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China, Peoples Republic of

Agricultural Situation

Urban Food Consumption Trends

2008

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Report Highlights:

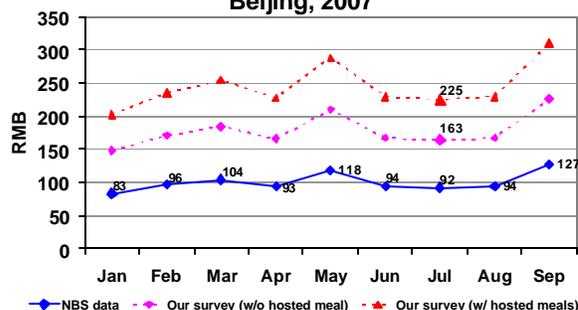
Consumption patterns in China are in a state of transition, particularly in rapidly changing urban areas. As incomes rise, consumers in China have begun selecting goods based on quality over price and quantity, and food consumed away from home is rising as well. To fill in the many gaps in Chinese consumption information, USDA has started a nationwide consumption trend study. The first study results indicate that food consumed away from home is more significant than expected. The following survey summary highlights key purchasing behavior patterns.

Includes PSD Changes: No
Includes Trade Matrix: No
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I. Introduction

Ongoing studies by USDA show that food consumption away from home is more significant than originally anticipated. Furthermore, both meat and vegetable consumption increases significantly as incomes rise. In addition, purchase of products including meats and dairy products in supermarkets has increased dramatically in recent years, as have ready-to-eat home meal replacements.

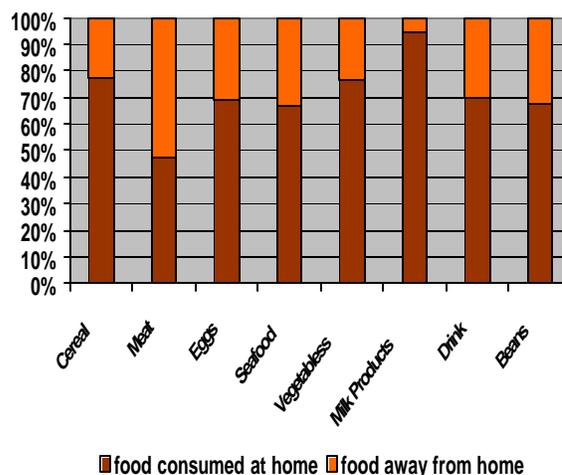
Figure 1: Monthly Per Capita Expenditures on FAFH in Urban Beijing, 2007



A. Food Away from Home in Significant

Expenditures on food away from home in our data were 163 RMB/person in July 2007, nearly twice the level estimated by the NBS for the subset of households surveyed by CAS and WSU (92 RMB/person). After including food consumed away from home but not paid for by the household, we estimate total food away from home consumption to be 225 RMB/person, 2-1/2 times the NBS figure. Figure 1 shows these differences for the month of July, and extrapolates over the rest of the year assuming the same percentage differences. According to our preliminary estimates, over 50 percent of household meat consumption and nearly 30 percent of household vegetable consumption occurs away from home, and these proportions rise as income rises (Figures 2-4).

Figure 2: Food Consumption Away from Home Differs from In-Home Consumption



Around 40 percent of food away from home is consumed in cafeterias, with another 20 percent in restaurants, about 10 percent in fast food venues, and another 10 percent at small food stands. Much of the cafeteria consumption is subsidized by employers or schools (Figure 5).

Figure 3: Meat Consumption Away From Home Rises with Income

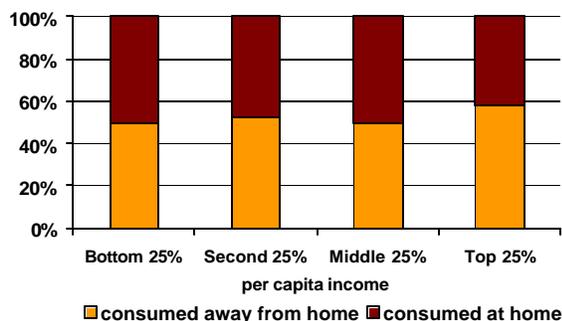
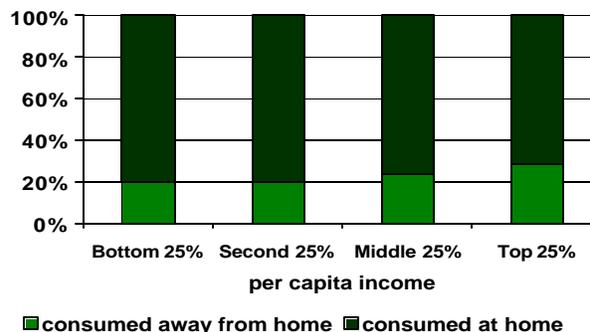


Figure 4: Vegetable Consumption Away From Home Rises with Income



B. Purchasing Behavior

Roughly 80 percent of meat and dairy products consumed at home are purchased at supermarkets, with about 60-percent of grain products and drinks purchased at supermarkets. However, only around 10 percent of vegetables consumed at home are purchased at supermarkets, with around 80 percent still purchased at wet markets (Figure 6). Recent research on marketing of vegetables in China indicates that there is very little contracting with farmers to control for quality and other features. Rising supermarket purchases are expected to increase contracting for such products in China, and the relative lack of supermarket purchases for vegetables may explain why contracting is not more pervasive in rural China. Semi-processed or ready-to-eat foods comprise about 30 percent of at home purchases, but this figure varies widely with the type of food product (Figure 7).

Figure 5: By Outlet Type

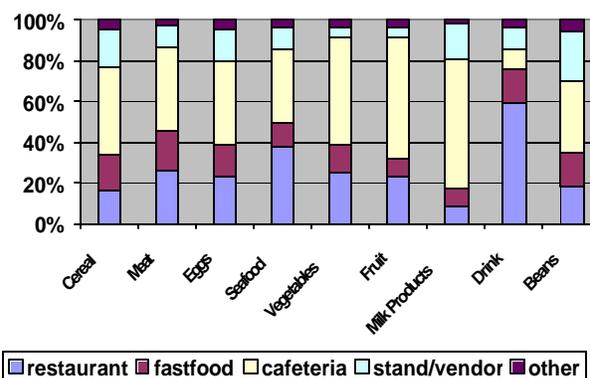
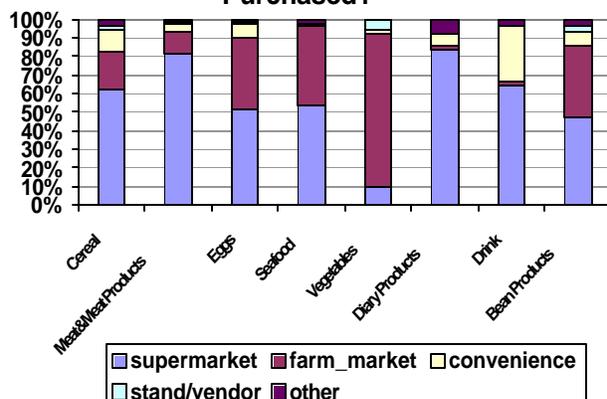


Figure 6: From Where is Food at Home Purchased?



Safety is the most important factor in determining purchases (more than price), but safety is determined differently for different products. For meat, safety is determined primarily by vendor reputation – people go to specific vendors because they trust that their meat products are not tainted nor have water added to them to increase their weight. For fruit and vegetables, safety is determined primarily by appearance. Most of these products are purchased at traditional markets so consumers rely upon traditional means to determine their safety. For processed drinks and dairy products, safety is determined primarily by brand, reflecting

intense competition among brands in the rapidly growing dairy industry. Interestingly, despite multiple efforts to provide safety certifications in the government, government or independent certification was not a common means to determine safety, except with dairy products (probably due to HACCP labels) (Figure 8).

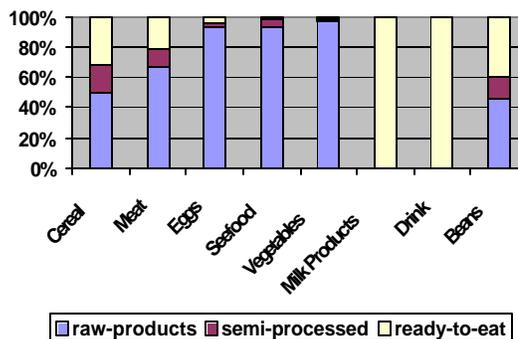
All three of these—the proportion of food purchased at supermarkets (Table 1), the importance of safety, and the proportion of semi-processed or ready-to-eat meats—increase as incomes rise (Figure 9). The proportion of processed meats also increases as household parents become busy (Figure 10).

II. Why is More Research Necessary?

Consumption patterns in China are in a state of transition, particularly in rapidly changing urban areas. Income growth is allowing households to substitute vegetables, fruit, and livestock products for staple grains. More recently, consumers in China have begun selecting goods based on quality over price and quantity, and food consumed away from home is rising as well.

What is known about these changes comes predominantly from data collected by China's National Bureau of Statistics (NBS) in its Urban Household Income and Consumption Survey (UHICS).¹ Using a sample of this data, analysis conducted by USDA's Economic Research Service shows that wealthier households consume less grain and more non-grain food products, and also that the price per unit of food rises as income increases, presumably because wealthier households are choosing higher quality foods (Gale and Huang). NBS survey data also includes the amount households spend on food away from home, and this also rises with income.

Figure 7: To what Degree is Food Purchased for Home Processed?



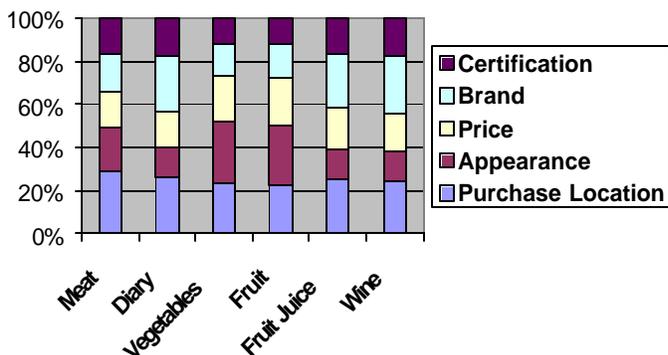
A. NBS Data Shortcomings

Beyond understanding these basic trends, the usefulness of NBS data is limited, and it is costly to obtain. Because of its reliance on recall of consumption over the last month, many question the accuracy of the estimates of consumption at home and away from home in the NBS data. Moreover, the NBS data provide almost no information on the following important areas:

Food away from home

NBS survey data includes a household's estimate of how much they spent of food consumed away from home, but the composition of these purchases is entirely unknown. Because urban employers and schools often subsidize meals in China, significant amounts of food are likely consumed away from home and are not paid for by the household so are not included in NBS surveys.

Figure 8: Importance of Factors Determining Food Safety



Individual demographic data

NBS household surveys pool consumption information at the household level making it difficult to infer demand and consumption patterns of individuals, and how they relate to individual traits such as age, education, individual income, job type and work schedule (i.e. the number of hours worked per week).

Specific attributes

There is no information on preferences for certain attributes important to U.S.

¹ Nearly all studies on food consumption in China, including private consulting companies, use this data. There are a very limited number of studies published in China that have done small consumer or restaurant surveys.

exporters including quality, safety, convenience, nutritional, branding and certification (both government and private). Such information would be very useful for developing programs to promote U.S. products.

B. Benefits of Improved Consumption Data

Ultimately the net position of China in world markets, and U.S. producers' opportunities, will likely depend on these consumption trends as much, if not more, than trends in production. U.S. producers have a long history of producing food products with high quality standards and developing products that offer convenience. U.S. food products also benefit from a system of traceability and safety standards that can give them an advantage when marketed abroad to consumers that seek safety assurances. U.S. exporters interested in China's market will benefit from research that identifies the drivers of these trends and forecasts how these markets will grow in the future. Reducing uncertainty in these market trends will serve to reduce the risk, and associated costs, of entering China's expanding market for high-value food products.

III. Sample Household Survey Result – the First City

To develop a clearer picture of these changes, USDA is working with the Chinese Academy of Sciences (CAS) and Washington State University (WSU) to analyze data they collected from 320 households in Beijing in July 2007. There will be four to six additional cities allowing national assessments to include differentiation between northern and southern China, first and second tier cities, and coastal versus interior cities.

The 320 households were a stratified sample selected from the 1135 households included in NBS' survey from 4 districts in Beijing. Enumerators from CAS and WSU accompanied the NBS enumerators in charge of each household to collect additional economic and demographic data, data on preferences and how food safety is determine for a variety of food products, and to drop off a food diary to record all food consumed at home and away from home by all members of the household for each meal over a one-week period.

For food at home, households also indicated where they purchased each item and whether it was fresh, semi-processed or ready-to-eat. Enumerators called the household twice during the week to answer any questions they had and returned to the household at the end of the week to pick-up the food diary, review the entries, and make any clarifications necessary. The result is a comprehensive snapshot of food consumption over a one-week period for urban households in Beijing.

Figure 9: Share of Ready-to-Eat Meat Rises with Income

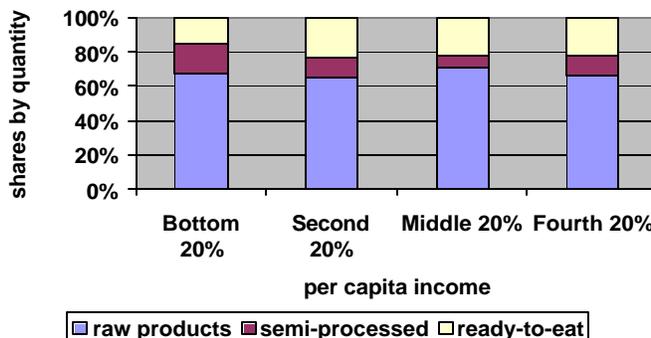
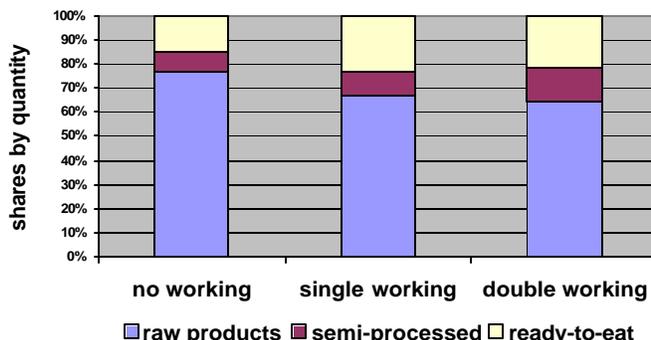


Figure 10: Busier Households Purchased More Processed Meat



With USDA support, researchers at CAS and WSU converted these records into commodity equivalents, including the over 1,600 different types of dishes the households recorded consuming away from home. This work is still underway, making further refinements in the transformation into commodity equivalents, and analyzing relationships with economic and demographic features of the household. However, the preliminary results included from the Beijing households are introduced in this report.

IV. Conclusion

Consumption patterns in China are rapidly becoming more modern and including more supermarket purchases, more processed foods, more food consumed away from home, and increasing variety in food preferences. These trends hold significant opportunities for U.S. producers. Until now, however, there has been an acute lack of information on the extent and drivers of these trends.

To better understand these trends, USDA is partnering with research institutes in the U.S. and China to analyze data they collect on these topics. The results in this report are new information coming from a unique data set; however they are representative of only Beijing, and cities in northern China more generally. Broadening the research efforts to include other parts of China will allow us to understand consumer behavior in other rapidly growing areas.

References

Gale, F. and G. Huang, 2007. "Demand for Food Quantity and Quality in China" Economic Research Report #32, Economic Research Service, USDA.
<http://www.ers.usda.gov/publications/err32/>.