

United States House of Representatives
Committee on Education and the Workforce

**Assessing Retiree Health Legacy Costs:
Is America Prepared for a Healthy Retirement?**

May 16, 2002
10:30 a.m.

Written Testimony

H. Fred Mittelstaedt

Mendoza College of Business
University of Notre Dame
Notre Dame, IN 46556
574/631-5087
hmittels@nd.edu

Mr. Chairman and Members of the Committee:

I am pleased to be here to share with you some of my research findings and thoughts on retiree health benefits. I hope that my remarks assist the committee in its deliberations on the very important issue of retiree healthcare.

My comments are organized as follows. In the first section, I give some background regarding retiree health plans and the evolution of accounting for these plans. Also in this section, I outline the prevalence of coverage and magnitude of the liabilities that existed in the 1990s. In the second section, I describe how plans have been modified to reduce benefits. I also explain research that investigated motivations for reducing health care benefits. In the final section, I offer my conclusions and recommendations.

Background

Prevalence of Retiree Health Benefit Coverage

The General Accounting Office (GAO 2001, 8) estimates that in 1999 approximately 37% of the retirees between the ages of 55 and 64 and approximately 26% of the retirees 65 and older received employer-sponsored retiree health benefits. The report also indicates that large firms were more likely to provide coverage than were smaller firms. More than 50% of the firms with more than 5,000 employees provided retiree healthcare benefits, whereas only 9% of the firms with under 200 employees sponsored such plans (GAO 2001, 8). In 1999, approximately 10 million retirees relied on these plans, making them an important source of medical care funding.

Many of these plans began in the 1950s when both health care costs and life expectancies were lower. The benefits were prevalent in large manufacturing firms, which at the time, had high ratios of active employees to retirees. As longevity and health care costs increased, firms became more reluctant to offer these benefits. Consequently, today retiree health benefit liabilities are primarily a problem for old, large, capital-intensive firms. These firms also often have numerous union employees.

The statements in the above paragraph are supported by results in Exhibits 1 and 2 of Warshawsky, Mittelstaedt, and Cristea (1993, 191-192). These exhibits are reproduced in tables 1 and 2 of this testimony. Table 1 compares industry membership of firms that sponsor and firms that do not sponsor retiree health benefit plans.¹ The table shows that retiree benefit plans are offered by firms in almost every industry. The highest degree of sponsorship occurs in capital intensive industries, such as petroleum refining, glass, cement, and ceramics, metal works, industrial equipment, and utilities.

¹The comparisons of sponsors and non-sponsors are based on 1988 information collected from the May 1990 edition of *Corporate Text*. To my knowledge, comparisons using more recent data have not been published.

Table 2 compares financial characteristics of firms with retiree health benefit plans to firms without such plans. The first four rows contain various measures of firm size: market value of common stock, total assets, sales and number of employees. All four measures indicate that firms with retiree health plans are statistically larger than firms that do not sponsor retiree health plans. The table also shows that firms sponsoring plans have statistically larger debt and after-tax earnings, as a percentage of total assets, than do firms not sponsoring plans. The higher debt ratios may be indicative of firms that were more profitable in past years when the retiree benefits were first promised but are now financing more of their operations with debt, which includes obligations to retirees.

Retiree Health Care Benefit Accounting

Until the early 1990s, annual expense generally equaled the annual cash outlays for retiree health benefits (hereafter, pay-as-you-go costs). Expenses were not accrued for the expected future payments associated with current employees or retirees. There are several reasons for the lack of accrual accounting during this time period. First, there was debate as to whether these programs represented contractual commitments or gratuities that could be ended at any time. Second, when these programs first became prevalent (in the 1950s and 1960s), due to reliability concerns, the accounting profession was reluctant to record expense and liabilities using present value techniques and actuarial assumptions. Third, initially, accountants believed that the costs were relatively immaterial, and therefore, income would not be materially distorted using cash basis accounting.

During the 1970s, as retiree health benefit costs grew and it became clearer that the benefit programs represented enforceable contracts, accountants began to question cash basis accounting. After a series of documents and hearings in the late 1970s and early 1980s, the Financial Accounting Standards Board (FASB) issued *Statement of Financial Accounting Standards No. 81 - Disclosure of Postretirement Health Care and Life Insurance Benefits* (SFAS No. 81). This statement required employers to disclose, in their annual financial statements, information about the benefits provided, employee groups covered, accounting and funding policies, and annual cost recognized. Until this time pay-as-you-go costs were disclosed only on a voluntary basis. This pronouncement was viewed as an interim measure so that the FASB and other interested parties could ascertain the magnitude of retiree benefits other than pensions.

In December 1990, the FASB passed *Statement of Financial Accounting Standards No. 106 - Employers' Accounting for Postretirement Benefits Other than Pensions* (SFAS No. 106). SFAS No. 106 required firms to change to an accrual basis of accounting that parallels *Statement of Financial Accounting Standards No. 87 - Employers' Accounting for Pensions* (SFAS No. 87). The pronouncement's method for calculating retiree health benefit liabilities required assumptions about interest rates, medical inflation, life expectancy, and job tenure. These assumptions also affect the calculation of annual expense. The annual expense comprised 1) service cost (the cash equivalent of benefits earned during the period), 2) interest on the retiree health benefit liability, 3) amortization of actuarial losses (gains) and/or prior service costs

(benefits), and 4) expected return on plan assets.² The expected return reduces annual expense, but because most firms had few, if any, plan assets in the early 1990s, expected return had little effect on annual expense. The amortization of actuarial gains or prior service benefits also reduces expense recognized under SFAS No. 106. As with pensions, SFAS No. 106 requires these expense components to be disclosed in financial statement footnotes.

Whereas most pension plans were overfunded upon adoption of SFAS No. 87, most retiree health plans were not prefunded, in part, due to the absence of tax incentives. In addition, because most firms had been accounting for the benefits on a cash basis, most of their retiree health benefit liabilities were not on their balance sheets. Consequently, upon adoption of SFAS No. 106, most firms had large liabilities that had to be recognized. Firms could recognize this liability (transition liability) immediately as a cumulative effect of an accounting change or delay recognition by expensing it over a period not to exceed 20 years.³ In either case, the total liability was disclosed in financial statement notes.

Because of the complexity of the new calculations and because compliance with SFAS No. 106 may have caused some firms to violate their debt covenants, mandatory adoption was delayed to fiscal years beginning after December 15, 1992. However, Securities and Exchange Commission (SEC) Staff Accounting Bulletin No. 74 (SAB No. 74) required firms to discuss the impact of SFAS No. 106 in the Management Discussion and Analysis section of their 10-Ks each year prior to adoption. Few liability estimates were provided in 1990 financial statements, but most firms gave point or range estimates in 1991. Mittelstaedt, Nichols, and Regier (1995, 538) indicate that 60% of their sample firms adopted SFAS No. 106 prior to 1993, with most of the early adoptions coming in 1992. Most of the early adopters also elected immediate recognition of the transition obligation.

Effects of SFAS No. 106

Warshawsky, Mittelstaedt, and Cristea (1993) used methods developed in Warshawsky (1992) to estimate the effects of SFAS No. 106 before the SFAS No. 106 liability amounts were disclosed in financial statements. The method in that study obtained estimates of SFAS No. 106 liabilities by multiplying disclosed pay-as-you-go costs by specific multiples according to the firm employee growth rate. Warshawsky, Mittelstaedt, and Cristea (1993, 195) estimated that

²Actuarial gains and losses occur when actual plan experience is different from prior expectations. For example, increased longevity would cause an actuarial loss in that benefits would have to be paid for more years than originally expected. Prior service costs arise when workers or retirees are granted additional benefits for work already performed. Prior service benefits arise when amendments reduce benefits.

³A cumulative effect of an accounting change is shown on the income statement below income from continuing operations and above net income. It represents the total difference in income between the new accounting method and the old accounting method for all prior years. Stock analysts would not expect cumulative effects to affect income statements in future years.

the median retiree health care liability per firm (net-of-tax) was \$46 million or approximately 6% of the market value of common equity.⁴ They also estimated that SFAS No. 106 would decrease income in the years after adoption by approximately 5% if the transition liability is recognized immediately and by approximately 8% if it is amortized.

The authors also examine the potential effect of SFAS No. 106 by industry. The results of the industry analysis appear in the authors' Exhibit 5, which is reproduced in this testimony's table 3. The effect of SFAS No. 106 varied greatly across industries. The effect on the steel industry was expected to be the highest with a median increase to the debt asset ratio of 27% and a median decrease to ongoing earnings of 15%. Large negative effects were also prevalent in other capital intensive industries with two-digit SIC codes between 28 and 39.

Data from one of my current research projects indicate that some of the largest retiree health liabilities are still concentrated in these industries. According to 1999 data, General Motors and Ford (SIC code 3711) have liabilities of \$44.6 billion and \$19.9 billion, respectively. Other companies with liabilities in excess of \$2 billion in these industries include Lucent Technologies (SIC code 3661), Boeing (SIC code 3721), Caterpillar (SIC code 3531), Lockheed Martin (SIC code 3760), Deere (SIC code 3523), Bethlehem Steel (SIC code 3312), USX - US Steel Group (SIC code 3312), and Eastman Kodak (SIC code 3861). In addition, several telecommunications companies (SIC code 4813) also have liabilities in excess of \$2 billion, and several airlines (SIC code 4512) have liabilities in excess of \$1.5 billion. We are still in the process of collecting data, but our current information indicates a total liability of \$145 billion for just the 30 firms with the largest obligations. The liability for our entire 166-firm sample is \$183 billion.

A number of studies have shown that these liabilities are considered by investors in setting stock prices. Amir (1993) and Mittelstaedt and Warshawsky (1993) suggest that the market was estimating the liabilities from pay-as-you-go costs prior to the disclosure of SFAS No. 106 liabilities. Consequently, there were not huge declines in market values as firms adopted SFAS No. 106. However, the studies suggested that the market did not appear to reduce share prices for the estimated liabilities dollar-for-dollar, thereby suggesting greater uncertainty about the costs or an expectation that the firms or the government would reduce the firms' obligations. Subsequent studies by Choi, Collins, and Johnson (1997) and Davis-Friday et al. (1999) using SFAS No. 106 liability disclosures also showed that the market reduced share prices for retiree health liabilities. However, Davis-Friday et al. (1999) suggest that amounts recognized on the balance sheet upon adoption of SFAS No. 106 were weighed more heavily by the market than were liabilities disclosed prior to adoption under SAB No. 74 requirements. Davis-Friday, Liu, and Mittelstaedt (2002) suggest that the underpricing may be due to market participants perceiving the disclosed amounts as less reliable.

⁴Later studies using SFAS No. 106 liability amounts subsequently disclosed by firms obtain effects similar in magnitude (see, for example, Choi, Collins, and Johnson 1997, 365; Davis-Friday et al. 1999, 412).

In summary of this section, the results of prior studies and ongoing research indicate that retiree health obligations represent significant liabilities for firms in numerous industries. The liabilities are concentrated in large, old, capital-intensive firms. Although the liabilities have grown since the 1950s, they were not recorded on employers' balance sheets until the early 1990s. Numerous studies show that investors reduce share prices in proportion to the magnitude of these liabilities.

Reductions in Retiree Health Benefits

Near the time that SFAS No. 106 was passed, there was a noticeable increase in the number of firms modifying plans to reduce benefits. Explanations for the plan reductions included the passage of SFAS No. 106, financial weakness of the plan sponsor, and increases in healthcare costs. Mittelstaedt, Nichols, and Regier (1995) (MNR) examine the prevalence of the reductions and whether the above factors influence the decision. Most of this section of the testimony draws heavily from that study.

MNR examined a sample of 71 firms that reduced healthcare benefits and 131 firms that had not announced benefit reductions by the end of 1992.^{5,6} They examined financial statements to obtain SFAS No. 106 liabilities and pay-as-you-go costs and to ascertain whether firms reduced benefits.

The authors noted five types of benefit reductions. Their descriptions of the reduction types (MNR, 542) are reproduced below.

- (1) *Cap employer contributions.* Firms that place fixed dollar caps on employers' total future contributions for retiree health care. The cap is often set at the level of contributions made by the firm in a prior year or that will be made in a predetermined future year, such as 1996.
- (2) *Increase copayment amounts.* Firms that increase copayment requirements for benefits such as prescription drugs, dental, vision, or other medical-related benefits. Firms which switch from the coordination of benefits method or the Medigap coverage method to the carve-out method in coordinating Medicare benefits are also classified in this category.
- (3) *Tie benefits to years of service.* Firms that amend plans to tie medical benefits to

⁵Firms in utility or finance industries were not included in the sample of firms.

⁶The sample included firms from a variety of industry groupings and there was little industry clustering. Of the 24 industry groups, only eight groups represented more than 5 percent of the sample and no group represented more than 8 percent of the sample. The proportion of benefit-reducing firms within an industry grouping equaled or exceeded 50 percent in the publishing, electronic components, computers, automobiles, and air transport industry groupings.

years of service. For example, plans may stipulate that retirees receive a certain percentage of medical credit for each year of service, starting at age 40 up to a maximum of 20 years for 100 percent coverage.

- (4) *Change to a defined contribution plan.* Firms that change from defined benefit to defined contribution plans. In defined contribution plans firms fund individual accounts that can be used to pay for health care upon retirement. Health benefits depend on the amounts contributed, investment return, and forfeitures from participants leaving the firm. There is no guaranteed health benefit upon retirement.
- (5) *Eliminate benefits.* Firms that eliminate health care benefits for certain classes of employees.

MNR (545) report that for their sample, 16 firms limited employer contributions, 15 firms increased retiree copayments, five firms based benefits on years of service, two firms switched to defined contribution plans, and eight firms eliminated health care benefits for various classes of existing employees.⁷ In addition, 25 firms stated that benefits were reduced, but did not specify the method. The reductions could affect four different employee groups: new hires, partially eligible active plan participants, fully eligible active plan participants, and retirees. For the 35 firms that disclosed the group affected by the reduction, 43% related to all participants, 51% related to all active participants and new hires, and 6% related to partially eligible active participants and new hires.

Thirty-four firms reported the dollar amount of the reductions. The reductions, as a percentage of the postretirement benefit liability, ranged from 0.2% to 80.0% with a median (mean) of 22.0% (25.7%). There was not a clear relation between type of modification and severity of benefit reduction.

With regard to motivation for the plan reductions, the study found that 89% of health care benefit reductions were made within one year of SFAS No. 106 adoption. Only 10.5% of the healthcare reductions were made prior to 1990, even though the U.S. medical inflation rate greatly exceeded the general inflation rate throughout the 1980s. In addition, firms with high SFAS No. 106 liabilities and high existing debt were more likely to reduce benefits. The effect of SFAS No. 106 on benefit reductions held after controlling for industry membership, financial condition, and firm-specific health care costs. The authors suggested that this finding is consistent with managers attempting to reduce current or expected contracting costs associated with obtaining capital (MNR, 555). However, they also note that in complying with SFAS No. 106, managers may have recognized that their firms could not afford the promised benefits. Under this reasoning, SFAS No. 106 accelerated decisions that would have been made over a

⁷Seven firms that reduced benefits for existing employees also eliminated benefits for new hires.

longer period of time as it became clearer that the obligations could not be honored. The authors infer from their findings that different debt or labor contracts would have been written if SFAS No. 106 requirements had always been present (MNR, 536).

The authors also conclude that financial weakness is related to benefit reductions. Firms that reduce benefits have significantly higher debt to total assets ratios up to three years before the year of the reduction. The firms also had lower cash flows from operations and income from operations in the year of the reduction. These results hold with and without industry adjustment. The cash flow and income results also suggest that the industries of the cut firms may have been declining during the three years prior to the cuts. When the authors control for the SFAS No. 106 effect and firm-specific health care costs, industry-adjusted results indicate that cut-firms have higher debt to asset ratios and larger decreases in cash flow near the time of the plan reductions (MNR, 553).

The results for the firm-specific retiree health care costs are mixed. Unadjusted and industry-adjusted median values of pay-as-you-go costs to sales revenue are significantly higher for the benefit-cut firms in the year of the cut and the three years preceding the cut-year. However, the cut firms do not experience significantly higher increases in costs. When the authors control for the SFAS No. 106 effect and financial weakness, none of the health cost variables are significant. Additional tests indicate that the reason for the weak result is that the pay-as-you-go cost measures are correlated with the SFAS No. 106 effect measure, thereby suggesting that firms with large SFAS No. 106 liabilities and other balance sheet debt also had higher pay-as-you-go costs.

Although MNR was based on data from the early 1990s, I believe that the study's findings are still relevant today. Firms with high retiree health benefit liabilities and high other debt obligations will experience the most pressure to reduce benefits. In addition, if firms experience cash flow or income shortfalls, they will be more likely to reduce retiree health benefits. In a new research project, I am continuing to see firms amending their plans in attempts to reduce their exposure to rising medical costs.

Conclusions and Recommendations

Private retiree health benefit plans represent an important source of wealth to millions of U.S. citizens. These plans are primarily sponsored by old, large, capital-intensive firms. Firms with the largest liabilities are in industries such as automobiles, telecommunications, aircraft, industrial equipment, steel, and air transport. However, some firms in almost every industry sponsor these types of plans. Because of the breadth of coverage, I believe that it would be difficult for the U.S. government to justify giving relief to just one industry.

Over the past decade, firms sponsoring retiree health benefit plans have tried to reduce their exposure to rising medical costs by modifying plan agreements. I believe that firms' decisions to modify rather than end benefits suggests that managers wish to maintain good

relations with labor and also provide some income security to their firms' retirees. However, firms do not wish to be at risk for rising healthcare costs and changes to Medicare over the next 50 years. Consequently, many younger employees at these firms will not have retiree medical benefits, and many middle age workers will have lower benefits than current retirees. I also believe that few firms are establishing new retiree health benefit plans.

The decline in retiree benefit coverage raises difficult policy issues. If Congress wishes to slow the decline, it could encourage coverage by providing additional tax incentives for prefunding. Prefunding would also provide more protection for plan participants in the case of sponsor bankruptcy. However, tax incentives would reduce government revenue. Congress could also encourage these plans by liberalizing Medicare or somehow decreasing medical inflation. Again, liberalizing Medicare would require additional revenue or reductions in other government programs. In any event, Congress should consider these plans in any deliberations aimed at reducing healthcare costs or altering Medicare.

If retiree health plan coverage continues to decline, then Congress may wish to encourage more education on retirement planning or provide tax favored vehicles for individuals to save for their medical care during retirement. If workers do not plan early for potential medical costs during retirement, they may not be able to afford needed medical care or they may become destitute trying to pay for it. I do not believe that either outcome is desirable.

This concludes my statement. I would be happy to answer any questions you may have.

REFERENCES

- Amir, E. 1993. The market valuation of accounting information: The case of postretirement benefits other than pensions. *The Accounting Review* 68 (October): 703-724.
- Choi, B., D. Collins, and B. Johnson. 1994. Stock price sensitivity to differences in the reliability of accounting valuations: The case of nonpension postretirement obligations. Working paper, University of Iowa, Iowa City, IA.
- Davis-Friday, P., L.B. Folami, C. Liu, and H.F. Mittelstaedt. 1999. The value relevance of financial statement recognition versus disclosure: Evidence from SFAS No. 106. *The Accounting Review* 74 (October): 403-423.
- _____, C. Liu, and H.F. Mittelstaedt. 2002. Recognition and disclosure reliability: Evidence from SFAS No. 106. Working paper, University of Notre Dame, Notre Dame, IN.
- Financial Accounting Standards Board. 1984. *Statement of Financial Accounting Standards No. 81: Disclosure of Postretirement Health Care and Life Insurance Benefits*. Stamford, CT: FASB.
- _____. 1985. *Statement of Financial Accounting Standards No. 87: Employers' Accounting for Pensions*. Stamford, CT: FASB.
- _____. 1990. *Statement of Financial Accounting Standards No. 106: Employers' Accounting for Postretirement Benefits Other Than Pensions*. Norwalk, CT: FASB.
- General Accounting Office. 2001. Retiree health benefits - Employer-sponsored benefits may be vulnerable to further erosion. GAO-01-374.
- Mittelstaedt, H. F., and M. Warshawsky. 1993. The impact of liabilities for retiree health benefits on share prices. *The Journal of Risk and Insurance* 60 (March): 13-35.
- _____, W. Nichols, and P. Regier. 1995. SFAS No. 106 and benefit reductions in employer-sponsored retiree health care plans. *The Accounting Review* 70 (October): 535-56.
- Warshawsky, M. 1992. *The Uncertain Promise of Retiree Health Benefits: An Evaluation of Corporate Obligations*. Washington, D.C.: American Enterprise Institute for Public Policy Research.
- _____, H.F. Mittelstaedt, and C. Cristea. 1993. Recognizing retiree health benefits: The effect of SFAS 106. *Financial Management* 22 (Summer): 188-199.

Table 1. Sample by Industry**Source: Warshawsky, Mittelstaedt, and Cristea (1993, 191, Exhibit 1)**

Industry	2 and/or 3 Digit SIC	Firms with Retiree Health Plans	Firms without Retiree Health Plans
Agriculture	01-08	1	4
Mining	10-12,14	11	13
Oil & Gas Exploration	13,353	10	59
Construction	09,15-17, 24,25	8	39
Food and Tobacco	20,21	26	32
Textiles and Apparel	22,23	9	40
Paper	26	16	14
Publishing	27	10	26
Chemicals	280-282	17	11
Pharmaceuticals	283	11	23
Specialty Chemicals	284-289	17	20
Petroleum Refining	29	21	7
Rubber, plastic, leather	30-31	6	35
Glass, cement, ceramic	32	15	2
Steel	331-332	14	14
Metalworks	333-336	11	2
Metal parts	339,34	15	32
Industrial Equipment	351,352, 354	21	9
Small Industrial Mach.	355,356, 358,359	15	35
Electrical Machinery	360-364,369	9	29
Telecomm. Equipment	365-366	4	25
Electronic Components	367	4	34
Computers	357,368	9	32
Automobiles	371,375	17	17
Aircraft	372,376	19	7
Misc. Manufacturing	38,39	22	76

Table 1 (CONTINUED). Sample by Industry
Source: Warshawsky, Mittelstaedt, and Cristea (1993, 191, Exhibit 1)

Industry	2 and/or 3 Digit SIC	Firms with Retiree Health Plans	Firms without Retiree Health Plans
Commercial Transport	373,374, 379,40, 42,44, 46	13	18
Air Transport	45,47	10	10
Telecommunications	48	18	21
Electric Utilities	491	47	8
Natural Gas	492	37	12
Other Utilities	493-499	49	18
Wholesalers	50-51	10	79
Building Mat'l - Retail	52	0	6
Department Stores	53	5	18
Specialty Stores	55-59, except 591	4	73
Grocers	54,591	6	15
Financial Services	60-62	52	123
Insurance	63	17	38
Investors	64-67	3	152
Personal Services	70,72, 739,76-80, 82-83	2	86
Business Services	73(except 739),75, 87,89	9	69
Total		620	1383

Table 2. Descriptive Statistics**Source: Warshawsky, Mittelstaedt, and Cristea (1993, 192, Exhibit 2)**

Characteristic	Firms with Retiree Health Plans			Firms without Retiree Health Plans	
	Mean Median Std. Dev.	Minimum Maximum	Mean Median Std. Dev.	Minimum Maximum	
Market Value of Common Stock (in millions)	2555.8 955.2 5402.6	2.8 71874	430.7 86.5 1275	0.595 23536	
Total Assets (in millions)	7894.8 1971.4 19132.5	16.5 207666	1336.3 170.8 5289.0	2.073 97455	
Sales (in millions)	4188.5 1493.3 9340.9	31.6 121816	600.4 140.3 1623.5	0.012 25864	
Employees (in thousands)	25.5 8.38 54.7	0.12 766	5.77 1.38 18.7	.011 330	
Debt / Total Assets	0.655 0.623 0.208	0.135 2.151	0.586 0.571 0.281	0.003 3.417	
After-tax Income from Continuing Operations / Total Assets	0.040 0.046 0.103	-1.635 0.473	0.034 0.035 0.213	-2.749 4.708	
Pretax pay-as-you-go Reported Retiree Health Cost (in millions) ^a	14.7 2.5 62.9	0.01 1130.0	NA	NA	
Number of Observations	620		1383		

^aReported pay-as-you-go statistics are based on the 476 firms that report the amount of pay-as-you-go costs and were not accruing expected retiree health costs for active workers during 1988.

Table 3. Statement No. 106 Effects by Industry

Source: Warshawsky, Mittelstaedt, and Cristea (1993, 197, Exhibit 5)

Industry	2 and/or 3 Digit SIC	Income Statement Effect						Balance Sheet Effect	
		Delayed Recognition		Immediate Recognition				Immediate Recognition	
		Percentage Change in After-tax Earnings		Percentage Change in After-tax Earnings (ongoing expense)		Percentage Change in After-tax Earnings (additional charge in adoption year)		Percentage change in Debt / Total Assets	
		Mean	Median	Mean	Median	Mean	Median	Mean	Median
Mining (8) ^a	10-12,14	-65.2	-8.3	-33.9	-5.7	-650.2	-53.2	21.8	15.6
Oil & Gas Exploration (7)	13,353	-25.1	-16.1	-17.0	-10.9	-217.9	-222.9	5.8	4.8
Construction (6)	9,15-17, 24,25	-19.5	-11.2	-10.1	-5.6	-255.3	-147.1	17.9	4.6
Food and Tobacco (18)	20,21	-18.3	-3.5	-10.6	-1.8	-152.5	-35.2	11.8	5.1
Textiles and Apparel (7)	22,23	-35.6	-22.3	-22.3	-15.2	-265.3	-142.7	15.2	9.7
Paper (11)	26	-5.4	-3.5	-3.3	-1.8	-42.2	-28.3	5.8	4.5
Publishing (7)	27	-4.6	-4.6	-2.8	-2.8	-34.7	-31.9	5.6	5.3
Chemicals (14)	280-282	-17.7	-12.1	-11.4	-7.3	-126.9	-104.3	17.4	10.1
Pharmaceuticals (8)	283	-5.8	-4.6	-3.7	-2.6	-41.2	-30.9	9.7	8.5
Specialty Chemicals (11)	284-289	-22.8	-8.5	-13.5	-4.5	-186.7	-64.4	10.4	6.8
Petroleum Refining (17)	29	-44.3	-8.2	-24.0	-5.3	-418.2	-57.6	5.3	5.4
Rubber, plastic, leather (6)	30-31	-12.9	-9.6	-7.7	-6.2	-138.0	-75.7	11.8	11.7
Glass, cement, ceramic (11)	32	-25.4	-11.5	-14.3	-7.4	-258.4	-114.8	12.2	11.3
Steel (12)	331-332	-54.8	-29.3	-34.5	-15.3	-423.4	-236.8	35.2	26.9
Metalworks (8)	333-336	-327.9	-8.5	-213.4	-5.6	-2291.1	-61.6	10.8	8.6
Metal parts (11)	339,34	-6.9	-6.5	-4.0	-3.6	-74.9	-57.9	9.3	7.5
Industrial Equipment (21)	351,352, 354	-230.4	-21.4	-118.9	-11.1	-2287.5	-198.0	23.7	11.7
Small Industrial Mach. (13)	355,356, 358, 359	-26.3	-27.9	-16.2	-14.7	-231.9	-213.8	14.0	10.2

Table 3. Statement No. 106 Effects by Industry
Source: Warshawsky, Mittelstaedt, and Cristea (1993, 197, Exhibit 5)

Industry	2 and/or 3 Digit SIC	Income Statement Effect						Balance Sheet Effect	
		Delayed Recognition		Immediate Recognition				Immediate Recognition	
		Percentage Change in After-tax Earnings		Percentage Change in After-tax Earnings (ongoing expense)		Percentage Change in After-tax Earnings (additional charge in adoption year)		Percentage change in Debt / Total Assets	
		Mean	Median	Mean	Median	Mean	Median	Mean	Median
Electrical Machinery (6)	360-364,369	-7.9	-7.9	-4.5	-4.5	-69.7	-61.2	13.5	13.8
Electronic Components (4)	367	-139.1	-48.4	-91.6	-27.2	-1000.0	-524.7	15.6	13.1
Computers (7)	357,368	-90.1	-3.2	-45.7	-1.7	-917.2	-29.9	16.1	4.6
Automobiles (16)	371,375	-34.3	-23.7	-19.5	-12.5	-321.1	-243.7	15.0	10.8
Aircraft (16)	372,376	-18.2	-16.9	-10.4	-8.5	-182.2	-167.8	10.8	9.9
Misc. Manufacturing (17)	38,39	-16.4	-12.8	-10.1	-8.3	-173.6	-132.4	12.1	10.6
Commercial Transport (10)	373,374, 379, 40,42, 44,46	-33.5	-4.1	-22.2	-2.2	-304.6	-103.1	3.2	2.5
Air Transport (7)	45,47	-10.8	-11.8	-6.9	-7.7	-134.4	-85.7	4.2	4.2
Telecommunications (16)	48	-15.9	-13.8	-10.0	-9.1	-143.3	-120.2	9.8	6.8
Electric Utilities (33)	491	-10.2	-4.0	-6.5	-2.6	-90.6	-30.5	3.3	2.1
Natural Gas (30)	492	-19.0	-12.8	-11.6	-8.0	-160.9	-113.4	7.2	5.0
Other Utilities (36)	493-499	-13.6	-5.7	-8.6	-3.4	-106.0	-41.7	5.8	2.8
Wholesalers (4)	50-51	-24.6	-17.9	-16.5	-11.8	-160.9	-121.4	15.9	10.7
Department Stores (4)	53	-30.3	-21.5	-18.9	-11.3	-227.9	-203.8	4.4	4.6
Financial Services (46)	60-62	-4.0	-2.1	-2.6	-1.3	-50.9	-17.2	0.2	0.2
Insurance (16)	63	-4.6	-2.8	-2.4	-1.4	-56.2	-26.1	0.6	0.4

^aThe number of firms in each industry sponsoring retiree health plans and meeting data requirements appears in parentheses. Only industries with four or more firms are included in the analysis.