THE EFFECT OF JOB CHARACTERISTICS ON JOB SATISFACTION IN THE UNITED STATES AND CHINA

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ABSTRACT

This study utilizes a detailed data set from a regional manufacturing firm to investigate how worker satisfaction differs between the United States and China. While there does not appear to be an overall difference in satisfaction across countries, the similar levels of satisfaction appear to be driven by different factors. Chinese workers respond more positively to good communication and the communal aspect of work such as morale and work friendships. However, Chinese workers react negatively to training and fear negative management reaction to surveys.

INTRODUCTION

As companies expand their operations internationally, understanding the attitudes of their workforce becomes an increasingly difficult proposition. While difficult to attain, this understanding is important. If international workers differ from their United States counterparts in terms of their attitudes towards the job, management styles will need to adapt to the context of specific countries or productivity may suffer. There are many aspects of worker attitudes that are important, but one broad, very useful characteristic that deserves particular attention is the overall job satisfaction of workers. Overall job satisfaction has been shown to lead to better productivity (Munyon et al., 2010), fewer quits (Bockerman and Ilmakunnas, 2009; Green, 2010), less absenteeism (Drago and Wooden, 1992), and less harmful behavior on the job (Mangione and Quinn, 1975). While the general literature on job satisfaction in western economies is well developed and has a long history, one element that has been less examined is the determinants of job satisfaction in other countries, particularly the People's Republic of China. Given China's rapidly expanding economy and its role as a global manufacturer, even relatively small companies are finding opportunities in the Chinese market. Understanding the satisfaction of the Chinese worker in particular will become an essential part of managing a global organization.

This project examines the effect of job characteristics on job satisfaction for workers in the United States and China. The study contributes to the gap in the satisfaction literature in a few important ways. First, prior studies have not typically had detailed information about employee attitudes towards management styles or organizational characteristics such as communication style, training, networking opportunities, and the quality of teamwork. This

detailed information about how people feel about specific aspects of their positions and the organization will provide practical evidence about what workers truly value on the job and how they react to their managers. Additionally, although prior studies have examined some aspects of the Chinese worker, they typically do not test for differences across countries. This study explicitly compares worker responses and the determinants of those responses, to their counterparts in the United States. By examining whether there are significant cross-country differences in how workers perceive their jobs, the findings provide valuable information to inform companies about cross cultural differences between the United States and China that impact operations.

To conduct the analysis I utilize a unique dataset from a regional manufacturing firm with operations across the United States and in China. The detailed dataset contains information about basic job satisfaction, but also inquires about worker attitudes related to aspects such as teamwork, desired mobility, training, wages, and communication, to name a few. The range of questions included in the study allows me to examine a different set of attitudes than other studies. In addition, since the workers are part of the same organization I am able to control for a major variant across countries in other studies, namely that the workers examined work for different employers with different policies and management styles. In this situation, since the workers are employed by the same company, the primary difference across countries is the workers themselves.

JOB SATISFACTION LITERATURE

The prior literature on job satisfaction is extensive and cross-disciplinary (for an excellent review of both the findings and the methodologies see Linz and Semykina, 2012). Perhaps not surprisingly, one common finding is that higher absolute pay increases satisfaction (Artz, 2008; Brown et al., 2008; Clark et al., 2009; Heywood et al., 2002; Heywood and Wei, 2006; Kosteas, 2011; Pouliakas and Theodossiou, 2010; Sousa-Poza and Sousa-Poza, 2000). Higher relative pay tends to increase satisfaction as well (Brown et al., 2008; Gao and Smyth, 2009; Kosteas, 2011), although the finding is somewhat ambiguous as at least one study finds that lower than average pay actually increases satisfaction by signaling the potential for greater future wages (Clark et al., 2009). In terms of how workers are paid, incentive pay schemes tend to increase satisfaction (Artz, 2008; Heywood and Wei, 2006). Job characteristics matter as well, with workers reporting greater satisfaction with less dangerous/hazardous work (Bockerman and Ilmakunnas, 2009; Sousa-Poza and Sousa-Poza, 2000), greater opportunities for advancement (Bockerman and Ilmakunnas, 2009; Kosteas, 2011; Sousa-Poza and Sousa-Poza, 2000) and training (Artz, 2008; Gazioglu and Tansel, 2006), and in public firms (Artz, 2008). With regard to worker characteristics, non-union workers consistently report greater satisfaction (Artz, 2008; Heywood et al., 2002; Kosteas, 2011), as do young and older workers (Artz, 2008; Clark et al., 2009; Heywood et al., 2002; Linz and Semykina, 2012; Pouliakas and Theodossiou, 2010), women (Artz, 2008; Heywood et al., 2002; Kosteas, 2011), those with less education (Artz, 2008;

Heywood et al., 2002; Pouliakas and Theodossiou, 2010; Sousa-Poza and Sousa-Poza, 2000), and with shorter tenure (Heywood and Wei, 2006; Kosteas, 2011; Pouliakas and Theodossiou, 2010).

The literature on effects for Chinese workers is less extensive as traditionally most studies of job satisfaction have focused on western countries and economies. However, recently some studies have started to look at the job satisfaction question in China. As in the previous, primarily Western studies, Chinese workers have been found to be positively influenced by greater absolute income (Gao and Smyth, 2009; Nielsen and Smyth, 2008; Wang et al., 2013), greater relative income (Gao and Smyth, 2009; Leung et al., 2001), more training and promotion opportunities (Ma and Trigo, 2008; Wang et al., 2013), less dangerous and dirty work (Donald and Siu, 2001; Wang et al., 2013), and fewer work hours (Gao and Smyth, 2009; Wang et al., 2013). For demographic characteristics, older and less educated workers are also more satisfied (Nielsen and Smyth, 2008). In contrast, being a union member has a positive effect for workers in China (Gao and Smyth, 2009), although the meaning of union membership is very different across economies. Additionally, greater organizational commitment of the workers has been shown to have a positive effect (Siu, 2002; Wong et al., 2001), as does greater perceived organizational support for the worker (Rutherford et al., 2012). Generational issues have been discovered as well. The so called new generation of migrants has been found to have greater satisfaction than the traditional generation primarily due to having better working conditions (Wang et al., 2013). Overall these studies have begun to paint a picture of what determines the satisfaction of the Chinese worker.

The current study fits into this literature in a few ways. Most importantly, prior studies have not looked at as detailed of job characteristics and management behaviors as the current study. Other studies may look at the industry or occupation, or at general questions about job stressors such as work hours and work conditions, but they do not have information about the more intricate details of the job such as whether workers feel respected by management or whether enough information is communicated to them in order to properly do their job. The current study can answer these questions as well as questions about the effects of the adequacy of training, feelings of being able to contribute to the company, and of perceptions of teamwork and morale. These job characteristics and employee attitudes will help shed light on the effects of the interactions between managers and workers. Unfortunately the level of job detail does not come without a cost, as the current study does not have as detailed a set of demographic characteristics due to company concerns about confidentiality of respondents. Nevertheless the study does explore a unique set of characteristics and should provide valuable information to management in organizations with Chinese operations.

A second important contribution of the current study is that the prior studies that do examine job satisfaction in a Chinese context do not explicitly test for differences between China and Western economies. While it is reasonably easy to see differences without testing if there are significant coefficients with different signs in each country, statistical testing is important to

identify more subtle differences. For example, studies have found that greater relative wages increase satisfaction in both the United States and China, but without statistically testing it is impossible to say whether the positive effect is greater in one country than another. While both effects are statistically significant, it may be that the relative income issue is of great importance to workers in the U.S., but of relatively low practical importance to workers in China. Having knowledge of these differences across countries would be important information to have as managers may be able to tailor policies and procedures to different countries rather than applying a one size fits all policy to the organization.

There are a few cautions related to the current study that should be noted. The first is that the idea of job satisfaction may differ across countries. A few studies have found some evidence to this effect (Han et al., 2009; Kristensen and Johansson, 2008). This may mean that differences between workers across countries are not really due to workers placing different values on specific job characteristics when determining satisfaction, but rather are due to the fact that they simply perceive and understand the overall concept of job satisfaction differently. While this is a possibility and makes interpretation of the results a bit more difficult, the study still provides information about the unique set of job characteristics within each country. A second issue relates to the broader applicability of the results. As with any study in a single company, institutional rules and policies may be distinct enough from other organizations to make the extension of results difficult to other organizations and industries. While this is true, the benefit to looking at a single organization is that the institutional rules and policies will be the same for workers in both countries eliminating or at least reducing an unobservable influence that could be driving results in studies using different organizations. Once again, while the issue may complicate interpretation of the findings it does not eliminate the value of the contributions of the study.

DATA AND METHODOLOGY

The data for the study is taken from a survey administered during the fall of 2011 at a regional manufacturing firm. The firm has roughly 1,800 union and non-union production and trades workers, and 600 non-union office workers in various occupations. Although a mid-sized company, the firm has been growing rapidly in recent years and is expanding operations both within the United States and globally. While focused within the Midwest, the firm has operations in six different states spread widely across the United States, as well as in two different locations in China. The survey was administered to all employees in all locations, with a response rate of roughly 90%.

Overall, the company has a rather progressive reputation with regard to the treatment of their employees. The recent expansion of operations greatly increased the diversity of the workforce and helped create the interest for the current employee attitude survey. The current survey is actually a refined second wave of the survey with the first wave taking place in 2009. The most recent wave ironed out some minor issues with the first survey wave, as well as

expanded the types of questions asked. Therefore, the current study uses only the most recent wave of the survey.

The 2011 data is used to estimate a standard ordered probit. The model uses an overall measure of job satisfaction with a variety of explanatory variables as controls. The full model takes the following form:

Job Satisfaction = f(Country, Job characteristics, Context, Demographics).

The choice of how to capture job satisfaction is not without some controversy and is an ongoing issue in the job satisfaction literature. Some studies create a composite measure of satisfaction derived from responses to specific elements of the job, while others rely on a single global measure of satisfaction taken from one question. Proponents of the composite measurement, primarily in psychology and management, claim that a single measure of satisfaction cannot capture the variety of dimensions that influence a worker's satisfaction. Researchers using the single measure, primarily in economics, counter that a single measure of satisfaction can be an even more comprehensive measure of satisfaction as respondents can consider whatever elements they like when answering the satisfaction question and are not limited to the dimensions given by survey questions. In practice, studies have found that the two types of satisfaction measures may perform equally well in capturing the determinants of satisfaction (Nagy, 2002; Staples and Higgins, 1998; Wanous, Reichers, and Hudy, 1997).

The current study follows the literature that uses a single global measure of job satisfaction. The satisfaction dependent variable is derived from a question asking, "All things considered, how satisfied are you working at the company?" with seven possible responses of strongly satisfied, satisfied, somewhat satisfied, neither satisfied nor dissatisfied, somewhat dissatisfied, dissatisfied, and strongly dissatisfied. For the variable, 'strongly satisfied' is coded as the top response meaning that positive coefficients show a greater likelihood of reporting the highest level of satisfaction. With the satisfaction information derived from a single overall question, the respondent is free to consider all elements of the job, weighting various specific aspects of the job as they see fit. This measure should be influenced less by one single element of the job and does not force the researcher to impose weights on the importance of various job factors. As such the variable should be a global measure of satisfaction that captures elements that a combined measure of satisfaction might miss.

For the focus of the study examining differences across the United States and China I use a few methods to isolate possible effects. As a first check for simple differences across countries I estimate the model using only a dummy variable for the worker being in the United States. This model should capture whether there are any fundamental differences in satisfaction for Chinese workers relative to their American counterparts outside of the differences in their characteristics. If the Chinese worker is just happier on the job than the American worker the effect will show up in this variable. However, if the Chinese worker is not more or less satisfied overall than the American worker, but is influenced by different things when forming their level of satisfaction, this simple dummy will not capture the effect. Therefore, as a more detailed second check I use

location interactions, with the dummy variable for United States interacted with the other explanatory variables. The interaction terms will test for different influences on satisfaction across countries and allows a simple test of statistical significance across the two groups.

The model also exploits the detail of the survey to control for a variety of characteristics of the job and the employee. When designing the survey the company was interested in the basic level of satisfaction of workers, but was also very interested in how employees felt about more focused aspects of the job and the company such as communication, training, and morale. The depth of information allows me to investigate a range of specific determinants of employee satisfaction unavailable in other surveys. Detailed information about the variables included can be found in Table 1. After removing observations with missing values the final sample consisted of 1,719 individuals.

The second set of explanatory variables contains a number of questions asking employees about various characteristics and attitudes towards the work environment in their job. This set of questions represents a diverse range of job information and should reflect many elements of the job that drive worker satisfaction. From the information I include a variable about the level of communication in the firm, the ability to contribute to the firm as an employee, the adequacy of employee training, whether the employee feels respected by supervisors, the feeling of competitiveness of wages, the level of teamwork, and the overall morale in the company. Although the variables all utilized seven-point response scales in the initial survey, I collapse them into three categories of positive, neutral, and negative responses for easier use as explanatory variables. As all the characteristics are generally considered to be positive elements of the workplace, it is expected that positive responses to the questions should positively influence job satisfaction. The set of variables includes some influences that were found to be significant in other studies, such as training opportunities and relative wages, but also includes new variables which should expand the body of knowledge. The variables are also things that management may be able to influence making their impacts particularly interesting as they may reveal ways that management could cultivate job satisfaction in employees.

The third set of variables provides contextual information for the employee's responses. These questions ask less about the details of the company itself and more about the general employee attitude toward the company and work in general. The first variable asks about the likelihood of management action in response to the survey. This variable should give an interesting look at whether employees value the responsiveness of management or whether it is more of a secondary concern. I also include two variables asking about the development of work friendships and networking opportunities to investigate the social nature of work. All of the variables are dummies indicating a response of 'yes' to the question. In general it is expected that positive responses to the questions should positively influence satisfaction.

Table 1: Variable Names and Definitions	
Variable Name	Variable Definition
Satisfaction	All things considered, how satisfied are you working at the company? (6=Strongly satisfied, 3=Neither, 0=Strongly dissatisfied)
LOCATION	
United States	1=United States, 0=China
JOB CHARACTERISTICS	
Communication	I receive enough information so I can properly perform my job. (2=Agree, 1=Neutral, 0=Disagree)
Contribution	At work, I have the opportunity to perform my job to the best of my abilities.(2=Agree, 1=Neutral, 0=Disagree)
Training	I am adequately trained for my position. (2=Agree, 1=Neutral, 0=Disagree)
Respect	My immediate supervisor respects me and treats me fairly. (2=Agree, 1=Neutral, 0=Disagree)
Wages	I feel my wages are competitive with other companies in this area. (2=Agree, 1=Neutral, 0=Disagree)
Teamwork	The teamwork within the company is: (2=Above average, 1=Average, 0=Below average)
Morale	How would you rate the morale within the company? (2=Above average, 1=Average, 0=Below average)
CONTEXT	
Management action	I feel management will take action based on the results of this survey. (1=Yes, 0=No)
Work friendships	I have developed valuable friendships at work. (1=Yes, 0=No)
Networking opportunities	I value the opportunity to network with my co-workers. (1=Yes, 0=No)
DEMOGRAPHICS	
Employee type	1=Production, 0=Office
Years of service	1=0 to 3 years, 2=4 to 5 years, 3=Greater than 5 years
Age	1=Above 30, 0=Under 30
Supervisory status	1=Supervisor, 0=Non-supervisory

The final set of variables is comprised of demographic information used primarily as controls for the other explanatory variables. I include a dummy for being a production worker (office worker as the reference group), a set of dummies for years of service of 4 to 5 years, and

greater than 5 years (less than 3 years as the reference group), a dummy for being over 30 years old (under 30 years old the reference group), and a dummy for being a supervisor (non-supervisor as the reference group). The demographic variables included should help control for documented differences in responses across employee type and across employee characteristics, for instance, production workers tend to be less satisfied on the job than office workers. However, particularly for years of service and age, the categories had to be condensed greatly due to a lack of observations in China. Chinese workers were overwhelmingly of short tenure, partly because the operations are recently new, but also because of the high turnover in the facilities. The workers are also quite young as most are migrant workers from the interior of the country looking for opportunities on the coast. Because of the limitation a more detailed analysis could not be done with these variables. Similar issues constrained the use of more demographic variables. The survey does contain other information about the types and locations of the workers, but the lack of variation within China limited the use of the other controls. For instance, union status could not be included as all Chinese workers are non-union by definition. Unfortunately, the survey did not ask more personal information such as sex, race, etc. due to concerns about protecting the confidentiality of respondents. Therefore, analysis along the personal dimensions of the employees is not possible.

Together the sets of variables should provide valuable information about the determinants of job satisfaction, as well as controlling for potentially confounding influences on the results. However, the primary focus of the study is differences across the countries. As a simple first check for differences across countries I examine the proportion of workers responding positively to the questions for both countries. The proportion of positive responses, standard deviation, and t-test for equality are presented in Table 2. Workers in both countries report being reasonably satisfied at work with 78.1% responding positively in the U.S. and 74.0% responding positively in China, a difference that is not statistically significant. Turning to the control variables there are significant differences across countries, with U.S. workers feeling significantly more positively about their level of training and the competitiveness of their wages, but significantly less positively about the level of teamwork and worker morale. Workers in the U.S. are also significantly less likely to believe that management will take action on the survey and value networking with co-workers less than Chinese workers. The bottom panel shows clear differences in terms of worker demographics with workers in the U.S. being significantly more likely to be a production worker, of longer tenure on the job, older, and non-supervisory.

The lack of a significant difference in mean satisfaction across countries does suggest that there may not be an overall cross-country difference in level of satisfaction. The first regression model utilizing a country dummy will provide a more definitive test of this statement by controlling for worker characteristics. At the same time, the number of significant differences in job and worker characteristics across countries suggests that Chinese and American workers may well be influenced by different factors on the job. The interaction models will help investigate this thought further and will provide a more detailed view of worker attitudes in the two countries.

Table 2: United States and China, Proportion with Positive Response					
	US (N=1,670)		China (N=50)		t-stat For
Variable Names	Prop. Pos.	Std. Dev.	Prop. Pos.	Std. Dev.	Equality[a]
Satisfaction	0.781	0.413	0.740	0.443	0.653
JOB CHARACTERISTICS					
Communication	0.743	0.437	0.800	0.404	0.979
Contribution	0.821	0.384	0.840	0.370	0.358
Training	0.862	0.345	0.420	0.499	6.220***
Respect	0.793	0.405	0.760	0.431	0.541
Wages	0.613	0.487	0.340	0.479	3.976***
Teamwork	0.509	0.500	0.640	0.485	1.881*
Morale	0.405	0.491	0.680	0.471	4.064***
CONTEXT					
Management action	0.523	0.500	0.820	0.388	5.276***
Work friendships	0.849	0.358	0.900	0.303	1.164
Networking opportunities	0.804	0.397	0.940	0.240	3.848***
DEMOGRAPHICS					
Employee type: Production	0.674	0.469	0.440	0.501	3.261***
Years of service: % 0-3 yrs	0.200	-	0.400	-	Chi2=45.89***
Years of service: % 4-5 yrs	0.173	-	0.440	-	
Years of service: % >5 yrs	0.627	-	0.160	-	
Age: Above 30	0.870	0.336	0.600	0.495	3.832***
Supervisory status	0.122	0.327	0.260	0.443	2.192**
***Statistically significant at the 1% level **at the 5% level *at the 10% level (two tailed tests).					
[a] For Years of Service the entire distribution is examined, with a Chi Square test of the equality of the distributions used instead of a t-test.					

RESULTS

The results for the baseline model using only a country dummy variable are presented in the first column of Table 3. The table contains the marginal effect of each variable on reporting the highest level of satisfaction (strongly satisfied). The marginal effects are the most intuitive way of understanding the results of an ordered probit model as the coefficients themselves can be confusing and even misleading. Not only are the magnitudes of the coefficients hard to interpret, but the signs can even be opposite of the marginal effects. To simplify the analysis of the results I present only the marginal effect on the highest category of satisfaction.

The first thing to note in the table is that there is not any significant overall difference in satisfaction across countries. The dummy variable for being in the United States is insignificant after controlling for job and worker differences. Chinese workers do not appear to be any more, or less, satisfied than their American counterparts. This result matches the simple evidence provided with the insignificant difference in means in Table 2. As mentioned previously,

however, the result does not show whether the level of satisfaction is determined by different factors in each country. The interaction model is needed to further investigate this question.

Table 3: Ordered Probit Marginal Effects on Highest Category of Satisfaction, Various Specifications				
	Indicator Model	Interaction Model		
	Both Countries	United States	China	Z Stat for Equality Across Countries
Variable Names	P(Strongly sat.)	P(Strongly sat.)	P(Strongly sat.)	
United States	0.033	-	-	-
JOB CHARS.				
Communication:				
Neutral	0.014	0.011	0.415**	-2.31**
Agree	0.028**	0.023*	0.161***	-1.84*
Contribution:				
Neutral	-0.020	-0.015	-0.238	0.99
Agree	0.025*	0.029**	-0.092	0.78
Training:				
Neutral	0.014	0.021	-0.216*	1.97**
Agree	0.025	0.034**	-0.242*	2.28**
Respect:				
Neutral	0.024	0.028*	0.193	-0.92
Agree	0.067***	0.070***	0.035	0.25
Wages:				
Neutral	0.045***	0.046***	0.064	-0.31
Agree	0.115***	0.111***	0.268***	-1.79*
Teamwork:				
Average	0.024**	0.024**	0.058	-0.14
Above Average	0.045***	0.047***	-0.161	1.90*
Morale:				
Average	0.046***	0.045***	0.071	-1.00
Above Average	0.151***	0.149***	0.287***	-2.49**
CONTEXT				
Man. Action	0.054***	0.058***	-0.263	2.37**
Work Friendships	0.042***	0.042***	0.160***	-1.99**
Networking Opps.	0.002	0.004	-0.300	1.82*
DEMOGRAPHICS				
Production Emp.	-0.002	-0.002	-0.066	0.89
Years of Service:				
4 to 5 Years	0.003	0.003	-0.137**	2.24**
> than 5 years	0.006	0.002	-0.003	0.05
Above 30	0.019	0.032**	-0.229***	3.54***
Supervisor	0.022	0.021	0.089	-0.77
	N=1,720	N=1,670	N=50	
***Statistically significant at the 1% level **at the 5% level *at the 10% level (two tailed tests).				

Before turning to the interaction model it is useful to look at results for the control variables as a number of significant predictors of worker satisfaction were found. In the job characteristics group of controls, those workers who agree with the statement that they receive enough information to perform their job are 2.8 percentage points more likely to report the highest level of satisfaction, while those who agree that their supervisor respects them are 6.7 points more likely to be strongly satisfied. Those who feel that teamwork is above average or average also are more likely to be strongly satisfied, with positive boosts of 4.5 and 2.4 percentage points respectively. Feelings about wages and morale have even greater influences on worker satisfaction. Workers who agree or are neutral about the statement that their wages are competitive experience increases in the likelihood of being strongly satisfied of 11.5 and 4.5 percentage points respectively. The fact that both positive and neutral feelings about wage competitiveness increase satisfaction shows how strong a negative influence the perception of uncompetitive wages can be in the work place. These results match the general findings in previous work about the effect of relative wages. The perception component of this result is important to note as well as it may not be that wages truly are not competitive in the firm, but simply that they are being perceived as not competitive. If management knows that wages truly do match wages in surrounding firms, it may help to communicate the evidence. If the perception of uncompetitive wages changes it might increase satisfaction levels without actually having to raise the monetary wages. A similar pattern is observed with morale, as those who feel that morale is above average, 15.1 points, and those who feel it is just average, 4.6 points, both see significant increases in the likelihood of being strongly satisfied. There is a marginally significant, and small, positive effect for workers who agree that they have the opportunity to perform their job to the best of their abilities and no significant effect of being adequately trained. The significant results generally match expectations.

For the context variables, those who feel that management will take action based on the survey and who developed work friendships see significant increases in satisfaction of 5.4 and 4.2 percentage points respectively. The results are interesting as they suggest a few paths that management could take to increase satisfaction. One method would be to appear more responsive to worker concerns. Firms have tried various methods to implement greater employee participation at work in both union and non-union settings. The results suggest that workers appreciate these efforts and that firms who have not implemented mechanisms for employee input might benefit from doing so, even outside of the actual input received. Another method is to cultivate a company atmosphere that allows workers to socialize with each other. This finding does not necessarily mean that everyone should have a company picnic, but it suggests that even small changes like a dedicated break room might have beneficial effects on overall satisfaction if they help workers make friends with coworkers.

Interestingly, none of the demographic variables are significant predictors of being highly satisfied. This result suggests that any differences seen across demographic groups should really be attributed to differences in job characteristics across groups and not really to the people in the

groups themselves. For example, if it is found that younger workers are more satisfied, it may not really be due to something about youth, but rather that young workers are just more likely to feel that morale is above average in the company. Once you take morale out of the comparison, young and old workers are essentially the same. This observation is important as attitudes of workers can sometimes be changed, while demographic characteristics such as age are usually outside of the control of management.

The extension of the baseline indicator model incorporating country interactions will provide a more detailed picture of possible differences in satisfaction across countries. While the baseline model suggests there is no overall difference in satisfaction across workers in different countries, it cannot answer the question of whether those similar levels of satisfaction are driven by different factors. The results from the model interacting each explanatory variable with the U.S. dummy variable are presented in the right panel of Table 3. Once again the marginal effects on the probability of being Strongly Satisfied are reported. Although the model is estimated jointly, the marginal effect of each variable is calculated separately for each country. The results for the United States are presented in the first column while the results for China are presented in the second column. The third column contains the Z-stat for equality of coefficients across countries taken from the interaction term in the ordered probit regression model.

Examining the results for workers in the U.S. in the first column, we can see that the results generally match those in the indicator model. The similarity of the results is not overly surprising as American workers do form the vast majority of the observations in the indicator model. The only notable differences with the indicator model are that those who agree that they are adequately trained are 3.4 percentage points more likely to be strongly satisfied, and workers above 30 are 3.2 percentage points more likely to be strongly satisfied. These differences are notable though as they are two results found in prior work that did not show up in the indicator model combining both countries.

Turning to the results for workers in China some interesting differences become evident across countries. For the job characteristics questions in the top panel, agreeing that communication is good has a significant positive effect in China as in the United States, but the magnitude of the effect is much greater in China, 16.1 points compared to only 2.3 points, and is in fact statistically different than the response in the United States. Additionally, workers in China who are just neutral about the communication question see a large positive effect of 41.5 percentage points on the probability of being strongly satisfied, a significantly larger effect than in the United States. A similar result can be seen with morale as rating morale above average increases the likelihood of being strongly satisfied by 28.7 points in China but only 14.9 points in the United States, a difference that is statistically significant once again. There is also some evidence that Chinese workers are more positively influenced by perceptions that wages are competitive, with workers who agree in China experiencing a 26.8 percentage point increase in the likelihood of being strongly satisfied compared to only 11.1 points in the United States. This difference is marginally significant across countries. The result for communication is important as it suggests that managers should have different strategies for their Chinese and American

plants if they are looking to increase worker satisfaction. While good communication is valued everywhere to some extent, improving methods of communication will only have modest returns in the U.S., but may greatly increase satisfaction in China. This may also be a relatively cost effective way to improve satisfaction in China as distributing information is likely less expensive than paying overall higher wages or other methods of raising satisfaction. The results also suggest that efforts to boost morale in China could bring a great return if successful.

Chinese workers also have stronger negative reactions than American workers to a few variables. The most interesting result is for the statement that the worker is adequately trained. In the indicator model there is no significant effect for the training variable. However, in China there are marginally significant, strongly negative reactions for those who agree to or are neutral to the question that they are adequately trained. Those workers in China who agree that they are adequately trained experience a 24.2 point reduction in the likelihood of being strongly satisfied, while those that are neutral to the question experience a 21.6 point reduction in the likelihood. These differences are both highly significant across countries. On the surface this reaction to training may seem counterintuitive and contrary to prior research. However, the explanation for the negative reaction could be due to the types of jobs within the company allocated between the U.S. and China. If jobs sent to China by U.S. companies are overall lower skill, the average job in China will require much less training than in the United States. The Chinese worker responding that they are adequately trained for their job might not really be reacting negatively to the training, but rather to the fact that the job they do requires little skill and is in general boring or alienating. If this is the case, managers likely cannot do much with the training process to alleviate the negative effects on satisfaction, but should be aware of them so that they can possibly be offset in another manner. Additionally, responding that teamwork is above average has a marginally significant different effect across countries, despite the fact that the teamwork rating is not significant within China. The signs and significance of the individual country coefficients, positive and significant in the United States and insignificant in China, suggest a negative effect for Chinese workers relative to American workers, but the low level of statistical significance across countries suggests the result should not be interpreted too strongly.

There are also significant differences across countries for the context variables. Chinese workers reacted significantly more positively than American workers to the formation of work friendships, with an increase in the likelihood of being strongly satisfied of 16.0 points in China and only 4.2 points in the United States. This reaction may be attributable to the types of workers who take the jobs in China. Overwhelmingly the workers in the Chinese plants are migrant workers from the interior of the country who have moved to the coast for factory jobs. These workers are generally housed in dormitories and spend virtually their entire time in and around the plant. For these workers, friendships formed on the job may be vital to satisfaction as they make up a high percentage of their overall social interaction and friendships. In the United States the effect of work friendships may be muted because there is more separation between work and leisure. An American worker does appreciate work friendships, but when they leave the plant

they may have many other friends that have no connection with the job, making the work friendships less vital to overall satisfaction. This interpretation might be somewhat supported by the greater positive reaction to morale for Chinese workers highlighted in the job characteristics. Since the Chinese worker has a harder time separating from the job and fellow workers, the more positive reaction to morale may reflect a greater importance of social interaction on the job. If this is true, companies looking to increase satisfaction of Chinese workers in these types of settings should focus efforts on worker interaction and socialization. The social aspects of the dormitories and non-work life may also have spillover effects on satisfaction on the job.

An interesting negative difference for Chinese workers arises in regard to perceptions of whether management would take action based on the survey. Similar to the indicator model estimates, workers in the United States perceive management action positively, with an increase in satisfaction for those who thought management would act based on the results. However, in China the reaction to perceptions of management action is insignificant, with the difference across countries highly significant. The divergent results suggest that American workers expect management action to be proactive and positive, while Chinese workers expect any management action to be disciplinary or negative in nature. The reaction may be cultural and is important for managers in American companies to note. Even if the intentions of plant managers in China are benevolent, simply offering an employee survey to workers may have a strong negative effect on satisfaction if workers expect to be disciplined as a result. American firms looking to use employee participation or input strategies in China will need to take strong actions to try and reassure employees that there will not be a harsh management reaction to their responses. If this perception of management retribution cannot be changed, surveys like this may actually cause more harm than benefit. There is some evidence for a differential reaction to networking opportunities as well with a marginally significant negative difference found for Chinese workers relative to their counterparts in the United States. However, neither of the coefficients within countries is significantly different from zero casting doubt on how strong the effect can actually be.

In terms of the demographic variables there are some interesting differences as well. Satisfaction for Chinese workers declines as they age with workers above 30 experiencing a 22.9 point reduction in the likelihood of high satisfaction, while American workers above 30 actually experience a 3.2 point increase in likelihood. A similar result may be evident for years of service with Chinese workers who have been with the company 4-5 years experiencing a 13.7 point reduction in the likelihood of being strongly satisfied. These results may be due to a fundamental difference in reaction to aging for Chinese workers, but it also may be due to the unusual characteristics of the migrant work force. The migrant workforce tends to be young with workers returning to their homes as they age. Some of the motivation to return home may be due to elderly relatives but a great deal is also due to the Chinese hukou system of household registration. Workers who have moved to the cities who have a rural hukou registration are not able to access basic social services in the cities. For young workers looking to start a family this is especially problematic as their children will not have access to public education unless they

return home. For many young migrants the move from home can be viewed as a temporary strategy in order to accumulate resources for a life at home. In this context, the negative responses for workers over 30 who are still working in the jobs may reflect a failure to make the temporary nature of the move a reality, and may reflect dissatisfaction with their life in general rather than dissatisfaction with the job per se. Similarly the migrant workforce is very fluid, with high turnover on jobs. Part of the turnover is workers moving back home, but part of the turnover is workers transitioning between jobs in the area looking for better opportunities. In fact, one study finds that this job mobility can help migrants eliminate their observed wage disadvantage in urban labor markets (Ariga et al., 2012). In this context, workers who have been on the job 4-5 years may be dissatisfied because they have not been able to find better opportunities and may feel stuck in their current position. Once again, this may say less about the job per se, and more about a generally frustrated worker.

Despite the number of differences across countries there are a number of similarities as well. Within the United States workers have a positive reaction to feeling respected and a positive reaction to being able to contribute, both of which are insignificant within China. However, the differences for both variables are insignificant across countries. There are also no significant differences for production or supervisory workers.

The results from the interaction model show some significant and interesting differences across countries that can have practical importance for companies with operations in both the United States and China. To check the robustness of the findings I perform a few specification checks to see if the results are influenced by the form of the model. A first concern relates to the possible presence of multicollinearity in the explanatory variables. Given the interrelated nature of a job, one could reasonably expect that attitudes towards portions of the job may be strongly related. If the explanatory variables are too closely related severe multicollinearity could be driving the results. Unfortunately multicollinearity is a difficult issue to pin down directly and the determination of whether the issue is a problem is somewhat subjective. As a first check I conduct simple tests for multicollinearity which do not suggest any problems at all. The variance inflation factors are all below standard, acceptable levels. However, as a second check I estimate the model without the morale variable to see if the pattern of results changes dramatically. The motivation for excluding morale specifically is that the question is more global in nature than the other, more specific questions about the job, and therefore, may be closely related to each of the individual questions. It is possible that if one rates morale within the company highly that they also are very likely to rate the other components highly.

Results from the specification test excluding morale are presented in the first three columns of Table 4. Examining the results the first thing to notice is that the findings for the United States are virtually identical to the baseline estimates in Table 3. The magnitudes of the marginal effects and significance levels are extremely similar suggesting that multicollinearity

Table 4: Ordered Probit Marginal Effects on Highest Category of Satisfaction, by Country						
	No Morale			U.S. Non-Union		
Variable Names	U.S. P(Str. sat.)	China P(Str. sat.)	Z Stat for Equality	U.S. P(Str. sat.)	China P(Str. sat.)	Z Stat for Equality
JOB CHARS.						
Communication:						
Neutral	0.021	0.219	-1.21	0.077**	0.400**	-2.09**
Agree	0.031**	0.103	-0.86	0.062**	0.152***	-1.66*
Contribution:						
Neutral	-0.009	-0.070	0.25	0.022	-0.228	1.15
Agree	0.044***	0.001	0.29	0.089***	-0.092	1.23
Training:						
Neutral	0.018	0.004	0.15	0.055	-0.213*	2.18**
Agree	0.034**	-0.026	0.64	0.050*	-0.237*	2.41**
Respect:						
Neutral	0.024	0.023	-0.07	0.020	0.190	-1.05
Agree	0.073***	0.110	-0.49	0.074***	0.035	0.18
Wages:						
Neutral	0.045***	0.021	0.36	0.044**	0.059	-0.55
Agree	0.119***	0.254***	-1.26	0.106***	0.263***	-2.36**
Teamwork:						
Average	0.037***	0.028	0.13	-0.006	0.050	-0.32
Above Average	0.097***	0.009	0.96	0.045*	-0.162	1.88*
Morale:						
Average	-	-	-	0.041***	0.060	-1.02
Above Average	-	-	-	0.162***	0.272***	-2.50**
CONTEXT						
Man. Action	0.092***	-0.352**	3.18***	0.057***	-0.268*	2.47**
Work Friendships	0.043***	0.138***	-1.34	0.066***	0.148***	-1.98**
Networking Opps.	0.011	-0.105	0.78	0.013	-0.281	1.86*
DEMOGRAPHICS						
Production Emp.	-0.008	-0.027	0.25	-0.058***	-0.062	0.30
Years of Service:						
4 to 5 Years	-0.008	-0.062	0.99	-0.041*	-0.133**	1.78*
> than 5 years	-0.013	0.066	-0.78	-0.018	-0.002	-0.13
Above 30	0.031**	-0.245***	3.74***	0.061***	-0.223***	3.96***
Supervisor	0.017	0.083	-0.68	0.031	0.085	-0.75
	N=1,675	N=50		N=694	N=50	
***Statistically significant at the 1% level **at the 5% level *at the 10% level (two tailed tests).						

with the morale variable is not a great issue. However, there are some differences for the smaller sample China results and the cross country significance levels. The communication responses and 4 to 5 years of service response lose their within country significance, as do the previously marginally significant training responses. All of these variables also lose their cross country

significance. The changes suggest that multicollinearity may be influencing the Chinese estimates to some extent. At the same time there are similar results for wages, management action, work friendships, and being above 30, suggesting that even if multicollinearity is an issue it is not driving all of the findings.

Despite the fluctuations there are good reasons to believe that multicollinearity is not a major problem in the model. First, while one symptom of multicollinearity is results changing due to small changes in the model, typically the individual coefficient estimates gain significance when the offending variable is removed rather than lose significance. This pattern is due to the fact that multicollinearity increases coefficient standard errors leading to low significance levels. This is the opposite of what happened in this situation. Second, and perhaps most importantly, if the morale variable truly does contain separate explanatory information from the other individual questions, removing the predictive variable from the model will causes changes in the estimates as well. The estimates of the more specific question coefficients will be influenced by the omitted morale effect. I would argue that this is the case here. While the morale question is more global in nature than the other more specific questions, rating worker morale is still a much different thing than rating the effectiveness of communication or the adequacy of training. Feelings of morale are likely to influence response to the other questions, but likely not to the extent that they are completely driving the results. For these reasons, combined with the fact that the simple tests showed no influence of multicollinearity, I believe that the baseline findings are not driven by multicollinearity.

A second specification check relates to the presence of unions in some of the U.S. plants. In the United States, the production workers are union in some states and non-union in others, while they are all non-union in China. This is problematic for the results as there is a systematic difference across workers in the two countries that I cannot control for adequately given the lack of variation in union status in China. If union membership does influence satisfaction, as suggested by prior work, this causes a difference in the control and treatment group other than country of the worker, potentially biasing the results. Although I cannot control for the issue using an included union variable, I can check for a possible effect of unions by excluding U.S. union workers from the sample and estimating the model. The exclusion of union workers will make the Chinese worker more comparable to their American counterparts.

The results for the non-union specification are presented in the last three columns of Table 4. The most significant thing to note in regard to the results is that they are very similar to the results for the baseline model. There are no changes in the China estimates with the exception that the negative coefficient on perceived management action now becomes marginally significant. There are also virtually no changes in either direction or significance level for the cross country differences. As could be expected given that it was the United States portion of the sample that was influenced, there are some small changes in the United States results. For non-union workers in the United States communication is more highly valued, perhaps because the union is not occupying the role of gathering and distributing information to

workers. In addition, non-union production workers now experience a 5.8 percentage point reduction in the likelihood of being strongly satisfied when there was no significant effect previously. Having 4 to 5 years of service now also reduces the likelihood of being satisfied by a marginally significant 4.1 percentage points. This effect likely reflects the fact that for non-union workers tenure on the job does not bring as many perks as in a union setting where seniority likely plays a much greater role. While there are very minor differences when union members are excluded from the sample, the results suggest that the presence of union members in the United States is not driving the primary findings. In fact, the results in Table 4 may actually be more accurate estimates. Chinese workers react more positively than American workers to effective communication, competitive wages, good morale, and work friendships. On the other hand, Chinese workers react more negatively than American workers to being adequately trained, perceptions of management action, longer tenure on the job, and being above 30.

Of the results established in the baseline and non-union models presented in Tables 3 and 4, one that deserves a bit more attention is the seemingly counterintuitive result for perceptions of adequate training in China. One explanation put forth is that the jobs in China may simply be lower skill jobs which require less training. Workers may respond that they are adequately trained, but rather than this being an indication of satisfaction from having obtained a higher level of skill as in the United States, Chinese workers may feel that their adequate training simply reflects little opportunity to actually develop skills or to advance in the organization. To try and disentangle these possible effects I estimate the model including two questions about the development of skills and promotion opportunities. The first question asks, "In the last year, I have had opportunities to learn and develop new skills at work.", while the second asks, "Opportunities exist for promotion within the company." Respondents are asked to agree or disagree with the questions on a 7 point scale. If skill development and promotion opportunities are wrapped up in the training question estimates the inclusion of these two variables should help separate the effects.

Results for this specification are presented in Table 5, with the first three columns repeating the baseline estimates for ease of comparison, and the last three columns presenting the model including the skill development and promotion variables. The first conclusion that can be drawn is that there is a great deal of stability between the models. Overall the within country marginal effects and the cross country differences are very similar with only marginal changes in significance. The only real exception is for the communication variable where the positive effect for China is somewhat reduced. The second notable point is that workers do react as expected to skill development and promotion opportunities, but only in the United States. Workers in the United States who agree that they have developed skills within the last year are 2.9 percentage points more likely to be strongly satisfied, while those who agree that promotion opportunities exist are 7.3 percentage points more likely to be strongly satisfied. The variables are insignificant within China, although this should probably not be interpreted too strongly as there are also insignificant differences across the two countries.

Table 5: Ordered Probit Marginal Effects on Highest Category of Satisfaction, by Country						
	Baseline Model			Training and Advancement Model		
Variable Names	U.S. P(Str. sat.)	China P(Str. sat.)	Z Stat for Equality	U.S. P(Str. sat.)	China P(Str. sat.)	Z Stat for Equality
JOB CHARS.						
Communication:						
Neutral	0.011	0.415**	-2.31**	0.013	0.377*	-1.96*
Agree	0.023*	0.161***	-1.84*	0.018	0.132*	-1.29
Contribution:						
Neutral	-0.015	-0.238	0.99	-0.015	-0.228	1.02
Agree	0.029**	-0.092	0.78	0.028**	-0.057	0.54
Training:						
Neutral	0.021	-0.216*	1.97**	0.012	-0.239*	1.95*
Agree	0.034**	-0.242*	2.28**	0.030**	-0.376***	2.85***
Respect:						
Neutral	0.028*	0.193	-0.92	0.024	0.076	-0.27
Agree	0.070***	0.035	0.25	0.063***	-0.006	0.50
Wages:						
Neutral	0.046***	0.064	-0.31	0.040***	0.042	0.00
Agree	0.111***	0.268***	-1.79*	0.098***	0.165*	-0.71
Teamwork:						
Average	0.024**	0.058	-0.14	0.020	0.284	-1.29
Above Average	0.047***	-0.161	1.90*	0.038***	-0.125	1.57
Morale:						
Average	0.045***	0.071	-1.00	0.043***	0.029	-0.21
Above Average	0.149***	0.287***	-2.49**	0.134***	0.278***	-2.07**
Develop skills:						
Neutral	-	-	-	0.003	-0.061	1.01
Agree	-	-	-	0.029**	0.156	-1.17
Promotion Opps:						
Neutral	-	-	-	0.041***	-0.045	1.02
Agree	-	-	-	0.073***	0.064	0.06
CONTEXT						
Man. Action	0.058***	-0.263	2.37**	0.048***	-0.197	1.81*
Work Friendships	0.042***	0.160***	-1.99**	0.039***	0.168***	-2.01**
Networking Opps.	0.004	-0.300	1.82*	0.003	-0.258	1.57
DEMOGRAPHICS						
Production Emp.	-0.002	-0.066	0.89	0.001	-0.081	1.18
Years of Service:						
4 to 5 Years	0.003	-0.137**	2.24**	0.010	-0.121*	2.00**
> than 5 years	0.002	-0.003	0.05	0.010	-0.026	0.34
Above 30	0.032**	-0.229***	3.54***	0.030**	-0.154*	2.53**
Supervisor	0.021	0.089	-0.77	0.013	0.065	-0.60
	N=1,670	N=50		N=1,660	N=50	
***Statistically significant at the 1% level **at the 5% level *at the 10% level (two tailed tests).						

Of most importance however is the fact that the inclusion of the two variables does nothing to alleviate the negative effect of adequate training in China, and actually increases the size and significance of the effect to some extent. This negative training result may still be due to the potentially alienating nature of low skill work, but future research could investigate the topic in more detail.

CONCLUSION

With the rapid expansion of operations in China companies are finding it is increasingly important, and difficult, to understand their workforce. This study examines the job satisfaction of workers in the United States and China, testing whether there are different influences on satisfaction across countries. To conduct the study I exploit a detailed dataset from a regional manufacturing firm with operations in both countries. I use the data to estimate an ordered probit with a global measure of job satisfaction as the dependent variable. I interact a country dummy with each explanatory variable to allow for differential effects across countries and to facilitate a statistical test of differences across countries.

While there does not appear to be an overall difference across countries in the level of job satisfaction, the job satisfaction in each country does appear to be driven by different factors. Chinese workers respond more positively to good communication than American workers. Chinese workers also seem to value the communal atmosphere at work more than American workers as they respond more positively to both morale and work friendships. This difference may be due to the largely migrant workforce in China which experiences less separation between work and social life than do workers in the United States. In addition, although workers everywhere seem to value money, the positive effect of perceptions of competitive wages is stronger for Chinese workers than for their American counterparts. On the other hand, workers in China have strong negative reactions to feeling adequately training as opposed to positive feelings in the United States, perhaps due to the fact that the jobs sent to China require less skill overall and lead to boring, monotonous work. Chinese workers also seem to fear negative management actions as there is a strong negative effect of the likelihood of management action based on the survey compared to a positive reaction for American workers. This finding is important to note as American companies may need to reassure their Chinese workers of their intentions, or efforts to interact with workers may cause more damage than benefit. Older Chinese workers and those with longer tenures also seem to be less satisfied compared to their American equivalents, perhaps due to frustration that perceived opportunities on the job did not turn out the way they planned.

The findings are important as they suggest different strategies to boost worker satisfaction across countries for American firms with Chinese operations. Some strategies may have similar effects in both countries, while others may have stronger effects in one country, or may work in only one. If American companies are to get the most out of their operations in

China, knowing and exploiting these cross country differentials is essential. As the Chinese labor market tightens, satisfying the Chinese worker may be necessary to attract qualified labor.

REFERENCES

Ariga, Kenn, Fumio Ohtake, Masaru Sasaki, and Zheren Wu (2012). Wage Growth Through Job Hopping in China. *IZA Discussion Paper*, No. 7104.

Artz, Benjamin (2008). The Role of Firm Size and Performance Pay in Determining Employee Job Satisfaction. *Labour,* 22(2), 315-43.

Bockerman, Petri, and Pekka Ilmakunnas (2009). Job Disamenities, Job Satisfaction, Quit Intentions, and Actual Separations: Putting the Pieces Together. *Industrial Relations,* 48(1), 73-96.

Brown, Gordon D. A., Jonathan Gardner, Andrew J. Oswald, and Jing Qian (2008). Does Wage Rank Affect Employees' Well-being? *Industrial Relations,* 47(3), 355-89.

Clark, Andrew E., Nicolai Kristensen, and Niels Westergard-Nielsen (2009). Job Satisfaction and Co-Worker Wages: Status or Signal? *The Economic Journal,* 119(March), 430-47.

Donald, Ian and Ol-Ling Siu (2001). Moderating the Stress Impact of Environmental Conditions: The Effect of Organizational Commitment in Hong Kong and China. *Journal of Environmental Psychology,* 21(4), 353-68.

Drago, Robert, and Mark Wooden (1992). The Determinants of Labor Absence: Economic Factors and Workgroup Norms across Countries. *Industrial and Labor Relations Review,* 45(4), 764-78.

Gao, Wenshu and Russell Smyth (2009). Job Satisfaction and Relative Income in Economic Transition: Status or Signal? The Case of Urban China. *Monash University, Development Research Unit Discussion Paper,* DEVDP 09-12.

Gazioglu, Saziye and Aysit Tansel (2006). Job Satisfaction in Britain: Individual and Job Related Factors. *Applied Economics,* 38, 1163-1171.

Green, Francis (2010). Well-Being, Job Satisfaction, and Labour Mobility. *Labour Economics*, 17(6), 897-903.

Han, Yong and Nada K. Kakabadse (2009). Job Satisfaction: What is its True Meaning in Greater China? *Asia-Pacific Journal of Business,* 1(2), 155-64.

Heywood, John S., W.S. Siebert, and Xiangdong Wei (2002). Worker Sorting and Job Satisfaction: The Case of Union and Government Jobs. *Industrial and Labor Relations Review,* 55(4), 595-609.

Heywood, John S. and Xiangdong Wei (2006). Performance Pay and Job Satisfaction. *Journal of Industrial Relations,* 48(4), 523-40.

Kosteas, Vasilios D (2011). Job Satisfaction and Promotions. *Industrial Relations,* 50(1), 174-94.

Kristensen, Nicolai and Edvard Johansson (2008). New Evidence on Cross-Country Differences in Job Satisfaction Using Anchoring Vignettes. *Labour Economics,* 15(1), 96-117.

Leung, Kwok, Zhongming Wang, and Peter B. Smith (2001). Job Attitudes and Organizational Justice in Joint Venture Hotels in China: The Role of Expatriate Managers. *International Journal of Human Resource Management,* 12(6), 926-45.

Linz, Susan J. and Anastasia Semykina (2012). What Makes Workers Happy? Anticipated Rewards and Job Satisfaction. *Industrial Relations,* 51(4), 811-844.

Ma, Shaozhuang and Virginia Trigo (2008). Winning the War for Managerial Talent in China. *The Chinese Economy,* 41(3), 34-57.

Mangione, Thomas W. and Robert P. Quinn (1975). Job Satisfaction, Counterproductive Behavior and Drug Use at Work. *Journal of Applied Psychology,* 60(1), 114-16.

Munyon, Timothy, Wayne Hochwarter, Pamela Perrewe, and Gerald Ferris (2010). Optimism and the Non-linear Citizenship Behavior-Job Satisfaction Relationship in Three Studies. *Journal of Management,* 36(6), 1505-28.

Nagy, Mark S (2002). Using a Single-Item Approach to Measure Facet Job Satisfaction. *Journal of Occupational and Organizational Psychology,* 75, 77-86.

Nielsen, Ingrid and Russell Smyth (2008). Job Satisfaction and Response to Incentives Among China's Urban Workforce. *Journal of Socio-Economics,* 37, 1931-36.

Pouliakas, Konstantinos and IoannisTheodossiou (2010). Differences in the Job Satisfaction of High-paid and Low-paid Workers Across Europe. *International Labour Review,* 149(1), 1-29.

Rutherford, Brian N., Yujie Wei, JungKun Park, and Won-Moo Hur (2012). Increasing Job Performance and Reducing Turnover: An Examination of Female Chinese Salespeople. *Journal of Marketing Theory and Practice,* 20(4), 423-36.

Siu, Ol-Ling (2002). Occupational Stressor and Well-Being Among Chinese Employees: The Role of Organizational Commitment. *Applied Psychology: An International Review,* 51(4), 527-44.

Sousa-Poza, Alfonso and Andres A. Sousa-Poza (2000). Well-being at Work: A Cross-National Analysis of the Levels and Determinants of Job Satisfaction. *Journal of Socio-Economics,* 29, 517-38.

Staples, D. Sandy and Christopher A. Higgins (1998). A Study of the Impact of Factor Importance Weightings on Job Satisfaction Measures. *Journal of Business and Psychology,* 13(2),211-32.

Wang, Huashu, Lei Pan, and Nico Heerink (2013). Work Conditions and Job Satisfaction of China's New Generation of Migrant Workers: Evidence from an Inland City. *IZA Discussion Paper*, No. 7405.

Wanous, John P., Arnon E. Reichers, and Michael J. Hudy (1997). Overall Job Satisfaction: How Good are Single-Item Measures? *Journal of Applied Psychology,* 82(2), 247-52.

Wong, Chi-Sum, Yui-tim Wong, Chun Hui, and Kenneth S. Law (2001). The Significant Role of Chinese Employees' Organizational Commitment: Implications for Managing Employees in Chinese Societies. *Journal of World Business,* 36(3), 326-40.