

**Nontraditional Lamb Market in the United States:
Characteristics and Marketing Strategies**

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Executive Summary

There is a growing sentiment that the nontraditional lamb market is siphoning off an increasing portion of the commercial slaughter-lamb market away from traditional retail and foodservice sectors. The nontraditional market may thus slow the ability of the commercial lamb market to increase supplies and production in a time of sheep inventory contractions. Yet the volume of sheep marketed to the nontraditional market is largely unknown.

This research was motivated, in part, by the discovery that there is a large statistical difference between the U.S. Department of Agriculture (USDA)-published lamb crop (plus losses) and USDA federally-inspected slaughter numbers. Between 2004 and 2008, this difference was estimated at nearly 1.2 million head per year, 48 percent of FI slaughter or 2.5 million head per year. While FI slaughter has declined, the nontraditional market held steady.

This research proposes to define, quantify and predict the growth of the nontraditional lamb market in the United States. It is equally important to uncover opportunities and markets that may provide value opportunities for the industry. Embracing the nontraditional market through promotional activities and improved market monitoring could help expand the sheep and lamb industry in this country.

Method. This research utilized a multi-prong survey approach to meet its research objectives given a hypothesis that the market is fragmented and heterogeneous. Informal phone surveys were used to interview the marketing managers at the top lamb packers as well as number of select smaller ethnic packers. Informal phone surveys were also used to interview U.S. Department of Agriculture market reporters that report on sheep and lamb auctions.

A formal producer survey was also implemented to estimate the volume of the nontraditional market at the farm gate, determine the ethnicity of consumers that buy direct from the farm and determine what motivates producers and buyers to engage in direct marketing. The survey utilized Zoomerang (an on-line survey tool) to develop an online survey for sheep and lamb producers. Producers were contacted via e-mail as well as through the American Sheep Industry Association newsletter, *Sheep Industry News*. The survey resulted in 488 responses from a distribution to 20,467 producers.

Finally, the research also employed Zoomerang to conduct an online survey to a select group of minority or ethnic consumers. Non-Hispanic White consumers were omitted from the study unless they spoke a pre-identified foreign language at home. Zoomerang implemented the survey, sending the survey instrument to its pre-profiled consumers. A total of 410 consumers responded that they had eaten lamb, mutton or goat in the past year out of a total 878 consumers surveyed.

Live Weight & Other Demand Attributes in Ethnic Markets. It is hypothesized that the ethnic market is siphoning feeder lambs from traditional marketing channels for direct consumption. In the past couple years, the average live slaughter weight for federally inspected (FI) slaughter has ranged from 138 lbs. to 141 lbs. with a carcass weight between 68 lbs. and 71 lbs. On average, the carcass weight of lambs channeled into ethnic markets by the top lamb packers are lighter, ranging from about 30 lbs. to 70 lbs. carcass weight or roughly 60-lb. to 140-lb. live.

The kosher lambs are heavier, 60 lbs. to 70 lbs. carcasses. The packers sell kosher lamb to the bigger wholesale distributors and the foodservice market. Halal slaughter was most typically 55 lbs. to 65 lbs. carcasses.

The survey of sheep and lamb producers revealed that lambs sold through direct marketing to consumers ranged from an average 71 lbs. minimum to a high of 124 lbs.

According to the U.S. Department of Agriculture Agricultural Marketing Service market reporters, buyers at San Angelo and New Holland auctions will accept all weights, but less than 100 lbs. is preferred. Typically, lambs selling into the kosher market were reported to be heavier at 100 lbs. to 130 lbs. Demand during holidays is more specific and often for lighter weight lamb.

The survey of packers, auction market reporters and consumers revealed that meat yield is the number one concern among ethnic buyers. According to the USDA Agriculture Marketing Service market reporters surveyed, meat yield is the most sought after characteristic at auctions at San Angelo and New Holland. However, buyers will buy most anything to fill orders. Cleaner, healthier receive premiums. Hair sheep are increasingly popular and sometimes receive the highest prices in San Angelo.

The survey of producers also revealed that meat yield is the most important factor for buyers as perceived by producers. Across ethnicity -- Hispanic, Middle Eastern or White -- over half of producers believed meat yield was the most important factor for their ethnic buyers.

Volume Estimates of the Nontraditional Lamb Market. Based on the survey results, we estimate that nearly one-half million lambs are channeled into ethnic markets within the traditional marketing sector by the top lamb packers. Within the nontraditional lamb market nearly 300,000 head are likely channeled into the ethnic market through livestock auctions and an additional one million head are likely direct marketed to consumers at the farm gate. The volume of sheep and lambs direct marketed and sold into ethnic markets from auctions is an estimated 1.3 million head -- close to the calculated statistical difference between the lamb crop and federally-inspected slaughter of 1.2 million head.

The volume of lamb channeled into nontraditional markets by the top lamb packers -- defined as ethnic, custom and natural product -- is estimated at 12,000 head per week. This number increases over the Easter holidays. Natural product was estimated at 3,100 head per week.

To put these numbers into perspective, the volume of lamb channeled into ethnic market by the top packers is 8,900 per week or roughly 20 percent of average weekly federally inspected slaughter (excluding natural product). In other words, nearly one out of every five lambs slaughtered by the top packers is going into the ethnic or nontraditional market. With an annual slaughter of about 2.4 million head, this equates to nearly one-half million head per year channeled into ethnic markets by the largest packers.

Livestock auctions in San Angelo, Texas and New Holland, Pennsylvania dominate sheep and goat auctions and ethnic sales. Approximately 30 dealers, acting as agents for others and predominately Hispanic and Middle Eastern in origin, routinely buy in San Angelo. San Angelo dealers buy about 500 head per month each, which equates to 15,000 head per month, or 94 percent of the auction's volume annually.

In New Holland, there are 60 to 80 sheep and lamb buyers in the ring each week buying for ethnic sales outlets, typically individual grocery stores and/or meat markets. Each buyer buys about 30 head per week which equates to 2,100 head per week or 8,400 head per month. In sum, San Angelo and New Holland could sell an estimated 289,200 lambs into the ethnic market in a year.

The survey of sheep and lamb producers revealed that an estimated one million lambs sold direct from producers to consumers from the farms in the year ending November 2009. This number was calculated from a survey result of the number of producers engaged in direct marketing and the average number of lambs sold through direct marketing.

Direct marketing equals 48 percent of federally inspected lamb and yearling slaughter in 2008 of 2.3 million head. Nearly half of all direct marketing from the farm are purchased by White buyers (48 percent), 23 percent by Middle Eastern buyers, 18 percent by Hispanic or Latino buyers and 11 percent by unknown ethnicities.

The surveyed minority populations in the United States consumed an estimated 58 percent of the 294.4 million lbs. of total U.S. lamb supply (including imports) in 2008. In other words, the U.S. minority populations which accounted for 35 percent of America's population in 2008 consumed a disproportionate 58 percent of the lamb available.

Incidence of Minority Lamb Consumption. Zoomerang surveyed a total of 878 consumers of which 47 percent or 410 answered "yes" to the question asking whether they had eaten lamb, mutton or goat in the past year. The incidence of minority lamb consumption among our profile of minority or foreign speaking consumers is 43 percent which is higher than similar percentages cited in previous literature. The Food Marketing Institute (2009) found that Hispanic shoppers are much more likely than Caucasian shoppers to eat lamb at 37 percent versus 24 percent, respectively.

The incidence of lamb consumption among our survey respondents is even higher in the most populated states, including 52 percent in California, 60 percent in New York, 43 percent in New Jersey and 44 percent in Texas.

Marketing Opportunities. This study of the nontraditional lamb market revealed several marketing opportunities to expand lamb demand.

Target southern California and New York City in marketing lamb. Ethnic lamb consumers are concentrated in California and New York City. California is home to 20 percent of the surveyed respondents of which southern California is home to 12 percent of the surveyed respondents. New York is home to 13 percent of minority lamb consumers although the minority population of New York is only 3 percent of the total U.S. population.

Improve the visibility of American lamb. When minority lamb consuming respondents were asked whether they mostly eat domestic or imported lamb, 44 percent responded "domestic" while 14 percent responded "imported" and 42 percent responded that they didn't know. When the 14 percent that consume imported lamb was asked why they consume imported lamb, 71 percent responded that domestic lamb wasn't available while 13 percent responded that the quality of domestic product was inferior and 12 percent reported that the price was too high.

Target retail over foodservice in marketing American lamb. Nearly three-quarters of minority lamb consumers indicated they eat lamb at home with 37 percent indicating they eat lamb at least once a month, 43 percent once every three months and 21 percent at least once a year. Sixty-two percent of surveyed lamb consumers reported eating lamb away from home. Among these, 61 percent ate lamb at casual or formal sit-down restaurants and 21 percent at a friend's or relative's house.

Target mainstream grocery stores in marketing American lamb. Twenty-two percent of respondents reported purchasing lamb from Wal-Mart, Sam's Club or Costco. Another 38 percent bought lamb at 'Other' grocery stores excluding natural and ethnic grocery stores. Natural grocery stores such as Whole Foods accounted for the purchases of 8 percent of lamb consumers and ethnic grocery stores for 8 percent. Thirteen percent of lamb consumers in the survey purchased lamb from butchers at meat markets. Convenience was the most popular response for why consumers shopped at grocery stores followed in equal importance by low cost, selection, freshness and quality.

Minority lamb consumption is relatively more constant among different income levels relative to a broader population of White lamb consumers. This contrasts to a survey of all Americans in which lamb consumers are more concentrated in higher income brackets.

Get ready for the future. Given the high incidence of lamb consumption by minority populations and forecasts for the minority population to grow, lamb consumption could grow exponentially in this country. According to the U.S. Census Bureau, by 2050, the minority population — everyone except for non-Hispanic, single-race Whites — is projected to be 235.7 million out of a total U.S. population of 439 million, or 53 percent of the population. The non-Hispanic White population will shrink from about 65 percent of the population to 47 percent.

Chapter 1. Introduction

After over 10 years of inventory contraction, the sheep industry expanded for the first time in 2005 (Figure 1). In 2006, the industry expanded again, but in the four years of 2006 to 2009, inventories contracted 7 percent and fell below 6 million head for the first time in 2009 to 5.7 million head.

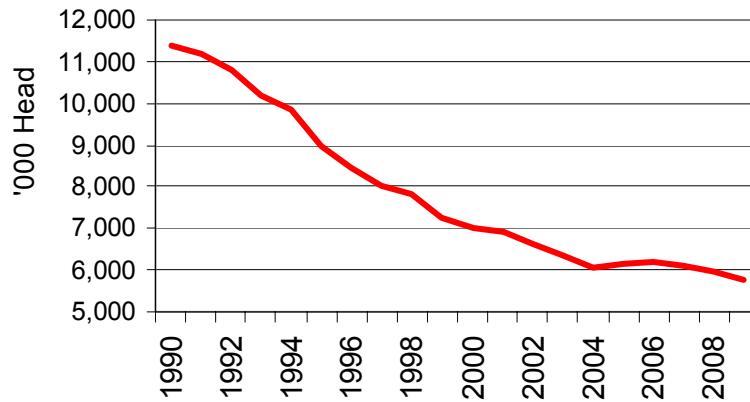


Figure 1. Sheep & Lamb Inventory
Source: USDA/NASS

However, over the five years of 2005 to 2009, there were pockets of sustained inventory growth. While some states experienced sharp inventory contractions, there were some states that held constant and fourteen states that grew over this time period (Figure 2). States where inventories grew were primarily in the Northeast and Southeast. Inventory growth also occurred in Utah, Colorado, Arizona, and Washington. Inventories in the most populous sheep and lamb states, Texas and California, contracted over the last five years by 18 percent to 870,000 head and by 4 percent to 660,000 head, respectively.

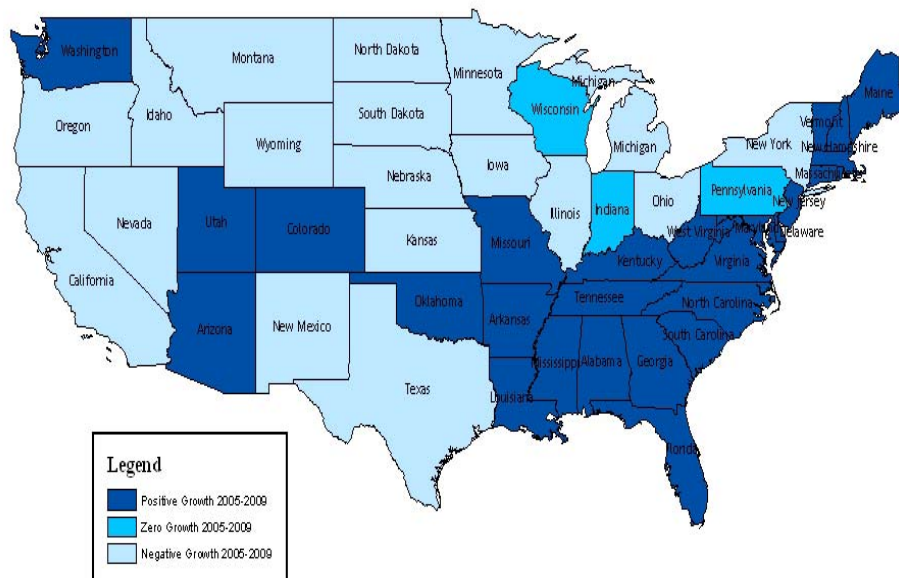


Figure 2. Sheep & Lamb Inventory Gains
Source: USDA/NASS

The strong inventory growth in certain regions coincides with anecdotal evidence that perhaps many lambs are not being sent through traditional marketing channels – from auctions or producers to feedlots for finishing then on to the major packers. In fact, a statistical difference exists between U. S. Department of Agriculture (USDA) federally inspected (FI) slaughter numbers and the USDA estimated lamb crop (less 5 percent for losses). Between 2004 and 2008, this difference was nearly 1.2 million head per year, 48 percent of FI slaughter, or 2.5 million head per year. While FI slaughter has declined, this difference -- or nontraditional market --held steady (Figure 3).

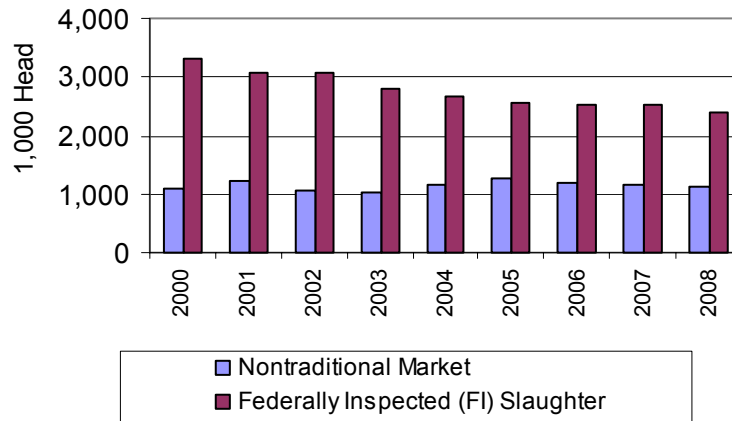


Figure 3. Federally Inspected Slaughter & Estimated Nontraditional Market Volume

Research Objectives and Method

There were two broad goals of this research. First, to identify and quantify the nontraditional lamb market -- how many lambs and how much product is leaving the traditional lamb commodity market and going to nontraditional markets. Second, characterize the nontraditional lamb market -- understand what it is from a producer and consumer perspective.

More specifically, this research will: 1.) Estimate the volume of lamb and mutton siphoned through nontraditional marketing channels; and 2.) Define the nontraditional market channels (e.g., producer direct to consumer, producer through auction to state slaughter facilities to small butcher shops) and 3.) Profile consumers in the nontraditional lamb and mutton market.

This study will also determine the growth prospects for the nontraditional market. This research will provide commercial packers with greater insight into the supply situation of feeder lambs. This will also improve forecasts of prices in the commercial market through a comprehensive understanding of the nontraditional market, without which forecasts could be shortsighted.

This project will enable the industry to better understand the nontraditional market and therefore have the tools to decide whether to embrace the nontraditional market through promotional activities, development of marketing tools for producers and/or ethnic market monitoring.

Nontraditional lamb and mutton market are assumed to be fragmented, encompassing varied marketing channels. Thus a five-pronged survey approach was designed which included a combination of online, e-mail and phone surveys.

- A. Informal, information-gathering phone survey of the top six lamb packers. The survey is intended to determine whether any lambs are slaughtered for ethnic, natural or custom slaughter markets (i.e., nontraditional markets) by the largest packers and how many.
- B. Informal, information-gathering phone survey of smaller, ethnic federally or state-inspected lamb slaughter facilities. The survey objective was to define marketing channels utilized by smaller packers and to gather a consumer profile of each firm.
- C. Informal, information-gathering phone survey of the U.S. Department of Agriculture market reporters and auctioneers at popular sheep auctions. Key questions involved providing a profile of consumers and respondents' assumptions regarding marketing channels. The volume of sheep and lamb traded can also be obtained from the auction houses.
- D. A formal online survey of sheep and lamb producers was conducted. Increased response rates were achieved through a respondent option to enter a drawing for a gift as well as advertisements in the *Sheep Industry News*. Key questions asked producers included a profile of consumers, where and how they sell lamb and the volume of lamb through specified marketing channels.
- E. Formal survey of minority or ethnic lamb consumers. The research utilized Zoomerang – an online survey tool. Zoomerang sent out the survey instrument to its pre-screened survey takers. Key questions included the frequency of lamb consumption, where lamb was consumed and demographic questions.

Literature Review

Momentum has been gathering for further research on the nontraditional lamb market. The first formal piece addressing direct marketing was perhaps “Marketing out of the Mainstream” by the American Sheep Industry Association (ASI) in 1995. Previous literature is often very broad in coverage, does not delineate marketing channels and does not attempt to estimate volume.

“Marketing out of the Mainstream” is likely the first attempt to provide formal definitions and detailed descriptions of the nontraditional lamb and wool markets available to producers. This publication refers to marketing into the nontraditional market as “direct marketing”. The authors make the important distinction that direct marketing “encompasses the activities involved in selling lamb and wool products directly to the general public or niche markets” (1995:1). They stress that “direct marketing” is not direct sales which they define as the sale of lambs direct to packers. They determine that direct marketing submarkets include the following: the freezer market, ethnic/religious markets, retail food stores and restaurants. The authors also provide details of the targeted customers for each submarket of direct marketing as well as the services provided, facilities needed and management considerations.

While the 1995 ASI publication does not attempt to quantify the nontraditional market, it did draw the conclusion that most direct marketing producers sell freezer market lambs (1995:4). The freezer market is one in which producers sell live lambs to consumers, help them make arrangements for custom slaughter and deliver the lamb to the slaughterhouse for them.

The ASI publication also explained that in the ethnic/religious market lamb is “usually consumed fresh at special occasions” (1995:8). Although the observance of many ethnic holidays includes

eating lamb, many ethnic groups consume lamb as a regular part of their diet. Today the ethnic market likely overlaps to a great degree with the freezer market because lamb is bought and frozen for future consumption.

The ASI publication further explained that the three primary ethnic market customers include individuals of the Islam and Judaism faiths from the Middle East and Christians at Easter. The report does not mention Hispanic customers who we will later show play a significant role in the nontraditional lamb market.

The primary source for demographics of lamb consumers has been the American Lamb Board. Several funded projects (Gross, J. B., 2006 and Shugoll Research, 2009) have determined the demographics and incidence of lamb consumption. Williams et al. also contributed, in using the AC Nielsen retail scanner data to determine the incidence of lamb consumption (2005). A Food Marketing Institute publication entitled “The Power of Meat” (2009) also reported on the incidence and profile of lamb consumers.

There have been a couple of lamb and goat consumer surveys targeting ethnic groups. Two projects were conducted by a joint effort of Just Food, Inc. (a community-based group addressing local food and agriculture issues in the metropolitan area), Farming Alternatives Program at Cornell University and Los Sures, a community organization in the Williamsburg section of Brooklyn, New York City. The first study surveyed restaurants in Williamsburg to determine interest in goat meat from New York producers. Another study surveyed 29 consumers at La Marquette Consumiere, a Hispanic farmers’ market in Williamsburg, to determine the degree to which Hispanic consumers were interested in fresh and prepared goat and lamb products being sold in the community.

Susan Schoenian, sheep and goat specialist at the Western Maryland Research and Education Center, has propelled ethnic/religious lamb market research to the forefront. Ms. Schoenian directs the SheepGoatMarketing.info website, a national resource for nontraditional sheep and goat marketing. It originated from a USDA-funded project, the North East Sheep & Goat Marketing Project, to improve the marketing infrastructure for sheep and goat producers in the twelve northeastern states. The web site was redesigned as a national information resource for sheep and goat marketing, with special focus on the marketing of lamb and goat to the ethnic and religious markets.

The primary limitation of existing literature is that the volume of lamb channeled through nontraditional market is not estimated. In early 2008, the American Sheep Industry Association (ASI) *Sheep and Lamb Economic Impact Study* provided a very rough estimate of the volume of the ethnic lamb market from secondary sources, but the figure deserves more attention.

The National Academy of Sciences (2008) “Changes in the Sheep Industry in the United States: Making the Transition from Tradition,” is the most recent and exhaustive study of the nontraditional market. This ‘alternative and emerging’ lamb market is defined by lightweight and younger feeder lambs and hair sheep that are purchased for slaughter to meet an ethnic demand. A defining factor for this market is that the desired weight range is from about 51-88 lbs. (23-40 kg) compared to the average live weight of 140 lbs.

Muslim, Greek and Eastern Orthodox are the primary populations that consume lamb during specific periods of the year in observation of their religion. However, there are number of other ethnic markets developing among Hispanic and Latino, Italian, Greek, and African communities

that eat lamb on a more regular basis. Our research found that the kosher markets in the Northeast prefer 100-126 lbs. (45-57 kg) lambs while the Muslim market favors 60-88 lbs. (27-40 kg) lambs (O'dell et al. 2003 from National Academy of Sciences, 2008:313).

An empirical analysis included in the National Academy of Science study revealed that Muslim and Christian/Orthodox religious events do have a significant impact on the U.S. lamb industry. First, the holidays lead to additional slaughter of lambs and yearlings. Second, purchases of lamb were found to be sensitive to prices, even during holiday periods (National Academy of Sciences, 2008:312).

In fact, the recent National Academy of Science study was likely the catalyst for this research. The study concludes that gaining access to and serving the emerging and alternative markets for ethnic and religious groups, as well as organic meats, could represent an expansion of demand for lamb. The study also points out that the number of lambs channeled through the nontraditional market is not documented. As a consequence, USDA-published data revealed an industry in decline. If national data misleadingly shows a contraction in the sheep and lamb industry, the industry's ability to attract producers and other private and state and federal resources could be negatively affected. Because the growth segments of the industry are not well documented in the national arena, the industry does not receive the attention by policy makers or the investments needed to promote expansion and growth.

Priority must be given to research involving all industry segments to meet consumers' needs for these niche markets. All segments of the industry would obviously benefit from an expansion of the demand for lamb in the United States. Expanded demand would mean more profitable returns all along the supply chain, even as the industry expands with new producers.

Chapter 2. Lamb Packers

An informal phone survey was conducted in September 2009 of the top six lamb packers in the United States. The top six lamb packers chosen for the study accounted for 70-80 percent of sheep and lamb slaughter in 2007. The top lamb packers vary considerably in their involvement in the nontraditional market. All packers have or have had some experience in both kosher and halal slaughter. Some packers have significantly increased their 'natural' slaughter. Among the top six packers, however, there is no organic slaughter. Some packers currently slaughter goats or have in the past.

Nontraditional Volume Estimate by Top Packers

The volume of lamb that is channeled into nontraditional markets – defined as ethnic, custom and 'natural' product – is estimated at 12,000 head per week. This number increases over the Easter holidays. If natural product is omitted, 8,900 lambs are slaughtered weekly in the ethnic market. To put this into perspective, the volume of lamb channeled into the nontraditional market is roughly 20 percent of average weekly federally inspected slaughter. Nearly one out of every five lambs slaughtered is going into the nontraditional market, be it ethnic or natural. With an annual slaughter of about 2.4 million head, this equates to 462,800 head a year channeled into nontraditional markets by the largest packers.

Halal Slaughter

An estimated 5,000 head per week are halal slaughtered by the top lamb packers. Halal slaughter volume among the top packers ranged from 500 head per week to 3,000 per week. One packer killed all lamb halal and another had a 100 percent halal slaughter capability.

According to Australian Halal Services,¹ the Prophet Mohammed said "Allah has ordained kindness in everything. For meat to be identified as halal, the animals must be slaughtered by a Muslim in accordance with the requirements of Islamic law. Further, halal slaughter means that Haram ("unlawful") meat may not be processed in the same area as halal product; halal and non-halal product must be adequately separated and identified at all times; equipment must be thoroughly cleaned and washed if non-halal meat has been in contact; only genuine halal products may be issued a halal certificate and only by recognized Islamic organizations.² In a halal slaughter, the animal must be carefully and gently restrained while the throat is slit and all blood is drained.

Kosher Slaughter

Our survey of the top packers indicated that the volume of kosher slaughter by those packers varies from zero head per week to about 1,000 head per week. Based on the survey results, an estimated that 3,000 head per week are kosher slaughtered by the top six lamb packers. Four out of six packers surveyed slaughter kosher lambs. One packer reported that they did kosher slaughter at one time but found the technical requirements too involved to make the effort profitable.

¹ Australian Halal Services, Accessed online at <http://www.ahfservices.com.au/halal.html> in 12/2009.

² Australian Meat. Accessed online at <http://www.australian-meat.com/australian-meat-home> in 12/2009.

Two packers reported that the costs associated with kosher slaughter make it prohibitive because the slaughter chain must slow with kosher slaughter, which, in turn, raises the cost per lb. produced. Kosher slaughter is considered to be far more technical than halal slaughter which adds significantly to production cost per pound and, in some cases, makes kosher slaughter unprofitable.

“Natural” Lamb Slaughter

There was no certified-organic slaughter by the top packers. The primary reason given was that organic slaughter requires too many technical specifications which are not profitable given the low level of demand.

However, slaughter of “natural” product was popular among the packers surveyed. One packer markets its entire product as “all natural” and features a more stringent line of product that includes traceability of the meat to the farm as well as antibiotic-free lambs. At least 3,100 head per week are marketed as “natural” by the six packers surveyed.

Impact on Feeder Lamb Supply and Prices

In general, the survey suggests that while the nontraditional market makes supplies tight at times and can put pressure on prices, this phenomenon was not considered to be of sufficient significance to the packers surveyed to warrant changes in their procurement strategies.

In general, the consensus was that the volumes channeled through the nontraditional market do not impact western producers where many of the largest packers operate. A few packers acknowledged that sometimes price premiums were paid to compete in the nontraditional market. Sometimes a bidding war occurred to secure feeder lambs. Two packers indicated that the farm flocks in Texas are primarily produced for the ethnic market and that sourcing feeder lambs in Texas has become increasingly difficult. One packer definitely felt that the supply of feeder lambs was tight and that feeders have become more expensive, particularly for 80 lbs. - to 100 lbs. feeders in the winter months.

All packers recognized that ethnic consumers often “didn’t care what they paid” because ethnic consumers are less price sensitive than many consumers in traditional markets. As one packer pointed out, it used to be that the price of feeders was less than the price of fed lambs. Now the reverse is true. This might be partly a function of growing demand from the ethnic market.

A rising concern among the largest lamb packers is their impression that a lot of lambs slaughtered in the nontraditional market are killed on barn floors. Their concern was for the unsanitary practices that might lead to bad publicity for the industry as a whole.

Another concern voiced by packers is that the reduced supply of lambs channeled through traditional markets will negatively affect the industry’s infrastructure. The largest packers could face rising operating costs if slaughter hours are cut back or, even worse, slaughter houses could be shut down.

Lamb Demand Characteristics by Market

In general, processing lighter weight lambs can require additional processing and slow the slaughter chain which raises the unit cost per lb. of meat produced. However, the survey of the

top lamb packers revealed that the ethnic market is not so fragmented as to prohibit sales. In other words, the ethnic lamb market generates sufficient volume per transaction for most packers to warrant sales and reduce risk. A distributor often buys relatively large volumes from packers and then breaks the loads up for its individual customers, such as grocery stores or smaller “mom and pop” butchers. The “natural” market appeared to be the most mainstream among nontraditional markets, securing accounts from national retailers. For many packers, the goat market is fragmented. Only a few head are sold “here and there” which significantly raises marketing costs.

The packers survey reported selling natural, kosher and halal lambs as well as mutton and variety meats. Apart from kosher lambs, many sales to other ethnic buyers are lighter weight lambs. In the past couple years, the average live slaughter weight for federally inspected slaughter by the six packers surveyed has ranged from 138 lbs. to 141 lbs. with a carcass weight between 68 lbs. and 71 lbs. On average, the carcass weight of lambs they have channeled into ethnic markets was lighter, ranging from about 30 lbs. to 70 lbs. carcass weight.

The carcasses of kosher lambs slaughtered by the six packers surveyed are heavier at 60 lbs. to 70 lbs.. One packer acknowledged that even though the kosher market prefers lamb carcasses lighter than 70 lbs. carcasses, they sell them anywhere from 140 lbs. to 160 lbs. live because the kosher market “takes what it can get.” The surveyed packers sell kosher lamb to the bigger wholesale distributors and the foodservice market.

The packers surveyed reported that halal slaughter carcasses typically varied between 55 lbs. and 65 lbs. They report that Muslims demand primarily cross cuts and legs. According to the survey, it was clear that the Halal market provides a consistent, year-round market through independent distributors and grocery stores. A couple packers explained that while Muslims demand legs, shoulders, and offal, they do not buy the rack or loins. The racks, in particular, often sit and do not move.

The top packers report that they cater to the largest, national, natural retail chains. Popular markets for natural lamb are growing in New York and Texas. “All Natural” lamb receives an important price premium.

There is some marketing of lamb cuts into ethnic markets of the more typical 70-lb. carcasses. There are likely fewer cuts or carcasses marketed into the ethnic markets that are lighter weight but neither halal nor kosher. One packer reported that they used to distribute about 800 head a week of 70-lb. carcasses to wholesalers across the United States.

Lightweight lambs which are neither halal nor kosher are being sold by the major packers into butcher shops and grocery stores in some of the largest northern cities, including New York, Chicago, Detroit and Minneapolis. These lambs range from about 50 lbs. to 65 lbs. carcass weight.

One packer exports mutton to Mexico. Mutton was also mentioned as in demand among ethnic groups in Kentucky and Tennessee. Another packer sells mutton that they believe ends up in southern California.

The ethnic market has provided a new market for some lamb variety meats. One packer reported that they sell more and more lamb heads into Mexico but that new domestic market are emerging. The hearts, for example, used to be sold into the pet food market but now are sold into

ethnic markets. While most variety meats are exported to Mexico, there is a growing market domestically, particularly in southern California.

One packer sells hearts and livers and fresh kidneys. Marketing of variety meats is informal for one packer. Customers come into their packing plant every day. For another packer, halal and kosher lamb marketing is more formal with most going to grocery stores. This latter packer indicated that the demand for variety meats is so strong that “We can’t get enough kidneys!” A packer explained that one market for the lamb kidney and livers is the African Somalis. This largely Muslim population regularly eats kidney and livers as part of its culture.

Goats

The top lamb packers differ widely in experience slaughtering and marketing goats. “Didn’t pay” and “hit or miss” was how a couple packers described the goat market. Other packers have had some success, slaughtering up to 300 head of goats per week.

Goat slaughter appears to be prompted by customer demand (and not necessarily the same customers buying lamb). One packer is just starting to slaughter goats. The impetus rose from a customer, a major specialty retailer, who wanted goat meat. One packer markets primarily goat carcasses into the Muslim markets in southern California. Hispanics also consume goat, but are thought to prefer the cheaper imported goat meat.

Another packer reported slaughtering goats in the past but did not have a favorable experience. The problem was apparently a mismatch between what the packer thought the customers wanted and what the customers actually wanted. The packer bought goats of all weights but the customers just wanted goats less than 20 lbs. and meaty.

Top Packer Survey Conclusions

All of the top six lamb packers have embraced the nontraditional market to differing degrees. Most packers have committed significant resources to penetrating this market. Some packers have tried but ceased pursuing this market due to lack of profitability.

One packer stated it well when he said that the ethnic market is viewed as the “unseen competitor.” It saps supply, bids up prices and its marketing volume and strategy is largely fragmented and unknown. Nevertheless, most top packers reported some success in this market, providing high-volumes of quality lambs year round for natural and ethnic markets.

Smaller, Ethnic Packers

An informal phone survey was conducted of smaller, predominantly ethnic packing plants to determine any differences in their experiences with non-traditional markets from those of the top packers. Seventeen predominantly ethnic packing plants were identified by the American Lamb Board. Two facilities were located in California, four in the Midwest, and nine in the East.

In general, the smaller packers surveyed slaughtered lambs that were lighter weight than the federally-inspected average of 137 lbs. live. Their lamb dressed weights ranged from 30 lbs. to 60 lbs., typically lighter than the 67-lb. to 70-lb. dressed weight averaged by the top 5 packers. These ethnic packers often specialize in 30-lb. to 40-lb. carcasses or else they slaughter heavier, 50-lb. to 60-lb. dressed weight animals. One ethnic packer surveyed reported selling 30-lb. to 40-

lb. live lambs to Italian and Greek customers. This packer also reported selling 40-lb. to 60-lb. live adult sheep to Hispanic customers. These markets were year-round, not seasonal.

Ethnic packer markets were generally wholesale and not retail direct to consumers. Wholesale consumers varied from predominantly ethnic supermarkets to ethnic butcher shops. One ethnic packer primarily supplied “Christian Ethiopian” butcher shops in the Washington, D.C. area.

The ethnic packers surveyed also varied in the volume of lambs they slaughtered, ranging from 30 to 40 head a week up to 500 head per week. Those that slaughter fewer lambs tended to slaughter other species as well. Respondents reported that they only slaughtered a few goats, typically upon request from customers. One ethnic packer reported slaughtering baby goats for Italian customers during Easter.

Ethnic packers that reporting halal slaughter were divided when asked whether Muslim consumers will eat non-halal lamb. Some mentioned that Muslims will eat non-halal lamb because it is assumed to be slaughtered by a man of God. Another packer that slaughtered all halal acknowledged that whether a Muslim ate only halal slaughtered lamb was a very personal decision. One ethnic packer reported slaughtering all kosher lamb but selling into Muslim markets. Another ethnic packer reported selling forequarters kosher to Jewish customers but then selling the remainder of the carcass to Muslim customers. Legs, in particular, were in demand by Muslim customers. One packer reported that lamb quality is improved when all the blood is drained from the carcass, as in halal slaughter.

Most ethnic packers reported selling lamb variety meats. It was understood that if halal lamb was sold that customers would also want the variety meats.

The ethnic packers surveyed all reported that sourcing lambs was not a problem. Packer buyers or auction owners facilitated purchases. One ethnic packer slaughtered 30 to 40 head of lambs a week but also purchased carcasses. One packer in New Jersey reported purchasing lambs from the auction in New Holland, Pennsylvania but also from Texas because lambs were cheaper in Texas. Another packer commented that they must source from New Holland because the lambs were fresh and much better quality than from Texas.

Chapter 3. Marketing at the Two Largest Sheep and Goat Auctions

Informal phone discussions with the USDA Agriculture Marketing Service (AMS) market reporters in San Angelo, TX, New Holland, PA and Ft. Collins, CO were held in October 2009 to assess the size of the ethnic markets through auctions, characteristic of ethnic buyers, ethnic marketing channels and livestock characteristics demanded by ethnic buyers.

Livestock auctions in San Angelo, Texas and New Holland, Pennsylvania represent the largest auction markets that sell into the nontraditional sheep, lamb and goat markets. San Angelo and New Holland accounted for an estimated 70 percent of lamb sales through the major sheep auctions in 2008.³ In 2008, San Angelo sold 191,818 head of sheep and lambs and New Holland sold 106,726 head. It is estimated that the next largest auction in volume might be Fredericksburg, Texas at 46,567 sheep and lambs in 2008 – much smaller. Fort Collins, Colorado likely ranks fourth with 35,929 sheep and lambs sold in 2008 – all ethnic.

San Angelo

Although the largest sheep and lamb auction in the U.S., San Angelo auction numbers have dropped off in recent years. Between 2006 and 2007, the number of sheep that sold through Producers Livestock Co., San Angelo, Texas dropped 14 percent. The drop might be a reflection of the severe drought that began in Texas at that time. Between 2006 and 2007, the sheep and lamb inventory in Texas held constant at 1,070 head but fell 9 percent to 960,000 head in 2008 and then fell another 9 percent down to 870,000 head in 2009.

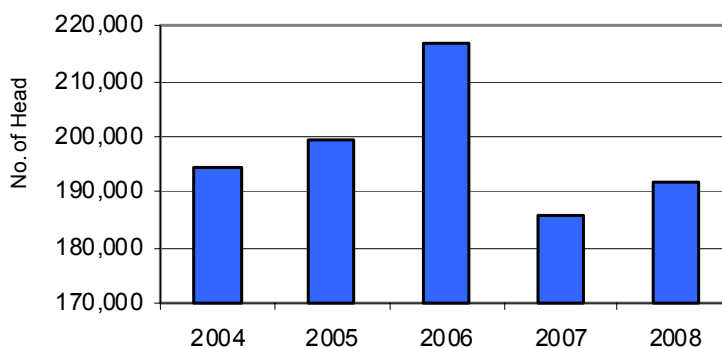


Figure 4. Lambs Sold Through Producers Livestock Auction, San Angelo, TX

Source: USDA--Agricultural Marketing Service

The sheep and lamb industry contraction in Texas might also be an indication that the nontraditional lamb market might have been making a shift to other hubs, such as the auction in New Holland, Pennsylvania. Sheep sales through New Holland grew 38 percent between 2004 and 2005 and then jumped another 10 percent between 2005 and 2006.

³ Data in this paragraph derived from data provided by U.S. Department of Agriculture, Agricultural Marketing Service, Dept. of Ag Market News, reporters Rebecca Sauder and Levi Geyer. Accessed over the phone in September 2009.

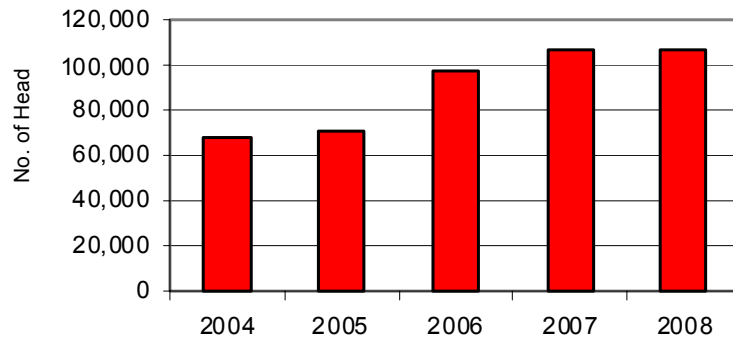


Figure 5. Lambs Sold Through New Holland, PA Auction

Source: USDA--Agricultural Marketing Service

Approximately 30 dealers – predominately ethnic and acting as agents for others -- routinely buy in the Producers Livestock Auction in San Angelo, Texas. With roughly 500 head per month purchased by each dealer, this equates to 15,000 head a month. This means that – given 2008 figures -- the dominant dealers in San Angelo purchased an estimated 94 percent of the auction’s sheep volume.

Perhaps 10 percent to 15 percent of the total number of buyers buy a few head weekly for own consumption. In aggregate, these buyers do not represent a significant volume. More typical are buyers that buy for many different accounts. As an example, one of the largest dealers operating out of San Angelo supplies distributors in the Houston area, but sends most of his purchases to the Northeast, primarily the New Jersey area. He might buy one to two truckloads each week for delivery in the Northeast. He does not take any sheep or goats to the New Holland auction.

A dominant dealer in the San Angelo market reported buying a large number of head in total, but for numerous small accounts. He might buy 50 head per week for a grocer in the Detroit area, 50 head for a restaurant in New Jersey, and another 75 head per week for a packer in the New Jersey area. He routinely supplies a good-sized slaughtering plant in the New Jersey area. This plant is small compared to the largest lamb packers but one of the bigger facilities on the East Coast. Typically, the lamb purchased in San Angelo will be custom slaughtered.

Most of the dealers operating in the San Angelo market are in the market week after week. However, there are buyers that might be in the market one to two months at a time, buying a significant volume and then disappearing. Again, these buyers buy for someone else and receive a commission.

New Holland

New Holland will typically have 60 to 80 sheep and lamb buyers each week which includes a handful of dealers (about 5 to 6). The bulk of the buyers are individual grocery stores and/or meat markets (about 30 to 40) buying for their stores who have the sheep custom slaughtered. The balance is individuals buying for their own use. Each buyer buys about 30 head per week which equates to 2,100 head per week, 8,400 head per month or 109,200 head per year.

Marketing sheep and goats in New Holland is similar in that both dealers and buyers operate. In New Holland, a few dealers will be in the market each week buying on behalf of numerous other buyers. One dealer, for example, is the owner of a grocery store in the New Jersey area. He reported that he typically drives to New Holland early in the morning and buys up to 1,200 head for up to 30 different accounts. This equate to about 40 head per customer per week.

In sum, San Angelo and New Holland could sell an estimated 289,200 lambs into the ethnic market in a year.

Livestock Characteristics Demanded

The AMS market reporters interviewed indicated that light weight and meat yield are the two primary characteristics demanded by ethnic buyers at auction. At the auctions in San Angelo and New Holland, the Hispanic and Muslim buyers are reportedly interested primarily in meat yield, or degree of muscle. A little extra fat cover, or finish, is desirable, however, because the lambs are said to maintain quality better when traveling and because cooler shrink is reduced that way. The AMS market reporters mentioned that a lamb with heavy muscling and some fat cover will fetch a price premium at action.

In addition to the degree of muscle, ethnic buyers also look for clean and healthy lambs. However, the market reporters stated that ethnic buyers will take whatever is offered to fill orders. Prices will signal how buyers discriminate against some offerings. A market reporter mentioned that the buyers are not ashamed. Similarly, skinny or rough stock lambs will be sold but at discounted prices.

The live weights of lambs sold at auction reportedly averaged around 95 lbs. compared to a national average slaughter weight of 137 lbs. Goats are sold by the head at both auctions. Typically, lighter weight lambs are demanded for religious holidays. During Easter, for example, the desirable weight might fall between 40 lbs. and 70 lbs. During Christmas, heavier 80-lb. lambs might be demanded.

Hair sheep used to receive discounts at auction yet the reverse is now true. Perhaps 20 years ago hair sheep were thought to be too light weight and were perceived not to grade Choice or Prime. Another concern was what to do with the pelt of a hair sheep. In San Angelo today it is not uncommon for hair sheep to receive the highest prices. Part of the popularity is the belief that hair sheep mature at lighter weights, about 80 lbs. That is, hair sheep can grade Choice at lighter weights.

Chapter 4. Producer Nontraditional Markets

In the mid-1990s, a report for the American Sheep Industry Association (ASI) formally defined the difference between direct sales and direct marketing.⁴ Direct sales is selling lambs direct to packer buyers, order buyers and commission salesmen without going through an auction or an electronic market. By contrast, direct marketing comprises sales directly to the general public or niche markets. Direct marketing, as defined by the ASI report, encompasses the freezer market, ethnic/religious markets, retail food stores and restaurants.

Previous direct marketing literature includes studies of lamb demand characteristics by consumers in direct marketing as well as direct marketing guidelines for producers developed by extension agencies. Perhaps the most respected resource for the direct lamb and goat market is www.SheepGoatMarketing.info directed by Susan Schoenian, sheep and goat specialist at the Western Maryland Research and Education Center.

The volume of lambs that are channeled through direct marketing, the proportion of sales by ethnicity and what motivates producers and consumers engaged in direct marketing is not well documented. Previous research revealed that in the three years to 2007, the use of auctions decreased marginally while direct trade increased.⁵ An estimated 32 percent of producers reportedly sell lambs through direct trade.⁶

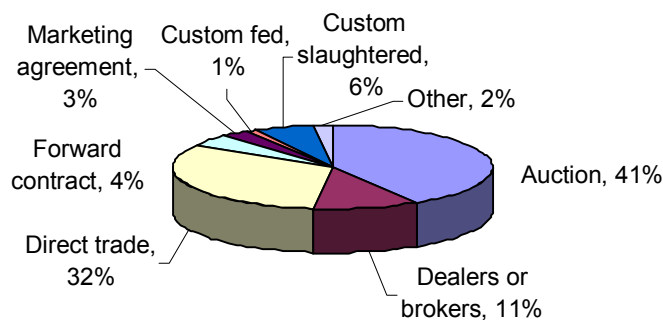


Figure 6. Producer Marketing Channels

Source: RTI International, 2007.

Most producers sell lambs into the traditional market although there is an emerging sentiment among industry participants that the nontraditional market is significant and growing. The traditional market encompasses raising lambs through weaning and sometimes backgrounded and then selling them when they reach 30 lbs. to 80 lbs. to a feeder or packer for finishing in a feedlot before slaughtering at an average weight of 136 lbs. The nontraditional lamb market is suspected of siphoning off many potential feeder lambs through auctions and direct sales from producers by primarily ethnic producers for immediate slaughter.

⁴ Kirkpatrick, T. and J. B. Bell for ASI. "Marketing Out of the Mainstream," 1995.

⁵ RTI International. "Cash versus Contract Marketing in the U.S. Lamb Industry." June 15, 2007.

⁶ RTI International. "Cash versus Contract Marketing in the U.S. Lamb Industry." June 15, 2007.

Objective and Method

This portion of the research project aimed at validating the anecdotal evidence regarding the significance of the sheep and lamb direct trade and the role of ethnic consumers in this market. This part of the project also delves into the importance of farmers' markets, the sale of lamb cuts and on-farm slaughter within producers' direct marketing.

More specifically, the objectives for this part of the project include:

- Estimating the volume of lambs, mutton and goats in the nontraditional market;
- Profiling direct marketing consumers; and
- Determining the characteristics of lamb, mutton and goats demanded by producers' customers.

A producer survey was implemented to meet these research objectives. The online survey software, Zoomerang, was utilized to build and distribute the survey. A total of 20,467 sheep and lamb producers received the survey and 488 responded.⁷ The response of 488 producers is statistically significant and thus nationally representative of all U.S. producers. This means that findings from this survey are generalizations for all sheep and lamb producers.⁸

The producer survey was comprised of a two-pronged approach to maximize the response rate. Surveys were sent via e-mail as well as through the mail.⁹ In order to encourage producer response a \$1,000 gift card from Home Depot or Lowes was offered in a drawing.

A population of 2,467 American Sheep Industry Association (ASI) members was surveyed via e-mail. This number represented the number of members that had e-mail addresses listed with ASI. The survey was distributed in early October. The e-mail had a link to the Internet site in which producers could access the survey.

In early November, the *Sheep Industry News* was distributed to a broader audience of 18,000 producers that received U.S. Department of Agriculture Wool Loan Deficiency Payments (LDP) in 2008 and 2009. The survey instrument was printed in this issue which could be mailed in if producers chose to participate by mail rather than through the Internet. Producers were also alerted to the Internet site which housed the survey if they chose to take the survey online.

⁷ Three percent of producers were surveyed.

⁸ In order to get survey results that reflect the target population of sheep and lamb producers 382 returned surveys were required out of a population of 82,330 sheep and lamb operations. This survey sample size has a confidence interval of 5% which is the plus-or-minus figure usually reported in newspaper or television opinion poll results. For example, if you use a confidence interval of 5% and 25% of your sample picks an answer you can be "sure" that if you had asked the question of the entire relevant population between 20% (25-5) and 30% (25+5) would have picked that answer. The 488 producer responses also ensure a 95% confidence level which tells us how sure we can be in our conclusions. It is expressed as a percentage and represents how often the true percentage of the population who would pick an answer lies within the confidence interval.

⁹ The value of statistically representative data outweighed concerns about introducing biases into the survey due to different survey methods utilized.

Descriptive Statistics of Surveyed Producers

Among the 488 producers surveyed, 92 percent of producers surveyed sold lambs in the past year, 81 percent sold adult sheep and 15 percent of producers surveyed sold goats. Eighty-six percent of producers that sold lambs in the past year also sold adult sheep while 15 percent also sold goats.

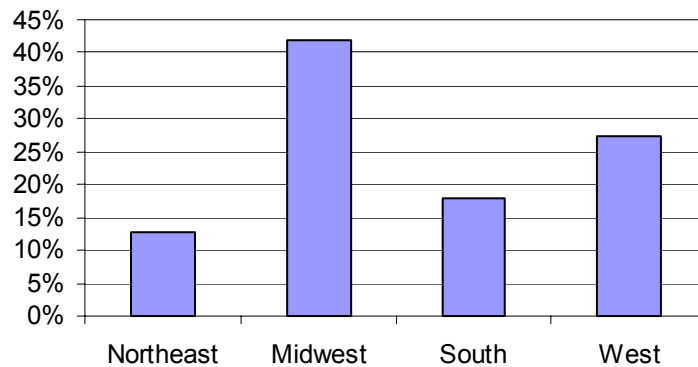


Figure 7. Geographic Distribution of Producers Surveyed

Thirteen percent of producers were from the Northeast, 42 percent from the Midwest, 18 percent from the South and 27 percent from the West. Over 40 percent of producers surveyed were from the Midwest. In the Midwest, 7 percent of all producers surveyed were from Minnesota, 6 percent from Iowa, 5 percent from Michigan and 4 percent from Indiana. The South is comprised of a vast area reaching from Virginia southwest through to Texas. The states surrounding Washington, D.C. comprised the farms of many producers. Among all producers surveyed, 3 percent were from Maryland, 4 percent from Virginia and 2 percent from West Virginia. In the Northeast, Pennsylvania was the highest representative state with 6 percent of all surveyed producers.

The geographic representation of producers surveyed was similarly dispersed as the national distribution but with responses being overrepresented in the Midwest and Northeast and skewed away from the South and West (Table 1). The survey was designed to capture the nontraditional lamb, mutton and goat markets. Therefore, producers that have invested in nontraditional direct marketing to customers might have self-selected over producers that sell routinely to a packer buyer or take their lambs to auction. It is possible, therefore, that the heavily weighted Midwest has a higher portion of producers engaged in nontraditional direct marketing than producers in other regions.

Table 1. Survey versus National Distribution of Producers

	Producers Surveyed		Nationally
	Count	Percent	
Northeast	62	13%	10%
Midwest	202	42%	33%
South	87	18%	20%
West	132	27%	30%
Total 483 (Some producers choose not to include identify residency.)			

The survey results suggested that the lamb market is highly fragmented at the producer level with multitudes of different marketing options. One producer reported selling over 2,000 lambs in a year with over 5,000 lbs. of lamb cuts sold from his home and at farmers' markets. This producer also sold direct to a dozen ethnic persons as well as over one hundred head to a larger packer.

An average 188 lambs were sold by producers engaged in some direct marketing either direct from the farm or through farmers' markets (Table 2). On average, 35 adult sheep were sold and 17 goats by the responding producers. They reported allocating an average 1,137 acres to lamb and sheep and 315 acres to goats. Producers reported selling to an average 14 different buyers over the past 12 months.

Table 2. Descriptive Statistics of Producers Engaged in Nontraditional Marketing

Sample Size, N=489	Number of			Acres to lamb and sheep	Acres to goats	AUMs (Animal Unit Months)	Number of different buyers
	Number of lambs sold	adult sheep sold	Number of goats sold				
Average	188	35	17	1,137	315	658	14
Minimum	0	0	0	0	0	0	0
Maximum	9,500	1,474	2,273	104,000	39,815	40,034	500
Standard deviation	759	105	148	8,884	3,415	3,065	39

Note: The standard deviation represents how dispersed, or spread out, the values lie from the average. The minimum number of lambs, adult sheep or goats might be zero because producers sold only goats or only lambs or only adult sheep, but no lambs or goats.

Distribution of Sales by Ethnicity and Species

In total, 76 percent of producers surveyed reported selling lambs to White/Caucasian buyers, 22 percent to Hispanic or Latino buyers, 17 percent to Middle Eastern buyers, and 10 percent to persons of other known ethnicities (Table 3).¹⁰ Seventeen percent sold lambs to persons of unknown ethnicity.

¹⁰ The known other ethnicities included Native Americans, Africans, Chinese, Korean, Indian, Filipino, Hawaiian, Bosnian, Armenian, Romanian, Russian, Greek, Italian, Saudi Arabian and African American. Italian, Greek, Native American and Africans were mentioned the most.

Table 3. Distribution of Sales by Ethnicity and Species

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	Lamb	Adult Sheep	Goat
Hispanic or Latino	108 22%	44 9%	18 4%
Middle Eastern	82 17%	27 6%	9 2%
White/Caucasian	374 76%	242 49%	49 10%
“Other” known ethnicity	48 10%	17 3%	6 1%
Unknown ethnicity	83 17%	55 11%	15 3%

Note: Columns and rows do not equal. Producers might sell to multiple buyers of different ethnicities.

However, these numbers include all sales, to packers, auction, etc. The number of direct sales to White/Caucasian buyers is sizable because many buyers bought for consumption but also for breeding purposes, 4-H clubs, for feeders and a couple for research. The motivation for purchases defines the market. For example, adult sheep sales to White buyers were primarily breeding stock while many of the adult sheep sales to Hispanic buyers were for consumption.

The survey asked producers whether they believed their buyers were Muslim. Three percent of producers believed their Hispanic or Latino buyers were Muslim, 17 percent believed that their Middle Eastern buyers were Muslim, and 2 percent that their White/Caucasian buyers were Muslim. Four percent of unknown ethnicity was thought to be Muslim and 2 percent of other, known ethnicity.

Producers who marketed direct to Middle Eastern consumers were distributed throughout the country. Eleven percent was from California, 12 percent from Michigan, 14 percent from Pennsylvania, 5 percent from New York and New Jersey, 5 percent from Washington and another 14 percent from the central and northern Midwest (Indiana, Illinois, Kansas, Nebraska, Wisconsin, Iowa and Minnesota).

Marketing Channels

Producers reported myriad marketing opportunities. A packer buyer from one of the top lamb packers might come to the farm to negotiate a sale or a family might come to pick out a lamb to stock its freezer. In order to determine the volume of lambs channeled into direct marketing, the producers’ perceptions of what motivated sales was required. Direct marketing does not include a sale to a packer buyer that likely ends up in the traditional, commercial market.

Thirty-two percent of producers believed their White consumers were buying for family or personal use, 17 percent of producers believe this of their Hispanic buyers, 11 percent of Middle Eastern buyers, 4 percent of buyers of unknown ethnicity and 1 percent believed this was the case for buyers of ‘other’, known ethnicity (Table 4).

Sixteen percent of producers surveyed believed that their White buyers were buying for a packer, restaurant or grocery store (Table 4). This was the case for 2 percent of Middle Eastern buyers and nearly 1 percent of Hispanic or Latino buyers.

Table 4. Producers' Perception of What Motivated Buyers' Purchases

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents.	Hispanic or Latino buyers	Middle Eastern buyers	White or Caucasian buyers	Buyers of 'Other' Known Ethnicity	Don't know ethnicity of buyers
1. Buyer buys for personal/family consumption	84 17%	54 11%	158 32%	6 1%	21 4%
2. Buyer buy for slaughter house or packer	3 0.6%	6 1%	61 12%	0	27 6%
3. Buyer buys for one or more restaurant	0	0	8 2%	0	0
4. Buyer buys for one or more grocery stores	0	1 0.2%	2 0.4%	0	0
5. Buyer buys for packers, restaurants and grocery stores	5 0.2%	5 1%	12 2%	0	5 1%
6. Don't know	12 2%	11 2%	27 6%	0	33 7%
7. Other	5 1%	12 2%	90 18%	0	0

The 'other' factor that producers believed motivated sales to Hispanic buyers was that buyers buy not only for own consumption but also for resale to friends as well as for breeding. The 'other' reason that producers believed motivated sales to Middle Eastern buyers was that buyers buy for own consumption, but also to resell to friends (mentioned by 5 producers).

Among the 18 percent of producers that reported that White/Caucasian buyers buy for "other" reasons included that 12 percent of producers (58 producers) reported that buyers buy sheep and lambs for breeding stock and Future Farmers' of America 4-H Clubs.

The estimated volume of the nontraditional market is based upon producer sales direct to buyers for own or family consumption. Sales to buyers on behalf of packers are not counted. The survey results suggest that many of the producer sales to White/Caucasian packer buyers might go into the traditional market while the ethnic buyers buying for packers, restaurants or grocery stores likely go into the nontraditional market. However, this distinction cannot be confirmed and thus isn't counted in the estimated volume. For example, one producer reported selling 600 head of lambs to Hispanic or Latino buyers in the past year and believed that the buyer was supplying a packer, restaurants, and grocery stores. It is unknown whether these lambs went into the traditional or nontraditional market.

An average 937 lambs in the past year were sold by producers to White/Caucasian packers or packer buyers. This transaction is lambs likely channeled into the traditional lamb market and not counted toward an estimated volume of the nontraditional market.

Producer Motivation for Direct Marketing

Although there is much known about the specific demand characteristics of ethnic, or minority, populations for lamb in direct marketing, there is little known about what motivates producers to engage in direct marketing. Previous research revealed that producers like dealing in the cash market because it "allows for independence, complete control and flexibility of own business."¹¹

¹¹ RTI International. "Cash versus contract marketing in the U.S. lamb industry." 2007.

This survey suggests that many producers are attracted to the perceived price premiums received over other traditional marketing channels. Also important was the convenience of repeat business of direct marketing.

Forty percent of the producers surveyed reported that the number one motivator to selling direct to White buyers was that prices received reflect quality (Table 5). Second in importance was that producers could set their own prices (36 percent). There were many comments regarding how prices received from direct marketing were much higher than unfavorable experiences at auction barns. Producers also commented that buyers were fair and easy to deal with.

Thirty-eight percent of producers indicated that buyers coming to the farm to pick up sheep/lamb/goats was the least important factor motivating them to participate in direct marketing.

Producers also reported that the sale of breeding stock and cull lambs is also an important motivator when selling to White buyers. Selling lambs to 4-H clubs was also reported as important.

Table 5. What Motivated Sales to White Buyers (1=the most important motivator)

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	1	2	3	4	5	Total
Price received reflects quality	82 40%	52 25%	22 11%	29 14%	22 11%	207
Buyers approached me for the trade.	39 20%	36 19%	40 21%	37 19%	39 20%	191
Buyer comes to my farm to pick up sheep/lambs.	24 12%	34 17%	38 19%	26 13%	74 38%	196
Buyer provides repeat business.	63 28%	59 26%	53 23%	33 14%	21 9%	229
I can set my own prices.	102 36%	44 16%	52 18%	44 16%	40 14%	282

Over one-third of producers (35 percent) surveyed believe that being able to set their own prices when selling to Middle Eastern buyers was an important motivator (Table 6). Nearly one-third of producers agreed that Middle Eastern buyers coming to pick up the livestock is the least important motivator (29 percent).

Table 6. What Motivated Sales to Middle Eastern Buyers (1=the most important motivator)

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	1	2	3	4	5	Total
Price received reflects quality	16 29%	12 22%	10 18%	7 13%	10 18%	55
Buyers approached me for the trade.	13 25%	10 19%	9 17%	12 23%	8 15%	52
Buyer comes to my farm to pick up sheep/lambs.	8 15%	14 27%	6 12%	9 17%	15 29%	52
Buyer provides repeat business.	13 21%	16 26%	17 28%	9 15%	6 10%	61
I can set my own prices.	26 35%	11 15%	17 23%	7 9%	13 18%	74

The most important factors motivating direct marketing to Hispanic producers included an ability to set your own prices (38 percent), price received reflects quality (32 percent) and buyers coming to the farm to pick up the sheep, lambs or goat (29 percent) (Table 7). Producers were nearly split regarding the importance of buyers approaching producers. Thirty-five percent said it is the most important motivating factor while 27 percent said it was the least important.

Producers also cited other reasons for selling to Hispanic buyers including a ‘deal for Hispanic farm workers’ and good holiday sales. A few producers commented that selling to Hispanic or Latinos was a great cull sheep market. There was also a sense among producers that selling to Hispanics was a good way to get rid of sheep that were not wanted.

Table 7. What Motivated Sales to Hispanic Buyers (1=the most important motivator)

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	1	2	3	4	5	Total
Price received reflects quality	14 32%	0	17 39%	13 30%	0	44
Buyers approached me for the trade.	17 35%	0	10 21%	7 15%	14 27%	48
Buyer comes to my farm to pick up sheep/lambs.	16 29%	13 23%	5 9%	9 16%	13 23%	56
Buyer provides repeat business.	15 22%	17 25%	19 28%	10 15%	6 9%	67
I can set my own prices.	35 38%	24 26%	14 15%	7 8%	12 13%	92

Demand Attributes by Direct Sale Customers

Because direct marketing consumers of different ethnicities likely differ in the attributes they value in the lamb, mutton and goat they purchase, the producer survey asked producers that sell direct to provide their perceptions of the attributes of lamb that their various ethnic buyers appeared to value. The survey results indicated that meat yield was thought to be the most desirable attribute of the lamb purchased by all ethnic buyers.

Producers perceived that Hispanic or Latino buyers were primarily interested in meat yield (64 percent). Gender was in second place with 25 percent of producers indicating that Hispanic

buyers prefer male animals and 25 percent indicating that female animals are preferred (Table 8). Other lamb attributes that were perceived to be important to Hispanic buyers were that the lamb was grass fed, lighter weight and relatively inexpensive, or reasonably priced. Availability also came up a few times as a motivator to buy direct from the farm. Producers indicated that Hispanic buyers were not particularly concerned with the animals being blemish-free, sexually intact and not docked (24 percent) or being milk fed (27 percent).

Table 8. Characteristics of Lamb, Mutton, & Goat Demanded by Hispanic Customers (1=the most important motivator)

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	1	2	3	4	5	6	7	Total
Meat Yield	28 64%	0	0	4 9%	3 7%	5 11%	4 9%	44
Blemish free, sexually intact and not docked	4 10%	6 14%	6 14%	2 5%	6 14%	10 24%	0	34
Milk Fed	1 2%	3 6%	2 4%	5 10%	8 17%	13 27%	0	32
Clean	11 18%	19 31%	16 26%	7 11%	4 7%	0	3 5%	57
Fat	14 19%	14 19%	17 23%	9 12%	11 15%	3 4%	0	68
Male	13 25%	9 17%	8 15%	10 19%	6 12%	3 6%	3 6%	52
Female	13 25%	9 17%	8 15%	10 19%	6 12%	3 6%	4 6%	53

Producers perceived that Middle Eastern buyers demand meat yield first (52 percent) and male gender second (41 percent). Nearly one-third of producers agreed that milk fed lambs, mutton or goat seemed to be the least important factor affecting purchasing decisions of Middle Eastern buyers. One-fifth of producers agreed that being female was not important to Middle Eastern buyers. Other factors that producers deemed important to Middle Eastern buyers were that the livestock were grass fed (four mentions), the livestock were not raised with pork and the availability coincided with religious holidays.

Table 9. Characteristics of Lamb, Mutton & Goat Demanded by Middle Eastern Customers (1=the most important motivator)

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	1	2	3	4	5	6	7	Total
Meat Yield	23 52%	0	4 9%	10 23%	4 9%	1 2%	2 5%	44
Blemish free, sexually intact and not docked	8 17%	9 19%	10 21%	5 10%	5 10%	4 8%	7 13%	48
Milk Fed	3 7%	4 9%	3 7%	5 11%	6 13%	11 24%	14 30%	46
Clean	8 15%	13 24%	14 26%	9 17%	7 3%	0	3 6%	55
Fat	4 7%	7 13%	18 33%	7 13%	14 26%	4 7%	0	54
Male	23 41%	10 18%	7 13%	5 9%	2 4%	6 11%	0	53
Female	2 3%	6 9%	3 5%	10 15%	7 11%	0	14 21%	42

Sixty-two percent of producers indicated that they believe that meat yield is the most important lamb attribute for White consumers followed by being clean (23 percent) and then fat (11 percent) (Table 10). Stated differently, 76 percent of producers stated meat yield is either the first or the second most desirable attribute of the lamb their White buyers purchase followed by 57 percent of producers that perceived cleanliness is important to their White buyers. Cleanliness did not rank as high for Middle Eastern or Hispanic consumers.

Table 10. Characteristics of Lamb, Mutton and Goat Demanded by White Customers (1=the most important motivator)

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	1	2	3	4	5	6	7	Total
Meat Yield	135 62%	31 14%	18 8%	9 4%	7 3%	6 3%	13 6%	219
Blemish free, sexually intact and not docked	8 5%	11 7%	24 16%	17 11%	11 7%	19 13%	58 39%	148
Milk Fed	8 5%	11 7%	10 7%	23 16%	25 17%	31 21%	39 27%	147
Clean	47 23%	70 34%	26 13%	24 12%	21 10%	11 5%	4 2%	203
Fat	23 11%	41 20%	51 24%	39 19%	32 15%	12 6%	11 5%	209
Male	19 12%	19 12%	18 12%	22 14%	27 18%	32 21%	16 10%	153
Female	26 12%	18 8%	17 8%	35 16%	26 12%	31 14%	71 32%	224

Producers cited additional reasons that influence White/Caucasian consumer purchases of lamb. The most popular answers were that the lamb, mutton or goat was natural, grass fed, hormone and-antibiotic free and local. Consistent in quality and supply, healthy, well cared for and stress-free were other reasons cited. Breeding stock was another desirable feature cited often by producers. Some producers also suggested that some of their White/Caucasian buyers complained that they could not find American lamb in the grocery store.

Nontraditional Market Lamb Weights

According to the U.S. Department of Agriculture, nearly 60 percent of marketed lambs in 2009 were under 65 lbs. and 21 percent were between 65 lbs. and 84 lbs.¹² Most of the 80 percent of lambs marketed under 84 lbs. go into feedlots for finishing while an unknown volume are channeled into the nontraditional market for slaughter.

It is well documented that niche markets and ethnic consumers prefer lighter weight lambs over the average 68-lb. carcasses processed for traditional marketing channels. Direct marketing might include 60-lb. to 90-lb. lambs sold to Muslims for own consumption or lambs sold direct to restaurants that are heavier, up to 100 lbs. (Table 11).

¹² U.S. Department of Agriculture, National Statistical Service.

Table 11. Live Weight Preference by Niche and Direct Markets

Market	Weight Preference
Italian	35-45 lbs.
Greek	45-60 lbs.
Muslim	60-90 lbs.
Restaurant	80-100 lbs.
Freezer Lamb	100-120 lbs.
Kosher (forequarters only)	100-125 lbs.
Wholesale	120+ lbs.

Source: Northeast Sheep & Goat Marketing Program and West Virginia reprinted in University of Illinois Extension, "Direct Marketing Lamb to Niche and Ethnic Markets." No date.

The average live weight of federally inspected (FI) slaughter in the past few years has hovered around 139 lbs. The survey revealed that lambs sold through direct marketing ranged from an average 71 lbs. minimum to a high of 124 lbs. The National Research Council (2008) reported that a defining factor for the 'alternative and emerging markets' is that the desired weight range is from about 51-88 lbs. compared to the average live weight of 140 lbs. Indeed, the nontraditional market demands lighter weight lamb, but perhaps not as light weight as previously reported.

Producers indicated that Middle Eastern buyers appear to prefer relatively lighter weight lambs while White/Caucasian buyers typically prefer lambs that are a little heavier, but still not up to the average FI slaughter weight (Table 12).

Table 12. Average Weight and Age of Lambs Sold by Ethnicity

	Average Weight		Average Age in Months	
	Min. Lbs.	Max. Lbs.	Min. Age	Max. Age
Hispanic or Latino	84	116	6	10
Middle Eastern	71	107	5	9
White/Caucasian	85	124	5	8
'Other' buyers, ethnicity specified	81	108	5	8
Unknown ethnicity	80	116	5	8

Note: Removing the packers and packer buyers didn't affect lbs. or age.

Producers indicated that the average lamb weight desired by Middle Eastern buyers was 81 lbs. (Figure 8). However, producers also reported a wide distribution of weights of lambs sold to Middle Eastern buyer from less than 25 lbs. up to about 160 lbs. About 44 percent of Middle Eastern buyers bought lambs 81 lbs. and lighter and 56 percent bought lambs heavier than 81 lbs.

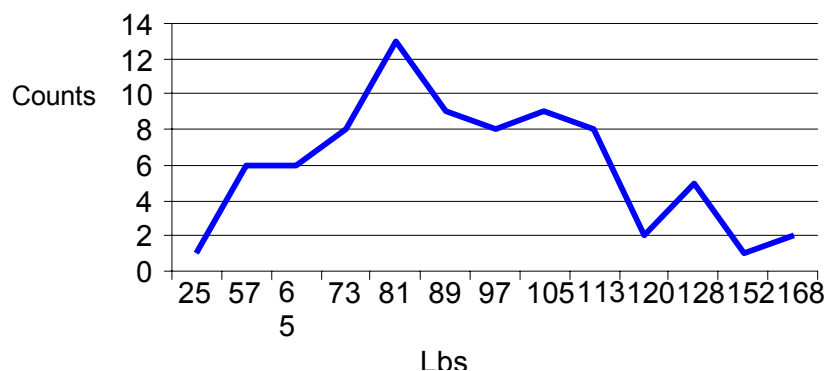


Figure 8. Average Lamb Weight Purchased by Middle Eastern Buyers

Valuation Method

An area for further research is whether the valuation method of lambs, per head or per live weight, offers higher returns for quality. A common perception is that selling live weight rewards weight and not necessarily quality. Previous research reveals that 76 percent of small producers sell live weight, 25 percent sell per head, while 53 percent of large producers sell live weight and 13 percent sell per head.¹³ Selling by carcass weight, on or not on a grid, was popular with half of the large producers.

The sales into nontraditional markets as reported by the producers responding to the survey do not differ widely from the national study cited earlier. About 24 percent of producers that sold lamb said they were sold by the head, 30 percent reported by the lb. and 46 percent said both. Some 42 percent of producers selling adult sheep reported selling by the head, 27 percent by the lb. and 31 percent used both, per head and per lb.

Marketing Lamb Cuts

Some producers choose to add value to their sheep and lamb operation by selling lamb cuts. A producer might advertise and sell from home or take a freezer to a farmers' market.

Eighteen percent of producers surveyed reported selling lamb cuts. The loin was the most popular cut with 46 percent of producers reporting it as the number one seller. The leg followed closely behind with 37 percent of producers ranking it number one. Twenty-eight percent of producers placed the shoulder as the third most popular selling cut. Only 15 percent of producers placed the rack at their number-one seller, 42 percent of producers placed it fourth. Ground lamb was also very popular, followed by stew meat, bratwurst, kabobs, sausage, lamb fries, burgers, shank and chops.

On average, producers sold 1,996 lbs. of lamb-equivalent cuts through November 2009 with a maximum of 88,000 lbs. The number of total head sold was estimated from the total lbs. of product sold. At an average live weight of 100 lbs. this averages 20 head per head per producer.

¹³ RTI International. "Cash versus contract marketing in the U.S. lamb industry." 2007.

On-Farm Slaughter

Twelve percent of producers (12 producers) surveyed had slaughtered lambs on farm, 2 percent of producers slaughtered adult sheep on farm and 1 percent slaughtered goat on farm. An average 17 head of lamb were slaughtered on farm per producer. Live weight of lambs ranged from 101 lbs. to 131 lbs. Average lamb age ranged from 6 to 9 months.

Among all producers surveyed, 3 percent reported selling lambs to Hispanic or Latino buyers for on farm slaughter; 6 percent reported selling to White/Caucasian buyers and 2 percent sold to Middle Eastern buyers. Another 2 percent sold to other ethnicities defined as Asian, Croatian and African (among which, Kenyan). Two percent of producers believed their on-farm slaughter customers were Muslim.

Eighty-six percent of on farm slaughter was purchased by families for personal/family consumption. Another 6 percent was sold to packer or packer buyers. Two percent were sold to one or more restaurants and 6 percent reported to selling to 'other' (restaurants, grocery stores and religious organizations).

Forty-one percent of producers that indicated that they slaughtered on farm said they were motivated to do so because they can set their own price that way (Table 13). Thirty-nine percent said they were motivated to slaughter on farm by the fact that price received reflected quality. Other reasons cited were the need for cash, providing lamb where lamb was not available in local stores and providing lamb for holidays.

Table 13. What Motivated On Farm Slaughter Sales (1=the most important motivator)

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	1	2	3	4	5	Total
Price received reflects quality	13 39%	7 21%	6 18%	5 15%	2 6%	33
Buyers approached me for the trade.	5 16%	5 16%	7 23%	7 23%	7 23%	31
Buyer comes to my farm to pick up sheep/lambs.	5 19%	4 15%	5 19%	4 15%	9 33%	27
Buyer provides repeat business.	4 11%	16 42%	7 18%	8 21%	3 8%	38
I can set my own prices.	16 41%	5 13%	6 15%	5 13%	7 18%	39

Sixty-two percent of producers said they believe that meat yield was the number one factor looked for by lamb buyers of their on-farm slaughter (Table 14). The second most important factor was "cleanliness" with 32 percent of producers ranking it as number one. Third in importance was "fat", with 24 percent of producers ranking it number one. Over one-third of respondents ranked "female" as the least important factor affecting buyers' selection decision.

Table 14. Characteristics of Lamb Demanded by On Farm Slaughter Customers (1=the most important motivator)

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	1	2	3	4	5	6	7	Total
Meat yield	13 62%	0	4 19%	2 10%	2 10%	0	0	21
Blemish free, sexually intact and not docked	1 4%	4 15%	3 12%	6 23%	2 8%	2 8%	8 31%	25
Milk Fed	3 13%	0	0	2 8%	4 17%	8 33%	7 29%	24
Clean	10 32%	10 32%	9 29%	1 3%	1 3%	1 3%	0	32
Fat	8 24%	5 15%	5 15%	6 18%	5 15%	2 6%	2 6%	33
Male	2 9%	3 13%	2 9%	7 30%	5 22%	4 17%	0	23
Female	1 3%	0	1 3%	3 10%	7 23%	7 23%	11 37%	29

Farmers' Markets

Ten percent of lamb producers reported selling lamb, mutton or goat at farmers' markets in the past year. Five percent sold lambs at farmers' markets, 3 percent sold adult sheep, and 1 producer sold goats.

Producers that indicated that they sell at farmers' markets sold an average 52 percent of their total direct lamb sales that way over the last year. Five producers (1.25 percent) sold 100 percent of their total lambs sales at farmers' markets.

According to the survey, producers sold an average 35 head of lambs through farmers' markets in the last year with a weight range of 82 lbs. to 120 lbs. and ranging from 6 months to 9 months of age (Table 15). Many of these lambs likely go direct for personal or family consumption although this cannot be confirmed.

Table 15. Description of Lamb Sales through Farmers' Markets

	No. of head	Min. Lbs.	Max Lbs.	Min. Age in Months	Max Age in Months
Ave.	35	82	120	6	9
Min.	1	32	54	3	4
Max.	175	150	210	10	18
St. Dev.	41	29	38	2	3

An average of 25 adult sheep was sold at farmers' markets by responding producers over the last year. The weights ranged from 132 lbs. to 205 lbs. while the average age ranged from 2 years to 7 years. The responding producers also sold an average 20 goats at farmers' markets in the last year, ranging from 80 lbs. to 90 lbs. and 8 to 11 months in age.

Among buyers at farmers’ markets, producers believed 53 percent were White, 22 percent were Hispanic, 20 percent were Middle Eastern, 5 percent were of unknown backgrounds and zero percent were ‘Other’ known ethnicities. Fifteen percent believed their buyers were Muslim.

Adult Sheep Market

There is anecdotal evidence that ethnic populations have built a new market for culled sheep that traditionally were exported live to Mexico. This survey revealed that many adult sheep are sold for breeding purposes to White/Caucasian buyers but that many adult sheep are sold to Hispanic or Latino buyers for consumption.

The survey revealed that 49 percent of producers sold adult sheep to White buyers, 11 percent sold to buyers of unknown ethnicity, 9 percent sold to Hispanic buyers, 6 percent sold to Middle Eastern buyers and 3 percent sold to an other, known ethnicities.

Three percent of producers (13 producers) sold adult sheep through farmers’ markets. Two percent, or 10 producers, sold adult sheep through on-farm slaughter.

An average 27 adult sheep were sold to White buyers -- primarily for breeding – and 23 adult sheep were sold, on average, to Hispanic buyers – primarily for consumption (Table 16). Hispanic consumers bought adult sheep up to 224 lbs. live weight.

Table 16. Adult Sheep Sales

	Average Head of Adult Sheep Sold	Live Weight		Age	
		Min. Lbs.	Max Lbs.	Min. Years	Max. Years
Hispanic	23	165	224	3	6
Middle Eastern	18	135	195	2	6
White/Caucasian	27	150	210	2	6
Other, known ethnicity	16	140	180	3	6
Unknown ethnicity	12	142	204	3	8

Goat Market

The survey revealed that 10 percent of producers sold goats to White buyers, 3 percent sold to buyers of unknown ethnicity, 4 percent sold to Hispanic buyers, 2 percent sold to Middle Eastern buyers and 1 percent sold to an other, known ethnicities. Only one producer sold goats through a farmers’ market. One percent or 5 producers slaughtered goats on farm.

The most goats (70 head) were bought, on average, by consumers of unknown ethnicity (Table 17). The second largest consumers were the Hispanic or Latino population. On average, Hispanic consumers bought 50 head of goats weighing from 53 lbs. to 109 lbs. ranging from 6 to 19 years.

Table 17. Goat Sales

	Average Head of Goats Sold	Live Weight		Age	
		Min. Lbs.	Max Lbs.	Min. Years	Max. Years
Hispanic	50	53	109	6	19
Middle Eastern	21	47	104	6	34
White/Caucasian	20	47	98	6	19
Other, known ethnicity	No responses.				
Unknown ethnicity	70	46	88	5	18

Estimating the Nontraditional Market Volume from the Farm Gate

The difference between USDA annual lamb crop and federally-inspected slaughter data suggests that about 1.2 million lambs are sold annually into the nontraditional market. The survey of producers enabled us to get a second and more accurate estimate, an estimate derived from marketing activities at the farm gate.

In order to estimate the volume of the nontraditional market, the sales incidence through different marketing channels must be estimated. The percent of producers selling direct to individuals for own consumption, the portion of farmers' market sales, on-farm slaughter and sale of lamb cuts are all considered nontraditional market sales.

In order to estimate the direct market volume, the average number of lambs sold to buyers for personal or family consumption was multiplied by the percent of producers reporting such sales and then totaled. On average, survey results revealed that producers sold 21 lambs through the year ending November 2009 for customers for personal or family use. Producers sold an average 20 lambs to White consumers, 28 lambs to Middle Eastern consumers, 14 lambs to Hispanic consumers, 36 lambs to consumers of unknown ethnicity and an average 5 lambs to persons of other, known ethnicity (Table 18).

Table 18. Average Number of Lambs Sold by What Motivated Buyers' Purchases

	Hispanic or Latino buyers	Middle Eastern buyers	White or Caucasian buyers	Buyers of 'Other' Known Ethnicity	Don't know ethnicity of buyers
1. Buyer buys for personal/family consumption	14 lambs	28 lambs	20 lambs	5 lambs	36 lambs
2. Buyer buy for slaughter house or packer	4 lambs	125 lambs	937 lambs	0 lambs	53 lambs
3. Buyer buys for one or more restaurant	0 lambs	0 lambs	47 lambs	0 lambs	0 lambs
4. Buyer buys for one or more grocery stores	0 lambs	125 lambs	300 lambs	0 lambs	0 lambs
5. Buyer buys for packers, restaurants and grocery stores	600 lambs	75 lambs	300 lambs	0 lambs	135 lambs
6. Don't know	43 lambs	204 lambs	74 lambs	0 lambs	37 lambs
7. Other	10 lambs	100 lambs	111 lambs	0 lambs	0 lambs

As shown earlier in this chapter, 77 percent of producers reported selling lambs direct to White customers and within this, 31 percent of producers surveyed reported selling lambs direct to

White customers for own/family consumption. Given an average sale in a year of 20 lambs and 82,330 sheep and lamb operations in 2008,¹⁴ this totals 510,446 lambs channeled into the nontraditional market through White consumers (Table 19).

Doing the same calculation for other ethnicities revealed that an estimated one million lambs (995,370 head) sold direct from producer to consumer from the farm in 2009 (Table 19). This equals 48 percent of federally inspected lamb and yearling slaughter in 2008 of 2.3 million head.¹⁵

Over half of all direct marketing from the farm are purchased by White buyers (51 percent), 21 percent by Middle Eastern buyers, 19 percent by Hispanic or Latino buyers and 9 percent by unknown ethnicities.

Table 19. Estimated Number of Lambs Sold Direct for Personal/Family Use

Ethnicity of Buyers	Number of Lambs	Percent of Total
Hispanic or Latino	184,419	19%
Middle Eastern	207,472	21%
White/Caucasian	510,446	51%
Other, known ethnicity	4,117	0%
Unknown ethnicity	88,916	9%
Total Estimate	995,370	100%

In 2000, there was an estimated 1.2 million persons in the United States with Arab ancestry.¹⁶ This equates to 0.4 percent of the total population and yet, 23 percent of purchases of direct lamb sales were by persons of Middle Eastern origin according to the producers surveyed.

The U.S. Arab population increased 41 percent in the 1980s and 38 percent in the 1990s to 1.2 million in 2000.¹⁷ Arabs are distributed across the United States, but the largest numbers of Arab population were found in order New York, Dearborn, Michigan and Los Angeles. Chicago was fourth and Houston was fifth. Thirty percent of the population of Dearborn was Arab in 2000. Among the ten cities in the U.S. with a population of 100,000 or more Arabs, three cities were in Michigan.

Within the estimate of 1 million head in direct marketing, producers sell through farmers' markets, through on-farm slaughter and also sell lamb cuts. Five percent of producers reported selling lambs through farmers' markets and sold an average 35 head within the year. This means an estimated 144,078 head of lambs sold through farmers' markets in the past year, or 13 percent of total direct marketing were through farmers' markets.

Twelve percent of producers (12 producers) reported slaughtering lambs on farm with an average head count of 17 lambs in the past year. Given these estimates, the total estimate for the number of lambs slaughtered on farm in the year to November 2009 was 167,953 head.

¹⁴ U.S. Department of Agriculture, National Agricultural Statistical Service, 2008.

¹⁵ Derived from Livestock Market Information Center. www.lmic.info accessed 12/2009.

¹⁶ U.S. Census Bureau. "Census 2000 Brief, The Arab Population: 2000," December 2003.

¹⁷ Ibid.

Eighteen percent of producers also sold lamb cuts with an average estimate of 20 head per annum. Given 82,330 producers in the U.S. this yields 296,388 head a year.

Chapter 5. Lamb Consumption by Minority Consumers

Average annual per capita lamb consumption in the United States is less than 1 lb. per person per year. However, national figures can be misleading because lamb is consumed fairly consistently by a small group of consumers. While most Americans do not eat lamb, there is great geographic variation in consumption as well as differences in the significance of lamb in diets across different races and ethnicities. Many ethnic populations are reported to have a higher incidence of eating lamb than the non-Hispanic White race.¹⁸

Recent research shows that 20 percent of consumers can be considered “lamb consumers,” defined as those who have prepared lamb at home within the past 12 months or those who eat lamb but do not prepare it in their homes (Gross, 2007).¹⁹ Additionally, 35 percent of consumers have never eaten lamb, only 13 percent have prepared lamb at home during the past three months and 16 percent no longer eat lamb.

Anecdotal evidence from producers, findings from the Nielsen lamb retail scanner data (Williams and Capps, 2005) and Food Marketing Institute research (2009) findings revealed that the changing make-up of the U.S. population in terms of race and ethnicity is an important factor for understanding lamb consumption and demand.

Americans are becoming more diverse in terms of race and ethnicity and as a result, there has been a growth in the size of the minority population in terms of both numbers and percentage. The most significant change since 1990 both statistically and demographically has been the rapid growth of the Hispanic population and to a much lesser extent the Asian population. Hispanics have replaced African-Americans as the nation’s largest minority.

While many minority groups eat lamb on a day-to-day basis, the Jewish and Muslim populations are of particular interest to the sheep and lamb industry because lamb is the preferred meat in celebration of religious holidays. The Jewish minority comprises of 1.7 percent of the U.S. population while the Muslim population comprises about 0.6 percent.²⁰ Lamb is often preferred for the estimated 5 million Jews during Passover in the spring and again during Rosh Hashanah in the early fall. Lamb is important for the estimated 1.8 million Muslims during two periods of the year. The first is during the month of Ramadan and on Eidu al-fitr, during the first day of the month following Ramada. Second, lamb is preferred for Eidu al-adha which occurs during the last month of Islamic calendar and is in celebration of the annual Hajj. The Islamic Hijri calendar doesn’t follow the Gregorian calendar therefore the Islamic holidays fall on different dates on the Gregorian calendar every year.

People of both the Jewish and Muslim faiths have specific demands for lamb. People of Jewish faith who maintain a kosher diet require that animals with cloven hooves like lambs be slaughtered under strict supervision and with specific instructions. Similarly, the Muslim’s prefer halal lamb which means the animal’s throat is slit and all blood drained, in addition to a Muslim prayer and turning the animal’s head toward Mecca.

¹⁸ Food Marketing Institute, 2007. Nielsen lamb consumption data, G. Williams, 2009.

¹⁹ Gross, J. B. 2007. American lamb attitude and usage study 2006. Presentation made at the American Lamb Board Meeting, San Antonio, TX, January 25, 2006.

²⁰ The Pew Forum on Religion and Public Life. “Pew Forum’s U.S. Religious Landscape Survey,” 2007.

Determining the volume of lamb and marketing channels associated with ethnic groups can help target promotional programs, which, in turn can increase lamb demand. There are three objectives of this study regarding the consumer and retail end of the nontraditional market:

- Profile consumers in the nontraditional lamb, mutton and goat markets by studying consumption patterns by the ethnic population;
- Determine marketing channels utilized by ethnic consumers; and
- Estimate the volume of lamb consumed by the U.S. ethnic population.

Literature Review of Lamb Consumers

The demographics and frequency of lamb consumption are already known for U.S. lamb consumers. This study is aimed at improving our understanding of the frequency of lamb consumption of the minority and ethnic population specifically.

There have been several studies estimating the demographics and incidence of lamb consumers, typically funded by the American Lamb Board. For example, Shugoll Research (2009) revealed in a survey of 500 respondents that two-thirds of consumers reported they never purchase lamb. Only four percent of consumers reported that they purchase lamb once a week or more often and only 38 percent of consumers prepare lamb in a typical month.

Another study by the Food Marketing Institute, *The Power of Meat* (2009) revealed that about one-quarter of shoppers (27 percent) have eaten lamb in the past 12 months. Further, it was estimated that Hispanic shoppers are much more likely than Caucasian shoppers to eat lamb at 37 percent versus 24 percent, respectively. The Food Marketing Institute also found that age-wise, the youngest and the oldest shopper groups are the most likely to have consumed lamb, with male Matures (age 65 and up) the most likely at 46 percent (2009).

Another study by Williams and Capps (2005) revealed that 18 percent of Oriental households prepare lamb at home, 15 percent of Black households, and 11 percent of White and 'Other' households.²¹

This study answers whether the demographics and volume of lamb consumed by ethnic consumers is different enough to warrant tailored marketing programs.

Research Method

A consumer survey was utilized to determine the volume of lamb consumed by ethnic groups and the demand and shopping characteristics of ethnic lamb consumers. The survey utilized Zoomerang, online survey software, which has access to over 2 million customers that have already agreed to take Zoomerang surveys. Zoomerang's detailed profiling of consumers by ethnicity provided a good partner for this study.

The survey attempted to target ethnic groups including Muslims and Jewish religions. The survey respondents were subject to four separate tiers of filtering:

²¹ Williams, G. W. and Oral Capps, Jr. "Household Level Lamb Consumption Patterns," report to the American Lamb Board. TAMRC Commodity Market Research Report No. CM-02-05, September 2005.

1. The total population, broken down by current ethnic ratios in the United States, except the race category “White”;
2. The “White” race category then was added to the survey sample only if the race of the respondent was White and the background or descent was Hispanic or Latino;
3. Survey respondents were included in which primary and secondary languages spoken at home included Arab, Hebrew, Eastern European languages, Asian Indian languages and others²²; and
4. Lastly, only survey respondents indicating that they had eaten lamb, mutton or goat in the past year were included in the survey.

The survey, conducted in November 2009, consisted of a sample of 410 lamb, mutton or goat consumers. The sample was chosen to provide a nationally representative sample which represents the total lamb-consuming minority population in demographic factors such as region, age, gender and income. That is, the number of men versus women in the sample matched the ratio in the entire minority U.S. population.

In summary, the survey sample included all races except for the Non-Hispanic or Latino White race and except for when the Non-Hispanic or Latino White race speaks the specified foreign languages at home.

Incidence of Lamb Consumption

Zoomerang surveyed a total of 878 consumers of which, 47 percent or 410 answered, yes, they have eaten lamb, mutton or goat in the past year. The incidence of minority lamb consumers among a profile of minority or foreign speaking consumers is 43 percent (Figure 9).²³ The incidence of minority lamb consumers is higher than cited in previous literature, around 24 percent for all Americans.

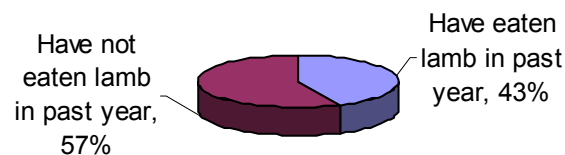


Figure 9. Incidence of Minority Lamb Consumers

The incidence of lamb consumption of survey respondents is even higher in the most populated states of survey respondents. The response of minority lamb consumers was 52 percent in California, 60 percent in New York, 43 percent in New Jersey and 44 percent in Texas.

²² Languages included were Arabic, Hebrew, Czech, Greek, Gujarati, Hindi, Hungarian, Indonesian, Icelandic, Macedonian, Malay, Nepali, Punjabi, Romanian, Sanskrit, Serbo-Croatian, Slovak, Slovenian, Telugu, Turkish, Ukrainian, and Other.

²³ Incidence is 47% for consumers that had eaten lamb, mutton or goat in the past year.

Profile of Minority Lamb Consumers versus Minority Non-Consumers

The survey omitted the 65 percent of Americans that call themselves non-Hispanic White – unless a foreign language is spoken at home. Before more detail is provided regarding the lamb consumers surveyed, a comparison is made to the non-lamb consumers surveyed. Among the minority lamb consumers surveyed that eat lamb, a greater portion is Jewish and Muslim than the minority population that does not eat lamb (Table 20).²⁴ Another noticeable difference between the minority groups that do and do not eat lamb is that a higher percentage of those that eat lamb live in New York City.

Table 20. Descriptive Statistics of Minority Consumers that Had and Had Not Eaten Lamb, Mutton and Goat in the Past Year

	Had eaten lamb, mutton, goat in the past year. Sample size = 410.	Screen outs: Had not eaten lamb, mutton, goat in the past year. Sample size = 468
Hispanic or Latino ethnicity	24%	19%
African American race	20%	29%
Muslim religion	2%	0%
Jewish religion	5%	2%
1 or 2 people live in the household	56%	58%
Californian resident	20%	16%
New York resident	13%	7%
Male	49%	44%
41 to 65 year olds	61%	65%
Household income between \$50,000 and \$75,000	21%	24%
Household income between \$75,000 and \$125,000	27%	19%

Similarly to a survey of a broader, mostly White population, minority lamb consumers appear to fall into a higher household income bracket than minority non-consumers, 27 percent versus 19 percent (Table 20). The Food Marketing Institute found that shoppers making \$75,000 or more annually are at least twice as likely to have eaten lamb as those with lower annual household incomes (2009). Consumption is low at around 20 percent up to \$50,000 and starts to increase from there.

Estimating Lamb Consumption by Surveyed Consumers

Our hypothesis is that ethnic populations in the United States have a higher incidence of eating lamb as well as a higher volume of consumption per annum than the non-Hispanic White population.

In the lamb consumer survey, 92 percent of the survey respondents reported eating lamb in the past year. Among this group, 73 percent reported eating lamb at home in the past year. Among those who have eaten lamb in the past year, 62 percent reported eating lamb away from home in the past year. Also, nearly 40 percent of lamb consumers ate lamb at home at least once a month

²⁴ Given the difficulties of targeting minority or ethnic groups, the sampling method might have sacrificed targeting Jewish consumers.

(37 percent) while 43 percent ate lamb at home once every three months and 21 percent ate lamb once a year (Figure 10).

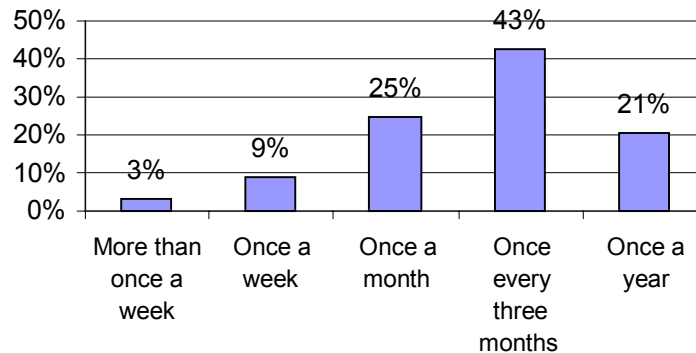


Figure 10. Distribution and Frequency of At Home Lamb Consumption

Among respondents to our survey, lamb consumers eat lamb at home more frequently than they eat lamb away from home. About 22 percent ate lamb away from home at least once a month compared to 37 percent for at-home consumption (Table 21).

Given the incidence of eating lamb, the incidence (or frequency) of eating lamb at and away from home, the per capita lamb consumption, and an estimated serving size of meat, it is possible to estimate the amount of lamb consumed per survey respondent. According to the U.S. Department of Agriculture ‘Food Pyramid’, “A serving of meat is about two or three ounces, or about the size of a deck of cards.”

Table 21. Frequency of Eating Lamb Away from Home

Frequency	Percentage
More than once a week	3%
Once a week	6%
Once a month	13%
Once every three months	42%
Once every year	37%

The survey revealed that 43 percent of minority consumers eat lamb. The survey also revealed that among ethnic lamb consumers that eat lamb, 73 percent ate lamb at home in the past year and 62 percent ate lamb away from home in the past year (survey results). Survey results also revealed that the survey respondents consumed 3.25 lbs. of lamb per person annually at home and 2.37 lbs. of lamb per person annually away from home.

Applying the two rates of incidence of consumption to the estimated U.S. minority population of 102.8 million (U.S. Census, 2008, calculated by subtracting out the non-Hispanic White race) yields the number of estimated ethnic persons that eat lamb at home and away from home each year. By multiplying and then summing the average volume of lamb consumed annually by these two groups, we get an estimated total volume of lamb consumed by the minority population in

the United States in 2008 of 170 million lbs., about 58 percent of the 294.4 million lbs. of total U.S. lamb supply (including imports). In other words, the U.S. minority populations which accounted for 35 percent of America’s population in 2008 consumed a disproportionate 58 percent of the lamb available.

Ethnic Lamb Consumption

The demographics of ethnic lamb consumers generally follow the findings for the broader population of lamb consumers regarding age, income, gender and regions with some exceptions.

Lamb is far more popular than mutton or goat in the United States among ethnic consumers with 92 percent of surveyed consumers saying that they have eaten lamb in the past year. This compares to 21 percent of all consumers that have eaten mutton and 24 percent that have eaten goat. The incidence of mutton and goat meat consumption among all Americans is not known.

Region

Among those consumers that indicated they have eaten lamb in the past year, 23 percent were from the Northeast, 16 percent from the Midwest, 27 percent from the South and 33 percent from the West (Figure 11).²⁵

The survey respondents that had eaten lamb, mutton or goat in the past year from the Midwest were primarily from the larger cities of Detroit, Chicago, Milwaukee, and the twin cities, Minneapolis and St. Paul.

The South covers the region from the D.C. metropolitan area southwest to and including Texas. In the South respondents were centralized in two areas: the Maryland-District of Columbia-Virginia area as well as across Texas. In Texas, respondents were spread across Austin, Dallas, Houston and San Angelo.

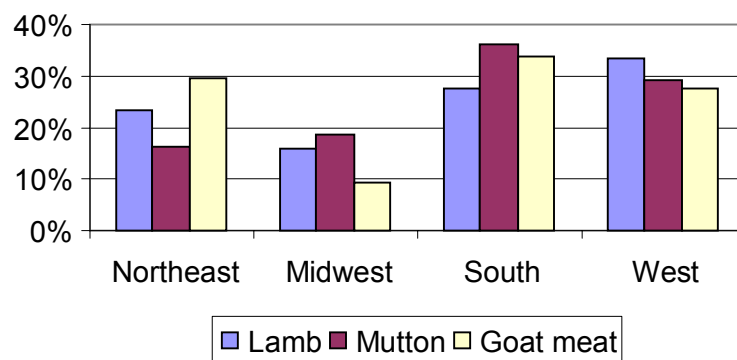


Figure 11. Geographic Distribution of Minority Lamb Consumers

Twenty percent of minority lamb consumers resided in California. Within the state, 60 percent were from southern California (L.A. area and south to the border) with the remaining 30 percent

²⁵ The geographic distribution of all lamb, mutton and goat consumers follows the general trend of consumers only eating lamb, but not mutton or goat.

from the San Francisco and Sacramento regions. Minority lamb consumers were disproportionately represented in California because the state accounts for only 7 percent of the U.S. minority population (i.e., population excluding non-Hispanic white race).²⁶

Although 12 percent of the total U.S. population, minorities are the majority in California. In 2000, the U.S. Census reported that non-Hispanic Whites were a minority in California with 47 percent of the population.²⁷ Hispanics accounted for one in three Californians and Asians accounted for 11 percent of the population.

Thirteen percent of the consumers surveyed were from New York and another 4 percent from New Jersey. Nearly 5 percent of survey participants were from New York City with the remaining New Yorkers spread across the state. Minority lamb consumers were disproportionately from New York because the state only represents 3 percent of the total U.S. minority population.²⁸ New York is ethnically and racially diverse. In 2005, nearly 46 percent of the population spoke a language other than English at home and 36 percent of its population was foreign born.²⁹

Mutton consumers differ from lamb and goat consumers in that a greater share of mutton consumers are found in the Midwest than in the Northeast. Sixteen percent of mutton consumers resided in the Northeast, 19 percent in the Midwest, 36 percent in the South and 29 percent in the West.

The portion of the population consuming goat was less in the Midwest than for lamb or mutton. Thirty percent of goat meat was consumed in the Northeast, 9 percent in the Midwest, 34 percent in the South and 28 percent in the West.

Ethnicity and Religion

A total of one-quarter of the minority lamb consumers in the survey indicated they were of Hispanic or Latino in descent. Eighteen percent were White of Hispanic or Latino descent, while some specified Mexico or other Hispanic or Latino (Figure 12).

Twenty percent of minority lamb consumers in the survey reported they are African American. African American respondents were primarily from New York and New Jersey (17 percent) while 8 percent were from Texas, 8 percent from Illinois, 7 percent from North Carolina and 5 percent from California.

²⁶ U.S. Census Bureau. "Table 1. Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1, 2009" Accessed 12/2009.

²⁷ CBS News. March 30, 2001. "Whites Now a Minority in California"

²⁸ U.S. Census Bureau. "Table 1. Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1, 2009" Accessed 12/2009.

²⁹ New York City Department of City Planning (2005). "The Newest New Yorkers: 2000"

http://www.nyc.gov/html/dcp/pdf/census/nny_briefing_booklet.pdf. Retrieved 2007-03-27. Accessed 12/2009.

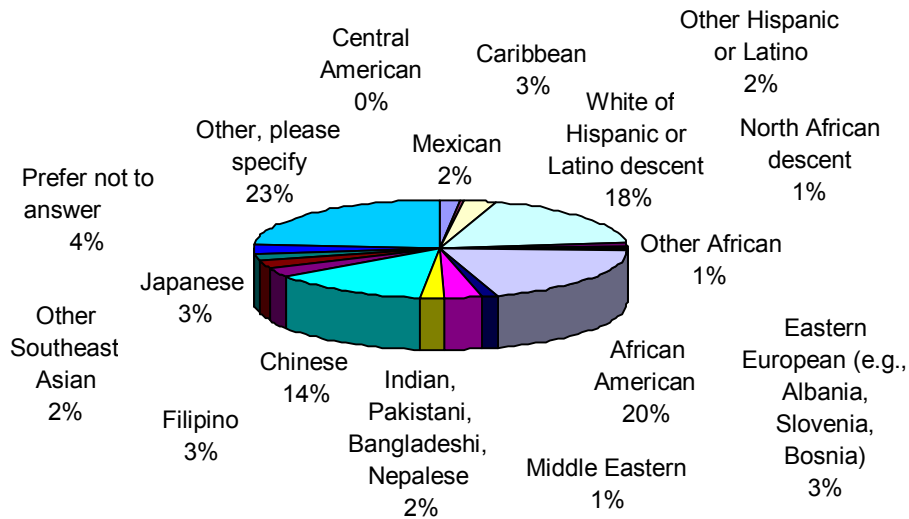


Figure 12. Ethnic Distribution of Lamb Consumers

The large portion of African Americans in the survey might reflect the increasing share of Afro-Caribbean and African-born populations that call themselves African Americans. Based upon the U.S. Census Bureau data from the “American Community Survey 2007,” there were an estimated 38 million African Americans in 2007 of which nearly 4 percent or 1.4 million were African-born. Many of the African American survey respondents are likely Afro-Caribbean and live in New York City.

Fourteen percent of minority lamb consumers in the survey identified themselves as Chinese descent. Among these consumers, 42 percent were from California, 10 percent from New York and 10 percent from Texas.

Twenty-three percent of the lamb consumers in the survey reported that they ‘Prefer not to answer.’ Twenty-three percent of survey respondents also specified “Other” as their ethnicity. Respondents in this latter category varied from many mixed races such as “mixed South African,” “mixed White and Native American” and a few from the South Pacific. The largest group in the “Other” category was “Native American”.

The lamb consumers among the survey respondents were predominately Christian (55 percent) followed by “non-practicing belief” (20 percent). Two percent of respondents were Muslim, 1 percent Hindu, 5 percent Jewish and 3 percent Buddhist. Another 6 percent preferred not to answer and 7 percent reported ‘Other’ which included a non-practicing belief, Catholic, Protestants, Jehovah’s Witness, Baptist and Mormon.

Christians made up 57 percent of lamb consumers in the survey that were White of Hispanic or Latino origin with another 25 percent claiming “non-practicing” as their religion (Figure 13). This percentage likely reflects many persons of Hispanic origin that are Catholic. Seventy-four percent of African American lamb consumers in the survey classified themselves as Christian and another 15 percent said they were non-practicing. Forty-four percent of the Chinese lamb consumers surveyed reported they were Christian and another 37 percent reported they were non-practicing.

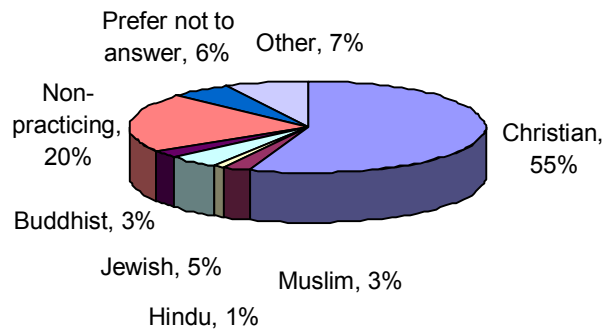


Figure 13. Religious Identification of Lamb Consumers Surveyed

At the outset we believed that the consumer survey would pick up more persons of Muslim and Jewish faith than was the case given the common understanding that lamb is the preferred meat choice for both faiths in the observance of religious holidays. In 2008, the Muslim population in the U.S. was an estimated 1.3 million persons or 0.6 percent of the total population.³⁰ The Jewish population in 2008 was estimated at 2.7 million people, 1.2 percent of the total.³¹

While only 2 percent of our survey respondents reported being Muslim and 5 percent Jewish, 6 percent reported that they eat lamb for Muslim holidays (as shown later). Many Muslims may have chosen “prefer not to answer” when selecting ethnicity creating a downward bias in the percentage of the survey who were Muslim. In any case, the higher percentages of Muslims and Jews represented in the survey indicate that the survey did a good job focusing specifically on the lamb consumers among those populations.

Income

Similar to the profile of lamb consumers across the country, the survey results indicate that ethnic lamb consumers fall into the higher income categories. Sixty-five percent of ethnic lamb consumers earn a household income of over \$50,000 per year (Figure 14) while only 35 percent of ethnic lamb consumers earn less than \$50,000 per year.

³⁰ Kosmin, Barry A. and Ariela Keysar. ARIS. “American Religious Identification Survey,” (ARIS 2008). March 2009.

³¹ Ibid.

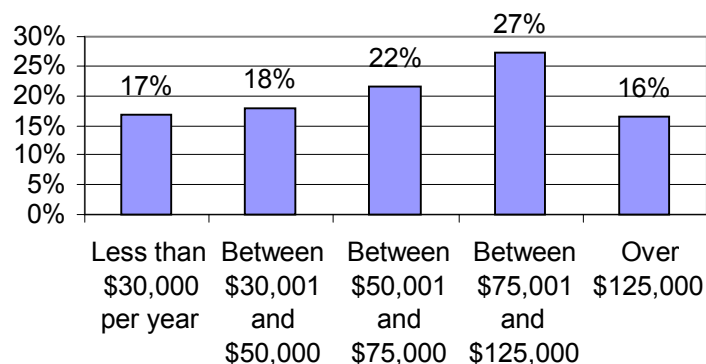


Figure 14. Minority Lamb Consumers’ Distribution of Household Income

Lamb consumption is often reported as positively correlated with income levels. Consumers with household incomes over \$50,000 are much more likely to purchase lamb at home in any given month (Shugoll Research, 2009). Shoppers making \$75,000 or more annually are at least twice as likely to have eaten lamb as those with lower annual household incomes (Food Marketing Institute, 2009). Consumption is low at around 20 percent up to \$50,000 and starts to increase from there.

The fact that minority lamb consumers also fall into higher income brackets was an unexpected result. The working hypothesis was that average household income would be lower for ethnic consumers because tradition is often considered to be the main demand driver in ethnic lamb consumption. However, ethnic lamb consumption is relatively more constant among different income levels relative to a broader population of White lamb consumers. The survey revealed that 16 percent of ethnic lamb consuming households earn over \$125,000 per annum, 27 percent earn between \$75,000 and \$125,000, 22 percent earn \$50,000 to \$75,000 and 35 percent earn less than \$50,000 per annum (Figure 14).

Gender & Age

Surveyed ethnic lamb consumers were split evenly among genders which is similar to survey results for a broader population of U.S. lamb consumers.

Minority lamb consumers are more likely at a younger age to eat lamb than in a survey of largely White lamb consumers. The majority (61 percent) of lamb consumers range from 41 to 65 years of age with 21 percent between 20 and 40 years of age (Table 22). The Food Marketing Institute (2009) found – among the total population -- that the youngest and the oldest shoppers are the most likely to have consumed lamb, with “male Matures” (age 65 and up) the most likely at 46 percent.

Table 22. Distribution of Lamb Consumers by Age

Less than 20 years	1%
21 to 40 years	28%
41 to 65 years	61%
Over 65 years	11%

Significance of Lamb as a Meal

Most ethnic respondents to our survey indicated that they ate lamb at home for an everyday meal (78 percent) with far fewer indicating they eat lamb for special occasions such as birthdays, births, funerals, weddings and anniversaries (6 percent). Another 4 percent of consumers surveyed indicated they eat lamb for Christmas, 3 percent for Thanksgiving, 7 percent for Easter and 2 percent for Passover. A total of 6 percent indicated they eat lamb in observance of Muslim holidays, Eid-al-Fitr, Eid-al-Adha and the beginning of Ramadan. Other reasons cited for eating lamb (indicated by 6 percent of ethnic consumers) included while traveling and at theme parties at friend's houses.

Research shows that lamb supplies peak during religious holidays such as Easter (National Research Council, 2008). Spikes in annual lamb slaughter have been shown to be related to Christian, Orthodox and Muslim holy periods. Additionally, the impact of these holidays on lamb consumption appears to be increasing over time. The research also showed that, contrary to expectation, lamb consumers are price sensitive when making lamb purchases for these holy days.

Consumer Perception of Price and Lamb Attributes

Overwhelmingly, lamb consuming survey respondents indicated that they perceived lamb to be competitively priced, consistent, good in quality and have good availability (Table 23). Among these attributes, availability received the lowest score (56 percent). Thirty-three percent of lamb consuming survey respondents reported that lamb availability was not good.

Table 23. Consumer Perception of Lamb Price and Attributes

	Agree	Disagree	No Opinion or Doesn't Apply
Lamb was competitively priced	60%	29%	11%
Lamb quality was very good	77%	18%	5%
Quality was consistent	77%	17%	7%
Availability was good	56%	33%	12%
Availability of halal lamb was very good	16%	20%	64%
Availability of kosher lamb was very good	16%	20%	64%

Sixty-four percent of lamb consumers had no opinion or felt that the availability of halal and kosher lamb did not apply to them. Twenty percent disagreed that the availability of halal and kosher lamb was good while 16 percent said that the availability was very good.

Lamb Marketing Channels

Nearly 60 percent of lamb consumers in the survey reported that they purchased lamb from a grocery store. Twenty-two percent reported the lamb came from Wal-Mart, Sam's Club or Costco. Another 38 percent bought lamb at "Other" grocery stores excluding natural and ethnic grocery stores. Natural grocery stores such as Whole Foods accounted for the purchases of 8 percent of lamb consumers and ethnic grocery stores for another 8 percent. Thirteen percent of lamb consumers in the survey purchased lamb from butchers at meat markets.

The remaining sources for lamb purchases included friends or relatives (2 percent) and farmers' markets (2 percent). Only 1 percent indicated that they purchased lamb direct from a farmer and had it slaughtered at a packing plant. Another 3 percent did not know where the lamb came from and 5 percent reported "Other" sources, including lamb purchased from an online meat store and from a U.S. Army commissary.

When asked why lamb purchases were made at their particular location, 51 percent of lamb consuming respondents responded "convenience". Low cost (35 percent), freshness (35 percent), selection (34 percent) and quality (34 percent) ranked about equally important in consumers' lamb purchasing decisions.

When lamb consuming respondents were asked whether they mostly eat domestic or imported lamb, 44 percent responded U.S., 14 percent responded imported and 42 percent responded that they didn't know. When asked why they consumed imported lamb, 71 percent responded that domestic lamb was not available while 13 percent responded that the quality of domestic product was inferior and 12 percent reported that the price was too high. Other responses included quality was not consistent (4 percent) and travel in other countries where U.S. lamb was not available.

Nearly two-thirds (61 percent) of lamb consuming respondents indicating that they eat lamb away from home purchased the lamb at a formal or casual sit-down restaurant. Eating lamb at a friend's or relative's house came in at a distant second (21 percent) with another 6 percent at a fast-food restaurant, 3 percent at a food kiosk or vending cart, 3 percent at an entertainment venue and about 1 percent at "Other" venues such as cruises.

Substitution of Lamb, Mutton and Goat Meat for Other Meats

The survey responses suggested that there is some degree of substitution in consumption among meats with nearly one-quarter of lamb consumers also eating goat meat or mutton. Twenty-three percent of lamb consumers also ate goat meat and 21 percent of lamb consumers also reported eating mutton. Eleven percent of surveyed lamb consumers also ate mutton and goat.

If lamb is not available or priced too high, lamb consuming respondents most often picked beef as the substitute of choice. Chicken was the second most popular choice.

In the case of the unavailability of lamb, 41 percent of lamb consuming respondents indicated that they would purchase beef instead, 20 percent would purchase chicken instead, 16 percent pork, 11 percent fish or seafood, 5 percent goat or veal and 3 percent mutton.

If lamb is priced too high, 34 percent of lamb consuming respondents indicated they would buy beef instead, 30 percent chicken, 14 percent pork, 11 percent fish or seafood, 4 percent goat or veal and 3 percent picked mutton.

Ethnic Retail Goat Consumption

Twenty-four percent of ethnic lamb, mutton and goat consumers surveyed indicated that they had eaten goat meat in the past year compared to 92 percent that have eaten lamb and 21 percent that have eaten mutton in the past year.

A majority of goat consuming respondents (63 percent) indicated that they eat goat meat for no particular occasion, for an every day meal. Seventeen percent of ethnic consumers eat goat meat in observance of Muslim holidays. Five percent of consumers eat goat meat during the beginning of Ramadan, 7 percent for Eid-al-Fitr and 5 percent for Eid-al-Adha. Two percent eat goat meat for Passover, 4 percent for Easter, 2 percent for Christmas and 4 percent for Thanksgiving. Ten percent of consumers indicated that they choose goat meat for birthdays, births, funerals, weddings and anniversaries. Eighteen percent of consumers reported eating goat meat for other occasions such as while traveling overseas, at a friend's house and at restaurants.

Overall, with respect to their most recent experience eating goat meat, 59 percent of respondents reported that the goat meat was competitively priced, 72 percent that the quality was very good, 67 percent reported that the quality was consistent and 54 percent said the availability was good.

Over half of respondents did not feel the availability of halal goat meat was an issue (54 percent). The same was the case for the availability of kosher goat meat -- 57 percent believed that it was a nonissue.

If goat meat was not available, the respondents reported that they choose beef as their first choice for a substitute (26 percent) with chicken the second choice (19 percent each). Seventeen percent said they choose pork if goat meat was not available. If goat meat was priced too high, 26 percent of respondents said they choose beef instead, 21 percent chicken, 19 percent pork, 17 percent lamb, 9 percent fish or seafood, 4 percent mutton and 4 percent veal.

American goat meat is fairly well recognized as being American. Fifty-three percent of respondents reported eating U.S. goat meat while only 6 percent (or 6 respondents) said they ate imported goat meat. However, 41 percent said they did not know the origin of the goat meat they eat. About 67 percent of respondents reported that they eat imported goat meat because domestic goat meat is not available. One-half of consumers reported that the reasoning for not eating U.S. goat meat was that the price is too high. One-third of respondents felt that the quality of U.S. goat meat is inferior so they purchase imported goat.

Goat meat is primarily consumed outside the home according to the survey respondents. On a per capita basis, however, they reported that more goat meat is consumed at home. Forty-six percent of respondents had eaten goat meat at home in the past year and 70 percent had consumed goat meat away from home. Goat consuming respondents reported an average annual consumption of 2.86 lb per person at home and 2.02 lb per person away from home.

Among the sources of goat meat consumed at home, the survey respondents indicated that 27 percent was purchased from a meat market/butcher shop and 24 percent from an ethnic grocery store. There were multiple reasons for the choosing the locations above in purchasing goat meat. Freshness was reported as being important for 47 percent of consumers. Other reasons included convenience (44 percent), low cost (42 percent), selection (36 percent) and quality (27 percent).

Among the 98 consumers that had eaten goat meat in the past year, 70 percent reported eating goat meat away from home in the past year. When eating goat meat away from home, the most popular venue was a casual or formal sit-down restaurant (39 percent) followed by at a friend's or relative's house 36 percent and then fast food restaurants (12 percent).

Forty-two percent of goat meat consuming respondents reported eating goat once a year, 29 percent once every three months, 20 percent once a month and 8 percent at least once a week.

Ethnic Retail Mutton Consumption

Among 410 consumers surveyed that had eaten lamb, mutton or goat in the past year, 21 percent had eaten mutton. Mutton was the choice of meal for "no particular occasion/an everyday meal" for 62 percent of the respondents.

Just over half (51 percent) of respondents thought that the availability of mutton was good. This compares to 56 percent for lamb consuming respondents and 54 percent for goat consuming respondents. Sixty-seven percent of mutton consuming respondents thought that the mutton was competitively priced, 72 percent reported that the quality was good and 73 percent said that quality was consistent. Over half of mutton consuming respondents thought that the availability of halal mutton was not an issue (54 percent) and 58 percent that the availability of kosher mutton was not an issue.

If mutton was not available mutton consuming respondents mostly picked beef as the next best substitute (27 percent) and then fish or seafood (16 percent), lamb (14 percent), goat meat (13 percent), chicken (12 percent), pork (11 percent) and veal (7 percent).

If mutton was priced too high, then 23 percent of mutton consuming respondents switched to beef, followed by fish or seafood (18 percent), pork (16 percent), lamb (13 percent), chicken (12 percent), goat meat (10 percent) and veal (4 percent).

Sixty-two percent of mutton consuming respondents reported eating U.S. mutton. Eight percent said the mutton was imported and one-third reported that they did not know the origin. Overwhelmingly, mutton consuming respondents said that U.S. mutton was priced too high as the reason why imported product was chosen (71 percent).

The majority (59 percent) of mutton consuming respondents ate mutton at home in the past year. Fifty-five percent of mutton consuming respondents ate mutton at least once a month, 29 percent every three months and 16 percent once a year.

Mutton was reportedly purchased from Wal-Mart, Sam's Club or Costco by 20 percent of respondents. "Other grocery stores" (not including ethnic or natural grocery stores) accounted for 22 percent of respondents' answers and another 22 percent said the mutton came from a butcher/meat market. Three individuals purchased the mutton from a farmers' market and one purchased it live from a farmer and had it processed at a slaughter facility.

Convenience was the most popular reason for deciding upon where to purchase mutton (51 percent of responses). Low cost and freshness ranked evenly as the second most popular reason (41 percent each) followed by selection (37 percent) and quality (29 percent). Four people indicated that they like to select a live animal as the reason for their choice of where to source mutton.

Sixty-nine percent of mutton consuming respondents reported eating mutton away from home. Nearly two-thirds of mutton consuming respondents (68 percent) ate mutton away from home at least once every three months to once a year, 13 percent at least once a week and 19 percent once a month.

While more mutton consuming respondents ate mutton away from home than at home, they reported eating a lower volume away from home. Fifty-nine percent of mutton consuming respondents ate mutton at home with an average annual per capita consumption of 4.35 lbs. at home. Sixty-nine percent of mutton consuming respondents ate mutton away from home with an average annual consumption of 2.58 lbs. per person.

Nearly one-half (48 percent) of mutton consuming respondents ate mutton at a casual or formal sit-down restaurant. Thirty-eight percent had the mutton at a friend's or relative's house while 7 percent had it as a fast food restaurant and 3 percent at a fair, trade show or other entertainment show.

Chapter 6. Marketing Strategies to Enhance Industry Profitability Suggested by the Research Results

The research suggested a number of strategies for marketing lamb to nontraditional markets that could enhance industry profitability. Six key strategies for marketing to nontraditional markets suggested by the research include the following:

Marketing Strategy #1: Create opportunities to divert lambs from nontraditional markets into traditional, commercial market channels.

Most producers would likely suggest that they would prefer benefiting from marketing directly to nontraditional markets rather than selling to those markets through packers. However, the fact is that the large volume of lambs currently going into nontraditional markets now is not benefitting from the efficiencies, scale of operation and infrastructure currently in place in traditional market channels. As a result, the future growth of traditional markets could well be impeded by the lack of efficient slaughter, distribution and infrastructure to facilitate the growth. One consequence could be a growing number of ethnic consumers buying imported lamb because of the unavailability of domestic lamb to meet their needs. Traditional market channels may well allow a larger number of producers to take advantage of and benefit from this quickly growing market segment and limit the erosion of ethnic consumers to imported lamb over time.

Marketing Strategy #2: Increase ethnic group awareness and purchase frequency by promoting the specific characteristics of American lamb that they value.

The survey results indicated that the critical attributes of lamb that they value most when buying lamb include: the meat yield, grass fed, healthy, “natural,” consistency, local, comes from a trusted source and availability. These then are the targets for advertising and promotion campaigns for selling an increased volume of American lamb to ethnic consumers. By informing ethnic consumers of the superiority of American lamb with regard to these specific attributes, ethnic consumers are more likely to search for and demand American over imported lamb and over other competing meats.

Marketing Strategy #3: Enhance ethnic consumer awareness of the availability of American lamb.

When minority lamb consuming respondents were asked whether they eat domestic or imported lamb, 44 percent responded American lamb, 14 percent responded imported and 42 percent responded that they did not know. When those who eat imported lamb were asked why they did so, an overwhelming majority (71 percent) responded that domestic lamb simply was not available. Advertising and promotion to educate ethnic consumers on where and how they can access American lamb could be an important strategy to enhance the ethnic consumption of and loyalty to American lamb. Industry efforts to improve the availability of lamb to this rapidly growing segment of the population are also needed.

Marketing Strategy #4: Target ethnic lamb sales geographically.

The survey results indicated that a disproportionate number of lamb consumers live in California and New York. While California is home to 20 percent of the lamb consuming survey respondents with southern California accounting for 12 percent of the respondents, California is home to only 7 percent of the U.S. minority population (all ethnicities excluding non-Hispanic

white race). Also, New York is home to 13 percent of the ethnic lamb consumers surveyed but accounts for only 3 percent of the total U.S. population. Targeting ethnic market advertising and promotion dollars to these areas will likely maximize the bang for each buck spent on this market segment.

Marketing Strategy #5: Target retail over foodservice sales to ethnic consumers.

Nearly 75 percent of ethnic lamb consumers indicated they eat lamb at home with 37 percent indicating they eat lamb at least once a month. Thus, despite the growing trend toward away-from-home consumption for many food products and even lamb, most ethnic consumers continue to eat lamb at home. Thus, promoting lambs sales at retail could be the most effective way of spending ethnic promotion dollars.

Marketing Strategy #6: Target mainstream grocery stores in marketing lamb to ethnic consumers.

Among the 75 percent of ethnic consumers indicating that they eat lamb at home, about 60% reported that they purchase their lamb from mainstream grocery stores. When asked why they purchase lamb at grocery stores, “convenience” was the most popular response given followed in equal importance by low cost, selection, freshness and quality. So despite the perhaps prevailing perception that the lamb consumed by ethnic groups comes from live animals they purchase and custom slaughter, in fact nearly two-thirds shop for their lamb in mainstream grocery stores. The implication is that targeting mainstream grocery stores frequented by ethnic consumers could enhance the effectiveness of lamb promotions to ethnic groups.

Obviously, these six strategies should be designed to work together for maximum effectiveness. Other results of the survey should also be taken into account such as the apparent price sensitivity of ethnic consumers even when buying for special occasions and special holidays. Because ethnic lamb shoppers have relatively lower incomes than other lamb consuming groups, cost could be a factor in the choice of many to buy lamb at grocery stores rather than at more specialty ethnic or natural grocers or even from butchers.

What’s the Future for Ethnic Lamb Consumption?

While the increase in population growth will surely increase lamb demand, the ethnic composition of that growth will likely accelerate lamb consumption in the future. According to the Pew Research Center (2008), if current trends continue, ethnic populations in the U.S. are estimated to grow exponentially while the non-Hispanic White population grows only marginally.

The U.S. Census Bureau reported that minorities, now roughly one-third of the U.S. population, are expected to become the majority in 2042, with the nation projected to be 54 percent minority in 2050. The Pew Research Center estimated that by 2050, the White population will shrink from 67 percent of the population to 47 percent; the Hispanic population will grow from 14 percent to 29 percent; the Blacks will hold at about 13 percent; and Asians will grow from 5 percent to 9 percent (2008:2). If these growth rates hold, then lamb consumption could grow exponentially given the results of this survey on the incidence of lamb consumption among ethnic groups.

According to the U.S. Census Bureau³², by 2050, the minority population — everyone except for non-Hispanic, single-race whites — is projected to be 235.7 million out of a total U.S. population of 439 million. Also according to the U.S. Census Bureau, the greatest rate of growth by ethnicity will be the Hispanic population followed by Asian Americans. The African American population is also expected to grow but at a somewhat lower rate.

Given an estimated 235.7 minority population in 2050 and the survey findings we can calculate an estimated volume of lamb consumption by the minority populations in 2050. Recall that the estimated ethnic lamb consumption incidence rate, based on our survey results, is 43 percent. The annual per capita consumption of lamb eaten at home is estimated at 3.25 lbs. and away from home at 2.37 lbs. Thus, an estimated 240 million lbs. will be consumed at home by ethnic groups and 329 million lbs. will be consumed away from home by those groups for a grand total of 569 million lbs. of projected lamb consumption by persons of ethnic backgrounds.

In 2008, domestic commercial lamb and mutton production totaled 173.8 million lbs. and lamb and mutton imports totaled 183.3 million lbs. for a total availability of 357.1 million lbs. *Thus, lamb consumption by ethnic groups in 2050 is expected to surpass current lamb availability by 60 percent.*

This estimate is conservative given that the non-Hispanic white population will likely adopt more international cuisine, including lamb. Additionally, as the minority population increases, so will the portion of the ethnic working population that can choose lamb as a meal. The greater portion of working age ethnic populations in the total will also accelerate lamb consumption. According to the U.S. Census Bureau, the percentage of the population in the “working ages” of 18 to 64 is projected to decline from 63 percent in 2008 to 57 percent in 2050. However, the working-age population is projected to become more than 50 percent minority in 2039 and be 55 percent minority in 2050 (up from 34 percent in 2008). Also in 2050, the working-age population is projected to be more than 30 percent Hispanic (up from 15 percent in 2008), 15 percent black (up from 13 percent in 2008) and 9.6 percent Asian (up from 5.3 percent in 2008).

According to the Pew Research Center (2009), the rise of consumers expressing no religious preference has been one of the most important trends on the American religious scene since 1990. Although the overall rate of growth of those expressing no religious preference slowed after 2001, the numbers offering a specific self-identification as Agnostic or Atheist rose markedly from over a million in 1990 to about 3.6 million in 2009. This suggests that religion will become less of a factor for marketing lamb in traditional markets. This may be less of a concern among Muslim and Jewish populations, however, since the observance of many Muslim and Jewish holidays and a long tradition of frequent lamb consumption will likely continue to encourage the slaughter and preparation of lamb among these two religious groups in the future.

³² U.S. Census Bureau. “An Older and More Diverse Nation by Midcentury,” 2008.

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