FAIRNESS OF PRICING DECISIONS

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Abstract: Our research investigated pricing policies of fast-food restaurants in predominantly black neighborhoods. We argue that the lack of monitoring of franchisees' pricing policies leads to higher prices. Results indicate that franchisees are significantly more likely than company-owned outlets to charge higher prices based on the proportion of blacks in a neighborhood. These price differences do not appear to be explained away by cost or competition factors. Our findings do not establish an intent to discriminate, nevertheless, we discuss the fairness of the pricing structure found.

1. Introduction

A question of some notoriety in the 1960s was whether the poor pay more. The debate was stimulated by sociologist David Caplovitz's (1963) research among low-income consumers in New York and his conclusion that the poor did indeed pay more for household goods. More recently, studies have provided evidence that blacks may also pay more (Ayres 1991; Ayres and Siegelman 1995). Our study extends the question, "Do the poor and blacks pay more?" to considerations of why they may pay more in some instances. We investigate the pricing structures of company-owned and franchised fast-food restaurants, speculating that franchised restaurants use their autonomy in making pricing decisions to charge different customers different prices based on race and income. Our sample consists of over 300 fast-food restaurants in New Jersey and Pennsylvania, some of which are franchised and some of which are company-owned.

U.S. companies are not allowed to control or monitor the pricing structure of franchisees so that franchisees are given the autonomy to set their own prices. Research confirms that a lack of monitoring of individual employees has an impact on ethical behavior (Robertson and Anderson 1993; Zey-Ferrell and Ferrell 1982), and we reason that the same process may take place on a larger scale with franchisees. Therefore, this paper explores the following research question: What are the effects of the lack of monitoring of pricing practices of franchisees? Specifically, are franchisees as likely to set fair prices as company-owned outlets?

Our investigation of fairness in pricing, and our underlying implication that fairness in pricing is an ethical consideration, suggest that we use a normative approach in addition to empirical research. Normative ethics seeks to identify moral principles and to make judgments about what is right and wrong. ethical
and unethical (Goodpaster 1984). Studies of normative ethics are concerned with how people ought to act, whereas descriptive ethics, or empirical studies in ethics, are concerned both with documenting how people do act and with discovering causes of behavior. Although the debate about the nature of the relationship between normative and descriptive ethics continues (Donaldson 1994; Wicks and Freeman 1997; Weaver and Treviño 1994), we acknowledge that the two perspectives are dependent on each other (Werhane 1994). Furthermore, we recognize the need for empirical studies to contain a normative basis, although it is not always identified explicitly as such (Robertson 1993).

The remainder of the paper is organized as follows. The second section discusses the existing literature on pricing as a function of race and income. The third section considers the economics of pricing at franchised restaurants. In the fourth section we propose and test the question as to whether franchising may result in price differences based on race or income and present our empirical results. In the final section we examine the fairness of the pricing decisions made and possible policy implications.

2. Prices, Race, and Income

The dominant conclusion reached in empirical research across different product categories was that the poor did pay a higher price than middle-class consumers for the same goods (Caplovitz 1963; Goodman 1968; Sturdivant 1968). The underlying tone of many studies was concern that the poor should not pay more and that this practice was unfair. For example, Caplovitz described business communities in the ghettos of New York City as “deviant” markets “in which unethical and illegal practices abound” (1963, p. 180). Merchants in these areas are described as selling inferior goods at high prices and blaming customers for their lack of shopping sophistication. Critics of Caplovitz’s thesis acknowledged that the poor might pay more, but pointed to the higher costs of conducting business in low-income inner city areas, such as security costs and employee turnover. Critics also suggested that low-income shoppers bought items in smaller sizes and did not maintain household inventory, which raised prices.

After the original study by Caplovitz, other notable early studies were conducted by Alcaly and Klevorik (1971), the U.S. Bureau of Labor Statistics (1969), and Kunreuther (1973). Alcaly and Klevorik (1971) concluded that the price of a given food commodity is not inversely correlated with neighborhood income level, but that prices in small independent stores tend to be higher than those in chain stores. The authors reported that other studies had found low-income neighborhoods to have a higher proportion of small independent stores, and thus the poor may be forced to pay more because their choices are limited. Similarly, the U.S. Bureau of Labor Statistics (1969) found that prices are generally higher in the small independent stores common in low-income neighborhoods. Kunreuther (1973) found that low-income families travel less distance to do their food shopping, and are more likely to walk or use public transportation, additionally limiting
choice of store. More recently, Musgrove and Galindo (1988) concluded that in northeast Brazil the poor do not pay more, despite persisting folklore that they do. The authors found instead that prices in urban areas are likely to be higher than in rural areas for certain basic foods.

Sexton (1971) reviewed fifteen studies, pointing out that because there is a relatively high correlation between race and income in cities, the research had not attempted to separate the question of “Do the poor pay more?” from that of “Do blacks pay more?” Sexton suggested a need for research to determine if blacks are the victims of price discrimination based on race rather than income.

About the same time, Sturdivant and Hanselman (1971) published a study concluding that price discrimination occurs for the minority shopper and that this discrimination is a function of racial affiliation. Their experiment consisted of shopping trips by white and black couples for a television set. The study concluded that merchants discriminated on the basis of race despite the fact that the couples’ creditworthiness was controlled. More recently, Ayres (1991) and Ayres and Siegelman (1995) selected individuals of different races, trained them to follow a specified bargaining script, and sent them to various car dealerships in the Chicago area to determine if race had any influence on the prices they were offered. They found that black buyers were quoted prices for identical automobiles that were significantly higher than the prices quoted to white buyers.

In most previous studies no overt conclusions about intention to discriminate are drawn. However, studies directly comparing treatment of black shoppers to that afforded white shoppers come closer to attributing discriminatory intent than studies that simply report different price structures in neighborhoods serving black and poor customers. Our study does not aim to make statements about intent either on the part of individual employees or the firm itself (although we fully acknowledge the concept of corporate intent elaborated by French, 1995). Instead we seek to document the phenomenon of higher prices for the poor and blacks, to offer organizational form as a potential explanation for price differences, and to examine the fairness of such differences.

As empirical research has already documented instances in which poor or blacks are charged higher prices, the primary purpose of our research is to take the question one step further. The question we address is whether franchising as an organizational form is associated with price discrimination. Specifically, do individually owned franchises tend to price discriminate on the basis of race or income more than company-owned restaurants? In the following section we consider corporate control exercised by the franchisor, particularly with attention to pricing decisions.

### 3. Franchising and Corporate Control

The nature of the franchise contract has been characterized as intermediate between a single firm (complete vertical integration) and a market transaction (Rubin 1978). The typical contract between franchisor and franchisee specifies
nearly complete control over many aspects of the business by the franchisor
over the franchisee (Rubin 1978; Stanworth 1995). This control must be exer-
cised in order to ensure the consistency of quality that forms the basis of the
franchise concept. However, as mentioned earlier, the U.S. gives the franchisor
no control over pricing policy. Vertical price contracts to fix resale prices are
deemed illegal restraints of trade and are prohibited by current U.S. antitrust
laws seeking to maintain competitiveness.

Additionally, franchised stores are monitored less carefully and have higher
dispersion in prices than company-owned stores (Kaufman and Lafontaine 1994;
Lafontaine 1996). Kaufman and Lafontaine (1994) found that at McDonald’s on
the franchisee side of the company a single person is responsible for an average
of nine franchisees, who on average controls twenty-one restaurants. This is in
contrast to the supervisor of company-owned stores, who is responsible for an
average of four and a maximum of six restaurants. If the assumption is that the
primary interest of the company is to increase revenues, and franchisees are left
to their own devices as to how those revenues will be produced, this lack of
monitoring could mean that franchisees cut ethical corners or take ethical short-
cuts to achieve revenues and benefit themselves, as well as the company, at least
in the short run.

There exists a large theoretical literature as to why the structure of a franchis-
ing contract might induce franchisees to charge higher prices, and empirical
research that documents higher prices in franchised outlets (Barron and Umbeck
1984; Shepard 1993; Lafontaine 1995). A classic economic explanation for higher
prices in franchised restaurants is that company-owned restaurants have demand
externalities with other company-owned restaurants (Barron and Umbeck 1984).
The franchisee only considers the effect of pricing on his own store, whereas
company-owned restaurants consider the positive externalities that prices at one
store have on other stores.

Another classic economic explanation for higher prices at franchised versus
company-owned outlets is double marginalization. That is, if there is market
power at both the upstream (corporate) level and the downstream (franchised)
level, then two successive markups will result in higher prices. Higher prices
and thus a lower volume of sales is often not in the franchisor’s best interest.
Double marginalization is just one example of a transaction cost resulting from
moral hazard that may encourage vertical integration, or company ownership
(Williamson 1989).

While agency theory examines the use of financial incentives to motivate
workers, contracts specifying performance or rewards for performance are in-
variably incomplete and present scope for moral hazard. Dees (1992) suggests
that under a company-owned structure, the individual store manager also as-
sumes an ethical incentive to act in the best interests of the company. This
responsibility would hold, but be attenuated under the individual-owned fran-
chise arrangement.
In addition, while companies will often engage in monitoring procedures to ensure that managers are fulfilling the obligations of the contractual relationship, this monitoring is often imperfect. If we furthermore assume that individual franchisees are less exposed to the monitoring processes described by agency theory, then we may treat the individual franchises as small businesses and ask how ethical outcomes are achieved in such a setting.\(^1\) Little research aids us in answering the question of the mechanisms in place in small businesses to elicit ethical employee behavior. However, a study by Laufer and Darnell (1995) found that small firms are unlikely to have any formal ethics codes or ethics controls in place. Instead, the small business owner and other strategically placed individuals usually set the ethical tone. Implicit and explicit messages conveyed by senior managers are critical to the ethical nature of a firm (Laczniak and Inderrieden 1987). Thus, small firms or franchises run by ethical individuals could well be more ethical than large firms in which a formal ethics code is not fully supported by senior executives.

There is a set of competing arguments that suggests that perhaps franchised restaurants should have lower prices than company-owned restaurants and be less inclined to price discriminate. Lafontaine (1995) outlined some economic reasons based on the structure of the franchise contract. Ethical reasons include the possibility that individual franchisees could have closer ties to the local community in which they do business, and thus feel a greater responsibility to make fair pricing decisions.

This section of the paper has discussed the basis for our supposition that franchised stores are more likely to engage in price differentiation. We now turn to the empirical analysis.

4. The Empirical Analysis

The Data and the Empirical Model

To consider empirically the question of whether franchisees tend to price differently than company-owned restaurants, we use data from over 300 Burger King, Wendy's, KFC, and Roy Rogers restaurants in New Jersey and Pennsylvania locations.

The data on the individual fast-food restaurants were gathered in a study by David Card and Alan Krueger (1994) that investigated the effect of a minimum-wage change in New Jersey on employment in the fast-food industry. The stores were surveyed twice, once in February and March of 1992 and again in November and December of 1992. Although over 400 stores were surveyed, complete price data exist for 237 franchised stores and 118 company-owned stores. These data were enhanced by Graddy (1997) with census data by zipcode region, and crime and population density data by municipality.
We begin the analysis by looking at the approach of company-owned restaurants and franchised restaurants to locating in poor and black neighborhoods. As indicated in columns 1 and 3 of Table I, as a percentage overall, slightly more company-owned stores tend to locate in neighborhoods with a black population greater than 10 percent than do franchised stores. This difference is not statistically significant, as indicated by a t-statistic of 1.29. This is true individually for all franchises except for Wendy’s, in which more franchised stores tend to locate in a neighborhood with a population greater than 10 percent black than do company-owned stores. There is a statistically higher percentage of company-owned stores that locate in neighborhoods that are greater than 20 percent black, as indicated by a t-statistic of 2.53. This difference does not appear to be driven by any one franchise.

Our empirical model attempts to distinguish reasons behind price differentiation. If the poor or blacks are being charged more because of bigotry, an ethical judgement is not difficult. Becker (1957) placed bigotry within an economic...
framework by defining an individual's "taste for discrimination." According to Becker, "If an individual has a 'taste for discrimination' he must act as if he were willing to pay something, either directly or in the form of a reduced income, to be associated with some persons instead of others" (p. 14).

Becker proposes the use of a discrimination coefficient, \( d \), as a way of using money as a measuring rod of discrimination. For example, in the case of supermarkets or fast-food chains with a taste for discrimination against black buyers, the store would charge \( \text{price} \times (1 + d) \) in areas with a greater proportion of black buyers.

However, the poor may pay more because the cost of doing business in low-income areas is higher. Perhaps the higher prices are justified by the higher cost structure. Costs of doing business may indeed be higher owing to factors such as higher security risks, insurance costs, and a lower margin mix of goods purchased and more frequent shopping (and thus more frequent small orders), due to the inability of poor people to maintain at-home inventories (Kunreuther 1973). Furthermore, residents in low-income inner city areas may not have access to adequate transportation or businesses may not wish to locate in low-income or black areas, thus decreasing competition. Finally, critics suggest that risks are greater in these areas: risk of insolvency and higher cost of capital based on perceived risk.

Because different explanations may imply different ethical judgments on price discrimination, the effects of cost and competition variables on pricing should be considered. A very important question is, "Do the poor and blacks pay more, controlling for the costs of conducting business and the level of competition?"

One way of considering these effects is to include explanatory cost and competition variables in a regression equation. These variables may account for differences in price apparently based on income or race. We use this approach in the regression analysis that follows. Below, we describe the variables used in the regression analysis.

**Price Variables**

The entree, soda, and French fries prices are summed to determine the meal price. In addition, we perform regressions on each of the items separately. We separate out the item regressions for two reasons. First, it is interesting to note if any one item is driving the results. Secondly, James Lavin (1995) has raised doubts about the prices for entrees, suggesting that restaurants of the same chain may have supplied prices for different types of items (for example, a Whopper at some Burger Kings instead of a regular hamburger).

**Cost Variables**

The three primary categories of cost to a fast-food chain are payroll expenses: occupancy expenses; and publicity, food, and packaging expenses. In a typical company-owned fast-food restaurant, payroll costs account for 26 percent of
revenues, occupancy costs are 23 percent of revenues, and food and publicity costs are 33 percent of revenues (taken from the 1990 annual report of McDonald's corporation). The variables used to represent costs are starting wage, number of employees, the crime rate, the median value of owner-occupied housing, a state dummy variable for New Jersey, and three dummy variables for the different chains.\(^3\)

The log of the average starting wage in each store is used as a measure of payroll costs.\(^4\) To the extent that the number of employees is determined by square feet of store space, proximity of customers to an area, and kitchen and cash register facilities, a variable representing the number of employees is used as a measure of the size of the restaurant to capture potential economies of scale (a decrease in the average cost per unit as quantity sold increases). Economies of scale are likely to exist for fast-food chains as the fixed costs of rent and management can be spread over more units sold. The number of employees is calculated as the number of full-time employees plus one-half the number of part-time employees.

Part I crime index offenses per person in a particular township are used as a measure of maintenance and insurance costs. Part I crime index offenses include murder and non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson (Crime in Pennsylvania, the Uniform Crime Report for Pennsylvania). As part II offenses do not include burglary or arson, but include crimes such as forgery and counterfeiting, fraud, embezzlement, etc., Part I offenses appear to be a better proxy for costs.

The log of the census variable, median value of owner-occupied housing units, is used as a measure of real estate expenses. Including both the income and the housing variable is a better control for differences in both real estate costs and wealth; however, as the housing variable is highly correlated with the income variable, income effects cannot be distinguished from housing effects and thus the regression coefficients on income and housing must be interpreted with caution. Another variable that is correlated with real estate costs, population density, is also included in the regressions.

A state dummy variable is used to control for possible differences in costs that result from operating in different states. The sales tax in New Jersey during the first wave of the interview was 7 percent, but in the middle of 1992 the tax was decreased to 6 percent, the same as in Pennsylvania. Chain dummy variables are used to control for different products by chain.

**Competition Variables**

The variables used to represent competition are the proportion of the population without a car, and the number of stores in a zipcode area. The number of stores is calculated as the number of Burger Kings, KFCs, Roy Rogers, Wendy's, and McDonald's in a zipcode area. Not having access to a vehicle affects the ability of individuals to search and could allow stores to act as monopolists within their particular areas. To correct for possible differences in competition between
stores, a dummy variable representing concentration is used that is equal to one if there are three or fewer stores in a particular zipcode area and zero if there are more than three stores. (We originally allowed dummy variables for each number of stores in the area. The coefficients on 1, 2, or 3 stores were almost identical, and the coefficients on 4 or more stores were similarly far from significantly different from one another. Note that Bresnahan and Reiss (1991) suggested that in small towns, prices are higher in the presence of one or two stores.) The number of McDonald's in a particular zipcode area was obtained from the PhoneDisc. While certainly correlated with the degree of competition in an area, this variable is an imperfect control for two reasons. First, restaurants near the border of a zipcode area certainly compete with restaurants outside of the zipcode area. Secondly, these stores not only compete amongst themselves, but also compete with delicatessens, sandwich shops, pizza parlors, fried chicken outlets, and other such stores in the area.

**Race and Income Variables**

These variables are the log of the median family income in 1989, the proportion of the population that is black, and the proportion of the population below the poverty level for each zipcode area in which a store is located. The variable, proportion black, is constructed by dividing the number of persons that are black in a zipcode area by all persons in the zipcode area, as determined by the 1990 census. The variable, proportion below poverty, is constructed by dividing the number of persons whose income is less than the poverty level in 1989 by all persons for whom poverty status is determined.

Meal price is constructed to be the sum of the entree, soda, and French fries prices. Summary statistics of the data, separated by chain and whether the stores are franchised or company-owned, are presented in Appendix A.

**Estimation**

Our formal analysis is based on the following regression equation

\[
\log P_{iz} = \alpha + \beta R_z + I_z \delta + \text{COMP}_{iz} \gamma + \text{MC}_{iz} \omega + \epsilon_{iz} \quad (1)
\]

where \( P_{iz} \) is the price of an item in store \( i \) in zipcode \( z \), \( R_z \) is a variable representing the proportion of the population that is black in zipcode \( z \), \( I_z \) is a vector of variables representing the income characteristics of zipcode \( z \), \( \text{COMP}_{iz} \) is a vector of variables controlling the competition faced by store \( i \) in zipcode \( z \), and \( \text{MC}_{iz} \) is a vector of variables related to the marginal cost of operation of store \( i \) in zipcode \( z \). \( \beta, \delta, \gamma, \) and \( \omega \) are parameters to be estimated, and \( \epsilon_{iz} \) is an error term.

In order to test whether franchised restaurants price differently than company-owned restaurants, we split the sample into franchised stores and company-owned stores. In Table II, log of the average meal price (averaged over the two waves of the survey) is used as the dependent variable.
Table II

Determinants of the Price of a Meal

Dependent Variable: Log of Average Price of a Meal

<table>
<thead>
<tr>
<th></th>
<th>1 Franchise</th>
<th>2 Company Owned</th>
<th>3 Franchise</th>
<th>4 Company Owned</th>
<th>5 Franchise</th>
<th>6 Company Owned</th>
<th>7 Franchise</th>
<th>8 Comp Owned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prop Black</td>
<td>0.095**</td>
<td>-0.009</td>
<td>0.163**</td>
<td>0.026</td>
<td>0.119*</td>
<td>0.073</td>
<td>0.139**</td>
<td>0.082</td>
</tr>
<tr>
<td></td>
<td>(0.034)</td>
<td>(0.039)</td>
<td>(0.036)</td>
<td>(0.051)</td>
<td>(0.048)</td>
<td>(0.053)</td>
<td>(0.048)</td>
<td>(0.057)</td>
</tr>
<tr>
<td>Log Income</td>
<td>-0.093</td>
<td>-0.248**</td>
<td>(0.053)</td>
<td>(0.064)</td>
<td>-0.084</td>
<td>-0.249**</td>
<td>(0.053)</td>
<td>(0.068)</td>
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<td></td>
<td>(0.021)</td>
<td>(0.038)</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Prop in Poverty</td>
<td>-0.588**</td>
<td>-0.370</td>
<td>-0.879**</td>
<td>-0.453</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>(0.198)</td>
<td>(0.231)</td>
<td>(0.272)</td>
<td>(0.327)</td>
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<tr>
<td>Log Pop Density</td>
<td>0.017**</td>
<td>0.001</td>
<td>0.014*</td>
<td>0.000</td>
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<td></td>
<td>(0.006)</td>
<td>(0.009)</td>
<td>(0.007)</td>
<td>(0.010)</td>
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<td>Log Starting Wage</td>
<td>-0.082</td>
<td>0.390*</td>
<td>0.120</td>
<td>0.382*</td>
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<tr>
<td></td>
<td>(0.137)</td>
<td>(0.167)</td>
<td>(0.136)</td>
<td>(0.168)</td>
<td></td>
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<tr>
<td>Log No Employees</td>
<td>-0.020</td>
<td>-0.057**</td>
<td>-0.022</td>
<td>-0.060**</td>
<td></td>
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<tr>
<td></td>
<td>(0.016)</td>
<td>(0.020)</td>
<td>(0.015)</td>
<td>(0.020)</td>
<td></td>
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<td>Crime Rate</td>
<td>0.236</td>
<td>-0.078</td>
<td>0.337</td>
<td>-0.025</td>
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<tr>
<td></td>
<td>(0.163)</td>
<td>(0.180)</td>
<td>(0.177)</td>
<td>(0.226)</td>
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<td>Log Value of Housing</td>
<td>0.072**</td>
<td>0.211**</td>
<td>0.065*</td>
<td>0.207**</td>
<td></td>
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<tr>
<td></td>
<td>(0.027)</td>
<td>(0.032)</td>
<td>(0.027)</td>
<td>(0.036)</td>
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<tr>
<td>Prop without a Car</td>
<td>0.120</td>
<td>0.022</td>
<td>0.143</td>
<td>0.229</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Store Concentration</td>
<td>0.030*</td>
<td>0.016</td>
<td>0.012</td>
<td>0.015</td>
<td></td>
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<tr>
<td>New Jersey</td>
<td>0.058**</td>
<td>0.040*</td>
<td>0.056**</td>
<td>0.041*</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(0.017)</td>
<td>(0.019)</td>
<td>(0.017)</td>
<td>(0.019)</td>
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<tr>
<td>Chain Dummies</td>
<td>3</td>
<td>3</td>
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<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td>F-Statistic</td>
<td>287</td>
<td>76</td>
<td>312</td>
<td>75</td>
<td>205</td>
<td>72</td>
<td>211</td>
<td>68</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.793</td>
<td>0.677</td>
<td>0.808</td>
<td>0.68</td>
<td>0.853</td>
<td>0.840</td>
<td>0.859</td>
<td>0.842</td>
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<tr>
<td>Observations</td>
<td>237</td>
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<td>237</td>
<td>118</td>
<td>212</td>
<td>110</td>
<td>212</td>
<td>110</td>
</tr>
</tbody>
</table>

Notes: Estimated standard errors are in parentheses. Chain dummy variables are all jointly significant at 0.001.

* indicates significance at 0.05. ** indicates significance at 0.01.

In columns 1 and 2 of Table II, we ask the simple question of whether franchised restaurants or company-owned restaurants charge more in relatively black neighborhoods than in relatively white neighborhoods. Hence, we regress log of the item price on proportion black, controlling for differences in chains by using chain dummy variables. This specification is equivalent to restricting $\delta$ and $\gamma$ in equation 1 to be zero, and allowing different intercepts, or marginal costs, by
chain. Secondly, in columns 3 and 4, we ask the question whether prices are different controlling for income. We believe this is an important specification that results in separating income effects from race effects.

In the last two specifications (columns 5–8), we attempt to address the question as to why price differences are occurring. As discussed above, we would especially like to separate cost variables from competition variables such as the number of stores in an area and consumer variables such as the number of consumers without a car. In columns 5 and 6, we include cost variables, and in columns 7 and 8 we include cost and competition variables, thus estimating the fully specified model of equation 1.

**Results**

The results in column 1 of Table II indicate that franchised stores charge approximately 5 percent more for a meal for a 50 percent increase in the black population. The results presented in column 2 indicate that there is no difference in price based on proportion black for company-owned stores. When income is controlled for as in column 3, the results indicate that for franchised stores, there is an 8 percent increase in the meal price with a 50 percent increase in the proportion black; column 4 again indicates that there is no difference in pricing for company-owned stores. Note that the coefficient on proportion black for company-owned stores in columns 1–4 is statistically significantly different at the 5 percent level from the coefficient on proportion black for franchised stores. The results in these columns also indicate that prices for franchised stores increase with income, but prices for company-owned stores may not (the coefficient on income is positive but statistically insignificant).

When cost variables are included as in columns 5 and 6, and cost and competition variables are included as in columns 7 and 8, the results continue to indicate that franchised stores charge statistically significantly higher prices based on the proportion black in a neighborhood, but the relationship for company-owned stores remains insignificant, although when controlling for other factors, the coefficients for the company-owned sample do increase. The coefficients on proportion black in the two samples are no longer statistically significantly different from each other. In these regressions, the coefficient on income becomes much more difficult to interpret, as nonlinearities are introduced when including variables such as the proportion below poverty and the value of housing.

Although not reported, we also performed regressions using the log of the average soda, French fries, and entree prices as the dependent variables. When covariates are included in the full specification, the coefficient on proportion black continues to be positive and significant in all regressions for franchised stores in the separate item regressions, and insignificant for all company-owned stores in the separate item regressions, indicating that no one item is driving the results. For fries and sodas, even without including covariates, as in columns 1 and 2, the coefficient on proportion black for franchised stores is positive and
significant, and insignificant for company-owned stores. Without including covariates, the coefficient on proportion black is not significant in the franchised regressions for entrees, due to the fact that the estimated standard errors are quite large, most likely due to sampling error. These results are available on request.

5. Discussion

Our study indicates that franchised restaurants charge higher prices based on the proportion of blacks in a neighborhood, whereas company-owned restaurants do not. Price differences based on the black population of an area by franchised restaurants do not appear to be explained away by cost or competition factors. Following a discussion of the possible reasons for these results, we turn to an examination of the fairness of these pricing policies and a discussion of what measures can be taken to ensure greater fairness in pricing decisions.

Causation

The above results can be interpreted in several different ways. One explanation may be that differences in prices are arising because of unmeasured cost differences that are correlated with the proportion black variable. These unmeasured cost differences would have to be greater for franchised restaurants than for company-owned restaurants for this explanation to be consistent with the result that price differences occur in franchised restaurants but not in company-owned restaurants. For example, perhaps the crime rate has not adequately reflected differences in insurance costs in different areas, and these costs are different for franchised restaurants than for company-owned restaurants, in particular if a restaurant decides to self-insure.

Fast-food restaurants may have strong incentives to self-insure, as it may be difficult to obtain reasonable insurance rates on the primary market. Insurance rates are set in the following manner. First, the Insurance Services Office recommends rates by county. These rates are then adjusted by the insurance company according to the history of a particular establishment. If a chartered insurance company comes up with a rate that differs radically from the rates recommended by the Insurance Services Office, the chartered company will usually refuse to insure a particular establishment. The insurance broker will then approach a non-chartered company in the secondary market for insurance. Establishments that must be insured in the secondary market have very different insurance costs than establishments that can be insured on the primary market.

If a restaurant self-insures, company-owned and franchised restaurants may have very different abilities to pool risk. Evidence that supports different abilities to pool risk is that 50 percent of the restaurants located in areas where the black population is greater than 20 percent are company-owned whereas only 34 percent of all restaurants are company-owned. In addition, in comparison to 13 percent of the zipcodes in New Jersey that have a greater than 20 percent black
population. 15 percent of the franchised stores and 29 percent of the company-owned stores are located in areas with a population greater than 10 percent black.

Another possible explanation for the results is that there are demand differences or differences in competition between areas which franchised restaurants are better able to exploit than company-owned restaurants, due to their freedom in pricing guaranteed by U.S. antitrust law. For example, perhaps because of differing tastes, buyers in relatively black areas are less price-elastic than buyers in relatively white areas. Differing demographic characteristics (for example, differences in proportion of working mothers) may also result in differing price elasticities between areas. Graddy (1995) provides evidence of price discrimination between Asian buyers and white buyers at the Fulton Fish market. In this market, Asian buyers appear to be more price-elastic than white buyers, possibly because they are purchasing fish for resale in lower-income neighborhoods.

Yet another explanation for the results could be a Becker-type taste for discrimination. In company-owned restaurants, owners rarely, if ever, interact with their customers. Company-owned restaurants may have to compensate their hired managers, if white, for working in black neighborhoods, but this compensation would likely be less for hired managers than the compensation required by white franchise owners operating in black neighborhoods.

This explanation is consistent with the results found in Ihlanfeldt and Young (1994). In a regression in which the dependent variable is the wage rate for an employee in a fast-food restaurant in the Atlanta metropolitan area, they find a negative and significant coefficient on the percent of customers that are white. This result is true in both a sample of white workers and a sample of black workers. They interpret these results as being consistent with the explanation that white customers are prejudiced against black workers and white workers are prejudiced against black customers.

While it is difficult to pinpoint the exact cause of the difference in pricing, the results strongly indicate that the difference exists. A question related to the cause of the price differences is that of intent to discriminate. Our results are not able to establish intent. However, if there is no intent to discriminate does that make the practice fair? Or does that justify the practice? If future research is able to establish that the reason behind the price differences is higher costs of doing business for franchises in black neighborhoods, this will not mean that the practice is necessarily fair. Instead it will suggest that recommendations are needed for policy changes that may reduce these costs: for example, the cost of obtaining insurance.

Thus, whether or not intent is present and whatever the causes behind the price differences, we can question the fairness of the price differences. In other words, even though we do not know the cause of the price differences, we can still examine the effects of those differences and analyze the fairness of the practice from a consequentialist perspective.
Fairness and Pricing

Smith (1995) argued that companies today are subject to greater public scrutiny and held to a higher ethical standard. He outlined a shift from corporate to consumer sovereignty, suggesting that in the present ethical era, caveat emptor is no longer acceptable as a defence of potentially unethical practices and that increased attention must be paid to consumer interests. Smith specifically cited criticisms of unfairness in pricing, "particularly in situations where ability to pay is limited" (p. 89).

Smith proposed a test to determine whether conditions of consumer sovereignty are met. His test consists of three dimensions: consumer capability, information, and choice. Consumer capability raises questions about vulnerable factors that may prevent consumers from making good consumer decisions and include age, education, and income. The information dimension asks whether consumers have sufficient information to make a good decision. Finally, the choice dimension asks whether the consumer is able to go elsewhere to make the purchase, that is, if there is competition and if the consumer has access to that competition. Both the consumer capability (on the basis of income and possibly, education) and choice dimensions may be applicable to the question of the poor and blacks paying more for consumer goods.

Other theories of fairness may also apply. John Rawls (1971) has argued that a non-discrimination condition is needed to support his principle of justice, which emphasizes the interests of the least advantaged in a society. Thus, opportunities need to be open to all, regardless of race or income. His reasoning fits Smith's (1995) capability dimension. The thinking is that society has an ethical obligation to disadvantaged individuals not to make their situation any worse. According to this argument practices of charging poor or black consumers more than rich or white consumers are ethically suspect.

Social contract theory assumes a set of implicit social norms surrounding the market transaction (Donaldson and Dunfee 1994). Individuals are believed to be bound by local community norms as well as by a more theoretical and widespread societal contract. Social contract theory would be helpful in addressing our question of determining a fair price, if we were able to establish local community pricing norms. Kahneman, Knetsch, and Thaler (1986) argued the importance of community standards in establishing perceptions of fairness and cautioned that one should not rely on "speculation" to attempt to determine what constitutes a fair price.

Policy Implications

The above analysis may therefore call into question the implications of the current antitrust laws that forbid direct price controls by franchisors over franchisees. The empirical analysis suggests that price differences by race exist for franchised restaurants that do not exist for company-owned restaurants. If enforced hands-off pricing by the franchisors is driving these differences and one
believes these differences are unfair, then perhaps the current laws on the illegality of direct price controls should be reconsidered.

*Implications for Franchisors*

Our study confirms that more decentralized structures demonstrate greater autonomy in pricing decisions. Obviously, such autonomy can be directed in either a positive or a negative way. However, the absence of supervision or oversight combined with the illegality of direct price controls may well induce unethical outcomes. The question for managers of decentralized operations is, "What kinds of compensating policies or procedures can be implemented to take the place of centralized monitoring?"

The introduction of codes of ethics, ethics training programs, and other corporate ethics initiatives may aim to direct employees toward behavior that the firm deems "ethical" (Weaver 1993). The adoption of formal codes of ethics has become standard practice in large corporations (Murphy 1995). Delaney and Sockell (1992) demonstrated that corporate ethics training can have a positive effect on ethical behavior. In a review of studies of corporate codes of ethics, Weaver (1993) found that a firm may adopt a code of ethics for multiple reasons. Prominent among these is a focus on employees and their behavior, with ethics codes used to express employee obligations to the company, and to regulate and evaluate employee behavior. Firms cannot set prices, but perhaps they need to establish specific policies for franchisees that do not allow price discrimination on the basis of low income or racial composition of the neighborhood.

*Limitations and Implications for Future Research*

Our study has found that customers in black neighborhoods pay more and has discussed the fairness of that phenomenon. The question that our study can only partially answer is, "What factors account for this phenomenon?" Future research is needed to document more precisely the exact nature of such factors and their impact. Our results suggest that not a great deal may have changed since the original studies of the 1960s questioning whether the poor pay more. However, our focus on company-owned restaurants versus franchisees provides further information about why the poor and blacks may be paying more. Mechanisms are needed to ensure that franchisees charge a fair price.

*Notes*

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1As DeGeorge (1992) has reminded us, agency theory correctly treats acting in one's self-interest as neither good nor bad.
The average proportion black in a zipcode area is 11.3 percent. Note that the largest proportion black in a neighborhood is 98.1 percent and the smallest is 0 percent.

The 1990 Annual Report coincides with the 1990 census data.

The wage data reflect the starting wage, rather than an average wage, primarily because the data were originally collected to determine the effect that a change in the minimum wage might have on employment. To the extent that stores may differ as to the number of employees that are receiving the minimum wage (perhaps due to differences in experience and/or turnover), this variable may be an imperfect control.

Bibliography


Stanworth, J., 1995 “The franchise relationship Entrepreneurship or dependence?” *Journal of Marketing Channels* 4, nos 1/2 161–176.


## Appendix A. Summary Statistics

<table>
<thead>
<tr>
<th></th>
<th>Burger King Fr’d.</th>
<th>Burger King Comp Owned</th>
<th>KFC Fr’d.</th>
<th>KFC Comp Owned</th>
<th>Roy Rogers Fr’d.</th>
<th>Roy Rogers Comp Owned</th>
<th>Wendy’s Fr’d.</th>
<th>Wendy’s Comp Owned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion Black</td>
<td>0.087 (0.147)</td>
<td>0.088 (0.134)</td>
<td>0.134 (0.188)</td>
<td>0.227 (0.281)</td>
<td>0.082 (0.121)</td>
<td>0.125 (0.211)</td>
<td>0.120 (0.186)</td>
<td>0.072 (0.080)</td>
</tr>
<tr>
<td>Income</td>
<td>47758 (13252)</td>
<td>47713 (9871)</td>
<td>44675 (11725)</td>
<td>41262 (12869)</td>
<td>52214 (13270)</td>
<td>50144 (15566)</td>
<td>44277 (11231)</td>
<td>43733 (7649)</td>
</tr>
<tr>
<td>Proportion in Poverty</td>
<td>0.067 (0.061)</td>
<td>0.055 (0.039)</td>
<td>0.082 (0.063)</td>
<td>0.110 (0.104)</td>
<td>0.052 (0.047)</td>
<td>0.061 (0.066)</td>
<td>0.082 (0.074)</td>
<td>0.064 (0.048)</td>
</tr>
<tr>
<td>Population Density</td>
<td>4583 (5941)</td>
<td>4575 (4437)</td>
<td>3652 (3605)</td>
<td>5647 (5243)</td>
<td>5247 (7482)</td>
<td>4297 (3839)</td>
<td>4027 (3786)</td>
<td>6204 (3879)</td>
</tr>
<tr>
<td>Average Starting Wage</td>
<td>4.75 (0.23)</td>
<td>4.82 (0.20)</td>
<td>4.76 (0.20)</td>
<td>4.87 (0.20)</td>
<td>4.88 (0.22)</td>
<td>4.84 (0.17)</td>
<td>4.86 (0.30)</td>
<td>5.00 (0.31)</td>
</tr>
<tr>
<td>Number of Employees</td>
<td>20.42 (10.04)</td>
<td>17.55 (5.08)</td>
<td>10.01 (3.84)</td>
<td>8.99 (4.12)</td>
<td>19.64 (7.34)</td>
<td>19.11 (10.42)</td>
<td>18.77 (8.60)</td>
<td>20.42 (8.05)</td>
</tr>
<tr>
<td>Crime Index Offenses</td>
<td>0.049 (0.047)</td>
<td>0.051 (0.029)</td>
<td>0.061 (0.057)</td>
<td>0.074 (0.059)</td>
<td>0.044 (0.025)</td>
<td>0.056 (0.061)</td>
<td>0.046 (0.023)</td>
<td>0.056 (0.018)</td>
</tr>
<tr>
<td>Median Value of Housing</td>
<td>47758 (13252)</td>
<td>47713 (9871)</td>
<td>44675 (11725)</td>
<td>41262 (12869)</td>
<td>52214 (13270)</td>
<td>50144 (15566)</td>
<td>44277 (11231)</td>
<td>43733 (7649)</td>
</tr>
<tr>
<td>Proportion w/o a Car</td>
<td>0.111 (0.119)</td>
<td>0.099 (0.076)</td>
<td>0.115 (0.104)</td>
<td>0.170 (0.154)</td>
<td>0.093 (0.090)</td>
<td>0.102 (0.119)</td>
<td>0.123 (0.121)</td>
<td>0.124 (0.109)</td>
</tr>
<tr>
<td>Number of Stores</td>
<td>2.97 (1.80)</td>
<td>3.32 (1.91)</td>
<td>3.48 (1.82)</td>
<td>2.92 (1.40)</td>
<td>3.58 (2.08)</td>
<td>2.85 (1.79)</td>
<td>3.33 (1.85)</td>
<td>3.92 (1.73)</td>
</tr>
<tr>
<td>Number of Managers</td>
<td>3.69 (1.21)</td>
<td>3.58 (0.72)</td>
<td>2.95 (0.75)</td>
<td>2.97 (1.25)</td>
<td>3.39 (0.67)</td>
<td>3.36 (0.75)</td>
<td>3.36 (0.76)</td>
<td>3.58 (1.08)</td>
</tr>
<tr>
<td>Hours Open</td>
<td>15.96 (1.50)</td>
<td>16.24 (1.11)</td>
<td>11.03 (1.13)</td>
<td>10.51 (0.79)</td>
<td>15.73 (2.36)</td>
<td>16.14 (2.75)</td>
<td>12.36 (1.41)</td>
<td>11.75 (0.45)</td>
</tr>
<tr>
<td>Number of Registers</td>
<td>3.30 (0.88)</td>
<td>3.68 (0.95)</td>
<td>3.75 (0.89)</td>
<td>3.91 (0.68)</td>
<td>5.07 (1.01)</td>
<td>4.77 (1.17)</td>
<td>2.00 (0.00)</td>
<td>2.17 (0.72)</td>
</tr>
<tr>
<td>Meal Price</td>
<td>2.92 (0.21)</td>
<td>3.03 (0.18)</td>
<td>4.51 (0.27)</td>
<td>4.13 (0.25)</td>
<td>3.25 (0.37)</td>
<td>3.21 (0.35)</td>
<td>3.18 (0.40)</td>
<td>3.03 (0.49)</td>
</tr>
<tr>
<td>Soda Price</td>
<td>1.05 (0.08)</td>
<td>1.07 (0.05)</td>
<td>1.03 (0.06)</td>
<td>0.97 (0.07)</td>
<td>1.10 (0.08)</td>
<td>1.10 (0.07)</td>
<td>1.00 (0.07)</td>
<td>0.96 (0.06)</td>
</tr>
<tr>
<td>Fries Price</td>
<td>0.92 (0.08)</td>
<td>0.96 (0.06)</td>
<td>0.92 (0.10)</td>
<td>0.80 (0.11)</td>
<td>1.04 (0.08)</td>
<td>1.02 (0.06)</td>
<td>0.89 (0.07)</td>
<td>0.84 (0.12)</td>
</tr>
<tr>
<td>Entree Price</td>
<td>0.94 (0.10)</td>
<td>1.00 (0.08)</td>
<td>2.56 (0.18)</td>
<td>2.35 (0.13)</td>
<td>1.12 (0.26)</td>
<td>1.11 (0.32)</td>
<td>1.27 (0.35)</td>
<td>1.31 (0.41)</td>
</tr>
<tr>
<td>Number of Calls</td>
<td>1.10 (1.39)</td>
<td>0.96 (1.10)</td>
<td>1.36 (1.78)</td>
<td>1.19 (1.53)</td>
<td>1.29 (1.27)</td>
<td>0.90 (1.19)</td>
<td>1.44 (1.38)</td>
<td>0.92 (1.16)</td>
</tr>
<tr>
<td>No of obs</td>
<td>146</td>
<td>25</td>
<td>44</td>
<td>36</td>
<td>31</td>
<td>68</td>
<td>48</td>
<td>12</td>
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