Abstract

After the largest Chinese meat packer, WH Group, acquired America's largest pork producer, Smithfield, it is expected that more American pork will be entering China, the world's largest pork consuming country. With rising concerns for domestic food safety, it is also believed that Chinese consumers living in metropolitan area may accept and welcome pork products from the United States more than consumers living in the rural areas. Among several types of pork retail outlets including wet markets, meat stores and supermarkets, imported pork is most likely to be sold in supermarkets because of the current arrangement of supply channels. The purpose of this research project is to find out what specific factors influence urban Chinese consumer's choice of pork shopping outlets. This can serve as a valuable reference for the U.S. pork industry to better understand the current market situation in China and promote their pork strategically. In order to collect data that most reflect the latest pork shopping style of Chinese consumers, an in person interview survey is conducted during July 2014 in Guangzhou, China to approach random shoppers at various supermarkets. The survey asks about demographic information, pork shopping habits, preferred shopping conditions, and food safety concerns. After a thorough analysis of the data by using a multinomial logit regression, it is concluded that the level of concern for food safety is the most significant factor that affects people's shopping decision. In general, people hold different perspectives on the safety level of pork sold in each type of markets. Therefore, it is recommended that the U.S. pork importers emphasize more on their products' food safety attributes to achieve higher marketing success with China's urban population.

Starting from the economic reform in 1978, China's economy has been growing rapidly over the past three decades. In the second quarter of 2010, China has surpassed Japan to become the second largest economy in the world, just after the United States. According to a 2015 report from the National Bureau of Statistic of China, the nation's per capita income started to increase constantly since the year of 1978, and it still does to this day (National Bureau of Statistic of China 2015). One of the consequences of the economic growth is that people are consuming more meat as their protein source of food, and pork has become a necessity for an average Chinese consumer (Ortega, Wang, and Eales 2009). As figure.1 indicates, China is now the leading pork importer in the world market, consuming about half of the world's pork production due to the large demand (FAS 2015). For the United States, China is one of its major food exporting destinations (Wang 2015). A report from the Foreign Agricultural Service of USDA in 2014 forecasted that China's pork import will soon reach one million tons, as a result of an expected increasing consumption in the coming year (FAS 2014).

In the meantime, consumers in urban China not only ask for greater quantity of protein food, but also higher quality (Gale and Huang 2007). The increase in demand for better food quality goes together with the rising awareness of food safety issues. In recent years, a series of severe food scandals have been revealed by the country's media. From the "lean meat additive" incident in Henan Province to the latest diseased pork scandal in Jiangxi Province, many believe that such food problems are likely to cause severe health issues. As a consequence, the public's concerns towards their own nation's food safety has weakened (Ortega, Wang and Wu 2009; Ortega, et al 2014; Xu, Wang, and Song 2015). A research conducted by de Barcellos et al (2013) suggested that Chinese consumers are more willing to buy meat from industrialized, large-size

farm rather than traditional small-size farm due to their food safety considerations. As imported pork becomes more available than before, Chinese urban consumers also more often face the decision of whether to shift their buying preference toward pork from other countries (Ortega, Wang and Cheng 2015).

The number of supermarkets in urban China has been rising in a fast pace since the late 1990s (Reardon, Timmer and Minten 2010). Compared to other retail channels like local wet markets and pork shops, supermarkets carry the most of imported pork products. Although it is observed that wet market is the number one grocery shopping outlet for local consumers in China (Goldman, Krider, and Ramaswami 1999), supermarket sales have been growing at a speedy rate of 30% to 40% per year over the past decade (Hu, et al 2004). Now, supermarket has surpassed all other retail channels besides wet market, becoming the second largest meat retail outlet in China (Miao 2003). It is believed that more and more Chinese consumers will change their pork shopping habits as the result of rising concerns for domestic food safety, expansion of imported pork markets and increasing number of supermarkets.

While various studies have examined factors that affect grocery shopping outlet choices in China (e.g. Goldman, Krider, and Ramaswami 1999; Hu 2006; Miao 2003), none of them focus specifically on pork let along imported pork. To help the U.S. pork industry take a closer look of the current Chinese market, this article will bridge the gap in literature studying factors affecting consumers' decision on pork shopping outlet.

Data

An in person interview survey was conducted among random shoppers in July 2014 in Guangzhou, China. As the largest city in Southern China, Guangzhou is ranked number three for

its per capita GDP among all other cities in the nation. Our team of trained students conducted the survey in ten randomly selected supermarkets located in five different districts including Baiyun, Haizhu, Liwan, Tianhe and Yuexiu. In each supermarket, 22 random shoppers were surveyed. Questions about demographic information, pork shopping habits, store access convenience, and food safety concerns were asked.

A total of 220 respondents were surveyed. By dropping observations with missing values, we have 204 valid observations. Summary of descriptive statistics for explanatory variables are specified in table 1. From the summary statistics of demographical variables, 34.8% of the respondents are male, with an average age of 37. Among all the respondents, 71.1% of them are married, and the average monthly income for a household is 9,879.9 Yuan.¹

Based on the data collected, some characteristics of consumer shopping habits are observed. Among all the pork that is bought in 2014, approximately 63.4% is fresh pork from wet markets. Pork pieces sold in wet markets are cut directly from the hog carcass, with specific amounts of fat, muscle and weight based on the shopper's requests. Such meat tends to be exposed in open air for many hours before it is sold (Gong et al. 2011). In the meantime, chilled pork sold in supermarkets accounts for only 30.8% of China's aggregate pork consumption, which is roughly in line with the major developmental goals in China for the meat sector by 2015 (Xu 2010). As for the travel time, it is about the same for a consumer to travel from home to a supermarket or to wet market. Moreover, amongst various pork attributes, shoppers in Guangzhou consider appearance, price, taste and tenderness to be the most important factors they consider when selecting pork.

 $^{^{1}}$ 1 USD = 6.2 CNY

Consumers' attitudes toward food safety issues are also reflected in the data. From table 1, 55.9% of respondents think eating pork is likely to make themselves or average people sick. 54.4% believe it is likely to make them sick by consuming domestic pork, while 54.9% by eating imported pork. When comparing food safety of pork from wet market to supermarket, 60.3% of the respondents perceive eating wet market pork will make them sick, whereas only 47.1% of the shoppers deem they will be likely to be infected with diseases from eating supermarket pork.

78.9% of the respondents have confidence in Chinese government food safety information (i.e. Certification of Pollution-free Agricultural Product), meanwhile, 72.5% of the shoppers are confident in food safety information or label presented by Chinese industry. 77.5% of the respondents think U.S. food safety information, such as USDA label is reliable; however, only 58.8% of the shoppers think additive information of the pork is trustworthy.

Model specifications and methodology

The choice of shopping outlets is represented by a multiple choice question of which outlets the consumer would shop for pork: wet market, pork shop, supermarket, or multiple outlets. A multinomial logit model is employed to explain consumers' choice by many independent variables as in the equation:

(1)
$$\Pr(Y_i = 1) = \frac{e^{\beta_1 X_i}}{1 + \sum_{K=1}^{K-1} e^{\beta_k X_i}}$$

$$\Pr(Y_i = 2) = \frac{e^{\beta_2 X_i}}{1 + \sum_{K=1}^{K-1} e^{\beta_k X_i}}$$

$$\Pr(Y_i = 3) = \frac{e^{\beta_3 X_i}}{1 + \sum_{K=1}^{K-1} e^{\beta_k X_i}}$$

$$\Pr(Y_i = 4) = \frac{e^{\beta_4 X_i}}{1 + \sum_{K=1}^{K-1} e^{\beta_k X_i}}$$

Where Y_i =1 denotes wet market, Y_i =2 represents pork shop, Y_i =3 stands for supermarket and Y_i =4 denotes multiple outlets. X is a vector of explanatory variables, and β_i is a parameter vector corresponding to each independent variable for the equation that Y= i. In this regression model, the choice of wet market, Y_i =1 is set to be the reference.

Empirical results

SAS 9.4 is used to estimate equation (1). Estimation results from the model are listed in Table 2. Marginal effects results of significant variables are specified in Table 3. In the multinomial logit model, the choice of wet market is set to be the reference. The marginal effect quantifies the effect of each independent variable on selecting pork shopping outlets. For instance, it is the change in the probability of choosing a particular shopping outlet brought by a one unit increase in that factor.

The marginal effect result showed that if a shopper believes it is likely to get sick from eating pork, then s/he has an 8.2% higher probability of shopping in a pork shop, it is because people who is concerned about general pork safety, is willing to buy pork from specialized store with better handling technology. If a consumer perceives it is likely to get sick from eating domestic pork, then s/he is 14.9% more likely to shop in a supermarket, however, if s/he thinks consuming imported pork is likely to make him/her sick, then s/he possesses a 1.1% higher probability not going to supermarket, since supermarket is the only place where imported meat is sold.

Another noticeable result is that the probability of going to supermarket will decrease by 1.4%, if a respondent considers s/he will probably get sick from eating supermarket pork. However, for shopper who feels consuming pork from wet market will make him/her sick, the probability of going to supermarket is 0.9% higher.

The amount of chilled pork that consumer buys among all pork is another element that will positively affect consumer's choice of supermarket. If a consumer buys additional 1% of chilled pork, s/he will be 0.4% more likely to shop in a supermarket.

Discussion of the results

Given the increasing demand for higher quality and safer pork, the results concluded that pork safety concern is the most significant factor that affects urban consumers' shopping decision. In this article, a multinomial logit model is used to examine what are the factors affecting urban Chinese consumers' choice of pork shopping location. Based on the results from the model, it is clear that urban Chinese consumers' lack of confidence towards domestic pork is the most prominent factor that causes people buying pork in supermarkets. In the meantime, the concern of imported pork and pork in supermarket are the reasons keeping people away from supermarkets.

The store access convenience measured by travel time was expected to be an influential factor; however, the result concludes that it does not affect the choice of shopping outlets. This is because that the geographic distribution of all type of stores together with the transportation service such as subway, BRT system², and free shuttles provided by supermarkets make it correspondingly convenient to shoppers in the city we surveyed.

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² BRT system stands for "bus rapid transit system".

It is also worth noting that pork price is not a significant factor that influence Chinese urban consumers' choice of pork shopping location. It is mainly because as per capita income of urban Chinese increases steadily, people are willing to pay more for meat comes with better food safety information (Ortega et al 2011).

Taken all together, China's pork market is expected to provide extended opportunities for leading pork exporting countries such as the U.S. Moreover, with the relatively low market share at present, chilled pork market in China has an optimistic future. It is expected that the share of meat, especially chilled meat, sold by supermarket and chain stores will boost due to the popularization and improvement of cold chain (Wang, et al 2011).

The survey was conducted in Guangzhou, whose citizens are particular about cooking with fresh ingredients, including fresh meat cut from the carcasses. Due to the restricted sampling area with the notable culture, results need to be interpreted circumspectly when discussing other regions in China.

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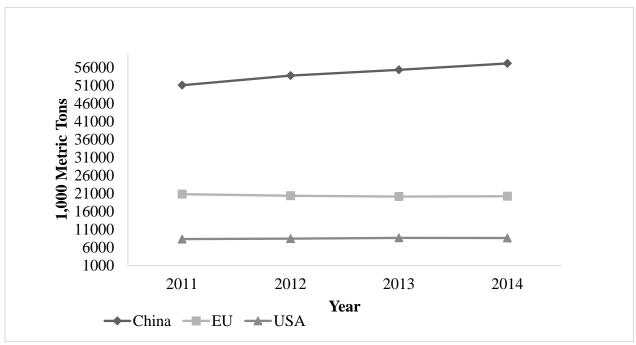


Figure 1. World pork consumption 2011-2014

Table 1. Descriptive Statistics for Explanatory Variables (N=204)

Variable	Description	- Mean	S.e.	
Male	Gender of the respondent, Male=1	0.35	0.48	
Age	Respondent's age (years)	37.05	13.03	
Income	Household monthly income (yuan)	9,879.90	6,600.98	
Married	Marriage dummy, married=1	0.71	0.46	
ChilledPercent	Percentage of chilled pork among all pork	30.84	35.04	
FreshPercent	Percentage of fresh pork among all pork	63.47	37.48	
SuperTime	Time respondent travel to supermarket (minutes)	16.98	11.87	
WetTime	Time respondent travel to wet market (minutes)	15.80	17.46	
Appearance	Appearance is important=1	0.89	0.32	
PackStore	Packaging and storage is important=1	0.61	0.49	
Price	Pork price is important=1	0.78	0.42	
TasteTenderness	Taste and tenderness is important=1	0.90	0.30	
Origin	Pork's origin is important=1	0.55	0.50	
LikelyPork	Eating pork is likely to make him/her sick=1	0.56	0.50	
LikelyDom	Eating domestic pork is likely to make him/her sick=1	0.54	0.50	
LikelyImp	Eating imported pork is likely to make him/her sick=1	0.55	0.50	
LikelySup	Eating supermarket pork is likely to make him/her sick=1	0.47	0.50	
LikelyWet	Eating wet market pork is likely to make him/her sick=1	0.60	0.49	
LikelyAve	Eating pork is likely to make average people sick=1	0.56	0.50	
CHNGovFSInfo	Chinese government food safety information is trustworthy=1	0.79	0.41	

CHNIndFSInfo	Chinese industry food safety information is trustworthy=1	0.73	0.45
USFSInfo	US food safety information is trustworthy=1	0.78	0.42
AdditiveInfo	Additive information is trustworthy=1	0.59	0.49

TABLE 2. MULTINOMIAL LOGIT MODEL RESULTS (N=204)

Variable	Pork Shop	Supermarket	Multiple Choices		
Intercept	-3.869	-3.499	-4.161		
	(3.074)	(2.276)	(2.316)		
Male	-0.519	0.334	0.155		
	(0.748)	(0.478)	(0.523)		
Age	0.004	-0.006	0.021		
	(0.031)	(0.023)	(0.023)		
Income	0.000	0.000	0.000		
	(0.000)	(0.000)	(0.000)		
Married	1.216	0.835	-0.305		
	(1.025)	(0.640)	(0.631)		
ChilledPercent	0.006	0.033Δ	0.026		
	(0.027)	(0.021)	(0.019)		
FreshPercent	-0.011	0.009	0.009		
	(0.027)	(0.020)	(0.019)		
SuperTime	-0.059∆	0.017	0.027		
	(0.036)	(0.020)	(0.023)		
WetTime	0.020	0.011	-0.028		
	(0.017)	(0.013)	(0.020)		
LikelyPork	2.223**	0.850	1.245		
	(1.129)	(0.746)	(0.885)		

Likelydom	1.816	2.128**	-0.047
	(1.286)	(0.888)	(0.977)
Likelyimp	-1.453∆	-1.353**	-0.818
	(0.912)	(0.631)	(0.690)
LikelySup	-1.184	-1.693**	-0.665
	(0.967)	(0.692)	(0.735)
LikelyWet	-0.486	1.048Δ	0.146
	(1.049)	(0.681)	(0.719)
LikelyAve	-1.301	-1.182*	0.346
	(0.962)	(0.672)	(0.765)
CHNGovFSInfo	-0.093	1.339Δ	2.128**
	(1.510)	(0.849)	(0.846)
CHNIndFSInfo	0.486	-1.446*	-1.677**
	(1.389)	(0.758)	(0.740)
USFSInfo	1.685∆	0.771	0.464
	(1.029)	(0.670)	(0.620)
AdditiveInfo	-0.001	0.316	-1.094**
	(0.788)	(0.542)	(0.554)
Appearance	-0.969	-0.746	-0.677
	(1.002)	(0.709)	(0.904)
PackStore	0.697	0.229	1.017*
	(0.696)	(0.466)	(0.553)
Price	-0.744	-0.753	0.353

	(0.800)	(0.539)	(0.681)
Origin	1.444*	0.135	-0.385
	(0.797)	(0.483)	(0.531)

Notes: Single, double and triple asterisks (*) denote significance of coefficients at $\alpha = 0.1$, 0.05 and 0.01, respectively. Delta (Δ) denotes significance of coefficients at $\alpha = 0.15$.

TABLE 3. MARGINAL EFFECTS OF MULTINOMIAL LOGIT MODEL (N=204)

		Shopping Outlets Choices							
Variable	Wet market	Pork Shop	Supermarket	Multiple Choices					
ChilledPercent	-0.005	-0.001	0.004Δ	0.002					
SuperTime	-0.001	-0.004Δ	0.002	0.003					
LikelyPork	-0.239	0.082**	0.042	0.116					
Likelydom	-0.181	0.067	0.149**	-0.036					
Likelyimp	0.028	-0.006Δ	-0.011**	-0.011					
LikelySup	0.028	-0.005	-0.014**	-0.009					
LikelyWet	-0.008	-0.002	0.009Δ	0.002					
LikelyAve	0.080	-0.051	-0.085*	0.056					
CHNGovFSInfo	-0.040	-0.001	0.011Δ	0.030**					
CHNIndFSInfo	0.033	0.002	-0.012*	-0.024**					
USFSInfo	-0.020	0.007Δ	0.006	0.006					
AdditiveInfo	0.013	0.000	0.003	-0.016**					
PackStore	-0.134	0.132	-0.029	0.031*					
Origin	-0.001	0.006*	0.001	-0.006					

Notes: Single, double and triple asterisks (*) denote significance of coefficients at $\alpha = 0.1$, 0.05 and 0.01, respectively. Delta (Δ) denotes significance of coefficients at $\alpha = 0.15$.

	Appendix 1.							
	Survey							
1.	Gender	a. Male						
		b. Female						
2.	In what year	were you born?						
3.	Highest educ	cation level achieved	d	_				
a.	Primary Sch	ool	d. Undergrad	duate Degree				
b.	Secondary S	chool	e. Graduate	or Professional	Degree			
c.	2-yearsof spo	ecialized or equiv.						
4.	What is your	r average <u>monthly</u> h	ousehold inco	ome (RMB)?				
a.	< 2,000		g. 12,000-14,000					
b.	2,000-4,000		h. 14	-,000-16,000				
c.	4,000-6,000		i. 16,000-18,000					
d.	6,000-8,000		j. 18,000-20,000					
e.	8,000-10,000)	k. 20	,000-22,000				
f.	10,000-12,00	00	1. >22	2,000				
5.	What is your	r marital status?	Married	Unmarried	Other			
6.	How many is	ndividuals live in yo	our household	(including you	rself and people eat with you			
	regularly mo	ore than 4days per w	eek)?					
7.	How many is	ndividuals under the	e age of 18 liv	e in your house	hold?			
8.	How many is	ndividuals over the	age of 60 live	in your househ	old?			

Yes

Yes

No

No

9. Are you the primary food shopper in the household?

10. Are you the primary food preparer in the household?

11.	1. Do you or someone in your household consume pork? Yes No										
12. How long does it take to get to the closest supermarket from your home?											
		_ hours	and	minut	es	by:	walk	bike	car	metro/bu	as
13.	13. How long does it take to get to the closest wet market from your home?										
		_ hours	and	minut	es	by:	walk	bike	car	metro/bu	ls.
14.	Have yo	u purcha	ased imp	orted po	rk in th	e past y	year?				
	a	. Yes		b. No		c. Not	Sure				
15.	Have yo	u purcha	ased pork	x from tl	ne Unito	ed State	es in the	past ye	ear?		
a.	Yes		b. No		c. Not	Sure					
16.	At which	n of the	following	g do you	ı prima	rily sho	p for po	ork?			
a.	Wet mar	ket			d. Hig	h-end d	omestic	supern	narket		
b.	Specializ	zed Mea	t Store		e. International supermarket						
c.	Low-end	l domest	tic super	market	f. Othe	er:					
17.	How ofte	en does	your hou	sehold j	purchas	e pork?	•				
a.	Daily				d. every other week						
b.	3-4 time	s/week			e. once per month						
c.	1-2 time	s/week			f. less than once per month						
18.	How ma	ny <i>jin</i> o	f pork do	es your	housel	hold co	nsume i	n a wee	k ?(Not	including	cooked pork
	bought in	n cafetei	rias, resta	aurants,	vendor	s, etc.)					
	< 1 jii	1				f	. 4-5				
		b. 1-2				٤	g. 5-6				
		c. 2-3				ŀ	n. 6-7				
		d. 3-4				i	. j. >7,		jin		

19. What are your household's most consumed pork cuts? (Select/circle up to 3)										
Loin	Tenderloin	Spare	rib	Arm Shoulder						
Leg Shoulder	Ground Pork	Rump	(TunJian)	Offal						
Belly	Other:									
20. In the total pork p	urchased by you	ur household t	his year, what p	percent is:						
Chilled Pork_	% Hot P	ork% F	rozen Pork	% or Don't know						
21. Are you aware of	food safety pro	blems in China	a? Yes	No						
22. How likely do you	think <i>you</i> are	to get sick from	n eating pork?							
Extremely	Highly	Medium	Low	No likelihood						
23. How likely do you	think <i>you</i> are	to get sick from	n eating domes	tic pork?						
Extremely	Highly	Medium	Low	No likelihood						
24. How likely do you	ı think <i>you</i> are	to get sick from	n eating import	ed pork?						
Extremely	Highly	Medium	Low	No likelihood						
25. How likely do you	ı think <i>you</i> are	to get sick from	n eating pork b	ought at a supermarket?						
Extremely	Highly	Medium	Low	No likelihood						
26. How likely do you	ı think <i>you</i> are	to get sick from	n eating pork b	ought at a wet market?						
Extremely	Highly	Medium	Low	No likelihood						
27. How likely do you	think <i>the aver</i>	age person is	to get sick from	eating pork?						
Extremely	Highly	Medium	Low	No likelihood						
28. On a scale of 1 to	5 how much do	you trust the	following when	considering food safety? 5						
indicates fully trus	st, 1 no trust (ci	rcle one)								

a.	(C	N/HK) Government	Food S	afety In	formati	on and	Certific	ation
		Fully Trust	5	4	3	2	1	No Trust
b.	In	L dustry (CN/HK) Foo	od Safety	/ Inforn	nation a	nd Cert	ificatio	n
		Fully Trust	5	4	3	2	1	No Trust
c.	U.	S. Food Safety Info	rmation	and Cei	rtificatio	on		
		Fully Trust	5	4	3	2	1	No Trust
d.	Cł	ninese/HK Traceabil	ity Syste	em				
		Fully Trust	5	4	3	2	1	No Trust
e.	U.	S. Traceability System	em					
		Fully Trust	5	4	3	2	1	No Trust
f.	Ει	Luropean Traceability	System					
		Fully Trust	5	4	3	2	1	No Trust
g.	La	Labels with additive in	nformati	on				
		Fully Trust	5	4	3	2	1	No Trust
29.	. Oı	n a scale of 1 to 5 ho	ow do yo	ou feel a	bout th	e follow	ving sta	tement?5 indicates that you
	3 t	hat you are indiffere	ent and 1	that yo	ou don't	agree		
a.	Po	ork products from an	imals th	at are tr	eated w	ell are	of better	r quality
		Agree	5	4	3	2	1	Don't Agree
b.	Po	rk products from an	imals th	at are tr	eated w	ell taste	e better	
		Agree	5	4	3	2	1	Don't Agree
c.	Po	rk products from an	imals th	at are tr	eated w	ell are	safer	

	Agree	5	4	3	2	1	Don't Agree					
30. O	n a scale of 1 to 5 h	ow do yo	u feel a	bout the	e follow	ing stat	tement?5 indicates that you	agree,				
3 that you are indifferent and 1 that you don't agree												
a. Th	ne average Chinese	person ca	res abo	out the e	nvironn	nent						
	Agree	5	4	3	2	1	Don't Agree					
b. Th	le average Chinese	person is	concer	ned abo	ut pig fa	arms po	lluting the land	J				
	Agree	5	4	3	2	1	Don't Agree					
c. Th	ne average Chinese	person is	concer	ned abo	ut pig fa	arms po	lluting the air					
	Agree	5	4	3	2	1	Don't Agree					
d. Th	le average Chinese	person is	concer	ned abo	ut pig fa	arms po	lluting water]				
	Agree	5	4	3	2	1	Don't Agree					
e. I care about the environment												
	Agree	5	4	3	2	1	Don't Agree					
31. In the following table please indicate which of the following characteristics you associate												

with each retail location. Check all that apply.

	Better	Safe	Better	Better	Better
	Quality	Product	Value	Treatment of	Environmental
				Animals	Standards
Wet Market					
Dom SuperMkt					
Intl SuperMkt					

32. Please indicate the level of importance that you place on the following attributes when purchasing pork. 5 indicates high importance, 1 lowest importance. (combine)

Attribute	Highest				Lowest
Aunoute	Importance				Importance
Color	5	4	3	2	1
Fat cover	5	4	3	2	1
Drip	5	4	3	2	1
Marbling	5	4	3	2	1
Fresh/Chilled	5	4	3	2	1
Packaging	5	4	3	2	1
Price	5	4	3	2	1
Taste	5	4	3	2	1
Tenderness	5	4	3	2	1
Origin	5	4	3	2	1

33. In your opinion, what is the *quality standard* of fresh chilled pork produced by each of the countries listed below

	Highest				Lowest
	Quality				Quality
China	5	4	3	2	1
Brazil	5	4	3	2	1
U.S.	5	4	3	2	1
EU	5	4	3	2	1
Canada	5	4	3	2	1

34. In your opinion, what is the *food safety standard* of fresh chilled pork from each of the countries listed below

		Least			
	Safe				Safe
China	5	4	3	2	1
Brazil	5	4	3	2	1
U.S.	5	4	3	2	1
EU	5	4	3	2	1
Canada	5	4	3	2	1

35. In your opinion, what *animal welfare standards* does each of these countries have? For example: standards and procedures to ensure that pigs are treated without cruelty and are fed with food of a certain quality

Highest					Lowest
	Standard				Standard
China	5	4	3	2	1
Brazil	5	4	3	2	1
U.S.	5	4	3	2	1
EU	5	4	3	2	1
Canada	5	4	3	2	1

36. In your opinion, what type of *environmental standards* does each of these countries have for their pig farms? For example: water quality, soil quality, standards for limiting the carbon footprint and for maintaining a sustainable ecosystem.

Highest					Lowest
Standard					Standard
China	5	4	3	2	1
Brazil	5	4	3	2	1
U.S.	5	4	3	2	1
EU	5	4	3	2	1
Canada	5	4	3	2	1

37. **Mr.Li** buys pork every week from a wet market that is on his way home from work. The meat at this wet market is not kept refrigerated and there are flies all over the market. The vendors are not able to tell Mr.Li anything about the quality of the product where the pork came from since they do not have any information regarding the meat that they sell. He knows people that have gotten sick from eating pork from the wet market.

How likely do you think Mr. Li is to get sick from eating pork?

Extremely Highly Medium Low No likelihood

38. **Mr. Sun** buys pork every week from a local butcher shop. The butcher keeps the meat refrigerated. The shop is somewhat clean although there are some flies around. The butcher does not have information on the meat that he sells. He has heard of one person getting sick from eating pork from this shop.

How likely do you think Mr. Sun is to get sick from eating pork?

Extremely Highly Medium Low No likelihood

39. **Ms. Wang** buys pork every week from a local supermarket. The meat is kept refrigerated.

The store is clean. A sign in the store lets her know that the pork she buys is from a farm near her home town and that the meat does not contain any additives. She hasn't heard of anyone getting sick from eating pork from this supermarket.

How likely do you think Ms. Wang is to get sick from eating pork?

Extremely Highly Medium Low No likelihood

40. **Ms. Chang** buys pork every week from an international supermarket. The meat is packaged, and is kept refrigerated. The pork that Chang buys is imported. He knows that the brand he buys has a good reputation since they raise the pigs with the highest standards; they have a good safety record and do not use any additives. He knows that no one has gotten sick from eating pork from this supermarket.

How likely do you think Miss Chang is to get sick from eating pork?

Extremely Highly Medium Low No likelihood

41. How serious do you think the current food safety problem is in China? "5" denotes very bad, "1" denotes not a problem. Please circle a number from 1 to 5 to describe your perception.

Very bad	5	4	3	2	1	Not a problem	

42. Have you or people you know ever been involved in any food safety incidents?

a.Yes b.No

43. How much do you love China? "5" denotes love it very much, "1" denotes not at all. Please circle a number from 1 to 5 to describe your perception.

44. How much do you love U.S? "5" denotes love it very much, "1" denotes not at all. Please circle a number from 1 to 5 to describe your perception.