Marketing Slaughter Hogs: Where, How & When
Michigan State University
Cooperative Extension Service
Authors:
J. Marvin Skadberg, Iowa State University
Steve C. Marks, Oregon State University
M. Brice Kirtley, University of Illinois
Reviewers:
M.S. Turner, University of Nebraska
Jack Rundquist, Butler, Illinois
Jay Akridge, Purdue University
July 1997
6 pages

pork industry handbook

MICHIGAN STATE UNIVERSITY EXTENSION

Marketing Slaughter Hogs: Where, How & When

(Key Words: Marketing, Hog Markets, Pigs)

Authors:
Ron Plain, University of Missouri
James Mintert, Kansas State University

Reviewers:
Gene E. Murra, South Dakota State University
Jack Rundquist, Butler, Illinois
Jay Akridge, Purdue University

Where to Sell

Choosing a market is one of the most important decisions a pork producer makes before selling hogs. Market selection has a big impact on a producer's net sale price. Prices, as well as marketing costs such as shrink, transportation, and commissions, vary among markets. Consequently, hog producers must be aware of alternative markets available in order to choose one which yields the greatest net return.

As a part of the marketing process, producers need to periodically check prices and market conditions at more than one market. Even those producers who are pleased with their market should regularly examine alternative markets and occasionally sell to them to test price levels, marketing costs, and net returns. One way to do this is to send split loads of hogs to separate markets on the same day.

Hog markets can be classified into two broad categories: public markets (terminals and auctions) and direct markets (packer buyer, buying stations, order buyers, and commission agents).

Public Markets

The main types of public markets are central stockyards (terminals) and auctions. Although they were once the dominant force in hog marketing, today less than 5% of the nation's hogs are sold through public markets. Despite their small share of total hog sales, public markets are still important in some areas of the country that are located a considerable distance from packing plants.

Producers choosing public markets often do so because they lack access to direct markets or do not have sufficient skills or time to negotiate with buyers. They rely on a qualified agent to market their hogs at a terminal market or use an auction where buyers compete directly with each other to buy hogs. A major disadvantage is that public markets price hogs only on a live weight basis. To sell hogs on a carcass merit pricing program, producers must use direct markets.

Terminals. Central public stockyards or terminal markets handle about 2% of the nation's slaughter hogs. Slaughter hogs sold through terminal markets are typically consigned to a commission firm at that market. The commission firm negotiates with buyers and sells hogs on behalf of the producer. When selling hogs through a terminal market, producers typically pay a yardage fee to the stockyard plus a commission to the firm handling the hogs. Producers should select commission firms that have a good reputation and employ knowledgeable personnel. A good commission firm can help producers select the most appropriate time to market since its representatives are constantly in touch with the market and often have a good feel for short-run market demand.

There are several advantages and disadvantages associated with selling hogs at a terminal market. The major advantage of terminal markets is that several buyers usually compete for the same hogs at the market. Another attraction is that prices are monitored and publicly reported making it possible for a producer to compare the price paid with the publicly reported price. One disadvantage of any public market, including terminals, occurs when supplies are large at that particular market relative to demand. Then, price declines at that market can be exaggerated when compared to broader market averages. Under extreme circumstances, commission firms can hold hogs for the next day's sale. This is not a general practice because hogs held over increase the next day's sales volume and tend to depress prices. Most hogs drop in quality and can shrink considerably if held at unfamiliar facilities for an extended time. All hogs sold at terminals are marketed on a liveweight basis, which can be a disadvantage for hog operations with high cutability hogs. Producers selling hogs with above average cutability carcasses often find it difficult to obtain adequate compensation for their hogs when marketed on a liveweight basis instead of on a carcass merit program.

Auctions. Although auctions are not a major slaughter market outlet in most hog producing regions, about 2% of the nation's hogs are still sold through auctions. In some localities, auctions are the dominant market for slaughter hogs. The typical auction is a sale barn, but auctions are occasionally conducted electronically via telephone and video (satellite). Slaughter hogs marketed through auctions are sold to the highest bidder, whereas at terminals they are sold by commission agents to buyers who, in the agents' judgment, will be the strongest bidders. When selling hogs through an auction market, the producer pays a commission to the auction operator.

The effectiveness of the hog auction is influenced by the volume and quality of hogs offered through it and the number of buyers it attracts. Auctions usually are located fairly close to the farm so that transportation costs and shrink losses are minimal. Commission costs incurred by producers selling at auctions raise the cost of marketing hogs compared to direct sales, but can be offset if the competition for hogs is strong and prices are higher than at other markets. One major disadvantage of auctions is that hogs can be sold only on sale days and most auctions have sales only one or two days a week.

Direct Markets

Direct marketing occurs when producers negotiate the sale of their own hogs. Well over 80% of the nation's hogs are direct marketed. Markets that fit the direct negotiation category include sales to packing plants and packer-owned buying stations, order buyers, country dealers, and independent country buying stations. Although many hogs marketed directly to packers are sold on a liveweight basis, carcass merit sales programs have become increasingly popular in recent years. Producers interested in obtaining premiums for hogs with high lean, low-fat carcasses often find selling hogs on a carcass merit basis to be beneficial.

Direct marketing offers numerous advantages. Hogs are usually weighed, sorted and priced as soon as they are delivered (if the price hasn't been agreed upon in advance). Thus, producers know their income quicker than with a public market. Retaining control of hogs on the farm pending final sale preserves maximum marketing flexibility. Producers can choose to accept or reject any price bid without incurring marketing costs, such as transportation, shrink and yardage. Finally, the time between when hogs leave the farm and arrive at the packing plant is usually less with direct marketing than with public markets. Thus, direct marketing minimizes both live weight shrink loss and total transportation costs while also providing packers with fresher hogs.

The disadvantage of direct marketing is that the producer must rely on his own skills to be sure that the price received is competitive. A producer who does not closely follow the market and does not have a good appreciation of the value of hogs might use other marketing techniques.

Plant delivery. About half of hog slaughter is composed of pigs delivered directly to the packing plant by producers. This bypasses one step in the marketing chain and provides producers the opportunity to earn a portion of the fees that normally go to commission agents, auction operators or buying station operators. Plant delivery usually offers the highest liveweight hog price since packers will not incur any added shrink or transportation in getting the hogs to slaughter. Scheduling the delivery of hogs to help meet packing plant requirements can give an added bonus. Most packers are willing to pay a slight premium for hogs that are delivered at a prearranged time.

Many packers operate country buying stations where producers can market hogs. Normally, the buying station price will be below the plant price since the packer typically absorbs the added cost of running the buying station and shipping the hogs to the plant.

A few packers offer on-farm pick-up of hogs. Since this service is an added convenience to the producer, on-farm bids typically will be below either buying station or plant bids.

Producers should check periodically with packers in their region to keep current on packers' procurement programs and pricing criteria. Packers continually revise their hog procurement programs to reflect market competition and changes in their internal operation. Ultimately, the producer should ship some hogs to a plant to gain a good grasp of how a packer prices, evaluates and sorts hogs.

Although producers might find that one packer's pricing system works best for their hogs, there is no substitute for the discipline that competition provides. A packer who is confident of obtaining your hogs is less likely to price each load aggressively than is a packer who fears losing the next load if today's price is not competitive. The leaner and heavier muscled the hogs, the more marketing leverage and negotiating power the seller possesses.

Group Marketing

The changing structure of the hog industry has encouraged many midwestern hog producers to form marketing groups. Group marketing entails individual pork producers marketing hogs collectively to increase the price received and/or reduce their marketing costs. A recent survey of midwestern hog marketing groups revealed that most hog marketing groups can be classified into three different categories: product differentiation groups, transaction cost groups, or transaction/marketing cost groups.

Groups oriented toward marketing a large volume of hogs with high-lean carcasses and little variability among carcasses can be characterized as product differentiation groups. Product differentiation groups seek to obtain higher prices for members' hogs by emphasizing carcass leanness and muscling. By necessity, these groups have specific membership requirements designed to control or improve the value of hogs marketed by the group. Marketing groups in this category tend to compensate the individual designated as group leader and charge members fees to market hogs with their group. Group leaders often summarize carcass data for the group and make it easy for individual members to compare the performance of their hogs with those of the group. Some groups in this category have entered into long-term marketing arrangements with a particular packer.

Transaction cost groups consist of independent pork producers banding together primarily to market hogs directly to packers in semi-trailer loads. Their primary objectives are to reduce transportation costs by capturing transportation economies of size and to increase their sale prices by gaining access to more markets. Marketing groups in this classification do not have specific membership requirements, pay their group leaders or charge members to market with the group. Finally, these groups typically do not enter into long-term marketing agreements with a single packer.

The third category, transaction/marketing cost groups, organize primarily to reduce members' marketing costs, but also implement some strategies designed to help raise their members' sale prices. Unlike groups whose primary focus is to reduce transaction costs, these groups compensate their group leaders, charge members to market hogs with the group and sometimes enter into long-term marketing agreements with a single packer. These groups differ from groups that are attempting to market a differentiated product in that they do not have membership requirements to help control carcass quality. In turn, this sometimes leads groups to negotiate marketing agreements with more than one base bid to help account for the carcass quality variation among members.

The following guidelines for the operation of a hog marketing group are designed to help producers interested in starting a hog marketing group and to enhance current groups' operations. Seemingly small changes in group policy or operating procedures can spell the difference between success or failure of group marketing programs. Suggested guidelines for operating a successful marketing group are:

1. Have a written agreement.
2. Hire a marketing group coordinator.
3. Market hogs on carcass merit rather than on a liveweight basis.
4. Summarize and analyze kill sheet data.
5. Distribute information to group members and make comparisons concerning carcass, growth and reproductive traits.
6. Consider using new marketing strategies, such as long-term marketing agreements.

Marketing Costs

Costs associated with marketing hogs can be significant. Differences in marketing costs between two markets easily can exceed the difference in hog price. Marketing costs include shrink loss, transportation and selling cost.

Shrink loss. Most hogs will lose weight continually from the time they are sorted for market until they are slaughtered. The longer this time period and the greater the stress placed on the hog (due to handling, extreme temperatures, fighting with other hogs, etc.), the greater will be the weight loss. Under good conditions, hogs will shrink approximately 1% during sorting and loading plus an additional 1% for the first 50 miles hauled and another 1% for the next 100 miles. Shrink can be reduced by gentle handling, minimizing the mixing of hog groups, shipping to the closest market, and avoiding shipping during extremely hot or cold weather.

When selling hogs on a liveweight basis at a more distant market (where greater shrink will be incurred), you need to receive a higher price for your hogs to compensate for the weight loss. To determine how large a price premium is necessary to obtain the same net price (after the shrink loss has been accounted for) at a longer haul market compared to a short haul market, multiply the difference in the percent shrink between the two markets by the short haul market's price to obtain the per hundredweight value of shrink loss. For example, to compare a short haul (1% shrink) to a longer haul (3% shrink) market when the price available at the short haul market is $45/cwt, take the difference in shrink (3%-1%) times the price available at the short haul market ($45/cwt.) to calculate the necessary price premium at the long haul market (2% x $45 = $0.90/cwt). Thus, with a $45/cwt bid available at the short haul market, a price of $45.90/cwt would be required just to cover the added liveweight shrink that would be incurred on the longer haul. If you, as the seller, are paying the additional transportation required to ship hogs to the more distant market, the additional trucking cost also should be added to the price of $45.90/cwt before you evaluate the price offered at the more distant market. Note that the cost of shrink is related to the price of hogs; therefore, the value of shrink loss is less when hog prices are lower than during periods of relatively high hog prices.

Shrink is less of a concern when selling under carcass merit programs than on a liveweight basis. Research has shown that carcasses typically do not shrink measurably if hogs are slaughtered within 12 hours of leaving the farm. Consequently, carcass weights generally would not be expected to change unless slaughter is delayed beyond 12 hours from the time the hogs leave the farm gate. Producers selling on a carcass merit program should confirm that their hogs are slaughtered within this time period to avoid carcass shrink.

Transportation. The greater the distance to market or the smaller the truck used to haul the hogs, the greater the transportation cost per pig. For small loads, the per pig cost of a long haul can be prohibitive. Therefore, producers with only a few pigs to sell at a time can be trapped into only considering nearby markets. High transportation costs per pig marketed have encouraged some smaller producers to try pooling their marketings with other producers. Combining their market animals with other hog operations can make shipping hogs via semi-trailer loads feasible and enable producers to consider selling their hogs at a greater number of locations.

Selling cost. The public markets, terminals and auctions have set commission, yardage, feed, and insurance fees that are incurred when selling through those markets. These costs must be deducted from the price to determine actual net farm price. Other marketing programs also may have marketing fees attached to them, and these should be handled the same way as public marketing fees.

How to Sell

One of the complicating factors in choosing a market for slaughter hogs is that all markets do not price hogs in the same manner. Producers marketing directly often have a choice in pricing method. These pricing or selling options can be divided into three categories: live pricing (including both appearance pricing and reputation pricing), carcass merit pricing, and contract pricing which might or might not rely on a carcass merit pricing system.

Live pricing. About a third of hogs sold in the United States are priced by the buyer based upon their live weight. Traditionally, under live pricing, buyers used visual inspection to assess the hogs' value. Since buyers have access to packer cut-out information from hogs previously delivered by a producer, live hog bids become reputation bids based upon the carcass traits of previous marketings. This approach is actually a lagged carcass merit program, i.e., the current group of hogs being marketed by a producer is priced based upon the cut-out value of the last group of that producer's hogs.

The major advantage of live pricing is that it is easy for the seller to understand. The price is simply multiplied by the weight of the hogs to calculate the value of the hogs and the producer knows his income when the hogs are delivered.

The major disadvantage of live pricing is that it is very difficult for the buyer to accurately determine a group of hogs' value prior to slaughter. In any average pricing technique, there is a natural tendency to underprice hogs with heavy muscled, lean carcasses and overprice hogs with light muscled, fat carcasses. As a result, producers selling better than average value hogs should shy away from live pricing based on appearance.

Carcass merit pricing. The major method of selling or pricing hogs is carcass merit, sometimes called grade and yield. Under this method, individual hog carcasses are evaluated as they pass from the kill floor to the chill room in an attempt to measure percent lean. Two factors typically used in the evaluation process are carcass weight and depth of backfat. Backfat depth typically is measured by a ruler or a mechanical probe. Some packers use additional measurements such as loin depth, or percent ham and loin in making their carcass value evaluation. Price premiums or discounts from a base price are computed for each carcass to determine the value of the hog.

The principal advantage of carcass merit pricing is it can more accurately reflect hog carcass values than live pricing. Most buyers using this evaluation technique send the seller a detailed report on the grading and pricing of the hogs. This report can be used by producers as a guide in making management decisions such as selecting breeding stock and choosing the proper market weight.

The major disadvantage of carcass merit pricing is that it is mysterious. Carcass measurements are taken long after the producer has returned home and each packer uses different measurement techniques and formulas to arrive at percent lean. Differences among packers' carcass merit programs can make it difficult to determine which packer is truly paying the highest price for a producer's hogs. If an error is made on carcass lean, fat content or weight, it is impossible to re-evaluate because the carcasses are fabricated and sold before the seller receives his report. Another disadvantage to the seller is, in most cases, the seller assumes the loss on totally or partially condemned carcasses. Finally, payment is delayed until after the hogs have been slaughtered and evaluated.

Consumers' concern about fat content has been translated into strong packer concern about the fat content of the hogs they buy. This concern has produced significant price differentials between fat and lean hogs. Producers marketing hogs producing carcasses that are less than 50 % lean need to improve their hogs' carcasses quality. In the short run, altering the hogs' market weight and, possibly, the nutrition program can help increase the percent lean. Over a longer time period, changes in genetics and facilities might be necessary to improve carcass leanness and muscling. Increasing the percent lean of hogs marketed will benefit individual producers in the form of higher prices received for hogs and also can be beneficial to the industry as it will help ensure that consumers receive the leaner pork cuts they desire.

Contract pricing. There is a growing interest on the part of producers in contract marketing. It accounts for about 15% of market hogs. With this approach, both the buyer (usually a packer) and the price are established in advance of marketing through an agreement between the producer and buyer. It can be of value to a packer to know that a predetermined number of hogs will be available at a certain time to fill slaughter plant requirements. For the producer, the ability to eliminate the risk associated with fluctuating market prices can be very attractive. Contract pricing is usually of two types: short-term (in which the packer off-sets the contract with a hedge in the futures market) and long-term. Long-term agreements can be subdivided into two forms. The first can be characterized as formula price agreements where the producer receives a base price tied to a major market such as the Iowa-Southern Minnesota direct market plus a negotiated premium or discount from that base price. In addition, under some contracts, producers receive premiums or discounts based on the packing firm's carcass merit procurement program. The second type of long term agreement is more of a risk sharing agreement which takes the same base price plus a premium or discount, but establishes both a maximum and minimum price. If the calculated price falls outside this range, the packer and producer split the difference based on prearranged terms. Many contracts split the differences equally.

Mixed pricing. Some producers use more than one pricing method to sell their hogs. They use carcass merit pricing on their best cutting hogs and sell their fatter hogs on a live weight basis, frequently in a different market.

Price Discounts

Producers like to sell their hogs at a premium. These premiums will exist only if the buyer is obtaining hogs of consistently higher cutability, more uniform cutability, or more uniform weight than the general hog supply. Buyers will not pay premiums if they are not gaining additional value from the hogs. To assure they are not paying top prices for inferior hogs, most buyers use price discounts as part of their buying program.

Sort loss. Most buyers sort hogs into a uniform group by weight and appearance, then discount any hogs which are heavier or lighter than the group average. The more strict the sorting criteria, the greater the potential for sort loss.

When to Sell

Marketing frequency. There is a trade-off among load size, sort loss, and marketing frequency. The more often the producer markets hogs, the more uniform will be the group sold and thus the smaller the sort loss. However, frequent marketing produces small groups which can mean higher transportation and handling costs per hog. Less frequent marketing will increase the load size, but it also will increase sort loss.

Market weight. Hog market weights fluctuated little from the mid-1970s through the mid-1980s, but the average market weight of hogs has been increasing by more than one pound per year since 1986. For example, in 1986 the hog market weight averaged 246 lb compared to a 257 lb average in 1995. This trend toward heavier market weights is partially attributable to changes in genetics and feeding programs, but the primary force has been packer preferences. The weight at which hogs are slaughtered is determined primarily by packers when they set the weight ranges for which they are willing to pay top prices. Currently, the most common weights that receive top prices are 240 lb to 260 lb. A few packers pay top prices for lighter weights, and at least one packer buys hogs with no discount up to 280 lb, if they are heavily muscled hogs. However, in some markets, price discounts for hogs above 260 lb are substantial. The cost of killing a heavier hog is approximately the same as it is for a lighter hog and packers also have higher yields from heavier carcasses when they process the product, such as hams, into boneless portions. Therefore, heavier hogs generally are worth more to packers that can market heavier cuts without selling them at a discount.

There is no single best weight at which hogs should be marketed. When deciding at what weight to market hogs, there are eight key factors to consider in determining sale date: age, space requirements, weight, performance, genetics, buyer's preference, expected price changes, and convenience.

Weight, genetics, performance and buyer's preference combine to determine the general weight at which most producers try to market their hogs. Hog producers must try to match the production performance of their hogs (feed conversion and rate of gain) to the packers desire to buy hogs in a certain weight range with certain carcass traits. Hogs get fatter and feed conversion becomes less efficient as hogs grow older and larger. There is great variation in the genetic ability of hogs to be fed to heavier weights.

Age, space requirements and convenience combine to determine the actual weight at which most hogs are sent to slaughter. Since most producers have a limited amount of finishing space available, the marketing date for hogs often is determined by when the finishing space is needed for a new batch of hogs. This is evident from the strong seasonal pattern in average barrow and gilt slaughter weights. Convenience of marketing also impacts marketing decisions. During spring planting and fall harvest, hog weights often climb as producers try to work around cropping demands.

Some producers try to determine when to sell hogs by anticipating price changes. For example, when hog prices are higher than most market analysts have predicted, there is a tendency for some producers to rush hogs to market in advance of the expected price drop to predicted levels. Conversely, when hog prices are below predicted levels, producers have a tendency to delay marketing by a few days in the hope that prices will soon rise closer to predicted levels. This behavior by producers tends to sustain the unexpected price level. Unexpectedly low prices can delay marketings which result in heavier and fatter hog carcasses thereby increasing pork sold and reducing hog prices. Conversely, accelerating marketings results in selling hogs at lighter weights and thereby helps restrict total pork production which is supportive of hog prices.

Split-sex marketing. Barrows and gilts do not grow at the same rate. Gilts tend to grow slower and produce leaner carcasses than barrows. Thus, if a producer wishes to sell comparable carcasses, it will be necessary to sell barrows at a younger age than gilts.

Developing a Marketing Plan

Know your hogs. Producers should make regular and continuous use of slaughter data in order to know the true carcass characteristics of the hogs they sell, including how much variation there is among the hogs in a load and how much variation there is between loads. Over time, slaughter data can give producers insight regarding the impact changing genetics, feeds, facilities, and health programs have on the leanness and muscling of their hogs. With this information it is possible for producers to continuously improve the carcass value of the hogs they market and improve the price received for their hogs. Producers of leaner-than-average hogs generally will find it difficult to capture the full value of their hogs if they use traditional liveweight pricing for their hogs. In order for producers to be adequately compensated for superior leanness in their hogs, buyers must know by how much the hogs are above average. This requires selling hogs to a packer who knows by past experience the carcass value of the hogs, or selling the hogs on a carcass merit program.

The customer is always right. In any good marketing plan the primary focus should be on the customer. Producers who get the most for their hogs think a lot about what packers (the customer) want and how to supply it.

What do hog packers want? First, they want to be certain they have enough hogs to complete each day's kill and they would prefer these hogs be delivered to the slaughter plant on a schedule that meets their needs. Packers also want big, healthy, residue-free hogs that will not produce any condemned or trimmed carcasses. The bigger the hog, the lower the per pound cost of processing and the greater the flexibility in producing boneless cuts. Furthermore, packers want hogs capable of producing a quality product they can sell at a premium. Typically, this means uniform hogs that will consistently produce a lean carcass with a large loin muscle, and acceptable color, marbling and firmness.

Marketing recommendations. A marketing plan for lean hogs should include the following points:

1. Know the carcass characteristics of the hogs you are selling.
2. Understand how market weight, feed, etc., affect those characteristics.
3. Market frequently to obtain uniformity and reduce sort loss. This will require weighing the hogs, split-sex feeding, marketing barrows earlier than gilts, and using an alternative outlet for fat, lightly muscled hogs.
4. Consider marketing hogs with other producers.
5. Deliver hogs directly to the plant.
6. Know packers' carcass merit programs and how they evaluate your hogs.
7. Take bids from several packers before deciding where to sell your hogs.
8. Schedule the delivery of your hogs and try to obtain a higher price based on your willingness to schedule shipment to meet a packer's needs.
9. If you are worried about price risk, consider using the futures market or a risk-sharing contract with a packer.

Summary

The major goal of the hog producer is to obtain the highest net return for the hogs sold. A hog producer should not use price as the only factor in choosing a marketing method or outlet. Other important marketing considerations are transportation costs, shrink loss, sort loss, marketing fees, weighing point and conditions, payment reliability, pricing techniques available, convenience, and proper timing of sales.

Hog markets are part of a dynamic pork industry which is constantly adjusting to changing conditions. As these changes take place, hog producers need to be alert to new marketing opportunities which may improve net income.

Further References

Additional information on marketing hogs can be found in:

PIH-6,"Producing and Marketing Hogs Under Contract."

PIH-19,"Using Futures Markets for Hedging."

PIH-109,"Commodity Options as Price Insurance for Pork Producers."

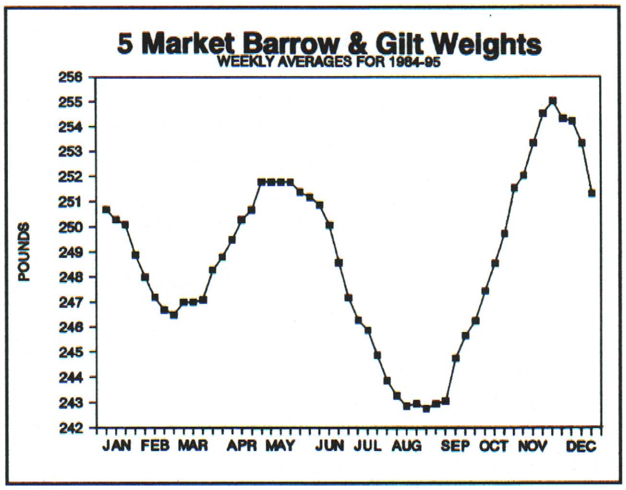

Figure 1. Seasonal average slaughter hog weights.

Printed on recycled paper using vegetable-based inks. New 7:97 -1M - FP/KMF, price 50¢, single copy free to Michigan residents