic Zones, or SEZs, which provide special accommodations for foreign direct investment such as lowered taxes or lax labor laws. The factories in SEZs have labor forces comprised almost entirely of young rural women who migrated from the Chinese countryside to work in manufacturing and live in factory dorms, often leaving home for the first time.

The participation of young rural Chinese women in light export manufacturing raises an ethical issue among economists, consumers, and feminists alike: is manufacturing empowering for the women working in factories, or exploitative? There are two main schools of thought regarding this subject. The first viewpoint belongs to the traditional feminist economists who generally believe that factory work is a hindrance in advancement for Chinese women. While manufacturing may provide women with higher wages than would otherwise be available to them, money does not counterbalance the negative impact of poor working conditions and a lack of public services.

Neoclassical economists believe that rural Chinese women’s participation in light export manufacturing is a means to an end. While conditions are not perfect within manufacturing, better wages will lead to social development and growth for China, and women in particular, in the long run. Contemporary feminists are a subgroup of neoclassical economists who base their views on first-hand encounters with Chinese factory workers. They believe that traditional

feminist's views are biased based on an Americanized view of feminism and empowerment, and that Chinese women are proud of their work.

After exploring the literature addressing these different viewpoints, I collected data about manufacturing in China as well as information pertinent to women's issues from a variety of sources such as the National Bureau of Statistics of China and Gapminder. I used this data to run three multivariate regressions, which revealed how a variety of different independent variables were correlated with three different dependent variables. These dependent variables were based on proxies for the Human Development Index, which measures growth in human development through life expectancy, education, and gross national income per capita.

The results of the regressions showed that the average wages of staff and workers in manufacturing had a significant impact on life expectancy, women's education, and gross national income per capita. Given these results, I concluded that the neoclassical economist and contemporary feminists are correct in their belief that the increased wages resulting from light export manufacturing have a positive effect on women's social development and overall human development in China.

## *Literature Review*

### **Introduction:**

Arguably one of the greatest symbols of globalization in the world economy is the outsourcing of light manufacturing from developed countries of the Global North, or western world, to the developing countries of the Global South, or eastern world. The majority of workers on this “global assembly line” for world production are women (Barker and Feiner, 2004). This is certainly true in China, where rural migrant women make up the vast majority of factory workers producing many of the world’s electronics, toys, and clothes (Ngai, 2007). While migration to the urban areas of China began in the early 1970s, the rise of the migrant worker began in the late 1980s, when the hukou food coupon system was abolished (Shi, 2008). The hukou system was originally established as a mechanism to prevent mobility within China, but over time has loosened to allow migration, albeit with many restrictions. Since then, China has seen a mass migration of rural peasants, including a huge number of women, to urban areas, particularly in Special Economic Zones (SEZs) in order to fill the need for low skill, low commitment labor in factories.

Urban migration has raised the question of how beneficial, if at all, light manufacturing and factory work is for rural, female migrant workers in China. Two principle answers to this question emerge in literature written by researchers typically classified as feminist and neoclassical economists. Generally speaking, the feminist economist community is not confident in the ability of factory work to improve the economic and social capabilities of the rural women involved in the industry. In contrast, the neoclassical economists support the position of neoliberal, free market policies and competitive advantages that will ultimately result in economic growth and population-wide capability improvements for developing nations. A subset

of the neoclassical view also reevaluates many critiques from the traditional feminist camp by applying a different brand of feminism not biased by Western world experiences. By no means are these perspectives exhaustive of all viewpoints on the issue of manufacturing and women's capabilities, nor do contributors to the literature on this subject always fall clearly in one category or the other. However, these are the primary ideologies represented in the literature, and therefore stand as the parameters of this review. Recognizing this caveat, the issue of whether Chinese women have improved their capabilities and quality of life through their participation in light manufacturing and export based industry draws distinct lines between the neoclassical and feminist schools of economic thought, and is still developing as a subject of research and debate.

### **Feminist Economists**

The most well-known and heavily publicized complaints against factory work for rural women are the poor working conditions and low wages. The neoclassical argument states that developing countries have a comparative advantage in assembly line production, but this is often seen by feminist economists as a deceptive way of portraying special economic zones with lax labor laws and tax structures to attract investment. Even though this so-called comparative advantage may lead to economic growth for the nation as a whole, the growth is unequal along gender lines and women are economically marginalized due to ingrained gender norms (Barker and Feiner, 2004). The gender issue with economic growth is not so much that women are unable to find wage labor positions; while only a third of rural migrants are women, they compose over 70% of the migrant work force in export oriented SEZs throughout the country (Jacka, 2000). The vast majority of these women are aged sixteen to twenty-five, and are valued for their perceived patience, dexterity, and obedience (Davin, 2001). However, despite the increase in

women's wage-earning employment, they are crippled economically due to being stuck in low paying, strenuous positions with little opportunity for advancement.

In support of this point, former president of the International Association for Feminist Economics, Stephanie Seguino, goes as far as to assert that income inequality between men and women has been a principle impetus for investment and growth in Asia (2000). Seguino's research reveals that women are generally paid lower wages than men in developing Asian countries, even when level of education is taken into account. This is due to stereotypes that lead to women's initial hire into low wage positions, and gender norms that disallow female workers from organizing and striving for higher wages. An export function used in this study reveals that a decline in female workers' wages leads to greater access to technology through trade, and ultimately greater productivity. Similarly, a greater wage gap leads to a greater profit share of income, greater investment spending, and increased productivity. Finally, a regression run related to gender wage gaps seems to confirm Seguino's proposal that a more significant gender wage gap stimulates greater growth, even when accounting for education (2000). This research is of concern to feminist economists, who interpret the findings as meaning that Asia's economic growth is in fact based in gender based income inequality. This interpretation indicates that it is not in the economic interest of Asian countries, including China, to increase the wages of female manufacturing workers because it would negatively impact overall economic growth for the nation.

As Barker and Feiner specify, the cheap labor of women in factories does not just translate to low wages, but also to a lack of safety protections, health precautions, and benefits (2004). The neoclassical economists argue that factory jobs pay women more than agricultural work, but feminist economists counter that this work is done in subpar conditions with wages

that are still dismally low (Berik, Dong, and Summerfield, 2007). The higher pay can also be accounted for by extremely long hours rather than higher wages, which negates the comparison between agriculture and manufacturing work to some degree (Davin, 2001). There is little room for advancement or raises for women on the assembly line, which could balance the negative attitudes towards and effects of factory wages and conditions. This is evidenced by the fact that only 1% of migrants hold managerial or technical jobs, which represent a higher paygrade than that of factory workers (Zhao, 2005). Furthermore, it is fair to assume that of this 1%, a majority are male as men are generally considered more capable of filling these roles due to gender stereotypes. Researchers such as Tamara Jacka report first-hand accounts of harsh and exploitative work and sexual harassment, with statistical reports supporting these allegations (2000). In 2010, the China Labor Watch conducted a survey of 46 factories in mainland China which reveal and support many of feminist economists' concerns about wages, working hours, and workers' organization.

The three standout areas covered by the China Labor Watch survey are unionization, overtime, and wages. In terms of unionization, 88.2% of surveyed factories had no trade union or system for workers to report their grievances (2010). This is of concern from a feminist economic point of view because it does not allow factory workers, who are majority women, to fight for improved conditions or wages. When researching overtime hours, the China Labor Watch found that 87% of the surveyed factories had daily overtime that exceeded three hours, or did not implement a weekly day off. Furthermore, not a single factory stayed beneath the legal maximum of 36 hours of overtime monthly. In fact, all of the factories had over 100 hours of overtime per month, and some even exceeded 200 hours (2010). These hours speak to the feminist concern for exploitative conditions in export-based manufacturing. The volume of hours



also supports the proposition that higher pay in factories is a result of more time worked rather than higher wages. This leads to more concern for feminist economists as lower wages can lead to lower levels of intra-household bargaining power, even when the great number of hours worked is considered (Berik, Dong, and Summerfield, 2007).

When looking at wages, the China Labor Watch found that 82.6% of the surveyed factories do not pay wages in accordance with Chinese laws in regard to minimum wage and overtime wages (2010). This statistic indicates that government regulation is not a panacea to factory conditions and wages. Furthermore, it is noteworthy that the wage gap between urban and rural people in China has in fact widened since the mid-1980s, suggesting that the mass migration of rural workers to urban areas has not hastened income equality as some neoclassicists would like to suggest (Zhao, 2005). The China Labor Watch survey also revealed seven severe problem areas in the canvassed factories: occupational safety and protection, social insurance, dormitory conditions, labor contract, forced labor, discrimination, and child and minor protection (2010). This research, combined with the research and proposals of the above literature, suggest that feminist economists are correct in questioning if it is realistic to improve working conditions in export oriented industries while simultaneously expanding women's employment in this field (Berik, Dong, and Summerfield, 2007).

In the case of manufacturing, an element of working conditions to be explored is the dormitory system. The widespread use of dormitories for factories is often viewed as a way of lowering the cost of living in a city for migrant workers, and of providing a safe living space for rural women who have never lived alone, let alone in a big city (Ngai, 2007). These positive aspects of the dormitory system are used for factory recruitment, and can make the recruitment process less daunting both for the migrants and their families. However, they are also used to

give the factory greater control over its labor force (Davin, 2001). Factory dormitories are known for strict regulations, and these controls help to lengthen the work day and quash calls for higher wages. Furthermore, the dormitory system keeps migrants, particularly women, from settling down in urban areas. These workers will generally spend only three to five years working in industrial areas before returning home, which is ideal for employers who generally prefer young women. The dormitory system allows young rural women to work, but the cramped and strict communal living system is by no means a positive home environment (Ngai, 2007). The system is meant to keep women between worlds, with both the enterprise and the state expecting female rural workers to return home after a few years (Davin, 2001). The concept of the dormitory system, while convenient for some migrants, supports the feminist economist view that the manufacturing industry essentially exploits rural women's labor, but ultimately expects them to return to their rural setting when they are less useful or attractive to employers.

Another, less publicized feminist complaint against factory work in China is the strain of unpaid care labor and social reproduction. While it is well known that 1978 marked the opening of the Chinese economy to the world and a transformation from a socialist to a capitalist economy, the effect of this movement on women's care burden is often left unexamined. These types of major economic and social transitions have a tendency to be based in gender-biased policies that are ultimately responsible for increasing the care bias and burden for women (Berik, Dong, and Summerfield, 2007). Much of this increased burden can be attributed to the fact that neoclassical, capitalist economic theory is linked with neoliberal policies that encourage economic liberalism and decreased interference from the government, both in terms of the market and public works and projects (Barker and Feiner, 2004). Such policies lead to a push for the privatization of services such as healthcare, welfare, housing, and education, which are

provided by enterprises rather than the government (Davin, 2001). This economic transformation and shift of policy fall under what is known as the Washington Consensus, a set of economic policies that are supposedly the panacea for developing countries. In summary, the consensus touts the Western values of free trade, capital mobility, privatization, and decreased government regulation as the path to growth and prosperity. The issue that feminist economists find with this plan is that the burden of privatization and public supports falls far more heavily on women than men, as women are expected to make up the difference in care formerly provided through government services (Barker and Feiner, 2004).

Roger Beattie argues that it is far more difficult to achieve universal insurance coverage in any nation when a large portion of the urban labor force is participating in the informal economy. This is problematic in that the vast majority of jobs created in developing nations are part of the informal economy (2000). This contradiction is applicable to the Chinese economy, where an enormous portion of the workforce in urban areas is made up of rural migrants in flexible, sparsely regulated, and uncontracted, positions. These workers, including the rural women in factories, are generally not provided benefits or insurance through their work, leaving them without access to coverage. Other results of the move away from a socialist economy included the deterioration of the commune based rural healthcare system, more expensive and less accessible healthcare, a decline in public care, a rise in the uninsured, and higher fees for education (Berik, Dong, and Summerfield, 2007). While social care was by no means plentiful in rural areas before the reform, it decreased even more post-reform, increasing the gap in equality between rural and urban China (Davin, 2001).

A large part of the burden placed on Chinese women is their traditional duty of caring for children and the elderly. The one-child policy in China increased the rigor of this responsibility

as the duties related to elder care are generally not split between siblings, but rather fall on the shoulders of an only child (Berik, Dong, and Summerfield, 2007). The weight of this responsibility has increased not only due to the lack of government public support for healthcare and pensions, but because of the growth of the elderly population. Between 1990 and 2008, the percentage of the Chinese population aged above 75 years grew from 1.65% to 3.39% (Cook and Dong, 2011). While this shift in population indicates better living conditions and improved general health, it also increases the length and types of care that women have to provide for their own parents and often for their husbands' parents as well.

In terms of childcare, the pressure for low profits and high margins has led many companies to cut back on allowances made for caring labor. This, combined with decreased support for maternity leave and childcare, particularly in low-wage jobs, have made it exceedingly difficult for rural migrant women to both work and provide adequate childcare (Cook and Dong, 2011). This difficulty is compounded by hukou law, a discriminatory issue specific to China that supports feminist economist's concerns about reproductive labor and women's care burden. While hukou was originally meant to restrict mobility within the country, it is currently used to ensure that rural migrant workers are entitled to welfare only in their hukou area, and that their children are not entitled to a public education outside of their native town or city (Jacka, 2000). Two-third of rural children cannot access public education in urban areas, and those who can generally pay higher fees than urban children (Shi, 2008). This raises the question of how women can provide healthcare, childcare, and education for their children in the cities to which they migrate. The answer is often that they simply cannot, and instead leave their children home to be raised by relatives. As a result, this "left behind" population frequently faces an increased workload to make up for the lost labor of the migrants. This workload often falls

disproportionately on women and girls. Furthermore, there is evidence that paid work for rural mothers correlates with negative health impacts on children. Given this analysis, feminist economists often argue that higher wages do not outweigh the erosion of social protections for reproductive and caring labor (Cook and Dong, 2011).

As previously mentioned, the hukou system can be viewed as a mechanism for reinforcing the most negative aspects of light manufacturing for rural migrant women. The system places mobility limitations on migrants, thus preventing them from changing status at will and often excluding them from better jobs (Davin, 2001). Outside of these more blatant discriminatory elements, Afridi, Li, and Ren's research suggests that hukou status is internalized and causes poorer performance in those with rural hukou. In an experiment in which school children were asked to complete puzzles for money, the researchers found that when hukou status was made salient, those with lower hukou statuses exerted less effort, even with the appeal of a monetary incentive (2015). This discovery suggests that the neoclassical assertion that everyone benefits from capitalism and growth is in fact impeded and hindered specifically in China by a system that is inherently discriminatory.

The above points are the key issues the feminist economists identify with the light manufacturing industry in China. This is not to say that every feminist economist opposes the industry, or that every feminist approaches the system with equal skepticism. Furthermore, not every piece of literature cited is written by a researcher considered to be a feminist economist. However, on the whole, all of these issues have been raised by the feminist economist community as problems that need remedying, particularly those issues that receive less media coverage. To paraphrase Barker and Feiner, the case is not always that feminist economists oppose globalization and capitalism on principle, but that they are more apt to be skeptical on the

ability of these movements to help everyone equally, particularly when it comes to differences in gender (2004).

### **Neoclassical Economists**

In basic terms, neoclassicists believe in the validity of a trade-off between labor standards and employment based on the fact that market forces will lead to economic growth and ultimately improved labor conditions and wages in the long run (Cagatay, 1996). The significant growth in globalized businesses and export manufacturing over the past couple of decades speaks to the pervasive nature of this economic theory. Manufacturing increased from 59% to 74% of total world merchandise exports between 1984 and the mid-1990s, and the vast majority of this manufacturing growth has taken place in developing countries (Kabeer, 2004). According to neoclassical principles, this increase in manufacturing should ultimately lead to economic growth, better working conditions, and finally social growth, for developing nations and their people.

The key argument in the neoclassical economist camp for manufacturing is that of increased wages and incomes for migrant workers, particularly for women. It is difficult to argue that factory work does not economically benefit migrants, particularly women, given that working in provinces with high levels of foreign direct investment (and specifically for enterprises funded through foreign investment) have resulted in higher wages for both genders when compared to other regions and enterprises. Furthermore, China has the greatest female labor force participation rate and smallest urban gender wage gap among developing nations, indicating that women are unquestionably benefiting economically along with their male counterparts (Berik, Dong, and Summerfield, 2007). This is not to say that the economic effects of export manufacturing are without flaw. In his book Country Driving, Peter Hessler tells the

story of three young women who are able to earn decent wages through factory work and ultimately work their way up into more lucrative positions. Nevertheless, Hessler also contrasts the benefits of wage increases and opportunity with the increased lack of choice afforded to peasants in terms of making a living wage (2010). However, this contrast is often viewed by neoclassicists as a series of necessary growing pains in order to reach a greater economic good for the nation as a whole. It is also important to note that while wages are low compared to those in developed nations, women working in factories do not compare their purchasing power to that of the consumers who will ultimately buy the products they make, but to that which they had before working in manufacturing. (Chang, 2008).

A clear indicator of the recognized economic benefits for migrants working in export manufacturing is the rate with which rural youth are choosing migration over farm work. A 2003 study by Knight and Song indicated that while 97% of rural households receive some income from farming, two-thirds of households combine farm and non-farm work. About 37% of rural households receive some income from migration, accounting for a large percentage of the non-farm work performed by rural households. Knight and Song also found that migrants benefit from shifting their resources from farming to non-farming activities because non-farming activities are more financially rewarding both on average and at the margin. People living in rural areas recognize this, which is indicated in Knight and Song's finding that most rural Chinese farmers did not want to increase the size of their farm, even if it was the only way to increase income (2003). Farming is rapidly becoming a less attractive economic activity in rural China, and export manufacturing provides an outlet for rural people, particularly youth, to enter a new, more lucrative industry.

For women particularly, the effects of increased wages and work experience play out more pronouncedly when they return to their villages (Davin, 2001). By increasing the contribution that they make to their family income and by achieving upward movement in urban employment, rural women often gain a position of greater respect within their family units (Chang, 2008). Given that at least three-quarters of migrants return to their home villages after migrating to urban areas, it is fair to say that a majority of female migrant workers ultimately return home. It has also been observed that many of the migrant women returning do so with an increased sense of independence and a penchant for challenging traditional gender roles. Therefore, the effect of “going-out” and working in urban areas for the families of female migrants is greater than simply receiving wages. It is also the basis for the beginning of a long-term shift of gendered power within the traditional gendered family structure in China (Davin, 2001).

The shift of gendered power within households is crucial to development within the country as the increased employment and rank of women within household are generally expected to reduce fertility, which allows parents to invest more time in each of their children (Hare, 1999). This is a relevant change in rural China, where the one-child policy was not as strictly enforced as it was in urban China. The increased rank of women within a household is also expected to create incentive to invest in the education and well-being of girls (Hare, 1999). The effect of increased investment in females, particularly children, is already evident in that China has the smallest gender disparities in both adult and youth literacy rates among developing nations (Berik, Dong, and Summerfield, 2007).

Despite the persistent evidence of higher wages and bargaining power within the family structure, feminist economists and similarly concerned parties, almost always based in the



developed western world, often call for a social clause in international trade. Such a clause would require the enforcement of minimum labor standards, with the threat of sanctions and enforcement by the World Trade Organization. Naila Kabeer, though generally considered a feminist as well as an economist, firmly disagrees with the imposing of a mandatory social clause on the grounds that it would not ultimately be helpful to factory workers, particularly women, employed in developing countries. She argues that the demand for a social clause comes from people in developed nations who mean well, but do not understand that the working conditions in light manufacturing are far better than the alternatives for women working in the export industry (2004).

The neoclassical framework is consist with Kabeer's rejection of a hypothetical social clause, largely because neoclassicists believes that imposing a mandatory social clause on export manufacturing would effectively destroy the comparative advantage that developing nations have in assembly line manufacturing. Kabeer argues that those calling for a social clause on minimum labor standards should try to consider the "view from below" rather than comparing labor conditions in developing nations to those in already developed nations. By this, she means that women in developing countries compare their wages and working conditions to those of other jobs available to them, not to those of jobs in developed countries. When using this more realistic measure, the outlook towards factory conditions is much improved. Kabeer also points out that activists in developing nations often fail to distinguish between poor working conditions that result from poverty and lack of development and blatant violations of human rights. While the conditions in factories in Southern China are not ideal, neoclassical economists would argue that this is due to underdevelopment more so than exploitation, and that conditions will ultimately improve with further economic development (2004). Though there is room for

improvement, neoclassicists believe that protective legislations such as social clause would hinder market growth in developing countries and render women the victims rather than the benefactors of the regulation (Cagatay, 1996)

In addition to subpar factory conditions, an undeniable issue for migrant workers is the discriminatory hukou system. Neoclassicists recognize that the system permeates the lives of migrants in urban areas in a number of ways, including the withholding of welfare, public services, and education for rural children. However, it is evident that hukou laws have been made progressively less oppressive through reforms resulting from China's participation in manufacturing and the world market. To begin, the hukou food couponing system, which made migration next to impossible for rural peasants, was abolished in the 1980s as a direct result of the need for labor in the special economic zones (Shi, 2008). Since then, the push of surplus labor in rural areas and the pull of high labor demands in urban manufacturing have led to mass migration and reforms in hukou law and related discriminatory legislation (Zhao, 2005). There have been several reform experiments in regard to hukou and rural migrants in urban areas, such as the abolition of fees that are applied specifically to rural migrants, the provision of some social security for migrant workers, and increased access to public services, training, and education for rural migrants in urban areas (Shi, 2008)

A major victory for rural migrants was the elimination of urban and rural hukou in 2001 (Zhao, 2005). Though this reform is not yet nation-wide, it has led to a more prominent discussion on the merits and shortcomings of the hukou system, and has undoubtedly caused the system to be rendered less rigid in consideration of the massive influx of migrants over the past two and half decades. In more recent reforms, the Chinese government announced in 2015 that it will be providing 13 million people hukou rights who have up until now been denied public

services and education due to their lack of hukou registration. Many of these “black children” were secondary children born under the one-child population policy (Dong and Hunt, 2015). Due to less rigid enforcement of the policy in rural areas than urban, it can be inferred that a large number of people being awarded these rights are rural. Through these reforms, the rural Chinese are slowly but surely being awarded more rights, recognition, and welfare by the government. Reforms and social improvements can be accredited to China’s fairly newfound need for rural migrants in its cities, and the neoclassical principal that economic growth will ultimately lead to social growth as well.

One of the arguments explored in the previous section that feminist economists have against the supposed positive effects of globalization and manufacturing is that most migrant women still return home to their village and marry after working for a few years. They claim that this pattern indicates no long term change in traditional gender roles as a result of factory work. It is true that most women hope to marry following participation in factory work, and research of female migrant workers revealed that choosing one’s own husband was considered the most attractive aspect of migration. However, it is crucial to note that a collectivist society such as China does not value the same kind of independence that is considered typical in the developed world. The fact that rural women aspire to get married is not a symbol of oppression but of cultural preference. Marriage actually represents a form of independence for women in Chinese society because being married means being independent from one’s natal home and family rather than being a life-long dependent. Marriage is strongly associated with adulthood for rural Chinese women, and to stay unmarried would essentially leave them in a state of perpetual childhood (Fang, 2012).

A persistent desire for rural Chinese women to marry does not indicate that participation in manufacturing has had no impact on the traditional institution. Migration to urban areas has provided many rural women a means of escape from unwanted betrothals. There is also evidence that migrant women are generally able to delay marriage from their early twenties until their late twenties, when they have developed increased worth to their families and independence through manufacturing work. Participating in this work can also increase women's bride value, giving them an opportunity for a more fortuitous marriage arrangement than they would have made otherwise (Davin, 2001).

Romantic love has also found a spot within the new class of young rural migrants. As the migrants have become more exposed to the modern urban middle class, they have begun to emulate the desire for affection and romance in marriage rather than aspiring to business-like couplings arranged by their parents. The shift towards romantic relationships has also permeated the dating sphere for rural migrants. While casual dating is still frowned upon, it is no longer scandalous or immoral for a woman to lose her virginity before marriage as long as marriage is proposed soon thereafter (Fang, 2012). Some migrants even participate in dating services while living in urban areas, taking their marriage prospects into their own hands (Chang, 2008). While the views and traditions surrounding Chinese marriage can certainly seem unequal for women on a western scale, it is unreasonable to expect them to change rapidly due to their deep roots in Chinese history. However, the past two and half decades have shown the beginnings of change in women's approach towards marriage that are far more favorable for women than was the case in the past.

Another issue related to Chinese women and marriage is divorce. While not at all uncommon in the United States, it was highly stigmatized in China until fairly recently.

However, this began to change when China opened its economy to the rest of the world, and divorce rates began to rise drastically as the effects of globalization took place. While divorce was initially and still is more common in cities, rates have also risen in rural areas throughout the country. Furthermore, as of 1994, more than 70% of divorces in China were initiated by women. This statistic is indicative of the new social and economic freedom and independence experienced by women during the globalization period. Newfound empowerment has led women to demand more out of their marriages (Faison, 1994). Just as Chinese women are demanding romance when they begin their marriages, they are demanding that romance and fair treatment continue throughout the remainder of their marriage, demonstrating a power shift within the traditional gender balance of marriage.

### **Contemporary Feminists**

As mentioned previously, many feminist economist concerns about export manufacturing and globalization come from a place of altruism and true concern. However, these concerns also often come with a western bias and an “us” and “others” mindset (Rofel, 1993). Jocelyn Guilbert claims that westerners, and Americans in particular, have redefined proper feminism as being similar to American gender standards, and that anything that varies from this standard is considered backwards and wrong, specifically when it comes from the non-white developing world. This brand of thinking is what leads many American feminists to view Chinese women, especially the rural poor, as helpless victims of poverty and oppression. While many of these women are in fact poor even by Chinese standards, it is often not in the manner or to the degree professed by American feminist. Guilbert also complains that Western media chooses to focus only on the issues facing the third world, many of which have existed for long periods of time, rather than progress (1998). However, a new brand of feminism has begun to emerge that aligns

more closely with neoclassical ideals and attempts to evaluate issues in developing countries without western bias.

This new brand of feminism, which will be referred to as contemporary feminism within the context of this paper for the purpose of differentiating it from traditional feminist economics, focuses on evaluating women's issues and empowerment within the framework of their own cultures. Academics who fall under this umbrella do not argue that there shouldn't be research and literature regarding feminism in developing nations, but rather that there should not be a strict definition of feminism and liberation (Rofel, 1993). One of the greatest differences between the contemporary feminist and the traditional feminist economists is that the contemporary feminists base their beliefs heavily on first-hand accounts from women living in the country being studied. Naila Kabeer claims that portraying third-world women as helpless victims of an exploitative system fails to give any credit to the women themselves. She contends that "simply highlighting their problems, and ignoring their gains, erases the possibility that there may have been a calculus of choice involved and that women may consider these jobs worth defending" (2004). With this in mind, contemporary feminists tend to adhere to neoclassical principles in that they recognize the gains afforded to women in third-world countries through globalization and manufacturing despite the issues that still need to be addressed in the future.

Contemporary feminists are quick to point out that rural Chinese youth are eager to migrate to urban areas to find work. These youth do not identify with the farming lifestyle, and there are studies that suggest that the majority of rural youth would prefer to be employed in a city job than a rural job, even if compensation was the same (Fang, 2011). Leslie Chang offers similar findings in her book Factory Girls, in which she describes the experiences of several girls working in export manufacturing, and specifically of two young rural women working in

Dongguan over the course of three years. Chang states that the majority of rural female workers in Dongguan had chosen to “go out” and migrate of their own volition in search of freedom and self-improvement rather than having been forced to go for economic reasons. She also emphasizes the opportunities for advancement for rural women through participation in industrialization and light manufacturing, but warns that advancement is highly dependent on self-motivation, determination, and taking risks. The two women that Chang interacted with most frequently, Wu Chunming and Lu Qingmin (Min), were both able to rise in station both within their factories and their families during the three years in which the book takes place. However, advancement and higher wages were the direct result of taking classes, acquiring skills, and taking risks by jumping factories. Contemporary feminists argue that focusing on the negative aspects of manufacturing diminishes the gains that women such as Chunming and Min have worked so hard to achieve, and misrepresents a system that, though not perfect, has provided many opportunities for rural women as a whole.

A final aspect that fuels contemporary feminism and links it to neoclassical economics is representation. As has been alluded to above, many of the criticisms that globalization and neoclassicists alike face is their representation as exploitative. However, contemporary feminists claim that this narrative is strongly shaped and influenced by unequal representation based on world power, and an insistence on victimizing politics “Others” (Rofel, 1993). Naila Kabeer goes as far as to say that people from third-world countries used in promotional material in the developed world are coached using “intensive educational technique” to create a narrative that is helpful and supportive of the movement or ideals being pushed by the socially motivated organization (2004). From this coaching comes the story of oppressed rural Chinese women being used and mistreated by evil multinational corporations. Contemporary feminist reject this

narrative, which has been largely embraced by traditional feminist economists, and instead embraces a narrative shaped by progress and the benefits achieved by rural female migrants, who certainly do not see themselves as victims. For this reason, contemporary feminist have moved away from the traditional views of feminist economics and have aligned themselves with the principles of neoclassicists.

## **Conclusion**

Though outsourcing manufacturing to developing countries has become a staple in western economies, it is still a topic of fierce ethical debate. China has proven to be a centerpiece of this debate given its rapid expansion in the past two and a half decades, and the significant number of rural Chinese women who currently participate in light manufacturing for the purpose of export. The two primary sides of the Chinese manufacturing debate have emerged as traditional feminist economists and neoclassical economists, with contemporary feminists aligning most closely with neoclassical economists.

In short, traditional feminist economists believe that increased wages are not enough to consider light manufacturing beneficial for Chinese women. They believe that the lack of public services, poor working conditions, and absence of consideration for unpaid caring labor render manufacturing as exploitative and as increasing gender inequality within the country. Neoclassicists argue that economic growth through manufacturing will lead not only to better wages but ultimately to social growth for the entire nation. Contemporary feminists support this view based on first-hand encounters with Chinese women who value their work and the independence which they have gained. Having now explored the current literature and ideas surrounding light manufacturing and its effects on rural Chinese women, it is prudent to design a



means of measurement to ascertain the true benefits that Chinese women have gleaned from participation in light manufacturing.

### *Statistical Analysis*

#### **Methodology:**

In order to test the hypothesis that migration and factory work have a positive impact on the lives and social development of rural Chinese women, I ran three multivariate regressions using the data analysis software StatCrunch. The data used represents the years 1990-2010 and was gathered from GapMinder, the National Bureau of Statistics of China, and the government websites for the cities of Shenzhen, Guangzhou, Beijing, and Shanghai. In these regressions three different dependent variables are used to proxy the parameters of the Human Development Index (HDI). The HDI was established in 1990 by Pakistani economist Mahbub UI Haq and further developed by Nobel laureate Amartya Sen. The index has three dimensions: having a healthy life, being knowledgeable, and maintaining a decent standard of living. These dimensions are measured using life expectancy at birth, years of education (mean for adults over 25 and expected for school children), and gross national income per capita. The calculated HDI values for China are not included in the regressions because consistent data for the years 1990 to 2010 is not available. Therefore, I substituted life expectancy, GNI per capita based on purchasing power parity (yuan), and years in school for women ages 15 through 44 as my dependent variables.

For each regression I used six independent variables, some of which measured the impact of migration and factory work and others which were specific to questions about women's status. For each regression, I used the two proxy HDI variables that were not serving as the dependent variable as independent variables since they are inarguably measures of human development.

Years of women's education is more specifically an indicator of women's development and increased social status. I used the average wage of staff and workers in manufacturing (yuan) to reflect the impact of wage level on human development, especially because the vast majority of rural migrant women are employed in manufacturing. I used foreign direct investment net inflow of as a percentage of GDP because of the tendency of light manufacturing work to be related to foreign companies and investments. To proxy the growth of migration, for which numbers are inconsistent at best, I took a weighted average of the percentage of GDP growth for four Chinese cities with significant migrant populations: Shenzhen, Guangzhou, Beijing, and Shanghai. This number serves as the approximation for migrant volume between 1990 and 2010. The final independent variable is total fertility. A lower level of fertility is generally associated with higher levels of education and resources for children, resulting in improved human development. Though China is notorious for its one-child policy, the vast number of loop holes and special conditions in this policy allow fertility to be a valid measure in this study (Cai, 2010).

## **Results:**

In the first regression (Table 1), the dependent variable years in school for women aged 15 to 44 is regressed against the average wages of staff and workers in manufacturing, GNI per capita at PPP, life expectancy, total fertility, foreign direct investment net inflow of as a percentage of GDP, and the weighted average of the percentage of GDP growth from the four proxy cities. The statistics that proved to be significant (at a significance value of  $p=0.05$ ) were average wages of staff and workers in manufacturing with a p-value of 0.0184, total fertility with a p-value of 0.0011, GNI per capita at PPP with a p-value of 0.0118, and life expectancy with a p-value of  $<0.0001$ . Foreign direct investment and weighted average GDP were not found to be significant. Average wages and life expectancy had positive coefficients of 0.000092257879 and

0.34558754 respectively, while total fertility and GNI per capita at PPP had negative coefficients of -0.32602968 and - 0.00038717695. This regression had an adjusted r-squared value of 0.9984.

In the second regression (Table 2), I regressed life expectancy against the average wages of staff and workers in manufacturing, years in school for women aged 15 to 44, GNI per capita at PPP, total fertility, foreign direct investment net inflow of as a percentage of GDP, and the weighted average of the percentage of GDP growth from the four proxy cities (Shenzhen, Guangzhou, Beijing, and Shanghai). The statistics that proved to be significant were the average wages of staff and workers in manufacturing with a p-value of 0.0399, years in school of women with a p-value of <0.0001, GNP/capita at PPP with a p-value of 0.0184, and total fertility with a p-value of 0.009. Foreign direct investment and weighted average GDP growth were not found to be statistically significant. Years in school of women, GNI/capita at PPP, and total fertility had positive coefficient values of 2.7429559, 0.0010364504, and 0.78873697, respectively while average wages had a negative coefficient of -0.00023232759. This regression had an adjusted r-squared value of 0.9982

In the third regression (Table 3), I regressed GNI per capita at PPP against the average wages of staff and workers in manufacturing, years in school for women aged 15 to 44, life expectancy, total fertility, foreign direct investment net inflow of as a percentage of GDP, and the weighted average of the percentage of GDP growth from the four proxy cities. The statistics that proved to be significant were the average wages of staff and workers in manufacturing with a p-value of >0.0001, years in school for women with a p-value of 0.0118, life expectancy with a p-value of 0.0184, and foreign direct investment with a p-value of .0418. Total fertility and weighted average GDP growth were not found to be statistically significant. Average wages, life expectancy, and foreign direct investment had positive coefficients of 0.2479811, 345.86741,

and 41.213636. Years in school for women had a negative coefficient of -1025.4898. This regression had an adjusted r-squared value of 0.999.

## **Discussion**

In Table 1, the regression data indicates that average wage of staff and workers in manufacturing, total fertility, GNI per capita at PPP, and life expectancy are the independent variables that have a statistically significant impact on years in school for women ages 15 to 44. The statistical significance of average wages contradicts the feminist economist view that increased wages are a shallow measurement of human development and female social development. Rather, it seems that manufacturing wages have a significant correlation with increased education for Chinese women. This supports the contemporary feminist view that the wages earned in factories are a key stepping stone to human, and specifically women's, development, which is strongly represented in education as one of the three factors of the HDI indicator. In addition, life expectancy has an extremely high statistical significance in this regression. This is to be expected as both variables are considered to be direct measurements of human development, and should thus should be highly correlated.

Total fertility in this regression has a negative coefficient of -.32602968, which is to be expected and supports the contemporary view of factory labor. This coefficient indicates that a decrease in total fertility has a significant impact on increased education. It is generally accepted that increased education and decreased fertility because of educated women's ability to pursue more opportunities in addition to childrearing (Cohen, 2013). Therefore, women's reduced fertility as a result of later marriage due to manufacturing work results in an increased number of years in school for women, improving their social status.

Surprisingly, GNI per capita has a negative coefficient in this regression. It stands to reason that as societies become wealthier, they invest more money into education, especially given that average wages have a positive coefficient in this regression. However, the coefficient for this variable is exceedingly low at -0.00038717695, thus indicating that is not practically significant. This negative coefficient can also be attributed to the fact that the original women who entered factories in the 1990s were not generally further educated as a result of their factory employment. It is their daughters who would benefit from an increased GNI per capita. Therefore, the increased education for women is not consistent over the two decades, and is more heavily concentrated toward the latter half of this time span. The high r-squared value of this regression indicates that the data was a very close fit to the statistical model in this regression.

In Table 2, the regression shows that the average wage of staff and workers in manufacturing, years in school for women ages 15 to 44, GNI per capita at PPP, and total fertility have a statistically significant impact on life expectancy. Years in school has a statistically and practically significant relationship with life expectancy. Given that both are typical measurements of human development, this is unsurprising. Additional education leads to more lucrative opportunities for women, which lead to healthier lifestyles. Furthermore, Regression 1 indicates that the average wages in manufacturing have a significant positive relationship with women's education. Therefore, the increase in education resulting from manufacturing wages also correlates with a longer lifespan. Both increased education and a longer lifespan are inarguably positive benefits that seem to stem from manufacturing wages, supporting the neoclassical and contemporary feminist outlook on manufacturing employment.

GNI per capita is positively correlated with life expectancy, which is indicative that the rising wealth in the country, largely stemming from exports, is leading to healthier lifestyles.

This is an expected result as increased disposable income can be used on a number of life improving products and services including healthier foods, improved medical care, and improved domestic sanitation. However, total fertility is surprisingly also positively correlated with life expectancy, indicating that increased fertility leads to a longer life expectancy. It would generally be assumed that fewer pregnancies would lead to longer lives for women. This unexpected correlation can potentially be explained by the fact that healthcare measures have improved internationally and in China over the past two decades, allowing for safer childbirth and fewer deaths related to childbirth. This would make total fertility a less significant determinant of life expectancy for women.

Average wages is the only variable that has a negative coefficient, and thus a negative impact on life expectancy. This was a surprising outcome, and stands contrary to reason given that greater wages traditionally result in increased health standards and thus a longer life expectancy. This unexpected data can be explained in two fashions. The first explanation is that while the variable has a statistically significant p-value, its coefficient is extremely low at 0.00023232759. This indicates that the variable is in fact not practically significant in its relationship to life expectancy.

The second explanation for the low average wages coefficient relates to the minimum wage in China. Though minimum wages were first introduced in China in 1993, they were generally not applied to migrant labor and penalties for ignoring minimum wage laws in manufacturing were minimal. It was not until 2004 that minimum wage reforms were passed, resulting both in a rise in minimum wage and more significant enforcement of minimum wage (Mayneris and Poncet, 2014). Migrant workers, and thus female factory workers, were disproportionately affected by the lax minimum wage laws between 1993 and 2004. The impact

of their lower buying power due to lower wages and higher purchase prices could very likely be the cause of the negative coefficient of average wages in this regression. Furthermore, data after 2004 should likely show a positive correlation between average wages and life expectancy. Overall, this regression has data that is extremely fit to the statistical model as indicated by its high r-squared value.

In Table 3, the data indicates that average wage of staff and workers in manufacturing, years in school for women ages 15 to 44, life expectancy with projections, and net flows of foreign direct investments as a percentage of GDP have a statistically significant impact on GNI per capita at PPP. Average wages has an extremely significant relationship with a p-value of less than 0.0001. This close relationship makes sense as the majority of those involved in manufacturing are China's rural poor. Given that manufacturing wages are significantly higher than those available in rural areas, mass access among the poor to these heightened wages would have a significant positive impact on the country's GNI, and thus also its GNI per capita.

Years in school for women has an extremely high coefficient with a value of 1025.4898. Past research has shown that educating women leads to growth both in a nation's GDP and that employing more women leads to an increase in per capita income (Matsui, 2013). Given that the wages in manufacturing are allowing more girls and women to be educated, this should lead to more women in financially lucrative and socially powerful roles in the future. Therefore, the GNI per capita should continue to rise significantly with the projected increased education for females. Life expectancy also has a particularly high coefficient in this regression with a value of 41.213636. This can likely be explained by the fact that a longer life expectancy leads to more productive years for the typical Chinese person, and thus a greater long-term economic contribution.

The last statistically significant variable in this regression is foreign direct investment. This is not surprising as FDI and GNI have an intimate and connected relationship. Foreign direct investment has spurred and funded many of the manufacturing and exporting opportunities in China. This investment not only leads to huge revenues through the export of products, but also through the creation of millions of direct and indirect jobs, and thus, wages. The economic activity created through foreign direct investment directly impacts the increase in GDP and national wages, and thus GNI and GNI per capita.

## **Conclusion**

The question of whether rural Chinese women's participation in light export manufacturing helps or hinders, empowers or exploits, is much debated. The vast majority of literature regarding this subject is qualitative, and clearly divided between the neoclassical and feminist economist camps. Through my quantitative statistical analysis, I proved my hypothesis that migration and factory work have a positive impact on the lives and social development of rural Chinese women, supporting the neoclassical and contemporary feminist views regarding manufacturing participation.

The most influential discovery in my research is that the average wages of staff and workers in manufacturing is statistically significant and has a positive correlation in all three of the regressions. This indicates that the wages provided by manufacturing labor play a significant role in increasing life expectancy, GNI per capita, and women's education. This relationship alone disproves the crux of traditional feminist argument against manufacturing work. The significance of the average wages variable in all three regressions shows that the wages provided by manufacturing are not the sole benefit of manufacturing, nor are they a hollow measurement of development and improvement. Wages provided by manufacturing are instead, as indicated by



the neoclassical economists and contemporary feminists, a necessary vehicle for improving women's status and human development in China.

It must be acknowledged that traditional feminists are correct in their belief that manufacturing work and the resulting increased wages are not an overnight solution for all of China's gender-based issues. However this research indicates that in the past twenty years, the work and wages provided by manufacturing have allowed women to seek more education, which will allow them to gain more influential positions in society and in their professional lives. The benefits of manufacturing have also allowed the Chinese people to increase their personal incomes, and thus have more disposable income to spend on both luxuries and improved personal care and extend their lives. Based on the correlation of manufacturing work and wages with the variables composing the Human Development Index, it is clear that neoclassical economists and contemporary feminists are correct in their belief that light export manufacturing is a source of empowerment and opportunity for China, especially for rural Chinese women.

### **Limitations**

The first limitation I faced in this study was difficulty finding data. While the National Bureau of Statistics of China has census reports dating back to 1996, the categories of information and methods of measurement provided from year to year are inconsistent. I also encountered language barriers in finding information, particularly when trying to find data for rural provinces. Another limitation was the extremely high r-squared values of the regressions, indicating an unusually high correlation among the variables. This indicates that unaccounted causal factors likely impacted the variance of the regressions.

## **Future Work**

As stated above, the vast amount of literature regarding the subject of rural Chinese women's participation in light export manufacturing is qualitative in nature. For this reason, it is crucial that future work include a more in-depth quantitative analysis of the issues surrounding this phenomenon. An important question to be asked regarding this subject is the impact on the children of female migrant workers. The migrants of the 1990s are now old enough to have children who are old enough to have gone to college or be employed. Researching the degree of benefit that these children have experienced from their mothers' participation in manufacturing would be a strong indication of the long term effects of migrant manufacturing work.

## Tables

**Table 1:**

### Multiple linear regression results:

Dependent Variable: Years in School Women 15-44

Independent Variable(s): Average Wage of Staff and Workers in Manufacturing (yuan), Total Fertility (number of children), GNI/capita PPP, Life Expectancy with projections, Foreign direct investment, net inflows (% of GDP), Weighted Average % GDP Growth

### Parameter estimates:

Parameter	Estimate	Std. Err.	Alternative	DF	T-Stat	P-value
Intercept	-16.938746	1.6281431	≠ 0	13	-10.403721	<0.0001
Average Wage of Staff and Workers in Manufacturing (yuan)	0.000092257879	0.000034250784	≠ 0	13	2.6935991	0.0184
Total Fertility (number of children)	-0.32602968	0.078630691	≠ 0	13	-4.1463413	0.0011
GNI/capita PPP	-0.00038717695	0.00013233035	≠ 0	13	-2.9258363	0.0118
Life Expectancy with projections	0.34558754	0.022463941	≠ 0	13	15.384101	<0.0001
Foreign direct investment, net inflows (% of GDP)	0.010963857	0.012878586	≠ 0	13	0.8513246	0.41
Weighted Average % GDP Growth	-0.0022798099	0.0021849983	≠ 0	13	-1.043392	0.3158

### Analysis of variance table for multiple regression model:

Source	DF	SS	MS	F-stat	P-value
Model	6	15.720956	2.6201594	1998.5253	<0.0001
Error	13	0.017043603	0.0013110464		
Total	19	15.738			

### Summary of fit:

Root MSE: 0.036208374

R-squared: 0.9989

R-squared (adjusted): 0.9984

**Table 2****Multiple linear regression results:**

Dependent Variable: Life Expectancy with projections

Independent Variable(s): Average Wage of Staff and Workers in Manufacturing (yuan), Years in School Women 15-44, GNI/capita PPP, Total Fertility (number of children), Foreign direct investment, net inflows (% of GDP), Weighted Average % GDP Growth

**Parameter estimates:**

Parameter	Estimate	Std. Err.	Alternative	DF	T-Stat	P-value
Intercept	50.226951	1.469938	≠ 0	13	34.169434	<0.0001
Average Wage of Staff and Workers in Manufacturing (yuan)	-0.00023232759	0.0001017633	≠ 0	13	-2.2830196	0.0399
Years in School Women 15-44	2.7429559	0.17829809	≠ 0	13	15.384101	<0.0001
GNI/capita PPP	0.0010364504	0.00038455172	≠ 0	13	2.6952172	0.0184
Total Fertility (number of children)	0.78873697	0.25713228	≠ 0	13	3.0674367	0.009
Foreign direct investment, net inflows (% of GDP)	-0.034759069	0.03601224	≠ 0	13	-0.96520155	0.3521
Weighted Average % GDP Growth	0.0067830818	0.0061259632	≠ 0	13	1.1072678	0.2882

**Analysis of variance table for multiple regression model:**

Source	DF	SS	MS	F-stat	P-value
Model	6	112.79022	18.798371	1806.5143	<0.0001
Error	13	0.13527644	0.01040588		
Total	19	112.9255			

**Summary of fit:**

Root MSE: 0.10200921

R-squared: 0.9988

R-squared (adjusted): 0.9982

**Table 3****Multiple linear regression results:**

Dependent Variable: GNI/capita PPP

Independent Variable(s): Average Wage of Staff and Workers in Manufacturing (yuan), Years in School Women 15-44, Total Fertility (number of children), Life Expectancy with projections, Foreign direct investment, net inflows (% of GDP), Weighted Average % GDP Growth

**Parameter estimates:**

Parameter	Estimate	Std. Err.	Alternative	DF	T-Stat	P-value
Intercept	-17030.278	6570.29	≠ 0	13	-2.5920131	0.0223
Average Wage of Staff and Workers in Manufacturing (yuan)	0.2479811	0.010533	≠ 0	13	23.543254	<0.0001
Years in School Women 15-44	-1025.4898	350.4946 1	≠ 0	13	-2.9258363	0.0118
Total Fertility (number of children)	-153.84375	190.2946 4	≠ 0	13	- 0.80845023	0.4334
Life Expectancy with projections	345.86741	128.3263 6	≠ 0	13	2.6952172	0.0184
Foreign direct investment, net inflows (% of GDP)	41.213636	18.25182 8	≠ 0	13	2.2580553	0.0418
Weighted Average % GDP Growth	-4.6676473	3.468167 5	≠ 0	13	-1.3458541	0.2014

**Analysis of variance table for multiple regression model:**

Source	DF	SS	MS	F-stat	P-value
Model	6	62933438	10488906	3020.5796	<0.0001
Error	13	45142.258	3472.4814		
Total	19	62978580			

**Summary of fit:**

Root MSE: 58.927764

R-squared: 0.9993

R-squared (adjusted): 0.999

## References

- Afridi, F., Li, S. X., & Ren, Y. (2015). Social identity and inequality: The impact of China's hukou system. *Journal of Public Economics*, 123, 17-29.
- Barker, D. K., & Feiner, S. F. (2004). Globalization is a feminist issue. In *Liberating economics: Feminist perspective on families, work, and globalization* (pp. 95-117). Ann Arbor, MI: The University of Michigan Press.
- Beattie, R. (2000). Social protection for all: But how? *International Labour Review*, 139(2), 129-148.
- Beijing gross regional product. (n.d.). Retrieved March 19, 2016, from Wikipedia website: <https://zh.wikipedia.org/wiki/%E5%8C%97%E4%BA%AC%E5%B8%82%E5%9C%B0%E5%8C%BA%E7%94%9F%E4%BA%A7%E6%80%BB%E5%80%BC>
- Beijing national economic and social development statistics bulletin. (n.d.). Retrieved March 19, 2016, from Baidu website: <http://wenku.baidu.com/view/44e0584633687e21af45a9b4.html>
- Berik, G., Dong, X.-Y., & Summerfield, G. (2007). China's transition and feminist economics. *Feminist Economics*, 13(3-4), 1-33.
- Cagatay, N. (1996). Gender and international labor standards in the world economy. *Review of Radical Political Economics*, 28(3), 92-101.
- Cai, Y. (2010, May). Economic and cultural factors lead to China's low fertility rate , more so than government's one -child policy. Retrieved April 5, 2016, from UNC Carolina Population Center website: <http://www.cpc.unc.edu/news/features/low-fertility-rate-of-china>

Census data. (n.d.). Retrieved January 4, 2016, from National Bureau of Statistics of China website: <http://www.stats.gov.cn/enGliSH/Statisticaldata/AnnualData/>

*National Bureau of Statistics of China: Census data 1996.* (1996).

Chang, L. T. (Producer). (2012, June). The voices of China's workers. *TED Talks*. Podcast retrieved from [http://www.ted.com/talks/leslie\\_t\\_chang\\_the\\_voices\\_of\\_china\\_s\\_workers](http://www.ted.com/talks/leslie_t_chang_the_voices_of_china_s_workers)

China's 'left-behind girls' learn self-protection. (2014, July 30). Retrieved January 2, 2016, from UN Women website: <http://www.unwomen.org/en/news/stories/2014/7/left-behind-girls-learn-self-protection-in-china>

Cohen, P. (2013, February 12). Let's not panic over women with more education having fewer children. Retrieved April 6, 2016, from The Atlantic website: <http://www.theatlantic.com/sexes/archive/2013/02/lets-not-panic-over-women-with-more-education-having-fewer-kids/273070/>

Cook, S., & Dong, X.-Y. (2011). Harsh choices: Chinese women's paid and unpaid care responsibilities. *Development and Change*, 42(4), 947-965.

Data in Gapminder world. (n.d.). Retrieved January 12, 2016, from Gapminder website: <http://www.gapminder.org/data/>

Data in Gapminder world. (n.d.). Retrieved January 13, 2016, from Gapminder website: <http://www.gapminder.org/data/>

Davin, D. (2001, September). *The impact of export-oriented manufacturing on Chinese women workers*. United Nations Research Institute for Social Development.

Faison, S. (1994, August 22). Divorce in modern China. *New York Times*.

- Fang, I.-C. (2011, December). *Growing up and becoming independent: An ethnographic study of new generation migrant workers in China*. London, England: The London School of Economics and Political Science.
- Fang, I.-C. (2012). *FREIA Working Paper Series: Keen to get married: Why marriage is so important to 'independent' female migrant workers in Shenzhen, China* (Report No. 78). Aalborg, Denmark: Feminist Research Center in Aalborg.
- Guangzhou economic and social development statistical communiqué. (n.d.). Retrieved March 17, 2016, from Guangzhou Municipal Bureau of Statistics website:  
[http://www.gzstats.gov.cn/tjfx/gztjfs/201104/t20110411\\_24947.htm](http://www.gzstats.gov.cn/tjfx/gztjfs/201104/t20110411_24947.htm)
- Guilbert, J. (n.d.). Strapped down: Chinese women and the logic of American feminism. Retrieved 1998, from Bad Subjects website:  
<http://bad.eserver.org/issues/1998/38/guilbert.html>
- Hare, D. (1999). Women's economic status in rural China: Household contributions to male-female disparities in the wage-labor market. *World Development*, 27(6), 1011-1029.
- Hessler, P. (2010). *Country driving: A Chinese road trip*. New York, NY: HarperCollins.
- Jacka, T. (2000). 'My life as migrant worker': Women in rural-urban migration in contemporary China. *Intersections: Gender, History and Culture in the Asian Context*, (4).
- Kabeer, N. (2004). Globalization, labor standards, and women's rights: Dilemmas of collective (in)action in an interdependent world. *Feminist Economics*, 10(1), 3-35.
- Knight, J., & Song, L. (2003). Chinese peasant choices: Migration, rural industry, or farming. *Oxford Development Studies*, 31(2), 123-148.



- Matsui, K. (2013, March 7). The economic benefits of educating women. Retrieved April 9, 2016, from Bloomberg website: <http://www.bloomberg.com/news/articles/2013-03-07/the-economic-benefits-of-educating-women>
- Mayneris, F., & Poncet, S. (2014, October 13). The cleansing effect of the minimum wage in China. Retrieved April 6, 2016, from VOX: CEPR's Policy Portal website: <http://www.voxeu.org/article/cleansing-effect-minimum-wage-china>
- Moon, J. Y. (2003). A study of dagonmei: A feminist understanding of gender politics in China under reform. *Asian Journal of Women's Studies*, 9(4), 38-68.
- Ngai, P. (2007). Gendering the dormitory labor system: Production, reproduction, and migrant labor in south China. *Feminist Economics*, 13(3-4), 239-258.
- Peterson, V. S., & Runyan, A. S. (2010). Gender and global economy. In *Dilemmas in world politics: Global gender issues in the new millennium* (3rd ed., pp. 182-230). Boulder, CO: Westview Press.
- Rofel, L. (1993). Where feminism lies: Field encounters in China. *Frontiers: A Journal of Women's Studies*, 13(3), 33-52.
- Seguino, S. (2000). Accounting for gender in Asian economic growth. *Feminist Economics*, 6(3), 27-58.
- Shanghai gross regional product. (n.d.). Retrieved March 20, 2016, from Wikipedia website: <https://zh.wikipedia.org/wiki/%E4%B8%8A%E6%B5%B7%E5%B8%82%E5%9C%B0%E5%8C%BA%E7%94%9F%E4%BA%A7%E6%80%BB%E5%80%BC>
- Shanghai national economic and social development statistics bulletin. (n.d.). Retrieved March 19, 2016, from Shanghai's Municipal People's Government website: <http://Shanghai National Economic and Social Development Statistics Bulletin>

Shenzhen city national economic and social development statistics bulletin. (n.d.). Retrieved March 20, 2016, from Shenzhen Municipal Bureau of Statistics website:

[http://www.szsj.gov.cn/xxgk/tjsj/tjgb/201104/t20110428\\_2061609.htm](http://www.szsj.gov.cn/xxgk/tjsj/tjgb/201104/t20110428_2061609.htm)

Shi, L. (2008, June). *Rural migrant workers in China: Scenario, changes, and public policy* (Research Report No. 89). Geneva, Switzerland: Policy Integration and Statistics Department: International Labour Office.

Survey of Chinese workers' working conditions in 2010. (2011, March 3). Retrieved October 25, 2015, from China Labor Watch website: <http://www.chinalaborwatch.org/newscast/92>

Zhao, Z. (2005). Migration, labor market flexibility, and wage determination in China: A review. *The Developing Economies*, 43(2), 285-312.