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# State Casket Sales Restrictions: A Pointless Undertaking?

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## Abstract

We utilize a new micro data set of prices of funeral goods and services at individual funeral homes, plus data from the Economic Census, to examine the effects of state regulations that restrict entry into the funeral goods market. In particular, some states have regulations that allow only licensed funeral homes to sell caskets, while others allow unlicensed retailers, such as Costco, to sell them. However, as caskets and funeral services are complements, generally purchased in one-to-one proportions, it is not a priori clear that casket sales restrictions can expand the rent extraction capabilities of licensed funeral homes. Our results suggest that when courts lift funeral goods sales restrictions, the prices of funeral goods fall but the prices of funeral services rise by nearly as much. Overall, our results support the one-monopoly-rent hypothesis; we do not find that, overall, funeral home revenues decline when restrictions on funeral goods sales are lifted.

## 1. Introduction and Setting

A long-standing debate in industrial organization is the question of whether, and under what circumstances, a firm with market power can increase its profits by bundling its product for sale with products in other markets. Much of the recent work on the monopoly leverage question has been motivated by litigation involving Microsoft. However, the issue can arise in many markets. In this article we examine the market for death care goods and services. Death care is a large and important industry in the United States; receipts for funeral services in 2002 totaled approximately \$4,522 per recorded death.<sup>1</sup> This level of expenditure means that, after a house and a car, a funeral is often one of the largest expen-

We are grateful for the expert research assistance of Carlos Rocha. Both authors are also at the National Bureau of Economic Research.

<sup>1</sup> The 2002 Economic Census reported revenues for North American Industry Classification System 8122 (funeral homes and funeral services) divided by total deaths as reported by the Centers for Disease Control and Prevention. The \$11.0 billion in total spending at funeral homes and the \$4,522 per death do not include non-funeral-home spending for death care services (largely spending at cemeteries and crematories). These expenditures totaled \$3.4 billion, or another \$1,405 per death.

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ditures a family makes. Entry into the services component of this industry (embalming, cremation, and so forth) is regulated in all states, and this situation arguably gives some market power to firms in those markets. In addition, some state legislatures have passed laws that allow only licensed firms in the funeral services market to sell funeral goods to consumers (such as caskets and urns), while in other states competitive retailers can sell funeral goods. In this article, we utilize a new micro data set of prices of funeral goods and services at individual funeral homes to examine whether consumers pay more for funerals overall (including goods and services) when all components of the funeral are regulated compared to the situation in which goods are sold competitively and services are regulated. We are interested in whether consumers are harmed when regulators permit only licensed funeral homes to sell funeral goods such as caskets.

According to the 2002 Economic Census, American consumers spent \$11.0 billion at the nation's funeral homes in 2002, almost exactly the same amount as they spent at the nation's movie theaters. Given the large expenditures by consumers, it is perhaps not surprising that a thicket of federal and state regulations have evolved to constrain death care establishments. It has been argued that consumer protection regulation is crucial because consumers who are engaged in making funeral arrangement decisions are generally constrained to make decisions very quickly, may not always be in the frame of mind to undertake a full evaluation of their options, and may frequently be inexperienced in making funeral arrangement decisions. In addition, regulation has been rationalized as necessary owing to the potential public health ramifications of the treatment and disposal of human remains. The regulations promulgated by the Federal Trade Commission (FTC) focus largely on forcing funeral homes to provide clear disclosure of all prices and options available to consumers. However, states have also adopted more detailed regulations for the entry and practices of funeral service providers. All states have some form of occupational licensing for funeral directors, as well as licensed funeral homes. While many of these regulations may serve public health or consumer protection purposes, it is not surprising that some of these regulations have been argued to serve the interests of the death care industry rather than consumers.

In this article, we are concerned with state regulations regarding the sale of funeral goods—caskets, containers, urns, and outer burial containers. A casket is a receptacle for a body that will be buried; a container holds a body that will be cremated; an urn is a receptacle for ashes generated by a cremation; an outer burial container is either a burial vault (under casket) or a grave liner (above casket). Some cemeteries require the use of outer burial containers to keep the cemetery ground smooth. According to the FTC Funeral Rule of 1984, funeral homes may not require consumers to buy funeral goods from the funeral home; a funeral home must accept without surcharge funeral goods that consumers have purchased elsewhere.<sup>2</sup> However, as was mentioned above, several states have

<sup>2</sup> See FTC Funeral Rule, 16 C.F.R. 453 (<http://www.ftc.gov/bcp/rulemaking/funeral/16cfr453.pdf>).

regulations (largely put into place in response to the Funeral Rule) requiring that funeral goods may be sold only by licensed funeral homes. In other, unrestricted states, consumers may purchase caskets from independent casket retailers such as Costco.

In recent years, funeral goods regulations have been challenged in many states by independent casket retailers. These challenges have been heard and appealed with varying results in different courts. Most recently, the U.S. Court of Appeals for the Sixth Circuit struck down the Tennessee law restricting the sale of funeral goods to licensed funeral homes (*Craigmiles v. Giles*, 312 F.3d 220 [6th Cir. 2002]). However, the U.S. Court of Appeals for the Tenth Circuit upheld Oklahoma's very similar statute (*Powers v. Harris*, 379 F.3d 1208 [10th Cir. 2004]), noting that it was "parting company" with the Sixth Circuit on this opinion. The U.S. Supreme Court, in declining to hear an appeal of the Oklahoma case, has, for the moment, allowed the differing judicial interpretations of these laws to stand.

An argument frequently given by the plaintiffs in their challenges to these laws is that consumers would be better off if there were competition in the market for caskets,<sup>3</sup> even holding constant the regulatory structure governing entry into the funeral services market. Indeed, even the Tenth Circuit, while upholding the Oklahoma law, suggested that it suspected that the law was harmful to consumers.<sup>4</sup>

Of course, the consumer welfare point is not entirely clear on theoretical grounds. The classic Chicago School arguments regarding bundling discussed in Director and Levi (1956), Posner (1976), and Bork (1978) could apply in the case of caskets and funerals. As was argued eloquently in Harrington (2003), caskets and other funeral services are generally purchased in one-to-one proportions—every funeral that requires a casket and requires some services (preparation of the body and the like). Funeral services and caskets are close to perfect complements. The Chicago School argument would suggest that, if funeral providers have market power in the provision of services due to regulatory barriers, they cannot achieve more market power by monopolizing caskets also. If caskets are provided by a competitive industry at marginal cost, then the funeral service

<sup>3</sup> While the consumer argument is reliably cited by the plaintiff, and may be of most interest to economists, the plaintiffs' main legal arguments in these cases have centered on whether the laws, in preventing a retailer from making a living as a casket seller, violate the casket seller's Fourteenth Amendment rights. The casket retailer's victory in the Sixth Circuit is notable judicially because the Sixth Circuit is the highest court in some time to find that due process and equal protection rights apply to commercial or economic liberties. Previous precedent, beginning with slaughterhouse cases (1873) and *U.S. v. Carolene Products* (304 U.S. 144 [1938]), places little scrutiny on state regulations, which affect "ordinary commercial transactions" (304 U.S. 152) but not fundamental individual liberties.

<sup>4</sup> The court, in its opinion, stated that the law exacts "needless" and "wasteful" requirements on casket sellers. Indeed, the court notes that, "[W]hile baseball may be the national pastime of the citizenry, dishing out special economic benefits to certain in-state industries remains the favored pastime of state and local governments" (379 F.3d 1221). However, the court concluded that economic protectionism is itself a legitimate state interest.

provider can still extract the full monopoly rent through a margin on the other funeral services. Thus, by this argument, given the existing market power in funeral services, the state casket sales restrictions may have no effect on the overall price for a funeral paid by consumers.

Even this argument, however, has its limitations, and there are several reasons why the casket sales restriction might give funeral directors additional pricing power in the overall funeral market. Whinston (1990) and Nalebuff (2004) note several situations in which the classic Chicago School monopoly leverage argument does not hold. The most relevant for the case of funeral goods and funeral services is the possibility that the casket is the most effective tool for price discrimination available to the funeral director. If this is true, the funeral director may extract more rents from consumers in states that ban a competitive fringe of retail casket retailers. This is akin to the Bowman (1957) metering argument, in which consumption of the secondary good serves as a meter of the consumer's overall willingness to pay. Blackstone (1975) documents this type of metering in the context of paper used for electrofax copy machines.

Given the theoretical ambiguity about the effects of the regulations on consumers, we examine the question empirically. To do this, we primarily utilize data from the general price lists (GPLs) of individual funeral homes. According to the FTC Funeral Rule, all funeral homes must have GPLs itemizing the prices of goods and services. We obtain a panel of prices drawn from GPLs from local affiliates of the Funeral Consumers Alliance (FCA). The FCA is a nonprofit consumer advocacy organization, and its local affiliates produce annual comprehensive price surveys of the funeral homes in their areas. Because of the costliness of our data collection methodology and because we want to examine a somewhat culturally homogeneous area, our data are drawn from the Southeast to the middle South.

In this region, we have data from one state that has funeral goods sales restrictions (Virginia), data from two states that had such restrictions that were eliminated by litigation (South Carolina and Tennessee), and data from three states that never had funeral goods sales restrictions (Kansas, Missouri, and North Carolina). We will use panel data on funeral home prices (with funeral home fixed effects) to isolate the effects of these restrictions on prices.

A practical reason why we might have difficulty evaluating the one-monopoly-rent argument in this context is that the absence of retail restrictions does not guarantee effective and vigorous price competition in funeral goods for all the funeral homes in our data set. Storefront retailers may take some time to become established, for example, and may move only to locations with enough customers to justify the fixed costs of entry. A search of the yellow pages for Tennessee and South Carolina suggests that, in 2006, at least seven retail funeral goods providers had been established in South Carolina and at least eight, plus Costco, in Tennessee.<sup>5</sup>

<sup>5</sup> Under the listing "caskets" in the yellow pages, one will find both wholesale and retail opera-

Competition can also be generated by casket retailers who ship their products into a region rather than sell them only through local retail outlets. However, the data in Harrington (2005) and elsewhere demonstrate that this shipping was not a significant part of the market during the majority of our sample period. The limited effect of these long-distance shippers is likely explained by the high cost of shipping an individual casket by common carrier and the time required for a shipped casket to arrive. It also has been suggested that funeral homes discourage shipped-in caskets by sometimes requiring that the consumer be on site at the funeral home at the moment the casket arrives to receive and inspect it.<sup>6</sup> If effective competition from distant retailers is small, then consumers must depend on entry and competition from local stores to generate competitive prices for funeral goods.

There is some textual evidence that incumbent funeral directors understood the threat of retail entry and of price availability from potential casket sellers either nearby or online. We examined the trade publications of the funeral industry around the time of the court decisions analyzed here. We found that the threat posed by casket retailers was well understood in the industry and that the prevailing industry wisdom suggested raising service margins and lowering casket margins as a response to casket retailer entry. For example, *Funeral Service Insider* (2005, p. 3) advised its readers that “most pricing experts believe there are better ways to fend off third-party sellers. ‘Move your casket mark-ups to a straight 2X across the board and restructure your pricing so that you make a profit on your service prices alone,’ suggests Dan Isard, Foresight Companies, Phoenix. ‘Casket stores struggle to stay in business when nearby funeral homes lower their mark-ups to 2X,’ he adds.”

Regarding the entry of Costco into casket retailing, *Funeral Monitor* (2004, p. 2) notes, “Costco’s public arrival into the formerly secret society of casket sales has left more than a few rattled. Some FH [funeral home] owners vow they’ll compete by lowering casket prices and jacking up their professional fees.”

We have price information for a popular goods-and-services bundle bought by consumers who want the simplest, most basic funeral. We show that the price of the goods portion of this bundle falls almost exactly as much as the price of the service portion rises, which leaves the overall price paid by these consumers almost unchanged.

A limitation of our data is that they contain prices but not quantities. Thus, our data do not tell us how consumers scale up their purchases of funeral goods and services as their demand for quality increases over the level of the simple

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tions. We telephoned these businesses to determine whether they were wholesalers or retailers. The seven in South Carolina and the eight in Tennessee are confirmed retailers. There were an additional six–10 businesses in each state for which we were not able to determine whether they operated a retail storefront. In addition, some retail entrants may have exited before 2006. Thus our measure is a lower bound on the number of retailers who entered after the law changed.

<sup>6</sup>The Funeral Consumers Alliance (FCA) has recently filed a complaint in U.S. District Court (Northern District of California) alleging a variety of anticompetitive behaviors on the part of funeral homes.

basic bundle. We cannot, then, use our micro data set to show how the overall bill for consumers who purchase fancy funerals is affected by the entry regulations. In part to address this, we supplement our microanalysis of individual prices with an examination of the data from the Economic Census on overall consumer spending for funerals. We conduct differences-in-differences specifications to show that overall funeral spending is invariant to the addition or removal of state funeral restrictions. Our data do show some weak support for our micro evidence that spending shifts out of goods and into services when restrictions are lifted.

As a further check on our analyses, we examine the announcement effects of the various court decisions on the stock market valuations of the producers in this market. We use stock market data on publicly traded funeral home chains and casket makers to examine the effect of court decisions determining the constitutionality of these laws on the market's expectation of the future cash flows of these firms. We find no evidence that court decisions striking down funeral goods sales restrictions were bad news for the future profitability of the large funeral home chains.

Thus, our overall results are generally consistent with the application of the Chicago School one-monopoly-rent argument in this context, given effective retail competition in unrestrictive states.

The article proceeds as follows. Section 2 describes the data sets used in this article. Section 3 uses the micro data set of funeral home prices in the South to examine the impact of legislative change on prices. Section 4 examines the state-level data from the Economic Census. Section 5 presents the event study evidence, and Section 6 concludes.

## 2. Data

The primary data used in this article are price data collected in annual surveys of local funeral home prices conducted by local affiliates of the FCA. Unfortunately, while these local memorial societies are all affiliated with the FCA, they do not, as a matter of course, forward all of their surveys to the FCA. Thus, we were forced to obtain most surveys by direct contact with each of the local memorial societies, of which there are generally one to four per state. Again unfortunately, many memorial societies were not aware that old surveys could be useful to researchers, and many local societies did not save their old surveys or the old GPLs from which they were drawn. More unfortunate still, the FCA did not, until recently, establish uniform procedures for local memorial societies to use to create their price surveys. A funeral home GPL contains dozens of different prices for all the services offered by a home, and memorial societies generally do not record all of the prices available. Thus, different memorial societies make different choices about the level of detail to provide in their surveys.

The final data set we employ in the article includes prices from funeral homes

in six states: Kansas (3 percent), Missouri (6 percent), North Carolina (13 percent), South Carolina (6 percent), Tennessee (59 percent), and Virginia (13 percent) and covers the years 1996–2005. Altogether, 562 funeral homes are represented in the data set with 1,551 observations. So there are an average of 2.76 observations per funeral home and a median of two per home. A few homes have 12 or 13 observations because they are surveyed in several years and they have several different licenses at the same address. For example, we might see prices from a funeral home, then another price from the funeral home chapel or an entry from the funeral home crematorium.

Along with the various prices, which we will describe below, an important element of our study is to classify states by whether they have restrictive laws and to date when these restrictions were lifted. This is somewhat more complicated than it might at first seem, as many of the legal challenges to these laws result in decisions that are not reported by the major legal reporting services. We rely on Fulton (2004), the most complete and careful legal analysis of these issues available. Fulton (2004) carefully describes the statutes containing restrictive funeral legislation and the various challenges to these rules. As a robustness check, we note that the Costco Web site lists states to which it will ship caskets and that the set of states to which they will not ship includes the states classified by Fulton as currently restrictive. States that were restrictive at some point during the post-1998 period are Alabama, Delaware, Georgia, Idaho, Louisiana, Maine, Mississippi, Minnesota, Oklahoma, South Carolina, Tennessee, Vermont, and Virginia. Tennessee's law was struck down at the end of 2002, and South Carolina passed a law reversing its restrictions in mid-2002.

To supplement the micro data from the South, we also examine data from the U.S. Census on total spending on funerals. Data on the revenues by state for funeral homes are obtained from the 1982, 1997, and 2002 Economic Census. Data on deaths by state are obtained from the Centers for Disease Control and Prevention Web site.<sup>7</sup> Data on cremation rates by state are obtained from the Cremation Association of North America.<sup>8</sup> Data on per capita personal income are obtained from the Bureau of Economic Analysis.

Finally, we examine the market values of death care firms in response to judicial announcements. The firms in question are the four largest funeral home chains, Service Corporation International (SCI), Stewart, Alderwoods, and Carriage, all of which are publicly traded, and the largest casket manufacturer, Hillebrand. Stock price data for these firms are obtained from the Center for Research in Securities Prices (CRSP).

<sup>7</sup> For the data on deaths by state from the Centers for Disease Control and Prevention, see National Center for Health Statistics, Deaths/Mortality (<http://www.cdc.gov/nhcs/fastats/deaths.htm>).

<sup>8</sup> For the data on cremation rates by state, see Cremation Association of North America, Preliminary Final 2004 Statistics (<http://www.cremationassociation.org/docs/WebPrelim.pdf>).

### 3. Effect of Legislative Changes on Prices: Micro Data

In this section, we use the data collected from the FCA affiliate surveys and GPLs to examine the effect of funeral goods sales restrictions on the prices of funeral goods and services.

#### 3.1. Funeral Bundle Prices

We begin by examining the most basic funeral bundle purchased by consumers, the price for a direct burial. Many FCA affiliates indeed report only direct-burial prices as the basis of price comparison across funeral homes. A direct burial is a burial for which the body is not embalmed, and there is no formal viewing of the remains or ceremony with the body present. A direct burial generally includes a wooden casket with a cloth-covered fiberboard top.

Because each FCA affiliate constructs its own price survey with little central guidance from the FCA, we find there are three general practices used to construct this price. One is to provide a price for a direct burial without the casket, one is to provide a price for the direct burial including a cloth-covered wooden casket, and one is to provide the price both with and without the casket (only one memorial society does it this last way). The propensity to report one way or the other does not appear to be correlated with state restrictions; we have approximately equal numbers of with-casket and without-casket prices from restrictive and nonrestrictive states. Approximately 80 funeral homes change from reporting a with-casket price to a without-casket price during our sample period. These changes appear to be driven by changes in the reporting practices of the two memorial societies concerned rather than by a change in the products offered by the funeral homes. In 2004 the Tennessee Memorial Society moved to reporting immediate burial without casket, while the Kansas/Missouri Society did the opposite. Approximately 300 observations in our data set are both from a state that changed status, Tennessee, and from funeral homes that changed casket-reporting practices during the sample period.

To estimate the price effects of state funeral restrictions and to simultaneously deal with this heterogeneity in the data, we propose a differences-in-differences semihedonic methodology.

Consider the following specification:

$$P_{it} = \alpha_i + \beta(\text{Restrict}_{it}) + \gamma(\text{Casket}_{it}) + \delta(\text{Casket}_{it} \times \text{Restrict}_{it}) + \lambda I(\text{Year}_t) + \varepsilon_{it}, \quad (1)$$

where  $P_{it}$  is the price of a direct burial with or without a cloth-covered wooden casket at funeral home  $i$  at time  $t$ . The term  $\alpha_i$ , a parameter to be estimated, is the funeral home fixed effect.  $\text{Restrict}_{it}$  is a dummy variable that takes the value of one if funeral home  $i$  is in a restrictive state at time  $t$ . Note that two states change status during our period.  $\text{Casket}_{it}$  is a dummy variable that takes the value one if the price for funeral home  $i$  at time  $t$  includes the basic casket.

Table 1  
Prices of Direct Burial (\$)

	(1)	(2)	(3)
Price includes casket	793.0 (70.2)	877.0 (131.2)	689.8 (60.0)
Restrictive state	-251.7 (134.1)	-335.28 (147.8)	-196.30 (128.17)
Restrictive state $\times$ price includes casket	261.0 (109.2)	253.6 (108.9)	265.9 (114.0)
$R^2$	.78	.77	.78
$N$	1,437	1,437	1,516

Note. The dependent variable is the price of direct burial either including or not including a cloth-covered wooden casket. The mean of the dependent variable of direct burial not including a casket is \$1,432. Standard errors are in parentheses. Standard errors in column 3 are robust to clustering with funeral home-years. All regressions include year and funeral home dummies.

$\text{Casket}_{it} \times \text{Restrict}_{it}$  is an interaction between the two dummy variables and will show if the prices of caskets are different in restrictive and nonrestrictive states. The term  $I(\text{Year}_t)$  is dummy variables for the years in our sample, and  $\varepsilon_{it}$  is an error term.

Because we estimate this specification in price levels, the coefficient  $\gamma$  can be interpreted as the implied price of a cloth-covered wooden casket in the data. It is identified from the funeral homes that change reporting practices during the sample. Because these homes are limited in number and geographic spread, we also report the differences in the mean prices with and without a casket, after controlling for year. The term  $\beta$  measures the difference in the prices of funeral services in restrictive and nonrestrictive states, and  $\delta$  is the difference in the prices for a casket (later, funeral goods more generally) in restrictive and nonrestrictive states. Since we include funeral-home-level fixed effects in these specifications, it is important to realize that the coefficients for  $\beta$  and  $\delta$  are essentially being identified from South Carolina and Tennessee, the states that switch legal regimes during our sample period.

Our basic estimate of equation (1) is presented in column 1 of Table 1. Here, we use one observation per funeral home, taking the with-casket price whenever it is available. The coefficients suggest that funeral services cost significantly less (at the 7 percent confidence level) when restrictions are in place but that funeral goods cost significantly more (at the 2 percent confidence level). Interestingly, the point estimate of the decrease in the price of services, \$252, is almost exactly equal to our estimate of the increase in the price of funeral goods in restrictive states, \$261. Thus, our estimates suggest that the total price paid for a casket plus basic funeral services is essentially unchanged by a judicial action lifting the casket sales restrictions.

While we do not report the year dummies, our estimates of their magnitude suggest that the price of an immediate burial is increasing by approximately \$61 per year over the time period of our study.

Because some local affiliates (and thus funeral homes) report data for both the with-casket and the without-casket prices, we can construct the sample in different ways. The values in columns 2 and 3 of Table 1 show the results when

equation (1) is calculated with small changes. The results in column 2 were calculated using the without-casket price whenever available, and the with-casket price was omitted when both were available for a given funeral home-year. The results are similar, although the point estimate for the price discount on services in restrictive states is slightly larger (which suggests that consumers actually pay less overall in restrictive states). The coefficients for both Restrictive and Restrictive  $\times$  Price includes casket are statistically significant at the 5 percent confidence level. For the data in column 3, each funeral home time period included up to two observations, the with-casket price and the without-casket price, if available. Standard errors are adjusted to allow within funeral home-within time period error terms to be correlated. Since only one relatively small memorial society collects both prices, this adds only 79 observations to our data set. The results are similar, although the price discount for restrictive states is statistically significant at only the 13 percent level in this specification.

Table 1 also provides point estimates of the price of the cloth-covered wooden casket in a funeral home in a nonrestrictive state. These range from \$690 to \$877 across the various specifications. In our data set, one memorial society in a nonrestrictive state gathers prices for immediate burial both with and without a casket. For that limited sample, the average implied marginal price of the casket was \$858 in 2004. The average difference in with- and without-casket prices controlling only for year effects is \$550.

Our estimates, again, suggest that consumers who buy both a cloth-covered wooden casket and direct burial services at a funeral home appear to pay close to the same overall total price in restrictive and nonrestrictive states. Services cost more in the states with no restrictions on the sale of caskets, but casket prices are lower. However, it is important to notice that our point estimates of the prices of a cloth-covered wooden casket, even in the states without casket sales restrictions, are quite high. A quick examination of Web sites that sell retail caskets indicates that consumers who have access to funeral retailers should be able to obtain basic cloth-covered wooden caskets from outside retailers for approximately \$440. It appears that competition from outside casket retailers does not drive casket prices down to a marginal cost, perhaps owing to the search/inconvenience cost of obtaining the casket elsewhere or perhaps owing to the lack of competition in the industry.<sup>9</sup> Thus, it is worth comparing the welfare of a consumer who buys everything at the funeral home in a restrictive state to the welfare of a consumer who uses an outside vendor for funeral goods in a nonrestrictive state. According to our estimates presented in column 1 of Table 1, a consumer in a nonrestrictive state would pay \$252 more for funeral services than does a consumer in a restrictive state but could pay about \$614 less for the goods (the total price of a casket in a restrictive state is  $\$793 + \$261 = \$1,054$ , less the \$440 Internet casket price), which implies a total savings of

<sup>9</sup> Again, see the complaint filed by the FCA for details of alleged anticompetitive behavior.

Table 2  
Prices of Direct Cremation (\$)

	(1)	(2)	(3)
Price includes container	140.8 (59.9)	103.2 (80.9)	124.3 (18.6)
Restrictive state	-138.7 (65.3)	-128.9 (68.6)	-138.5 (57.3)
Restrictive state $\times$ price includes container	124.0 (61.7)	120.6 (62.1)	121.9 (51.5)
$R^2$	.82	.81	.82
$N$	1,525	1,525	1,627

Note. The dependent variable is the price of direct cremation either including or not including a cardboard/fiberboard cremation container. The mean of the dependent variable of the price of direct cremation without a container is \$1,379. Standard errors are in parentheses. All regressions include year and funeral home dummies.

\$362. This is substantial relative to the mean \$1,432 price of a direct burial not including a casket in the sample.

We examined the sensitivity of our standard errors to clustering at the state and, alternatively, state-year level. Our standard errors shrink when we do this, so we report the more conservative specifications described above.

The second type of bundle commonly researched by the local FCA affiliates is direct cremation. Direct cremation is processing of the body for cremation without a viewing or other ceremony with the body present. Again, some FCA affiliates collect data for a direct cremation including a cardboard or fiberboard container for the cremation to take place in, while others collect the price for direct cremation without the container. We proceed exactly as in equation (1) and Table 1, replacing the variable  $Casket_{it}$  with the indicator variable  $Box_{it}$ , which takes the value one if the direct cremation price used includes a cardboard or fiberboard container.

For the results presented in column 1 of Table 2, whenever possible, the data used were the price for direct cremation with a cremation container supplied by the funeral home for the body and, when necessary, the price for direct cremation without a cardboard container. For the results presented in column 2, the reverse situation applies. For the results presented in column 3, both data items were used when available, and the standard errors were adjusted for appropriately.

Once again, we find results very consistent with those shown in Table 1. Restrictive states in column 1 charge significantly less for cremation-related services but significantly more for the regulated funeral good, the cardboard container for the body. The amount of money involved is somewhat less than in the case of the casket. The restrictive funeral home charges approximately \$124 more for the container and \$139 less for the services. The magnitude of the savings on the services is insignificantly different from the magnitude of the increased markup on the funeral goods. This finding is robust across the three specifications, although the statistical significance is somewhat lower in the second specification.

Here, we have more local FCA affiliates that have collected prices both with

a container and without a container; there are 102 price observations that include both prices for the same funeral home at the same time point. In our 2004 data, the average implied price of the container for those funeral homes is \$122. This is essentially the same as the price of the container that we estimate hedonically in the three specifications shown in Table 2, which thus gives us confidence in our hedonic methodology.

Again our results suggest that a consumer who shops entirely at the funeral home would pay approximately the same amount for the goods-and-services bundle in a restrictive versus an unrestrictive state. Of course, it is clear that the hedonic price of \$123 is well above the marginal cost of a cardboard container. We have found various Web sites offering these for \$18–\$25 plus shipping. However, at these prices, we have found them sold only in minimum quantities of 6–12, with the shipping charges amounting to almost as much as the containers themselves.<sup>10</sup> Nonetheless, a consumer who exerts effort to bring a cardboard container from elsewhere with her to the funeral home will pay less in total charges than will a consumer who purchases a cremation container from the funeral home, even in an unrestrictive state.

Of course, it is worth noting that in both restrictive and unrestrictive states, it is only the sale of funeral goods by unlicensed retailers that is forbidden. According to the federal Funeral Rule, the funeral home cannot refuse funeral goods purchased from another funeral home, nor can it refuse appropriately constructed homemade funeral goods. While homemade funeral goods may be unusual, there are flat-pack kits for sale on the Internet that lower the level of expertise required in making such items.

One potential concern with these results is the relatively small number of observations. One might worry that funeral homes do not change prices very frequently and that the results in this section might be driven by large changes in prices by one or two funeral homes when restrictions are lifted, with almost no change from the rest. This does not appear to be the case. We examine price changes within a funeral home from survey to survey. We examine price changes for direct burial and direct cremation only when the reporting method did not change over this time period (it either included a container or casket both times or did not). For direct burial, we find that a (positive or negative but not zero) price change is recorded from one survey to the next for 87 percent of the funeral home–years, while for a direct cremation a price change is recorded over that period 83 percent of the time. Thus, the majority of funeral homes are not simply giving the FCA local affiliate the same dusty price card year after year; the recorded prices are being updated fairly regularly.<sup>11</sup>

<sup>10</sup> As a service, apparently some church groups and hospices buy these containers in packs of 10 to store for use by their members.

<sup>11</sup> A second concern is that a 2002 crematory scandal in Georgia that received a lot of publicity might be affecting the results. In March 2002, newspapers reported that the Tri-State Crematory in Noble, Georgia, was not cremating bodies as it was supposed to do but was simply dumping them in the woods behind the facility. While this undoubtedly raised the profile of cremation and perhaps

While these results are suggestive, one potential criticism is that the basic bundle may be purchased by a relatively small number of consumers and that the results for products higher up the quality ladder may differ. We address this concern in several ways. First, we note that the Casket and Funeral Supply Association of America estimates that, in 2002, 12.5 percent of the caskets purchased in the United States were cloth-covered wood, which suggests that a substantial fraction of consumers were choosing the very lowest cost casket. The Casket and Funeral Supply Association also estimates the share of nongasketed steel caskets as 15.2 percent of the total caskets purchased.<sup>12</sup> Nongasketed steel caskets are the lower-end steel type (generally with square corners and 20-gauge steel, the thinnest gauge used on caskets). These generally sell for \$500–\$1,500, close to the price of the cloth-covered wood caskets. Thus, loosely speaking, low-end caskets account for a little more than one-quarter of the market. Even if the results that we obtain for the basic bundles are somehow reversed or diminished for buyers who purchase more expensive casket styles, the results that we obtain have important distributional consequences. Removal of these regulations does not appear to make consumers who purchase the lower-end caskets and funeral services better off.

Second, we address the quality ladder question by looking directly at the price of higher-end funeral goods and services in the following sections. Later, we also look at overall funeral home revenues.

### 3.2. Funeral Service Prices

While direct burial and direct cremation are the most reliably collected data by the local FCA affiliates, some affiliates collect other data items in their surveys. In particular, the following items, in order of the frequency with which they are collected, are often reported:

1. *Basic Embalming Price.* Recall that a direct burial or direct cremation does not include embalming. However, many families prefer to have embalming done, and it is required in most states if a memorial service will be held in which the body is present or if the body will be held for more than 4 days before burial or cremation.
2. *Transfer Price.* This is the price for having the funeral home pick up the body from the place of death.
3. *Hearse Price.* This is the price for using a hearse to carry the body to the cemetery.
4. *Ceremony Price.* This is the price for using the funeral home to hold a ceremony. This does not include fees paid to any type of religious officiant.

While we have limited data on these services, we nonetheless analyze pricing

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caused consumers in our states to shop more carefully across funeral homes, it is not clear why the scandal would change consumers' willingness to pay for the goods versus the services.

<sup>12</sup> Casket and Funeral Supply Association of America, About the Casket Industry (<http://www.cfsaa.org/about.php>).

Table 3  
Prices of Funeral Services in Restrictive and Nonrestrictive States (\$)

	Transfer	Embalming	Hearse	Ceremony
Restrictive dummy (SE)	-42.5 (19.7)	-72.3 (40.1)	-72.2 (19.4)	-56.9 (24.5)
Mean value of dependent variable (SD)	169.6 (63.8)	476.3 (127.6)	201.0 (64.3)	357.6 (134.6)
<i>N</i>	494	521	359	280

Note. All regressions include year and state dummies.

of these services in restrictive and nonrestrictive states. Since there is no goods component to these prices, but only services, we undertake a regression specification similar to equation (1) without the interaction term. In particular, we estimate

$$P_{it} = \theta_i + \beta(\text{Restrict}_{it}) + \lambda I(\text{Year}_t) + \varepsilon_{it} \quad (2)$$

where  $P_{it}$  is the price of a given service at funeral home  $i$  at time  $t$ . The term  $\theta_i$ , a parameter to be estimated, is the state fixed effect (to conserve on degrees of freedom, we do not include a funeral home fixed effect). For embalming, for example, there are fixed effects for each of the states reporting embalming prices.  $\text{Restrict}_{it}$  is a dummy variable that takes the value of one if funeral home  $i$  is in a restrictive state at time  $t$ ,  $I(\text{Year}_t)$  are dummy variables for the years in our sample, and  $\varepsilon_{it}$  is an error term.

Again, because of the inclusion of fixed effects, the coefficient for  $\text{Restrict}_{it}$ ,  $\beta$ , is identified only because Tennessee and South Carolina switch from restrictive to unrestrictive states. One memorial society in each of these states reports prices for embalming, for example. Thus, our results in this section should be interpreted with caution, as they are obtained from a limited sample.

The one-monopoly-rent hypothesis suggests that when these states drop their funeral goods sales restrictions, funeral homes in those states will raise service prices relative to those at funeral homes in neighboring states, while lowering the prices of funeral goods. Thus, we predict that the coefficient  $\beta$  will be negative; service prices will be lower in restrictive states. Results for the four available prices are found in Table 3.

One can see that while the Restrictive dummy coefficient is negative for all four goods, it is significantly different from zero at the 5 percent confidence level for three goods and at the 10 percent confidence level for embalming.

### 3.3. Funeral Goods

Typical funeral goods listed on a GPL include caskets, urns, and grave liners. Each of these products comes in many varieties and prices. It would not be practical for a funeral home to include its complete list of prices for goods on its GPL. So the FTC requires that the funeral home include its range of prices for caskets, urns, and grave liners. The funeral home must also give any interested customer its casket price list. Since we are working from GPLs or surveys of

Table 4  
Prices of Funeral Goods in Restrictive and Nonrestrictive States (\$)

	Casket Minimum	Casket Maximum	Grave Liner Minimum	Grave Liner Maximum
Restrictive dummy (SE)	14.6 (92.24)	2,379.25 (2,497.3)	-91.2 (76.2)	2,159.6 (1,308.56)
Mean value of dependent variable	749.4	10,425.3	591.5	7,330.4
<i>N</i>	545	479	400	396

Note. All regressions include year and state dummies.

GPLs, the only prices we have available in principle are the minimum and the maximum for caskets, urns, and grave liners.

This is not ideal. Given the wide variety of casket models and prices and given that the variety of models offered could well change when funeral goods restrictions are limited, one would want to be extremely careful about making inferences from just the minimum and maximum reported prices; one cannot really make inferences about the change in the price of any given casket model. We are only slightly less concerned about drawing inferences from the pricing of grave liners. However, as there are far fewer varieties of grave liners than caskets, it is probably less likely that the variety of grave liner models offered by the funeral home changes significantly around the time of a legal change.

We estimate the specification in equation (2) separately for the minimum price for each funeral good and for the maximum price for each funeral good. Unfortunately, memorial societies do not always collect this information, and we find that, in particular, very few memorial societies collect the information for urns. We have no before-and-after data for restrictive states for urns. Thus, our analysis, with its results presented in Table 4, considers only caskets and grave liners.

Clearly, the data in Table 4 are, as expected, difficult to interpret, as significant price movements are generally not detectable. The exception is the maximum price for grave liners, which bears a positive coefficient and is statistically significant at the 10 percent confidence level. This finding suggests that the upper end of the grave liner price range falls when funeral goods sales restrictions are removed. While this result is consistent with the theory, we would not want to make too much of just one marginally statistically significant coefficient.

#### 4. Total Funeral Spending in Restrictive and Nonrestrictive States

Our evidence thus far shows that consumers who purchase the most basic casket or cremation container in combination with basic services pay almost the same amounts in restrictive and nonrestrictive states. That is, funeral homes appear to shift revenue from the goods to the services if they face potential competition in goods. The micro data show only the total cost of the most basic funeral services (as well as the individual prices for other goods or services). It

is possible that as consumers move up the quality spectrum, the funeral goods sales restrictions do have an impact on overall funeral home revenues. This would happen if, for example, funeral homes in restrictive states were able to use casket markups as a price discrimination tool. Thus, in this section, we examine more macro evidence on the impact of funeral goods sales restrictions. To do this, we use data from the 1982, 1997, and 2002 Economic Census. Our goal is to ask whether, as the one monopoly theory would suggest, total funeral receipts are invariant to the institution of funeral goods sales restrictions. Further, using Economic Census data on the sources of receipts, we can examine whether the absence of funeral goods sales restrictions led to a shift of revenue out of funeral goods and into funeral services.

We use state data from the 1982, 1997, and 2002 Economic Census to measure total funeral home receipts per death, controlling for the proportion of the population that is cremated. To control for possible state-level heterogeneity in funeral preferences, we adopt differences specifications to the extent possible. The 1982 Economic Census occurred prior to the imposition of the FTC Funeral Rule in 1985. Before the Funeral Rule, funeral homes could refuse to use caskets purchased elsewhere or impose a surcharge to consumers for them; the passage of the Funeral Rule was the impetus for state casket sales restrictions. These laws were all in place by the time the 1997 Economic Census occurred. However, the laws were lifted because of litigation in three states by the time of the 2002 Economic Census.

We first examine whether funeral spending in each state in 1997 (as measured by funeral home receipts per death) is higher or lower in restrictive states, controlling for that state's pre-Funeral Rule spending levels (from the 1982 Economic Census). We want to control for other major changes that occurred between 1982 and 1997 that may impact cross-state changes in funeral spending. To do this, we consider changes in state-level per capita income from 1982 to 1997 to control for the fact that funeral spending is likely a normal good. We would like to control for changes in cremation rates from 1982 to 1997. We do this because we know that there has been a secular increase in cremation in the United States over approximately the last 20 years and that some areas (in particular, the West) have embraced cremation more rapidly than has the rest of the country. However, we have found no reliable state-level cremation data for 1982. The Cremation Association states that the cremation rate nationally stood at 11.79 percent in 1982.<sup>13</sup> Given that the cremation rate is fairly close to zero in 1982 (and unknown at the state level), we approximate the change in the cremation rate from 1982 to 1997 to be the actual 1997 cremation rate.

<sup>13</sup> Cremation Association of North America, Historical Cremation Data—United States vs. Canada (<http://www.cremationassociation.org/docs/WebHistData.pdf>).

Our first specification then is

$$\begin{aligned} \text{RPD}_{i97} = & \alpha + \beta(\text{Restrict}_i) + \gamma(\text{CremRate}_{i97}) \\ & + \delta(\text{RPD}_{i82}) + \lambda(\% \Delta \text{pcInc}_{i82:97}) + \varepsilon_i, \end{aligned} \quad (3)$$

where  $i$  indexes states, and years are given in the subscripts. The term RPD is receipts per death;  $\text{CremRate}_i$  is the cremation rate in state  $i$  (cremations per death). Per capita income in a state is  $\text{pcInc}_i$ . The dummy variable  $\text{Restrict}_i$  takes the value one if state  $i$  had a funeral goods sales restriction in place by 1997, and  $\varepsilon_i$  is an independent and identically distributed (i.i.d.) error term. The sample has one observation per state plus the District of Columbia (minus Wyoming and Alaska, whose 1997 data were not disclosed in the Economic Census).

The results are reported in column 1 of Table 5 and show that receipts per death in 1997 are positively and significantly related to receipts per death in 1982, as expected. However, the coefficient is well less than one, and the constant is positive and significant, which suggests some regression to the mean in state spending, even controlling for other factors. As expected, the cremation rate had a negative and statistically significant effect on receipts per death in 1997. The mean of the dependent variable, total receipts per death, is \$4,166. The cremation rate coefficient is  $-\$3,086$ , which implies that receipts per death for a cremation total only \$1,080. Of course, a higher cremation rate may also proxy for an overall preference in the state for simpler funerals. The change in per capita income has a positive effect on receipts per death, as expected, but the effect is not statistically significant at standard confidence levels. Our variable of interest, the indicator variable for restrictive state, has a small negative coefficient of  $-80$ , but the  $t$ -statistic is only .4. We conclude that there is no evidence that the restrictions affect overall receipts per death.

For 1997, but unfortunately not for 1982, we were able to obtain data from the Census Bureau on sources of receipts by state. It categorizes receipts into “receipts for merchandise” and “receipts for services.” For the results shown in columns 2 and 3 of Table 5, we repeat the specification in equation (4) but replace total receipts per death with merchandise receipts per death and non-merchandise receipts per death, respectively. The point estimates of the coefficients suggest that the presence of restrictions in the post-Funeral Rule period is associated with relatively higher totals for merchandise receipts per death and lower totals for service receipts per death. The higher merchandise revenue estimate is statistically different from zero at the 6 percent confidence level, while the lower service revenue estimate is statistically different from zero at only the 18 percent confidence level. We hypothesize that this implies that, in the wake of the Funeral Rule, funeral directors moved rents out of funeral goods and into funeral services, except in states that adopted funeral goods sales restrictions.

Column 4 of Table 5 shows data for 1997–2002. During this time period, South Carolina, Georgia, and Mississippi lifted their funeral sales restrictions

Table 5  
Receipts per Death

	Total Receipts (1)	Merchandise Receipts (2)	Nonmerchandise Receipts (3)	Total Receipts (4)
Dependent variable	Per death <sub>97</sub>	Per death <sub>97</sub>	Per death <sub>97</sub>	Per death <sub>02</sub>
Time difference	1982:1997	1982:1997	1982:1997	1997:2002
Change in per capita income (\$)	596.28 (588.59)	-67.61 (272.70)	663.9 (553.99)	4,750.43 (2,121.21)
Receipts per death, 1982	.573 (.24)	.359 (.11)	.213 (.23)	
Receipts per death, 1997				1.057 (.08)
Cremation rate, 1997	-3,085.66 (703.50)	-1,453.99 (325.95)	-1,631.67 (662.16)	
Change in cremation rate, 1997:2002				-2,468.61 (2,469.61)
Restrictive state	-80.38 (198.25)	174.77 (91.85)	-255.15 (186.60)	
Law change				18.41 (279.29)
Constant	3,273.72 (922.71)	1,132.81 (427.51)	2,141.9 (868.47)	-864.72 (571.76)
R <sup>2</sup>	.61	.67	.32	.82

Note. The mean value of the dependent variable of total receipts per death is \$4,166. Standard errors are in parentheses. N = 49.

(because of legal challenges). Tennessee did so also, but only at the end of 2002. For the data in column 4, the following specification is estimated:

$$\begin{aligned} \text{RPD}_{i02} = & \alpha + \beta(\Delta\text{Restrict}_{i97:02}) + \gamma(\Delta\text{CremRate}_{i97:02}) \\ & + \delta(\text{RPD}_{i97}) + \lambda(\%\Delta\text{pcInc}_{i97:02}) + \varepsilon_i, \end{aligned} \quad (4)$$

where  $\Delta\text{Restrict}_i$  is a dummy variable that takes the value one if state  $i$  had a funeral goods sales restriction in place by 1997 but removed them by 2002. Note that receipts per death in 2002 are estimated to be 1.06 times the receipts per death in 1997, with a small, borderline statistically significant constant term. This finding suggests that over this shorter horizon, there is less reversion to the mean than we see over the longer horizon. In this specification, the change in cremations per death has a negative coefficient, as expected, but is not statistically significant at standard confidence levels. The change in per capita income has a positive and statistically significant effect on receipts per death, which suggests that funerals are a normal good. The dummy variable indicating the legal change has a tiny coefficient with a  $t$ -statistic of only .07.

It is important to note that for equation (3) to be well specified for the period covering the 1982–97 law change, we are requiring that the imposition of state-level funeral restrictions is exogenously determined. This may or may not be a valid assumption. It is important to note that in our micro data specifications, the coefficients for the restrictive state indicator variable were identified solely by states whose legal restrictions were struck down by an appeals court. Even if one were to quarrel with the exogeneity of law passage figured in columns 1–3, the appeals court events are plausibly more exogenous. These identify the previous specifications used in Tables 1–4, as well as in column 4 of Table 5.

Thus, the results over this time period support our earlier findings that the addition or deletion of funeral goods restrictions does not have a very large impact on overall funeral industry receipts. This is important because our finding in the micro data that the increase in service prices offsets the decrease in goods prices might hold for only the most basic types of funerals. For more expensive funerals, funeral directors could conceivably be able to engage in quality metering along the goods dimension (the casket). If this mechanism were more effective than others for extracting surplus from consumers, then we would have found that funeral homes would earn less revenue overall in states with retail competition in funeral goods. We do not find this to be the case; funeral home receipts per death overall do not appear to change when the legal regime changes. This result suggests that if price discrimination is being practiced by monopoly funeral home directors, there are service items (for example, arranging a ceremony, use of facilities, embalming, transportation of various kinds, catering, and so forth) that can be used to extract surplus as effectively as price discrimination using goods. Our findings suggest that the offset between higher goods prices and lower service prices in restrictive states may hold through the range of funeral qualities.

### 5. Event Study of Suppliers

Another way to examine the issues addressed in Section 4 is to turn to the producer side of the market and ask whether the expected producer profits are a function of the legal regime. In the one-monopoly-rent world hypothesized by the Chicago School, the expected profits of funeral home chains would not be affected by changes in the regulation of retail casket suppliers, since funeral home chains could extract their monopoly rents with or without the casket sales restrictions, as long as the barriers to entry (regulatory and nonregulatory) into the services component of the industry were left intact.

To examine this issue, we undertake an event study. We consider four events of interest: the U.S. District Court for the Eastern District of Tennessee's decision in the Tennessee case (striking down the Tennessee law), the Sixth Circuit Court of Appeals's decision in the Tennessee case (upholding the district court's decision), the U.S. District Court for the Western District of Oklahoma's decision in *Powers v. Harris* (upholding Oklahoma's casket sales restrictions), and the Tenth Circuit Court of Appeals's decision in the Oklahoma case (upholding the district court's decision). Of course, our event study is limited to examining the impact of these decisions on the market values of publicly traded funeral home chains. These chains (SCI, Alderwoods, Stewart Enterprise, and Carriage Services) all have operations in many states. Thus, we would not expect the Eastern District of Tennessee or Western District of Oklahoma decisions to be particularly financially important per se.

The appeals courts' decisions are potentially more important because the appeals courts have wider jurisdictions than do the district courts. However, Tennessee was the only restrictive state in the Sixth Circuit, while Oklahoma was the only restrictive state in the Tenth Circuit. The Sixth Circuit's unanimous decision was considered by many to be a surprise, and the announcement of the Sixth Circuit's decision would be interpreted as greatly lowering the probability that restrictive laws would survive court challenges. The Tenth Circuit's decision offers more possibilities for nuance in interpretation. Clearly the decision itself was good news for those wanting to maintain these sales restrictions. However, the decision introduced an ambiguity in that many legal observers believed that the second appeals court decision greatly raised the probability of national judicial review, since it created a large inconsistency in the two circuits (and because it was clear that the sponsor of the case, the Institute for Justice, would attempt to appeal the Oklahoma case all the way to the Supreme Court).<sup>14</sup>

We examine the question of whether the stock market anticipated these decisions to have large effects on the profitability of these funeral home chains. As argued, we might expect that if these restrictive regulations raise profits substantially for funeral home chains, we might particularly expect to find the

<sup>14</sup> The defendant in the Tennessee case decided against appealing the case following the Sixth Circuit's unfavorable decision. Of course, as mentioned above, the Supreme Court declined to hear the appeal of the Oklahoma case.

Table 6  
Event Study Results

	Funeral Homes (1)	Alderwoods (2)
$\beta$	.69 (.05)	.86 (.10)
Tennessee court	-.0007 (.0145)	
Oklahoma court	-.0021 (.0145)	-.0053 (.0179)
Tenth Circuit	-.0014 (.0145)	.0114 (.0180)
Sixth Circuit	.0061 (.0145)	.0862 (.0990)
Constant	-.0001 (.0007)	-.0001 (.0011)
$R^2$	.11	.09
$N$	1,397	754

Sixth Circuit's decision to have a negative impact on funeral homes' expected profits. We would more hesitatingly predict that the Tenth Circuit's decision would be good news for funeral homes' expected profits.

We undertake a standard event study analysis. First, we group the four publicly traded funeral homes into a portfolio (SCI, Stewart Enterprise, Carriage Services, and Alderwood). We undertake a regression in which we regress the returns of the funeral home portfolio on the value-weighted total New York Stock Exchange/American Stock Exchange market return data from the CRSP. In this regression, we include dummy variables for the 3-day event window centered on the district court's decision in the Tennessee case (decided August 21, 2000), the 3-day event window centered on the district court's decision in the Oklahoma case (decided December 12, 2002), the 3-day event window centered on the appeals court's decision in the Tennessee case (decided December 6, 2002), and the 3-day event window centered on the appeals court's decision in the Oklahoma case (decided August 23, 2004). We include daily returns for this portfolio for the 300 trading days before the first decision through December 31, 2004. The results are reported in column 1 of Table 6.

The results suggest that the market did not view the announcements of the court decisions as important events for the future profitability of these funeral home chains. Of course, this finding is consistent with the one-monopoly-rent hypothesis, illustrating that these laws do not shift a lot of profits to these funeral retailers. However, it is also possible that the effects of these laws are too small relative to the magnitude of these large diversified funeral home chains to be detectable.

We partially investigate this alternative hypothesis and present the data in column 2 of Table 6, in which we consider only the stock returns of the Alderwood funeral home chain. An approximate calculation suggests that Stewart Enterprise, Carriage Services, and SCI each have approximately 10 percent of their operations accounted for by funeral homes in restrictive states (the data were calculated by multiplying the percentage of revenues from funeral homes by the fraction of funeral home locations in restrictive states). In contrast, Alderwoods has 23 percent of its operations accounted for by funeral homes in

restrictive states. Indeed, 30 of its 623 funeral homes are located in Tennessee, and 18 are in Oklahoma. It is possible that the effects of these decisions could be larger for Alderwoods.

Unfortunately, Alderwoods began public trading after the Tennessee lower court decision. Our analysis covers the period from when CRSP data for Alderwoods is first available through December 31, 2004. The results suggest that none of the court decisions have statistically significant estimated effects. Indeed, the sign of the coefficient for the appeals court decision for the Tennessee case is positive, which is the opposite of what one might have expected.

Given the small exposures of these funeral home chains to the affected states, we are cautious about overinterpreting the results shown in Table 6. However, it is clear that the results do not overturn the one-monopoly-rent hypothesis.

## 6. Conclusions

We examine state laws restricting the sale of funeral goods to licensed funeral homes. Certainly, state regulations of funeral homes and funeral directors have implications for the rents that can be extracted by funeral service providers (as shown in Harrington and Krynski 2002). However, our empirical results suggest that laws restricting the sale of funeral goods appear to shift rents from funeral services to funeral goods instead of increasing rent extraction opportunities overall.

An interesting question that follows immediately from our finding is this one: why were funeral homes putting the rents in caskets in the first place if it is costless to move them into services? While we have no immediate answer to that question, it is clear that there is no reason not to extract rents from caskets, and so we would expect some funeral homes to do so. In addition, we would not want to conclude from these results that it is costless (in terms of total economic profit) for a funeral home to transfer any amount of rent between goods and services. We find a shift of a few hundred dollars in response to an opening up of the goods market to competition. If that goods market instead featured vigorous price competition that drove the price of caskets to the marginal cost, funeral homes might find it costly in terms of lost business to put all of those lost rents into service prices. We cannot estimate the effects of this experiment because it is outside the bounds of our data.

An important limitation of our analysis is that we cannot measure directly whether legislative and judicial attempts to open up competition in funeral goods have actually led to significant competition among funeral goods providers. Our conclusions are not inconsistent with the change in legal regime having an extremely limited effect on retail competition. While Internet retailers have created alternatives for consumers, their product offerings are still an option largely only for those who are willing to purchase a casket on the basis of a photograph. Storefront casket retailers are still uncommon. Indeed, it is our understanding that the largest three casket manufacturers, Batesville, York, and Aurora, will

supply caskets only to licensed funeral home directors. The overall state of competition in funeral goods markets thus remains a subject for future research.

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