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## The Impact of Gasoline Price Increases on Tourism Business in a Destination Area

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THE IMPACT OF GASOLINE PRICE INCREASES ON TOURISM  
BUSINESS IN A DESTINATION AREA

BY

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ABSTRACT

A survey of 402 tourism and non-tourism businesses on Cape Cod, Massachusetts was conducted in the summer of 1981, in order to analyze the impact of the 1979-1980 gasoline price increases on their operation. The results indicate that although one-third of the respondents claimed that the gasoline price increases affected their businesses negatively, their employment figures and marketing practices did not fully support this claim. Furthermore, tourism businesses were not found to be more negatively impacted by gasoline price increases than non-tourism businesses.

THE IMPACT OF GASOLINE PRICE INCREASES ON TOURISM  
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INTRODUCTION

The tourism industry has rapidly grown into an important factor in the United States economy. As United States residents have experienced increases in both leisure time and expendable income, the amount of money they spend on tourism has grown. Currently, the tourism industry grosses about \$105 billion annually, and employs over five million workers.

The tourism industry, however, is highly energy-dependent. It has been estimated, for example, that automobiles account for 75% of all tourism-related travel. Significant increases in the price of gasoline could result in serious losses of business, and in heavy unemployment

within the industry.

The purpose of this study is to analyze the impact of the gasoline price increases that occurred between 1979 and 1981 on tourism to Cape Cod, Massachusetts. Cape Cod is a peninsula located in the southeastern corner of Massachusetts. It is surrounded by the salt waters of Buzzard's Bay, Cape Cod Bay, the Atlantic Ocean, and Nantucket Sound. Cape Cod's economy is based primarily on the tourism industry, with more than 700 resorts operating on its 399 square miles.

## OBJECTIVES

The specific research objectives of this study were to:

1. determine business owners/managers' assessment of the effects of the 1979-1981 gasoline price increases on their businesses;
2. determine the effects of gasoline price increases on full time, part time, and family employment in Cap Cod businesses;
3. determine the effects of gasoline price increases on marketing strategies employed by Cape Cod businesses, including determining if businesses made any changes in:
  - a. the prices they charged,
  - b. the products or services they offered,
  - c. the content of their advertising,
  - d. the placement of their advertising,
  - e. the amount of money they spent on advertising, and
  - f. other marketing efforts; and
4. determine if there were differential effects of the gasoline price increases on businesses with varying degrees of dependency on tourism.

## METHODOLOGY

### Sampling

The sampling lists used for this survey were the yellow pages of the three telephone directories serving Cape Cod. A systematic sample of 1500 businesses was drawn from these directories, resulting in a list of 1451 businesses after duplicates were removed.

An introductory letter and questionnaire were sent to each of the 1451 businesses on July 27, 1981. Non-respondents were sent a follow-up letter and duplicate questionnaire on August 10, 1981. Of the 1451 questionnaires mailed, 95 were returned by the Post Office as undeliverable, and 413 were returned by businesses. Eleven of those questionnaires were unusable, resulting in a response rate of 29.6%.

## Instrument

Respondents to this survey completed a questionnaire consisting of 15 questions. The questions combined factual information on the number of employees, sales receipts, pricing, advertising budget and placement, and product selection, with attitude questions on the impact of the 1979-1981 gasoline price increases on the respondent's business and marketing strategies. The questionnaire was developed through depth interviews with Cape Cod business owners and managers, and with the director of the Cape Cod Chamber of Commerce. The resulting questionnaire was pilot tested on Cape Cod business owners and managers, and necessary modifications were made.

## RESULTS

### Overall Impact

Nearly one-half (47.7%) of the respondents reported that increases in gasoline prices have had an impact on their businesses. Among those who thought that price increases have had an impact on their businesses, the vast majority (68.0%) thought it had a negative impact (see Table 1). The types of businesses that had been most affected by gasoline price increases were eating and drinking establishments and the construction industry.

### Effects on Employment

In order to determine if employment levels increased after the 1979 gasoline price increases, a comparison was made of the number of workers employed at Cape Cod businesses in 1979 and 1980. There were no significant differences in the median number of full and part time workers employed in those two years (see Table 2). Similarly, the proportions of businesses showing increases and decreases in employment levels between 1978-1979, and 1979-1980 are very similar (see Table 3).

### Effects on Marketing Strategies

Prices. Nearly one-half (44.1%) of the respondents who indicated that gasoline price increases had a negative impact on their business reported that they changed the prices they charged because of the increases, with 21.7% lowering their prices, and 78.3% raising them. Price decreases ranged from 8 to 50%, with an average decrease of 27.7%.

Products or Services. One-fourth (25.0%) of the respondents who were negatively affected by gasoline price increases reported making changes in the products or services they offered because of the increases. Businesses that did make changes most frequently made changes in their product lines (see Table 4).

Content of Advertising. About one-tenth (11.0%) of the businesses that were negatively affected by gasoline price increases made changes in the content of their advertisements because of the increases. The majority of the new advertising themes emphasized energy-related themes (see Table 5).

Placement of Advertising. About one-seventh of the businesses that were negatively affected by gasoline price increases made changes in the placement of their ads because of the increases. The majority of the businesses that made changes concentrated their advertising within a narrower geographic area (see Table 6).

Advertising Budget. Nearly one-fifth (21.4%) of the businesses that were negatively affected by gasoline price increases made changes in their advertising budget because of the increases. Nearly one-third (30.8%) of those who made changes increased their ad budgets, while 69.2% decreased them. Budget increases ranged from 15 to 75%, with an average increase of 41.3%. Budget decreases ranged from 8 to 50%, with an average decrease of 23.7%.

Other Marketing Changes. Nearly one-fifth (19.8) of the respondents who were negatively affected by the 1979 gasoline price increases reported making other changes in their marketing efforts because of the price increases. Most of these strategies were designed to decrease energy costs (see Table 7).

#### Relationships Between Type of Business and Effects of Increases

Differences of proportions tests were conducted to determine if businesses directly involved in tourism were affected differently by gasoline price increases than businesses not directly involved in tourism. Businesses directly involved in tourism included accommodation and lodging businesses, eating and drinking establishments, travel services, and souvenir and curio shops. Tourism and non-tourism businesses did not differ significantly in terms of reporting that they had been affected by gasoline price increases (43.9% and 49.4% respectively).

Among businesses that were negatively affected by gasoline price increases, tourism businesses were significantly less likely than non-tourism businesses to report that they had changed their price structure because of the increases (22.2% vs. 46.8%,  $Z=2.38$ ,  $p<.02$ ). Tourism and non-tourism businesses that had changed their price structure did not differ significantly in terms of whether they raised or lowered their prices.

Tourism and non-tourism businesses that were affected by the gasoline shortage did not differ significantly in terms of whether they made changes in products or services, advertising content, advertising budget, or other marketing efforts. The two groups did, however, differ in terms of changes in advertising placement with tourism businesses significantly more likely to have made changes in this area than non-tourism businesses (22.2% vs. 8.2%,  $Z=2.22$ ,  $p<.03$ ).

A multiple regression was conducted to determine the amount of variance in the reported impact of gasoline price increases on Cape Cod businesses that could be accounted for by the type of business involved (tourism vs. non-tourism), and whether or not the business had made changes in price structure, products or services, advertising content, advertising placement, advertising budget, or other marketing efforts as a result of the increases. The results indicate that the only two significant variables accounted for 8% of the variance in the impact of the price increases on Cape Cod businesses (see Table 8).

## DISCUSSION

The results of this study indicate that respondents from approximately one-half of the businesses on Cape Cod believe that they have been negatively affected by the 1979-1980 gasoline price increases. Tourism and non-tourism businesses reported being affected equally by gasoline price increases.

A comparison of the 1980 employment levels with that of 1979 and 1978 demonstrated no significant differences in the median number of full and part time workers employed in Cape Cod businesses in those years. In addition, the patterns of employment increases and decreases between 1978 and 1979, and 1979 and 1980, were very similar. Thus, although nearly one-half of the respondents indicated that they had been negatively affected by increased gasoline prices, specific economic effects could not be quantified. An analysis of respondents' answers to one question, however, suggests that the price increases have affected these businesses by increasing the cost of doing business, rather than by decreasing the supply of tourists to the area: nearly one-half of the negatively affected businesses reported making changes in the prices they charged, and nearly three-fourths of these businesses raised their prices. The fact that non-tourism businesses were as likely to report negative effects as tourism businesses supports this analysis.

Most of the businesses that reported negative effects of gasoline price increases did not make changes in their marketing strategies, and many of the businesses that did make changes did so to reflect internal pressures on costs, and not changing consumer needs.

## CONCLUSION

It is obvious from the results of this study that although one-third of the respondents indicated that their businesses have been negatively affected by the 1979-1980 gasoline price increases, their employment figures do not support the above claim. Furthermore, the majority indicated that they did not initiate any changes in their marketing strategies to counter-balance the negative impacts, aside from raising prices. Finally, the gasoline price increases did not negatively affect the tourism industry significantly more than the non-tourism industry, therefore, making the argument that the tourism industry is sensitive to changes in gasoline prices questionable, at least in the Cape Cod area.

TABLE 1

## IMPACT OF GASOLINE PRICE INCREASES ON CAPE COD BUSINESSES

	Tourism Businesses	Non-Tourism Businesses	Total
	57	316	373
Negative impact	29.8%	32.9%	32.4%
Major negative	5.3	6.6	6.4
Somewhat negative	10.5	16.1	15.3
A little negative	14.0	10.1	10.7
No impact	56.1	50.6	51.5
Positive impact	14.0	15.5	15.3
Major positive	1.8	2.5	2.4
Somewhat positive	7.0	9.8	9.4
A little positive	5.3	3.2	3.5
Don't know	0.0	0.9	0.8

TABLE 2

## CAPE COD REPORTED EMPLOYMENT FIGURES: 1978-1980

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	Tourism Businesses	Non-Tourism Businesses	Total
N	61	312	373
Median number of non-family employees			
Full time			
1978	3.75	2.01	2.12
1979	3.88	2.40	2.50
1980	3.33	2.60	2.67
Part time			
1978	.48	.29	.32
1979	.92	.33	.36
1980	1.00	.36	.39
Median number of family employees			
Full time			
1978	.58	.27	.31
1979	1.29	.32	.36
1980	1.20	.33	.37
Part time			
1978	.13	.07	.08
1979	.13	.07	.08
1980	.12	.07	.08

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TABLE 3

## IMPACT OF GASOLINE PRICE INCREASES ON CAPE COD EMPLOYMENT

	Tourism Businesses	Non-tourism Businesses	Total
N	61	312	373
Percent of businesses showing a change in non-family employment			
Full time			
Increase 1979-80	29.8%	26.1%	26.5%
Decrease 1979-80	12.3	10.6	11.0
Part time			
Increase 1979-80	28.1	11.8	18.5
Decrease 1979-80	8.8	7.3	7.7
Percent of businesses showing a change in family employment			
Full time			
Increase 1979-80	12.3	5.6	6.6
Decrease 1979-80	10.5	2.3	3.6
Part time			
Increase 1979-80	3.5	2.9	3.1
Decrease 1979-80	3.5	2.3	2.8

TABLE 4

CHANGES IN PRODUCTS OR SERVICES MADE BY BUSINESSES  
 NEGATIVELY AFFECTED BY GASOLINE PRICE INCREASES\*

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N=120

No changes	75.0%
Shifted or added product lines	10.0
Decreased customer services	7.5
Increased customer services	3.5
Other changes	5.8

\*Percentages may exceed 100% since respondents could give more than one answer.

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TABLE 5

CHANGES IN ADVERTISING CONTENT MADE BY BUSINESSES  
 NEGATIVELY AFFECTED BY GASOLINE PRICE INCREASES\*

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N=118

No changes	89.0%
One-stop shopping	1.7
Other energy-related themes	3.4
Other changes	5.9

\*Percentages may exceed 100% since respondents could give more than one answer.

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TABLE 6

CHANGES IN ADVERTISING PLACEMENT MADE BY BUSINESSES  
 NEGATIVELY AFFECTED BY GASOLINE PRICE INCREASES\*

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N=118

No changes	85.6%
Placed ads closer to Cape	3.4
Placed more local ads	8.5
Advertised in local yellow pages	1.7
Placed ads further from Cape	1.7

\*Percentages may exceed 100% since respondents could give more than one answer.

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TABLE 7

OTHER MARKETING CHANGES MADE BY BUSINESSES  
 NEGATIVELY AFFECTED BY GASOLINE PRICE INCREASES\*

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N=116

No changes	80.2%
Consolidated trips	4.3
Reduced market area	4.3
Cut back travel, energy use	6.9
Other changes	6.0

\*Percentages may exceed 100% since respondents could give more than one answer.

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TABLE 8

MULTIPLE REGRESSION OF MARKETING CHANGES  
ON REPORTED IMPACT OF GASOLINE PRICE INCREASES

Marketing Changes	Standardized Regression Coefficient	f	Zero Order Correlation Coefficient
Ad placement changes	-.30	4.61*	-.20
Advertising changes	-.25	4.17*	-.19
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R Square = .08	N=402	Overall F = 2.93, p<.06	

\*p<.05