Accounting Horizons
Vol. 14 No. 3
September 2000
pp. 287–302

An Analysis of Segment Disclosures under SFAS No. 131 and SFAS No. 14

Don Herrmann and Wayne B. Thomas

Don Herrmann is an Assistant Professor at Oregon State University, and Wayne B. Thomas is an Assistant Professor at the University of Oklahoma.

SYNOPSIS: The purpose of this paper is to compare the segment reporting disclosures under SFAS No. 131 with those reported the previous year under SFAS No.14. Under SFAS No. 131, firms are required to report segments consistent with the way in which management organizes the business internally. In addition, the accounting items disclosed for each segment are defined consistent with internal segment information used to assess segment performance. For many companies, this represents a significant change from the approach used to report segments under SFAS No. 14. Under SFAS No. 14, firms were required to disclose segment information by both line-of-business and geographic area with no specific link to the internal organization of the company or the measurements that were used for internal decision making. As a result, many complained that the resulting disclosures were highly aggregated and of limited use for decision-making purposes. We find that the change in segment reporting requirements under SFAS No. 131 has made a relatively significant impact on the disclosure of segment information. Over two-thirds of the sample firms have redefined their primary operating segments upon adopting SFAS No. 131. There has also been an increase in the number of firms providing segment disclosures and companies are disclosing more items for each operating segment. For enterprise-wide disclosures, the proportion of country-level geographic segment disclosures has increased, while the proportion of broader geographic area segment disclosures has decreased. However, the number of firms reporting earnings by geographic area has declined greatly as this item is no longer required to be disclosed for firms reporting on a basis other than geographic area.

Data Availability: Data for this paper come from publicly available sources. A list of sample firms is provided in the paper.

We appreciate discussions with Anthony T. Cope, James J. Leisenring, and Gerhard G. Mueller of the Financial Accounting Standards Board and Jerry Searfoss in developing this paper. All conclusions are those of the authors.

Submitted: August 1999
Accepted: December 1999
Corresponding author: Wayne B. Thomas
Email: wthomas@ou.edu

INTRODUCTION

In a joint project with the Accounting Standards Board of the Canadian Institute of Chartered Accountants (CICA), the Financial Accounting Standards Board (FASB) issued SFAS No. 131 (FASB 1997), *Disclosures about Segments of an Enterprise and Related Information*. This statement supersedes the previous segment-reporting rules under SFAS No. 14 (FASB 1976), *Financial Reporting for Segments of a Business Enterprise*.[1] SFAS No. 131 fundamentally changes the manner in which firms provide segment information. Under SFAS No. 131, segment information is reported consistent with the way management organizes the firm internally for making operating decisions and assessing performance (e.g., products and services, geographic area, legal entity, or customer). This method of segment reporting is referred to as the "management approach" (FASB 1997, para. 4). The primary motivation for the change in segment reporting is to allow investors and other financial statement users to see the company "through the eyes of management." In addition, the management approach should be more cost effective for preparers as the segment information is already gathered for internal-reporting purposes.

Under SFAS No. 14, firms were required to disclose segment information by both line-of-business and geographic area with no specific link to the internal organization of the company. For many companies, this resulted in two sets of segment information: information used internally by management and information reported externally in conformance with SFAS No. 14. Financial statement users expressed concerns that the flexibility in applying the segment definition criteria in SFAS No. 14 resulted in less useful information indicating that the segment definition guidelines have been exploited by companies to suit their own financial-reporting purposes (AIMR 1993, 60). Furthermore, discussions of company segments in the chairman's letter and the review of operations in the annual report were often not consistent with segment information in the notes to the financial statements (FASB 1997, para. 61).

The need to re-examine segment-reporting requirements was greatly influenced by the Association for Investment Management and Research (AIMR). This organization, representing financial analysts worldwide, requested that financial statement information be disaggregated to a much greater degree and more information be provided for segments than found in practice under SFAS No. 14 (FASB 1997, para. 45). Similar requests for companies to disclose a greater number of segments and more information for each segment were made by the AICPA Special Committee on Financial Reporting (1994). The Special Committee listed improvement in business segment information as its number one recommendation and suggested that standard setters assign the highest priority to this matter.

The purpose of this paper is to compare the segment-reporting disclosures under SFAS No. 131 with those reported the previous year under SFAS No.14. We analyze the segment disclosures of 100 firms in the year before and the year of adoption of SFAS No. 131. To understand the primary issues of interest, we read the minutes of all meetings at the FASB related to segment disclosures in the three years leading up to the passage of SFAS No. 131. In addition, we also read the majority of the 221 comment letters received by the FASB on its 1996 Exposure Draft. In this paper, we

[1] SFAS No. 131 also supersedes three other FASB statements (SFAS Nos. 18, 24, and 30) and amends APB Opinion No. 28 and SFAS No. 94.

detail the changes in segment definition, number of segments reported, items disclosed for each segment, and supplemental enterprise-wide disclosures about geographic areas.

The impact of the new segment rules can be seen in that 68 of the 100 sample firms changed segment definitions after adopting SFAS No. 131. The majority of firms define their operating segments under SFAS No. 131 by products and services although some firms define their operating segments by geographic area or a combination of both products and services and geographic areas. Overall, both the number of segments and the number of items disclosed for each segment increased under SFAS No. 131. However, several specific exceptions to the overall trend are noted. Regarding enterprise-wide disclosures about geographic areas, the number of geographic areas increased with a greater tendency to disclose segments at the country level. Yet, the number of items reported for each geographic area decreased due primarily to the significant decrease in the number of firms disclosing earnings by geographic area.

SAMPLE SELECTION

Segment disclosure information was collected for 100 of the 250 largest U.S. firms in the 1998 *Fortune* 500 listing. Segment disclosure information in the annual report was obtained by requesting a copy of the annual report directly from the company, by examining the annual report in the firm's 10-K filing found online at the SEC's EDGAR database, or through a copy of the annual report on the company's web site. The first 100 firms meeting the following sample requirements were included in the sample. (1) The firm has adopted SFAS No. 131. The new standard is effective beginning with December 1998 fiscal year-ends, but earlier application is encouraged (FASB 1997, para. 40). Therefore, firms with year-ends before December 1998 were included only if the firm elected early adoption of SFAS No. 131. Twelve of the 100 firms in our sample elected early adoption.[2] (2) Financial institutions, insurance, and real estate companies were excluded as financial statement components and disclosures differ in these industries. (3) Firms selling or discontinuing significant business operations in the current or previous period were excluded to maintain consistency of segments over the two-year period. (4) Firms were not included if their annual reports could not be obtained.[3] For each company, we collected segment disclosure information under SFAS No.131 and segment disclosure information under SFAS No. 14 in the prior year. Information for both years is necessary in comparing the strengths and weaknesses of segment disclosures made under the new standard with those of the prior standard. A list of the 100 firms included in the sample is provided in Table 1.

[2] The 12 firms electing early adoption of SFAS No. 131 appear to behave similarly to the other 88 firms in the sample. The percentage of firms reporting a change in segment definition, the change in the number of segments reported, and the change in the numer of items reported for each segment are similar between the 12 early adopters and the remaining 88 firms. Further, the audit firms used by the 12 early adopters are distributed proportionately over the Big 5 audit firms.

[3] Our sample includes firms through number 232 on the *Fortune* 500 list. The vast majority of the 132 firms excluded from the sample were due to either (1) firms with year-ends before December 1998 and not electing early adoption of SFAS No. 131 or (2) firms primarily in the financial, insurance, or real estate industries. A handful of companies were excluded due to (3) the sale of a significant business segments or (4) annual reports being unavailable.

TABLE 1
100 Firms Included in the Sample

3M	Dell Computer	ITT Industries	RJR Nabisco Holdings
Abbott Laboratories	Dominion Resources	Johnson & Johnson	Sara Lee[a]
Alcoa	Dow Chemical	Kellogg	SBC Communications
Allied Signal	DuPont	Kimberly-Clark	Schering Plough
Amerada Hess	Eastman Kodak	Lear	Sears Roebuck
American Home Products	Eaton	Limited	Supervalu
Ameritech	EDS	Lockheed Martin	Tech Data
AMR	Enron	Manpower	Tenneco
Anheuser-Busch	Exxon	Marriott International	Texaco
Arco Chemical[a]	Ford Motor	McDonald's[a]	Texas Instruments[a]
Arrow Electronics	Fort James	MCI Worldcom	Textron
Atlantic Richfield[a]	Fortune Brands	Merck	TJX Companies
Bestfoods[a]	Georgia-Pacific	Mobil	Tosco
Bindley Western Industries	Gillette	Monsanto	Toys R Us
Boeing[a]	General Motors[a]	Motorola	TRW
Bristol-Meyers Squibb	Goodyear Tire	Northrop Grumman	Ultramar Diamond Sham.
Chevron	GTE	Occidental Petroleum	United Technologies
Coastal	Halliburton	Pepsico	USX
Coca-Cola[a]	Honeywell	Pfizer	Viacom
Colgate-Palmolive	IBM	Phillip Morris	Wal-Mart Stores[a]
Compaq Computer	IBP	Phillips Petroleum	Warner-Lambert
Crown Cork and Seal	Ingersoll-Rand	PPG Industries	Waste Management
CVS	Ingram Micro	Proctor and Gamble[a]	Weyerhaeuser
Dana	Intel	Raytheon	Whirlpool
Dayton Hudson	International Paper	Reynolds Metals[a]	Xerox

[a] Early adopter of SFAS No. 131.

RESULTS

Definition of Segments

SFAS No. 14 defined reportable segments by line-of-business and geographic area. Firms were required to disclose revenues, assets, capital expenditures, depreciation, and earnings by line-of-business if the segment revenues, assets, or earnings exceeded 10 percent of the consolidated amounts. Firms were required to disclose revenues, assets, and earnings by geographic segment if geographic revenues or assets exceeded 10 percent of the consolidated amounts.

SFAS No. 131 takes a fundamentally different approach to segment definition. Segments are defined consistent with the way management organizes segments internally in making operating decisions and assessing firm performance (FASB 1997, para. 4). To emphasize the new approach to segment reporting, the FASB abandoned the use of the term "industry" or "line-of-business" segment and referred to the new segments as "operating segments." Operating segments are defined as components of an enterprise (1) that engage in business activities earning revenues and incurring expenses, (2) that are regularly reviewed by management, and (3) for which discrete financial information is available (FASB 1997, para. 10). The basis of segmentation may be by products and services, geographic area, legal entity, customer type, or another basis as long as it is consistent with the manner in which management organizes segments internally for decision-making purposes. Table 2 provides a summary of segment definitions reported for the sample of 100 firms under both the current and previous segment-reporting guidelines.

The majority of firms define their operating segments by products and services under SFAS No. 131. Of the 100 firms examined, 71 defined their operating segments by products and services, 12 defined their operating segments by geographic area, and 17 used a combination of both products and services and geographic areas. An example of a company using a combination approach is Goodyear Tire, which discloses six segments: North American Tire, Europe Tire, Latin America Tire, Asia Tire, Engineered Products, and Chemical Products. We did not find any examples of firms disclosing a unique basis of segmentation such as legal entity, customer type, or management expertise. Under SFAS No. 14, 70 firms reported line-of-business information and 77 firms reported geographic information. Fifty-seven of those firms provided both industry and geographic segment information.

Ten of the 100 firms in the sample disclosed segment information for the first time upon adoption of SFAS No. 131. For these firms, including companies such as Ameritech, SBC, and Wal-Mart, the new disclosure rules resulted in the reporting of separate operating segments when previously no segment information was provided under SFAS No. 14. Several firms such as Intel, Kodak, and Xerox reported only geographic segments under SFAS No. 14 implying they operated in one line-of-business, but changed their reporting of operating segments under SFAS No. 131 to disclose segments by products and services rather than by geographic area. The new segment-reporting rules had a rather broad impact overall as the adoption of SFAS No. 131 resulted in approximately two-thirds of the sample firms changing how they defined their reportable operating segments. Presumably, the remaining one-third previously defined segments consistent with the internal organization of the company under SFAS No. 14.[4]

[4] We collected data on the measure of performance for the one-third (32 companies) that did not change segments. Nine of the thirty-two companies changed their reported earnings level. Seven of the nine companies changed from operating income under SFAS No. 14 to EBT, EBIT, or EBITD under SFAS No. 131. The other two changes were from EBT to net income and from EBT to operating income.

TABLE 2
Definition of Segments Reported under SFAS No. 131 and SFAS No. 14

SFAS No. 131	n	SFAS No. 14	n
Operating segments defined as:			
Products and services	71	Only line-of-business	13
Geographic areas	12	Only geographic areas	20
Combination of products and services and geographic areas	17	Separate line-of-business and geographic areas	57
		No segment reporting prior to SFAS No. 131	10
Total	100	**Total**	100
Change in segment definition	68		
No change in segment definition	32		

Number of Segments

Both the *Position Paper* of the AIMR (1993) and the AICPA Special Committee Report (1994) indicated that too few segments were reported under SFAS No. 14. In response, the FASB initially decided to have no quantitative guidelines as to what constitutes a reportable operating segment (Exposure Draft, FASB 1996). However, many respondents to the FASB's Exposure Draft expressed concern that the lack of materiality guidelines may result in too many segments being disclosed, causing competitive harm. In the final standard, the FASB retained the 10 percent materiality threshold used in SFAS No. 14 (FASB 1997, paras. 75–76) with the hope that the switch to the management approach and the tightening of the criteria for segment aggregation would aid in the disclosure of a greater number of segments.

Table 3, Panel A indicates the new reporting rules have resulted in a slightly finer disaggregation of segment information. The mean (median) number of operating segments disclosed for all firms under SFAS No. 131 was 3.8 (3.5). For the 71 firms that defined operating segments based on products and services, the mean (median) number of operating segments was 3.6 (3). The mean (median) number of line-of-business segments disclosed under SFAS No. 14 was 3.4 (3).[5] The distribution of the number of segments reported before and after the adoption of SFAS No. 131 is reported in Panel B of Table 3. Using a Chi-square test, the distribution of the number of segments reported under SFAS No. 131 and SFAS No. 14 is not significantly different. Panel C indicates that of the 100 sample firms, 50 firms increased the number of segments reported, eight firms decreased the number of segments reported, and 42 firms did not change the number of segments reported upon adoption of SFAS No. 131. Firms exhibit a tendency to increase the fineness of segment disclosures upon adoption of the new segment-reporting rules.

[5] Since the majority of firms chose to define operating segments based on products and services (see Table 2), the analyses in Tables 3 and 4 focus primarily on the line-of-business disclosures. Tables 5, 6, and 7 will analyze firms' geographic segment disclosures under SFAS No. 131 and SFAS No. 14. The mean (median) number of operating segments for the 12 firms that chose geographic area as the basis of segmentation was 3.5 (4). The mean (median) number of operating segments for the 17 firms that chose a combination of products and services and geographic area as the basis for segmentation was 4.7 (5).

TABLE 3
Number of Segments Reported under SFAS No. 131 and SFAS No. 14

Panel A: Mean and Median Number of Segments Disclosed

	SFAS No. 131 All[a]	SFAS No. 131 Products and Services[b]	SFAS No. 14 Line-of-Business
Number of firms	100	71	70
Mean	3.8	3.6	3.4
Median	3.5	3	3

Panel B: Distribution of the Number of Segments Disclosed

Number of Distinct Segments	SFAS No. 131 All	SFAS No. 131 Products and Services	SFAS No. 14 Line-of-Business
One	1	1	—
Two	19	18	22
Three	30	22	21
Four	20	12	11
Five	17	10	13
Six	9	4	1
Seven	3	3	1
Eight	1	1	—
Nine	—	—	1
Total	100	71	70

Panel C: Comparison of the Number of Segments Disclosed for the Same Firm under SFAS No. 131 and SFAS No. 14

Change in number of segments disclosed:

Increase	50
Decrease	8
No Change	42
Total	100

[a] This column details the segment disclosures for all firms under SFAS No. 131.

[b] This column details the segment disclosures for firms that define operating segments under SFAS No. 131 based solely on products and services.

Lear Corporation disclosed only one operating segment under SFAS No. 131.[6] Lear states in its 1998 Annual Report that the company operates in five principal automotive interior segments (seat systems, flooring and acoustic systems, door panels, headliners, and instrument panels) and that the company is organized based on eight customer-focused and geographic divisions. However, Lear reports only one operating

[6] Under SFAS No. 14, Lear Corporation also did not provide line-of-business disclosures, although they did report four geographic segments.

segment claiming that each division reports their results from operations and makes requests for capital expenditures directly to the chief operating decision-making group, which is comprised of the chairman and chief executive officer, the vice chairman, the president and chief operating officer, and the chief financial officer. The disclosure adds that each division demonstrates similar economic performance, driven by automobile production volumes in the geographic regions in which they operate. Thus, it appears the eight divisions were combined based on the aggregation criteria in SFAS No. 131 (FASB 1997, para. 17). This provides an example whereby the aggregation criteria under SFAS No. 131 may have resulted in a loss of potentially valuable information.

Items Reported for Each Segment

SFAS No. 14 required the disclosure of revenues, earnings, assets, depreciation, and capital expenditures for line-of-business segments and revenues, earnings, and assets for geographic segments. When applicable, the disclosure of unusual items, equity in the income of investees accounted for by the equity method, and the amount of the investment in equity method investees were also required. SFAS No. 131 requires, in addition to the items included under SFAS No. 14, the disclosure of income tax expense, interest expense, interest revenue, and significant noncash items, if they are reviewed by management in making operating decisions (FASB 1997, para. 27).

Table 4 presents a summary of the individual items disclosed for each segment. The number of items disclosed for each segment increased upon adoption of the new standard. The mean (median) number of items was 6.2 (6) for all firms under SFAS No. 131 and 6.3 (6) for firms defining operating segments based on products and services under SFAS No. 131. This compares to a mean (median) number of items of 5.5 (5) for line-of-business segments under SFAS No. 14. The increase is spread across a wide variety of items. All firms disclosed segment revenues and 99 of the 100 firms disclosed segment earnings with Marriott International being the lone exception. For the 71 firms that defined operating segments based on products and services, the percentage disclosing income tax expense (14 percent), interest expense (6 percent), interest revenue (9 percent), and noncash items (3 percent) increased from SFAS No. 14, but still appears low considering these items were specifically required under the new standard if they are included in the measure of income reviewed internally by management. The largest percentage increase under SFAS No. 131 is equity in the net income of investees accounted for by the equity method (19 percent increase) and the amount of investment in equity method investees (21 percent increase). A few companies also voluntarily disclosed items such as net assets, order backlogs, and liabilities.

Research and development expense provides an example where the disclosure percentage of an item decreased under SFAS No. 131. Research and development expense is a segment item specifically requested by the AIMR (1993) and the AICPA's Special Committee (1994). It was originally included as a required item in the FASB's Exposure Draft (1996) to the new standard. However, the disclosure of research and development expense was dropped in developing the final standard to help alleviate management concerns over potential competitive harm by providing competitors insight into the strategic plans of the firm (FASB 1997, para. 97). Interestingly, all three firms voluntarily disclosing research and development expense by segment

TABLE 4
Items Reported for Each Operating Segment under SFAS No. 131 and Each Line-of-Business Segment under SFAS No. 14

Panel A: Summary of Items Disclosed for Each Segment

	SFAS No. 131 All	SFAS No. 131 Products and Services		SFAS No. 14 Line-of-Business	
Number of firms	100	71		70	
Mean	6.2	6.3		5.5	
Median	6	6		5	
Revenues	100	71	100%	70	100%
Earnings	99	70	99	68	97
Assets	90	61	87	68	97
Depreciation	94	68	97	67	96
Capital Expenditure	88	65	93	67	96
Equity Income	28	20	29	7	10
Equity Investment	27	21	30	6	9
Income Tax Expense	16	10	14	6	9
Interest Expense	10	4	6	1	1
Interest Revenue	10	6	9	—	—
Unusual Items	8	7	10	4	6
Amortization	8	6	9	2	3
Special Items	5	4	6	—	—
Net Assets	6	5	7	—	—
Noncash Items	4	2	3	—	—
Order Backlogs	3	3	4	1	1
Net Interest	2	2	3	1	1
Current Liabilities	2	2	3	—	—
Liabilities	1	1	1	—	—
Pension	1	1	1	—	—
Change in Net Debt	1	1	1	—	—
R&D	—	—	—	3	4

Panel B: Distribution of the Items Disclosed for Each Segment

Number of Items	SFAS No. 131 All	SFAS No. 131 Products and Services	SFAS No. 14 Line-of-Business
One	—	—	2
Two	2	2	—
Three	4	1	—
Four	5	4	1
Five	33	23	44
Six	15	11	9
Seven	15	13	9
Eight	15	10	3
Nine	5	3	2
Ten	3	2	—
Eleven	3	2	—
Total	100	71	70

under SFAS No. 14 did not disclose research and development expense upon adoption of SFAS No. 131.

The reporting of segment assets decreased 10 percent. Five of the ten firms that did not report segment assets under SFAS No. 131 reported segment net assets instead. Another three nondisclosers specifically stated that assets are not allocated for internal decision making. Firms are required to disclose only information used for internal purposes. All ten firms did, however, report either segment assets or segment net assets in their supplemental enterprise-wide geographic area disclosures. Information reported for supplemental enterprise-wide geographic area disclosures is based on the information used to produce the general-purpose financial statements rather than information used for internal decision making (FASB 1997, para. 38).

Panel B of Table 4 provides a distribution of items reported for each segment. Most firms disclosed five items for line-of-business disclosures under SFAS No. 14: sales, earnings, assets, depreciation, and capital expenditures. While many firms continue to disclose those same five items for operating segments under SFAS No. 131, the distribution is spread more evenly with a general tendency to disclose more items under the new segment-reporting rules.

Enterprise-Wide Disclosures

Paragraphs 37–39 of SFAS No. 131 require supplemental enterprise-wide disclosures about products and services, geographic areas, and major customers if they are not already included as part of the required operating-segment disclosures. Since most companies included products and services in their primary operating segments, enterprise-wide disclosures for products and services are not necessary for these companies. Companies defining their primary operating segments by geographic area must also disclose revenues from external customers for each group of similar products and services unless it is impracticable to do so. Five of the 12 firms defining their operating segments by geographic area provided a separate disclosure of external revenues by products and services.

Companies defining their primary operating segments by products and services are required to provide additional disclosures of revenues and long-lived assets for each "material" country. This represents a major difference compared to the geographic segment disclosure requirements in SFAS No. 14. Under SFAS No. 14, firms were required to disclose geographic information by geographic region. Users complained that geographic information disclosed at the regional level provided limited information (Arnold et al. 1980, 135; Bavishi and Wyman 1980, 163). SFAS No. 131 sought to reduce these regional disclosures by requiring companies to disclose information for each material country and to group all immaterial countries into a single "foreign" category. Therefore, individual country disclosures should increase while broader geographic region disclosures should decrease with the adoption of SFAS No. 131. However, the expected effect of the new rules on the total number of geographic segments reported is uncertain.

Materiality is not defined for enterprise-wide disclosures, although many companies appeared to use 10 percent of revenues or assets similar to the materiality guidelines for reporting operating segments. Several companies even disclosed that no individual country represented more than 10 percent of external revenues or assets.

The enterprise-wide disclosures about geographic areas are summarized in Table 5. Seventy-four of the 100 sample firms provided enterprise-wide geographic disclosures under SFAS No. 131. The mean (median) number of distinct geographic segments was 3.3 (3) under SFAS No. 131 compared to 3.0 (3) under SFAS No. 14. Segment definitions such as other, all other, rest of the world, etc., were excluded as they do not represent distinct geographic segments.

The overall distribution of the number of geographic areas changed little upon adoption of the new standard. However, some fairly large individual changes were noted. DuPont showed the largest increase in the number of geographic segments disclosed going from two geographic segments the previous year to 16 geographic segments upon adoption of SFAS No. 131. Similarly, RJR Nabisco Holdings increased geographic disclosures from two to ten segments and Ameritech went from no geographic disclosures to five segments. However, not all companies increased the number of geographic segments under the new reporting rules. Goodyear Tire reduced the number of geographic segments disclosed from six to three and Pepsico went from five geographic segments under SFAS No. 14 to only one distinct segment (U.S.) under SFAS No. 131.

Table 6 lists the individual countries and broader geographic areas disclosed under SFAS No. 131 (Panel A) and SFAS No. 14 (Panel B). As expected, the number of individual country disclosures is higher under SFAS No. 131, while the number of broader geographic area disclosures is greater under SFAS No. 14. Under SFAS No. 131, the United States segment was separately reported by 72 of the 74 firms followed by Canada (18), Great Britain (12), Germany (12), and Japan (10). A total of 176 individual countries were disclosed for an average of about 2.4 countries disclosed per firm.

TABLE 5
Number of Geographic Areas Reported under SFAS No. 131 as Enterprise-Wide Disclosures and SFAS No. 14

Panel A: Mean and Median Number of Geographic Areas Disclosed

	SFAS No. 131	SFAS No. 14
Number of firms	74	77
Mean	3.3	3.0
Median	3	3

Panel B: Distribution of the Number of Geographic Areas Disclosed

Number of Geographic Areas	SFAS No. 131	SFAS No. 14
One	12	9
Two	19	21
Three	15	19
Four	13	19
Five	8	7
Six	2	1
Seven	2	1
> Seven	3	—
Total	74	77

TABLE 6
Geographic Segment Definitions

Panel A: Enterprise-Wide Geographic Segment Definitions under SFAS No. 131 (n = 74)

Individual Countries	
United States	72
Canada	18
Great Britain	12
Germany	12
Japan	10
France	7
Brazil	6
Mexico	4
Spain	3
Italy	3
Australia	2
Netherlands	2
Singapore	2
China	2
Argentina	2
Other individual countries	19
Total	176

Broader Geographic Areas	
Europe	23
Asia Pacific	11
Latin America	7
Pacific	4
Asia	3
North America	3
Western Hemisphere	3
Europe, Middle East, Africa	3
South America	2
Other geographic areas	13
Total	72

Panel B: Geographic Segment Definitions under SFAS No. 14 (n = 77)

Individual Countries	
United States	71
Canada	13
Great Britain	3
Other individual countries	7
Total	94

Broader Geographic Areas	
Europe	50
Latin America	12
Asia Pacific	11
Western Hemisphere	8
Europe, Middle East, Africa	8
Asia	6
North America	6
Pacific	5
Eastern Hemisphere	3
Africa	3
Canada, Latin America	3
Australia, New Zealand	2
Africa, Europe	2
Other geographic areas	19
Total	138

Panel C: Comparison of Geographic Segment Definitions for the Same Firm under SFAS No. 131 and SFAS No. 14

Geographic Segment Definitions	
Finer under SFAS No. 131	33
Same	28
Broader under SFAS No. 131	13
Total	74

Country-level disclosures under SFAS No. 14 were reported less frequently. Only the United States (71), Canada (13), and Great Britain (3) were reported more than once. A total of 94 individual countries were disclosed resulting in an average of 1.2 countries disclosed per firm or approximately half the average for country-level segments under SFAS No. 131.

Broader geographic areas were disclosed more often under SFAS No. 14 with Europe (50), Latin America (12), Asia Pacific (11), Western Hemisphere (8), and Europe, Middle East, Africa (8) being the five most frequently used. While country-level disclosures are encouraged under SFAS No. 131, companies may provide, in addition to the required information about material countries, subtotals of geographic information about groups of countries (FASB 1997, para. 38). The disclosure of broader geographic areas is still common under SFAS No. 131 with Europe (23), Asia Pacific (11), and Latin America (7) representing the geographic areas used most often.

Criticisms regarding the broad nature of geographic segment disclosures under SFAS No. 14 are likely to continue under SFAS No. 131. For example, some geographic areas include a combination of entire continents reporting segments such as Europe, MiddleEast, Africa (three firms), Western Hemisphere (three firms), or as disclosed by Kimberly-Clark—Africa, Asia, Latin America, where the continents included in this segment are scattered throughout the world. Bristol Myers Squibb continued to disclose U.S., Western Hemisphere, Pacific, and a fourth segment entitled Africa, Middle East, Asia. Arrow Electronics did not disclose any geographic segments at the country level, reporting North America, Europe, and Asia Pacific as its three geographic segments.

Many firms, however, demonstrate improvements in their geographic segment disclosures upon adoption of SFAS No. 131. For example, Texaco and Exxon previously reported Western Hemisphere and Eastern Hemisphere as geographic segments, but changed their geographic segment definitions to the country level in accordance with SFAS No. 131. Panel C of Table 6 shows that 33 firms reported finer geographic segment definitions, 28 firms used the same geographic segment definitions, and 13 firms reported broader geographic segment definitions than those disclosed previously under SFAS No. 14.

Table 7 summarizes the items disclosed for each geographic area. The mean (median) number of items disclosed for each geographic segment decreased from 3.3 (3) under SFAS No. 14 to 2.2 (2) under SFAS No. 131. Almost every firm continued to disclose external revenues and assets in compliance with the new requirements. However, the disclosure of earnings has decreased sharply. Earnings is not required to be disclosed for enterprise-wide geographic disclosures under SFAS No. 131, but was required for geographic segment disclosures under SFAS No. 14. Only 12 of 74 firms disclose earnings compared to 74 of 77 firms in the previous year. Thus, while geographic segments are reported at a finer level under SFAS No. 131, the disclosures may actually be less informative if investors rely on geographic earnings as a source of information. Furthermore, the disclosure of additional items decreased. The summary distribution in Panel B illustrates that most firms report only revenues and assets for enterprise-wide geographic area disclosures under SFAS No. 131 compared to reporting revenues, assets, and earnings for geographic segments under SFAS No. 14. Only one firm, Dana Corporation, reported more than revenues,[7] assets, and earnings in its enterprise-wide geographic disclosures compared to 21 firms in the previous year.

[7] Dana Corporation chose to report net assets instead of total assets for each geographic segment.

TABLE 7
Items Reported for Each Geographic Area under SFAS No. 131 as Enterprise-Wide Disclosures and SFAS No. 14

Panel A: Summary of Items Disclosed for Each Geographic Area

	SFAS No. 131	SFAS No. 14
Number of firms	74	77
Mean	2.2	3.3
Median	2	3
Revenues	73	77
Assets	69	74
Earnings	12	74
Capital Expenditures	1	6
Depreciation	1	3
Unusual Items	1	4
Net Assets	1	3
Equity Income	—	3
Equity Investment	—	3
Income Tax Expense	—	1
Liabilities	—	1

Panel B: Distribution of the Items Disclosed for Each Geographic Area

Number of Items	SFAS No. 131	SFAS No. 14
One	5	3
Two	55	—
Three	13	53
Four	—	12
Five	—	8
Six	1	1
Total	74	77

CONCLUSION

SFAS No. 131 has made a significant impact in the manner in which enterprises disclose segment information. Firms are now required to report segment information consistent with how management views the firm internally. Over two-thirds of the sample firms changed segment definitions upon adoption of the new standard. This result implies that many segment disclosures previously reported under SFAS No. 14 were not effective in revealing management's view of the firm.

The switch to a management approach in defining segments has resulted in several improvements. First, the new standard appears to have increased the number of firms providing segment disclosure information. Ten of the 100 firms in our sample provided segment information for the first time under SFAS No. 131. Second, companies are disclosing more items for each operating segment. The disclosure of revenues, earnings, assets, depreciation, and capital expenditures continued under SFAS No. 131 with an increase in the disclosure frequency of other items such as equity in the net income of investees, investment in equity-method investees, income tax expense, interest, and noncash items. Finally, the enterprise-wide geographic disclosures increased the proportion of country-level geographic segments with a corresponding decrease in the proportion of broader geographic area segments. Geographic segments defined by country are more informative as important economic factors such as GNP growth, inflation, interest, and foreign currency rates tend to vary by country.

Yet, several concerns remain. While the number of items reported for each operating segment increased from SFAS No. 14, the increase is rather modest—especially considering that several of these other items such as income tax expense, interest expense, interest revenue, and noncash items were specifically requested in SFAS No. 131 if they are included in the measure of income reviewed internally by management. Research and development expense was not included in segment disclosures at all under SFAS No. 131, but was voluntarily disclosed by three firms previously under SFAS No. 14. Second, the fineness of geographic segment disclosures has improved with the increase in the number of country-level segments. However, numerous examples of broad geographic area disclosures continue. One may question the usefulness of disclosures that combine operations from different continents into a single geographic segment. Finally, the disclosure of earnings by geographic area has decreased significantly. Earnings are no longer required to be disclosed for enterprise-wide geographic disclosures under SFAS No. 131. Only a small portion of firms continues to report geographic earnings on a voluntary basis.

One avenue for future research may be the use of segment-reporting disclosures under SFAS No. 131 in examining the level of earnings used internally by management for making operating decisions and assessing performance. Great debate exists over what level of earnings (i.e., operating income, income from continuing operations, earnings before interest and taxes, earnings before taxes, and bottom-line net income) provides the best summary measure of firm performance. Since segment disclosures require management to disclose earnings at the level used internally by management for making operating decisions, an analysis of this information may provide important information, from the perspective of top management, as to what level of earnings they use internally for making these types of decisions.

REFERENCES

American Institute of Certified Public Accountants (AICPA), Special Committee on Financial Reporting. 1994. *Improving Business Reporting—A Customer Focus—Meeting the Informational Needs of Investors and Creditors*. New York, NY: AICPA.

Arnold, J., W. W. Holder, and M. H. Mann. 1980. International reporting aspects of segment disclosure. *International Journal of Accounting, Education and Research* 16 (Fall): 125–135.

Association for Investment Management and Research (AIMR). 1993. *Financial Reporting in the 1990's and Beyond: A Position Paper of the Association for Investment Management and Research.* Charlottesville, VA: AIMR.

Bavishi, V. B., and H. E. Wyman. 1980. Foreign operations disclosures by U.S.-based multinational corporations: Are they adequate? *International Journal of Accounting, Education and Research* 16 (Fall): 153–168.

Financial Accounting Standards Board (FASB). 1976. *Financial Reporting for Segments of a Business Enterprise*. Statement of Financial Accounting Standards No. 14. Stamford, CT: FASB.

———. 1996. *Reporting Disaggregated Information about a Business Enterprise*. FASB Exposure Draft. Norwalk, CT: FASB.

———. 1997. *Disclosures about Segments of an Enterprise and Related Information.* Statement of Financial Accounting Standards No. 131. Norwalk, CT: FASB.