Q. “How can manufacturers charge different prices for the same products in different areas?”  
by Sarah Rummery, Ph.D.

There are many reasons price differentials exist (for the same product) across different areas of the economy. Some can be attributed to differences in the manufacturers costs of production and others to differences in transportation costs. Other price differences are due to variations in state and local tax rates, while still other price differences can be attributed to the degree of regulation in the market where the product is sold. For example, a gallon of regular unleaded gasoline could have a different price in adjoining counties of Texas and Louisiana due to differences in state and local taxes. A price differential is defined as “Price differences that reflect differences in marginal costs.” There are obviously other reasons for price differences, apart from cost differences, and these will be discussed in the article.

1. Differences in transportation costs. One of the explanations for differences in (for example) gasoline prices is the role of transportation costs. Some states and areas within states are closer to refineries and pipelines, thus minimizing the transportation cost of gasoline to the gas station. Some states and areas within states will incur much higher transportation costs, resulting in a higher cost to the retailer and therefore a higher cost to the consumer. The high cost of living in Alaska also reflects the importance of transportation costs. Alaska’s largest four cities [Anchorage, Fairbanks, Juneau and Kodiak] are in the top 20 most expensive cities in the United States. The cost of living in Anchorage is 124.3% of the national average, while the cost of living in Juneau is 136.4% of the national average. Everything from fast food to gasoline to hotel rooms will cost more in Alaska.

2. Economies of scale and volume discounts. Operating at a larger scale can produce per unit cost savings, particularly for manufacturers with high fixed costs. This is known as economies of scale and allows some manufacturers a competitive advantage, which can be passed on to consumers in the form of lower prices. Similarly, some products like gasoline can be sold at cheaper prices in bigger markets than in smaller markets. A high capacity/volume gas station may get volume discounts from their supplier that can be passed on to consumers in the form of lower prices. Such discounts may not be available to smaller capacity/volume gas stations.

3. Regulated versus unregulated markets. A current example of the impact of regulation is the price difference in pharmaceuticals in Canada versus the U.S. Prices for prescription drugs are substantially cheaper in Canada because of a regulated pricing system (as opposed to a free market pricing system in the U.S.). In Canada, the Patented Medicine Prices Review Board (PMPRB) regulates prices. The PMPRB negotiates lower prices with Pharmaceutical companies, in exchange for the drug being included on the Governments list of approved medications. Patented drugs are on average 35% cheaper in Canada than the U.S. As such, the identical drug will cost less if purchased from a Canadian pharmacy. Graham and Robson suggest another reason identical drugs cost more in the U.S. is the cost of legal liability when compared with Canada, where compensation for personal injury is limited to $250,000. Pharmaceuticals are also cheaper in Canada (for Americans) because of the favorable exchange rate, currently $1 US = $1.3493 Canadian.

4. Price discrimination. The legal practice of charging different prices for the same good to different customers, based on (for example) willingness and ability to pay, geographical location or insurance status. Price discrimination requires clearly identifiable groups of consumers and a product that can’t be resold. As an example, British Airways charges $11,816.95 for a first class roundtrip ticket from Houston to London, but only $539.29 for an economy seat on the same flight. Another example of price discrimination is the difference in co-payments for insured and uninsured patients visiting their primary care physician. An insured patient may have a $20 co-payment, where an uninsured patient may pay $75 for the visit. Price discrimination is also used by the pharmaceutical industry, where the same drug is sold for different prices in different markets (this is separate from the effects of price regulation in countries such as Canada). As such American consumers pay higher prices, on average, than consumers in other countries. Part of the reason for this is because the United States is the wealthiest country with the highest ability to pay. “…originator firms can charge low prices in low income countries and higher prices in high income countries, in order to cover the costs of R&D.” Price discrimination is used by many businesses, for example, theatres, professional sporting organizations, airlines, cruise ships, the postal service and medical facilities. With more and more consumers shopping on the web, and providing information about themselves to companies, perfect price discrimination could become a reality, where consumers are charged different prices for the same product, based on their buyer profile.

5. Variations in demand and supply. Housing prices are a good example of how a similar or identical product can be priced differently depending on the level of demand and supply in the area. Median house prices vary greatly in Texas. The state median is $124,800, while the median price in Collin County is $172,100, $155,400 in Austin and $120,000 in Arlington. The difference in median housing prices by area is due to differences in supply and demand and will also reflect the different land values, populations and desirability of different locations.

6. The degree of competition in the local area. More competition between businesses typically creates lower prices and less competition creates higher prices (ceteris paribus). In general, larger markets have more competition due to the increased number of firms. The result of this competition is often lower prices. For example, a consumer shopping for a specific type of new car may be able to negotiate a better deal from one of the many competing dealerships in Houston than from the only dealership in a small town. Similarly, gas prices are often cheaper when there are many competitors than when a gas station is a monopoly in the area.

7. Regulation combined with changes in supply and demand. Electricity prices in California exceeded those of the rest of the country during 2000-2002. This is an example of a substantial price difference for an identical product. The electricity crisis in California (extremely high prices for electricity combined with rolling blackouts) was attributed to many factors. These included market regulation in the form of price caps, natural gas price increases, low rainfall in the Pacific North West and Northern California that decreased hydroelectric generation, and population growth that increased electricity demand. The price cap at the retail level (introduced in May 2001) protected Californian consumers from the price increases in electricity, however it also discouraged them from conservation, creating a very tight electricity market. Electricity providers were not protected by a price cap and had to pay the wholesale price for
electricity, which increased dramatically due to the higher price of natural gas and the drop in hydroelectric generation. Not only did this produce a shortage of electricity (resulting in rolling blackouts), it also produced a financial crisis for some electricity companies who had to buy electricity at high prices and sell it to consumers at artificially low prices. There is also an ongoing investigation into “whether Enron or any entity manipulated electricity or natural gas prices (or otherwise exercised undue influence over wholesale prices) during the crisis.” The higher than average electricity prices in California reflected both supply side and demand side factors, and the impact of price caps in that state.

8. Differences in state and local sales taxes. Some states have higher sales taxes on products than others, producing different prices in neighboring states for the identical product. For example, in Texas the state sales tax rate is 6.25% plus the local rate of 2% giving a combined total sales tax of 8.25%. In Louisiana, Oklahoma, and Arkansas the combined state and local sales tax rates are 9.5%, 9.85% and 9.875% respectively. There can also be differences in which products are subject to the sales tax. In Texas, some food items are exempt; in Louisiana, food is only subject to the local tax, not the state tax (as of 7/1/03); in Oklahoma, food is taxable at the regular sales tax rate: this is also true in Arkansas. In Kansas, food is taxable, but an income tax credit is available to offset the tax on food. So an identical food item provided by the same manufacturer would have a different retail price in Louisiana, Oklahoma, Arkansas and Texas. In this way, taxes are responsible for price differences for products sold in different areas.

9. Excise Taxes. Gasoline is a product with a sales tax known as an excise tax. In Texas, the state excise is $0.20 per gallon, combined with the federal excise of $0.184, giving a total of $0.384 cents per gallon. In California, the combined state and federal excise on gasoline is $0.519 per gallon, whereas it is $0.466 in New York, $0.354 in Oklahoma, $0.329 in New Jersey and $0.475 in Florida (to name a few). The two states with the highest gasoline excise taxes are Hawaii at $0.547 and Connecticut at $0.534 cents per gallon. This is another reason why prices exhibit substantial variation by area, even when buying gasoline from the same company such as Exxon, Texaco or Shell. The U.S. Congress is currently discussing raising the Federal gasoline excise by $0.06, to $0.244 per gallon.

10. Production costs and Productivity. Manufacturers buy their productive resources from different regions and different suppliers, and as a result production costs can create price differentials. Buying resources in futures markets is one way to insure against unfavorable price increases of necessary resources. This may give one manufacturer a production cost advantage over a competitor, thereby producing different prices for the same product. For example, a “food manufacturer will need to buy additional corn from his supplier in three months. However, he feels that the price of corn is going to increase by the time he needs the corn in three months. Because of fierce competition, he needs to hold price constant. He wants to make sure he pays $3.55 per bushel. Therefore to lock in the $3.55 per bushel, he buys a contract for three months out at $3.55 per bushel.” Similarly some manufacturers will employ superior technology or a superior workforce that allows them to be more productive and have lower marginal costs, which can create price differences.

In conclusion, it should be clear that there are many legitimate reasons for price differences across areas. Some of the reasons for price differences can be attributed to the manufacturer, such as price discrimination, production costs or productivity, however many of the reasons for price differences are outside the manufacturers control and reflect state and local taxes rates, efforts to regulate particular markets, the degree of competition and the level of supply and demand in the area.

End Notes
4 The Wall Street Journal, 9/25/03.
5 Price data collected from Expedia.Com on 9/16/03 relates to roundtrip airfares on British Airways flight 294, departing Houston Intercontinental airport on 10/7/03 and returning 10/14/03 from Heathrow.
7 Multiple Listing Service Data, Real Estate Center at Texas A&M, June 2003.
8 Sweeney, James (2002), The California Electricity Crisis, Chapter 7 Page 352.
10 Charles J. Kaplan (2003), An Introduction to Futures and Commodity Trading, Equity Analytics, Page 1.

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