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## **Alignment of special-interest subjects in the accounting standard-setting process : an investigation.**

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ALIGNMENT OF SPECIAL-INTEREST SUBJECTS  
IN THE ACCOUNTING STANDARD-SETTING PROCESS:  
AN INVESTIGATION

A Dissertation Presented

By

MARY IRENE DERESHIWSKY

Submitted to the Graduate School of the  
University of Massachusetts in partial fulfillment  
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 1985

School of Management

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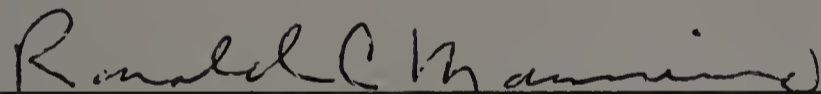
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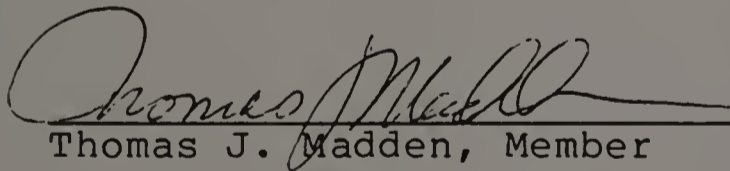
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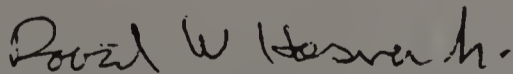
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ABSTRACT

ALIGNMENT OF SPECIAL-INTEREST SUBJECTS  
IN THE ACCOUNTING STANDARD-SETTING PROCESS:

AN INVESTIGATION

May 1985

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Despite its surface appearance of precision, the establishment of accounting principles is an ongoing political process. This is because they affect different factions of the constituency in different ways. The Financial Accounting Standards Board (FASB) was structured so as to minimize potential undue influence by lobbyists. But is this independence illusory?

The present study replicates and extends prior work done by Brown (1981). "Influence attempts" was operationalized as comment letters written to nine FASB Discussion Memos (DMs). Two subsets of policy questions comprised the cues.

Letter writers were stratified into two subsamples. The "accounting group" contained the Big-Eight CPA firms plus five professional reporting societies. "Special-interest subjects" were drawn from Fortune-500 and specialized sampling frames.

Subjects' positions on each policy issue were obtained from their comment letters. The FASB's corresponding rulings were drawn from its Official Pronouncements.

A multidimensional scaling (MDS) was performed on each issue subset. Clusters of respondents holding similar positions were identified. A number of issues were discernible as dimensions in the perceptual spaces.

Several overall follow-up tests were performed. A Mann-Whitney U test was performed on the pairwise relative distances to the FASB. This was done for the accounting vs. special-interest subjects, and for Brown's vs. the additional policy issues.

There was no overall difference in average FASB alignment between accounting and non-accounting subjects. However, a marginal difference was evident between the two sets of policy issues. As a result, the Mann-Whitney U was rerun within each DM, with "issue subset" as a blocking factor. FASB alignment was closer to the accounting subjects for five sets, and to special-interest subjects for two sets.

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## C H A P T E R I

### INTRODUCTION

The responsiveness of rule-making bodies to outside influence attempts is a frequently recurring political question. Any legislative procedure is bound to cover a constituency of varied--and often competing--interests. There is a natural incentive to attempt to gain the policy-maker's ear in order to structure these rules to one's own advantage. Frequently, though, individual lobbyists find that it pays to join forces in their persuasive activities. We have come to label these as "special-interest groups."

The structure of the primary rule-making body in accounting has undergone several dramatic changes in its history. The most recent restructuring occurred in 1973, with the collapse of the Accounting Principles Board (APB), and the subsequent establishment of the Financial Accounting Standards Board (FASB).

The APB's demise was traced in large measure to its inability to take into account the input of various factions of its constituency. In particular, there was some concern that accounting representatives (especially



the Big-8 CPA firms) exercised disproportionate control over the policy-making process.

As a result of such criticisms, the FASB was carefully restructured. In contrast to the APB, its members were required to sever all prior employment ties. During the past decade, the FASB has also incorporated a number of procedural reforms, designed to increase public input prior to issuance of its pronouncements. These include soliciting written comments to both Discussion Memos and Exposure Drafts; public hearings; and Board meetings which are open to all interested parties. All of these changes, it was originally hoped, would provide more balanced and complete input into the rule-making process.

But has the FASB in fact been able to achieve a position of neutrality in its activities? Given the current widespread interest in economic consequences of accounting policy rulings, and the differential impact of these rules upon affected parties, the activities of the FASB have triggered substantial public involvement. Has the FASB struck effective compromises among diverse preferences in its final rulings on hotly contested issues? Or does it end up siding with one group to the detriment of others?

Some prior research has been done on these sorts of questions, in the context of both the APB and the FASB. These studies will be briefly reviewed in the following section.

The present study focuses on FASB alignment with respect to two sub-samples: accounting-oriented subjects and special-interest subjects. The design of the study will be elaborated in the methodology chapter.

Execution of the research study will proceed in two stages. A series of multidimensional scalings will be performed, plotting these subjects' positions vis-a-vis those of the FASB on certain subsets of accounting issues. Each of these scalings will be interpreted in a separate section.

Next, some overall tests will be done to determine relative differences in FASB alignment between the accounting and corporate subjects. Specific sets of issues for which a significant difference exists are identified.

Conclusions, limitations and directions for future research are outlined in the final chapter.

## C H A P T E R I I

### REVIEW OF PREVIOUS RESEARCH

#### Introduction

The process of deriving ideal workable rules in accounting is by no means a straightforward matter. Those who naively believed that standard setting can be reduced to an academic exercise of "the one correct way" soon discovered that they were guilty of a critical error of omission: the consent of the governed. As in politics, feedback and cooperation from the constituency is vital to legislative survival. By most accounts, the demise of the old Accounting Principles Board (APB) can be traced in large measure to its unresponsiveness. Likewise, the history of its more pluralistic successor, the Financial Accounting Standards Board (FASB), is filled with examples of advance-and-retreat policy making.

But when does constituent involvement overstep its feedback bounds and turn into a power play? Wolk, Francis and Tierney (1984) characterize an overt attempt to co-opt the standard-setting agency as "policy capturing." Has the FASB consistently sided with any special-interest

coalition(s) to the exclusion of others, despite the avowed structural reforms for independence? If so, there is a clear threat to the retention of standard setting in the private sector, especially since the FASB is the third such attempt.

This section will begin with a brief outline of the impossibility of attacking policy-making from a pristine stance of macroeconomic optimality. The inevitability of socio-political involvement in standard setting is examined next. As a result the policy-making agency must display more than technical accounting competence; it must effectively "sell" its "product" to the public in the same way that other goods are marketed. Finally, the tendency of constituents to form coalitions in their lobbying efforts is noted. But have policy makers yielded measurably to any special interests? Several studies to date have treated this research question in various forms and with various statistical tools. Their conclusions are summarized as a prelude to the present study.

#### Optimality Is Impossible

The initial temptation to "sanitize" the accounting standard-setting process is perhaps understandable. After

all, accounting goes hand in hand with economic theory, providing as its goal information which is useful for economic decisions. Why shouldn't the measurement process (with its implicit notions of precision) be subject to the same theoretical search for optimality and social welfare as its subject matter? By firmly grounding the rule-making process in "theory," perhaps the dangers of "politicking" and "corruption" could be neatly sidestepped.

However, researchers soon discovered serious flaws in this ivory-tower ideal. Demski (1974) proved that no single set of accounting principles will ever rank individual preferences completely and transitively. Despite the widely held democratic belief that individual user tastes should count, both Demski and May and Sundem (1976) conclude that individual tastes cannot be consistently summed into a neat, aggregate social preference function.

Why does this democratically admirable principle fail in practice? Some elements of human nature simply elude precise quantification. For one thing, most surveys and voting mechanisms fail to take preference intensity into account. Demski cites the hypothetical scenario of 50% of a population which prefers lease capitalization--but only

slightly--while 45% strongly opposes it. Furthermore, people often have incentives to distort their actual preferences. Division managers may agree that current-value reporting is more relevant, yet vote against supplying it, because of their reluctance to commit to admittedly more subjective figures.

Other reasons for the failure of optimality are more pedagogic in nature. Beaver, Kennelly and Voss (1968) refer to the supposedly straightforward example of predicting bankruptcy from the "best" form of the debt-equity ratio. Why is the discovery of this "best" ratio such an elusive goal? The ratio itself is a summary of a list of asset and liability accounts; thus, it is subject to both their functional form and their individual operational definitions. In other words, according to these authors, the effects of the model and the measure cannot be disentangled. The model may also be conditional on the individual event being predicted, as well as other factors (e.g., the type of industry, the number of years the firm has been in business, etc.). But perhaps most importantly, the evolutionary nature of the research process is an inescapable fact of policy-making life. There could always be a better measure and/or model out there, just waiting to be discovered. Therefore, the

notion of "best" method is destined to be a relative thing.

Does this mean that accounting standard setters are forced to abandon all hope for a collective-choice rule? Not at all, according to several researchers. Watts and Zimmerman (1979) suggest that "accounting theory" should simply be treated like any other economic good. That is, its "possession" can result in potential transfers of wealth among affected parties. As a result, each specific policy issue can be viewed through the self-interest lens of numerous theories, none of which is necessarily superior to any other.

In line with the example cited by Beaver, Kennelly and Voss, Demski argues that theory development ought to be a search for relevant conditions under which a given accounting prescription may or may not work. The substantive and ownership tests set forth in Statement 13 to decide whether a lease should be capitalized or expensed represent one example. Another illustration is the FASB's definition of "functional currency," to help users choose the proper unit of reporting for foreign currency translation.

Similarly, May and Sundem suggest that the focus of attention ought to be shifted from ethereal accounting

concepts to the policy-making decision process itself. This includes in particular the inevitable tradeoffs and compromises needed to reach a consensus.

Likewise, the elusiveness of a precise summation of individual preferences is not necessarily a stumbling block. Cushing (1977) advises that the concept of "complete diversity" has not been empirically supported. Perhaps all users of financial statements could agree on some minimum set of characteristics which they ought to possess, such as reliability and comparability, for example. Complete optimality may still be unattainable; however, stepwise departures from it could, at a minimum, be detected (e.g., a proposed key ratio subject to wide swings in variability).

What this means, according to Cushing and Demski, is that a pristine textbookish rule for attaining "optimality," per Arrow's Impossibility Theorem, is unworkable. All methods of collective choice will violate it. However, other social choice mechanisms do exist. They must take into account multiple, competing preferences as well as individual perceptions regarding the consequences of any given accounting prescription.



Standard Setting As a Sociopolitical Choice Process

The inevitability of tradeoffs in any legislative process should have probably occurred to accounting researchers at the outset. As Solomons (1978) reminds his readers, the concept of "neutrality" does not imply that "no one gets hurt." The process of arriving at common ground generally requires the forfeiting of some competing interests.

One way of arriving at the most widely acceptable alternative, as just noted, is Cushing's agreement of minimum characteristics. One example of this is found in reporting for pensions. APB No. 8 required calculation of pension expense via an existing acceptable actuarial funding method. Now, the actual pension plan could be funded in a variety of ways. But use of a formula effectively encouraged consistency and comparability among these various companies. Another desirable user characteristic evident in pension standards was the accrual basis of accounting. This is because a portion of future employee benefits necessarily accumulates each working period, regardless of their actual funding in cash. Comparability was further enhanced by the reporting requirements of Statement 36. It required separate

disclosure of certain significant events which affect the pension plan. These include changes in actuarial assumptions, funding procedures, and/or accounting methods. Such lists of minimally desired user characteristics obviously steer the standard-setting process away from socially undesirable reporting effects.

Clearly, this approach suggests some commonalities in individual users' utility functions. Bromwich (1980) suggests that such "additive separability" of preferences might pave the way for (at a minimum) some sort of partial equilibrium analysis. Looking at it from the opposite extreme, the possible scope of disagreement within the constituency could be bounded by first partialling out this common ground.

In order to do this correctly, however, a piecemeal approach to standard setting must be avoided. It is admittedly tempting to circumscribe a given issue by defining it in very precise, operational terms. Doing so helps move along the legislative process; in the short term, consensus can more easily be reached in small steps. But there is a clear danger in losing sight of the fact that some key issues are interdependent. The whole set could easily collapse from any inconsistency which results.

Accounting policy offers many examples of such interdependency. The disposition of changes in the exchange rate, within the issue of foreign currency translation, brings to mind the treatment of holding gains in constant-dollar reporting. Alternative valuation schemes also come into play in the proposed reserve-recognition and discovery-value accounting for oil and gas industries. Both leasing and oil and gas accounting deal with the issue of proper asset recognition. Restructuring of troubled debt, as well as lease accounting, touch upon the concept of net realizable value. The possibility of such overlap is virtually limitless. It must be carefully identified, as well as consistently dealt with, in the policy-making process. As Demski points out, constituents' awareness of such common ground may help them articulate their common preferences, so that both internally sound and socially acceptable partial equilibria can be attained. May and Sundem refer to this as the "dimensionality problem," or selecting the proper level of analysis.

If such a "least-common-denominator" approach sacrifices too many special interests, then what about the opposite approach: an assortment of tailor-made, individualized alternatives? According to Demski, this

too will rarely be socially optimal in the purest sense. The tradeoffs may be fewer, and more subtle; yet they'll still be there. In other words, one group is bound to be helped while another is hurt--a clear movement away from so-called Pareto optimality. Segment reporting provides a case in point. CPA firms and investment analysts eagerly demanded product-line disclosures as being in the public interest. Yet marketing managers worried about a possible loss of competitive advantage as a result of such disclosures. As Demski sees it, the impossibility of "netting out" individual costs and benefits invariably leads to "imposing" some prescribed tradeoffs in a socially acceptable manner. This is just what the FASB attempts to do through its lengthy deliberation process: from task force, to public hearing, to discussion memo, to exposure draft, to final pronouncement. This process acknowledges that no single robust optimal policy prescription exists; yet it attempts at a minimum to identify the costs and benefits of each possible approach.

In fact, Demski spelled out the objectives of social-choice theory research more specifically. As just mentioned, all possible tradeoffs must be carefully delineated. These include, for example, the familiar "objectivity-vs.-relevance" dilemma in comparing

historical cost to alternative valuation schemes. Another conflict arises with respect to additional disclosures such as segment reporting: completeness (more information) vs. timeliness (need to get it out promptly). One final illustration is the conflict between relevance and reliability inherent in the choice of an essentially arbitrary actuarial funding method to calculate periodic pension expense.

Parallel to this, Demski recommends identification of built-in biases of certain constituencies in lobbying for or against a given standard. Some of these are relatively easy to pinpoint; but others take unexpected motivational twists. As an example of the latter, Watts and Zimmerman cite the competing pressures on managers. Their goal is seemingly straightforward: maximization of their own utility through increased wage and stock-option compensation. This takes a tangible form through increased share prices and cash bonuses. However, the avenue to success may not be so obvious: e.g., managers' incentive to minimize reported earnings. This is due to the effects of the significant moderating variables of tax and regulatory effects. Other potentially significant factors include information-production costs, specific management-compensation plans, and political costs such as

involvement in antitrust litigation.

This brings us to Demski's second set of suggestions: ongoing positive research with respect to the economic consequences of accounting standard-setting. This includes the impact of processing costs on individual consumption decisions, and continual evaluation of their reflection within the capital markets.

There are many ways in which economic consequences manifest themselves in the lobbying process. One of these has to do with a sort of "functional fixation" on the level and/or volatility of key accounting ratios. Borrowing restrictions in debt covenants quite naturally fuel corporate opposition to additional recognition of liabilities. Hence, the staunch opposition to the labelling of unfunded guaranteed vested pension benefits as a bona fide liability. The same holds true for including leased property rights in the balance sheet. Of course, as Wolk, et. al., point out, this presumes that the capital market is fooled by the accounting form of a transaction and cannot see through to its true economic substance. (This is perhaps why Demski recommends the aforementioned "reality testing" of capital-market reactions to accounting policy changes.)

In line with Wyatt's (1977) contention that too little attention is paid to economic consequences, consider yet another ripple effect of putting pension liability in the balance sheet. Wolk contends it might actually lead to such austere cost-cutting measures as cutbacks in future pension benefits and/or tightening of eligibility requirements. Thus, one must do considerable brainstorming in order to identify fully all possible social consequences of a given policy directive. Incidentally, Wyatt blames an excessive preoccupation with technical measurement issues for this neglect of economic consequences. He advises policy-making bodies like the FASB to devote considerable time to "what-if" scenarios and their full range of economic, social and political consequences. These are at least as important, if not more so, than strictly measurement or definitional considerations.

Though far less likely, the opposite extreme must be avoided as well. Solomons warns that there is a big difference between taking economic consequences into consideration, and allowing them to determine the "proper" accounting rules to follow. Given the previous neglect of economic consequences, however, it is probably better to err on the side of too much concern.

May and Sundem suggest a three-pronged approach to the assessment of consequences. With respect to the overall criterion of "social usefulness," policy consequences should be judged not only in the aggregate, but also with respect to individual costs and benefits, including individual preferences. The last of these requires special scrutiny, given the deeply ingrained nature of accounting standards. Demski notes that some accounting rules remain in place more out of custom or habit than social usefulness. This certainly helps explain the survival of historical cost as the unit of measure of financial statements, even in the face of rapid deterioration in the purchasing power of the dollar. Continued scrutiny of existing practice is imperative in order to assess how well it mirrors the preferences of its constituency.

Coupled with this ongoing evaluation is the need to cultivate a bit more patience. Standard setters' tendency to over-fragmentize complex issues in search of a quick-fix consensus was noted earlier. But Wolk, et. al., caution that the study of a problem, as well as the evaluation of alternative approaches, is by nature a lengthy process in a pluralistic society. In fact, they refer to the phenomenon as "democratic paralysis."



Policy-making bodies soon acknowledged the inherent long-term nature of this process. Note, for instance, the generous four-year phase-in period for the leasing guidelines established by Statement 13.

Now that the search for the "ultimate" method has been demonstrated to be fruitless, perhaps standard setting can be characterized in a much more realistic manner. Horngren (1972) suggested that policymaking amounts to advance and retreat--pushing the rather nebulous constraints to see what's acceptable and what isn't. A prime example of this evolutionary approach is the series of twists and turns in legislating accounting for the oil and gas industries. It all started in 1964 with support for the successful-efforts approach within ARS No. 11. This position was more strongly reiterated by the FASB 13 years later in Statement 19. However, public lobbying resulted in a contrary stand by the FASB's "overseer" organization, the Securities and Exchange Commission (SEC). Not only did it commit itself to studying alternative valuation schemes such as Reserve Recognition Accounting; it also decided that full costing was acceptable in certain circumstances. Other powerful agencies such as the Federal Trade Commission also opposed the across-the-board requirement of successful efforts.

Based on such widespread (and in the case of the SEC, highly placed) opposition, the FASB had no choice except to reverse its original stand. In Statement 25, it suspended the mandatory use of successful efforts. Such flip-flops of position illustrate Horngren's warning that accounting policy is of necessity subject to continual "popularity testing."

In a corresponding vein, the political nature of standard setting is now openly acknowledged. Both Watts and Zimmerman and Zeff state that lobbyists used to legitimize their positions by claiming that they were more "theoretically correct," "in the public interest," etc. Now, however, motives of self-interest are openly cited, as will be seen in the discussion of comment letters written to the FASB. Recall that corporate lobbyists opposed to extensive segment disclosures freely cited "loss of competitive advantage" at least as often as, say, "unreliability of projected figures."

This open politicization of accounting standard setting hardly comes as a surprise to economists. According to Gerboth (1973), they long ago recognized the multidimensional--and thus user-dependent--nature of the "income" concept, for example. Therefore, accounting should openly acknowledge the importance of value

judgments in the financial reporting process. Compromise is an inevitable part of the process; as a result, multiple sources of feedback and public education are at least as important as sheer technical competence. In other words, standard setting is not a one-way, top-down legislative activity. For the sequestered, ivory-tower approach could result in "producing a product nobody wants," according to Kirk (1978).

This by no means implies that technical proficiency is unimportant. Solomons (1978) points out that the "usefulness" of financial output depends critically upon both the perceived relevance and reliability thereof. The retention of standard setting in the private sector is severely threatened by a hit-or-miss approach without a sound conceptual framework in place to buttress the conclusions, according to Wyatt. Ongoing technical and conceptual advances will invariably help quantification of currently elusive economic consequences --thus, a more complete statement of the research problem emerges.

But in order to acknowledge properly the two-way nature of standard setting, the agency must for its part resort to virtual "marketing" of its product. In a 1973 article, Horngren advised the policy-making agency of the critical need to do some lobbying of its own. It needs to

convince its constituency that it possesses the necessary technical expertise to set reporting standards, and that it is the most cost-effective means of doing so. In its reality testing of its perceived impact, the FASB must avoid the dual extremes of being viewed as either too dictatorial or too wishy-washy. Neither of these images bodes well for the retention of standard setting in the private sector, particularly since (as was pointed out at the start) the FASB represents the third such agency.

How has the present policy-making body, the FASB, incorporated respondent feedback into its procedural structure? Discussion Memos (DMs) are neutral and much more detailed, according to Zeff. They must now include an explicit "economic impact analysis" section. DM summaries are also simplified in nature, directly setting forth in question form the policy implications of each alternative accounting treatment. FASB task forces, which work on the technical considerations of each issue, have increased both in size and in cross-sectional representation. The FASB technical staff is required to make public a detailed plan of its activities each quarter. Significantly, the FASB membership base itself has been enlarged as well. The days of the narrow technical "specialist" are over; four out of seven Board

members need no longer be CPAs. The FASB now has in place a formal self-audit process of its own activities: it must conduct a "post-enactment review" of all statements which have been in effect for at least two years. Finally, the public may now attend advisory-council, task-force, and trustee meetings. This "in the sunshine" policy has been in effect since 1978.

Now that the standard-setter's responsiveness to outside parties has been established, it is reasonable to ask whether such parties act in concert to gain the policy-maker's ear. Are there natural tendencies --as well as incentives--to form coalitions? This possibility is likely, given the aforementioned impossibility of maximizing all individuals' utilities simultaneously, plus the commonalities in separate utility functions for financial information. Before asking whether the FASB aligns itself with so-called "special-interest groups," it is necessary to discuss why they might arise in the first place. A significant basis of influence, as well as its total effects on the standard-setting process, will be stressed. This is because the former variable will play an important role in the selection of sample subjects for the present study.

Special-Interest Involvement in Standard Setting:

A Review of the Research to Date

It should come as no surprise that affected parties will attempt to bend rule-making to their own advantage. As was noted earlier, even the arguments themselves have increasingly taken on more self-interest, and less pseudo-pedagogic, content. Likewise, Wolk's "capture theory" phenomenon was used to characterize a gradual convergence of the governing body and the governed population. In fact, Gerboth observed that such capture is easier to accomplish in the case of a highly concentrated policy-making body such as the FASB. Lobbying efforts and resources can be targeted more efficiently than they would for a more dispersed, checks-and-balances type of legislative mechanism.

But there are also distinct advantages for individuals to pool their lobbying efforts and form special-interest groups. Lobbying efforts must be preceded by significant information gathering: that is, how the proposed accounting rules will work, and more importantly, how they will affect the reporting entity. Watts and Zimmerman have observed significant economies of scale in this preliminary research. They also cite clear

advantages to block lobbying efforts.

Although the possible bases of special-interest coalition are seemingly infinite, Watts and Zimmerman have isolated one variable as significant: size. In their 1978 study, they present evidence that the present value of a cost-benefit stream is a directly proportional function of firm size. For instance, the magnitude of any income change resulting from a proposed accounting standard is expected to be larger for larger firms. Given the previously cited importance of the income figure in both management-compensation and external capital-raising activities, it is not hard to predict that this variable will drive lobbying activities.

Watts and Zimmerman proceed to analyze the complementary effects of industry. They admit that surface differences in activity do exist, observing that just one steel company (as opposed to seven oil companies) submitted opinions on the issue of general price level reporting. However, they conclude that the overall functional relationship between "firm size" and "managerial lobbying behavior" is not materially altered, even when industry is included as a moderating variable (and controlling for the direction of earnings change). As a result, the size variable will play a key role in the

selection of cases for the present study. This will be discussed further in the methodology chapter.

The preceding discussion makes clear that special-interest groups exert a marked influence on the demand for alternative accounting theories and policies. But what may not be so immediately obvious is the way they influence supply as well. Not only will lobbyists eagerly quote those particular research results which support their own preferred positions; they will often enhance the reputations of the respective authors in the process through their financial support (e.g., industry grants and subsidies). Therefore, according to Watts and Zimmerman's "survival bias" hypothesis, the favored ideas gain even wider publicity and support. This invariably leads to increased perceived credibility and probably a flurry of like-minded secondary studies. As a result, the potential impact of special-interest groups permeates the entire pure-to-applied research spectrum.

This supply-side influence, plus the pluralistic nature of the constituency, virtually rule out any hope of discovering the "ultimate" set of generally accepted accounting principles. Watts and Zimmerman conclude that opposing special-interest factions will pick and choose different methods for different purposes. Furthermore,



the FASB can show different patterns of alignment with special-interest groups, depending upon the specific issue at hand. In other words, it may be far too simplistic to hypothesize that the Board is expected to side with, say, accounting firms, or professional societies. The context of the policy questions embedded within a given issue may make a critical difference in explaining shifts of decision alignment.

Before examining this question within the setting of the present research study, however, the results of prior work on FASB/constituent alignment will be reviewed.

#### Previous Research

The question of undue respondent influence in the accounting standard-setting process has been addressed in several studies. The basis for such a priori clustering was specified in alternative ways.

Meyer (1974) hypothesized that APB members' employment category was the primary factor explaining differences in job-related interests and thus in voting behavior. He discovered a distinct association between both factors when voting records on all APB Opinions were analyzed. However, when these Opinions were regrouped

into a smaller set of 'topic areas', this association disappeared. Similarly, Rockness and Nikolai (1977) failed to uncover systematic clusterings of respondent by job category. Patton later replicated these studies within the framework of the FASB, to see whether changes in the form of the regulatory agency would have an effect. Using two distinct statistical methodologies, he found no association between voters' job affiliation and voting pattern for either sub-topic or "controversial-issue" (more than one dissent) aggregation.

Despite these overall results, one employment-related category of respondents deserves special attention because of its self-evident "special-interest" nature: the "Big-8" accounting firms. Newman (1981) compared a specially calculated power index for the Big-8 and non-Big-8 respondents, as manifest in voting behavior. He was particularly concerned with the effect of majority-vote rules and other structural changes on the perceived influence of Big-8 respondents. Contrary to popular opinion, Newman found that the change in policy-making body from the APB to the supposedly 'independent' FASB (with members' prior employment ties severed) did not result in a reduction of the Big-8 power index. In fact, its power index actually exceeded its employment-related

proportional representation after the change. However, there also turned out to be little actual difference between the values of this power index when calculated for Big-8 and non-Big-8 subjects. Thus, the perceived disproportionate influence of the Big 8 was not supported by this study.

Hussein and Ketz (1980) hypothesized that Big-8 firms comprise a so-called "ruling elite" in the policy-setting process of the FASB. They defined this term as being composed of two parts: inter-firm agreement on issues ("unity") and agreement of FASB with the positions advocated by these firms ("control"). Opinions were drawn from reactions to a set of eight Exposure Drafts (EDs), while FASB rulings were traced to corresponding statements. The relative frequency of agreement on the selected issues was calculated for each pairwise combination of Big-8 firms. Likewise, a specially defined "power coefficient" showed the proportion of firms' opinions which matched the ultimate FASB rulings. Neither of these tests revealed significant inter-firm or Big-8/FASB agreement, however. In other words, the notion of pluralistic input into standard setting could not be rejected on the basis of this study.

If "employment group" did not explain significant differences in either lobbying or voting behavior, were there any other systematic groupings that emerged? Meyer's study pointed out some interesting coalitions. His across-Opinion analysis revealed similar voting behavior patterns for Big-8 and academic members. Inasmuch as the former group was most likely to be exposed to pressure from external constituents, and the latter group least likely, this finding was a surprise. In the second part of his study (votes analyzed by issues instead of across all Opinions), this cluster was replaced by an industry-academe voting pattern.

Rockness and Nikolai, on the other hand, uncovered a conceptual-pragmatic dimension, with practitioners on one side and theorists on the other. Two isolated cases of respondent similarities emerged: one cluster comprising a Big-8 firm and its audit client in the steel industry, and a second Big-8-auto-industry-client proximity for an unrelated issue. These groupings may perhaps be explained by the relative stability of audit-client-industry concentrations over time, as studied by Rhode,Whitsell and Kelsey (1974),with possible attendant similarities in positions on certain accounting issues.

Brown (1981) searched for similar systematic groupings in his analysis of comment letters written to the FASB for selected issues. He uncovered a preparer-attestor dimension, with public accountants as the latter and primarily large corporations as the former. Brown also directly positioned the FASB's ultimate decision with respect to these respondents. This was done to see whether the FASB sided with any particular subject or group on a given issue. In all cases, the interpoint distances between the FASB and most of the respondents exceeded pairwise respondent distances. This FASB-"outlier" position suggests no systematic Board alignment with any group of respondents. Brown concludes that the Board either attempted to balance out diverse views, or else it simply ignored them, in its eventual pronouncements.

Interestingly enough, a virtual carbon copy of Brown's research question occurred in an offshoot of the policy-making process. Pearson, Lindgren and Myers (1977) asked whether Big-8 firms exhibited block voting patterns in the formation of auditing standards. Rulings on these are made within the Auditing Standards Committee (AudSEC) of the American Institute of Certified Public Accountants. Its voting members include not only Big-8 firms, but also

regional accounting firms and academicians. The authors obtained voting records of a sample of these members for 19 Statements on Auditing Standards (SASs). They scaled and clustered these respondents by generating pairwise dissimilarities with a coding scheme identical to Brown's. Then, as a follow-up step, they performed an ANOVA on the three clusters which emerged, to test for differences in mean voting patterns. The results showed that the Big-8 subjects were scattered throughout all four quadrants. Furthermore, the three categories of AudSEC members (Big-8; regional; and academe) showed no tendency to cluster by subgroup, as well as no significant difference in average voting patterns.

One possible confounding variable which was discovered by Rockness and Nikolai deserves mention at this point. The standard-setting process appears to possess a distinct "life cycle," or time dimension. They found the extent of respondent clustering decreased throughout the life of the APB, with a large, somewhat fluid centralized group emerging during its early existence. Oddly enough, this grouping began to dissolve just as the APB started to solicit outside reaction to its activities. By the end of its life, only a weak accountants-vs.-industry separation of respondents was

discernible. Patton found a parallel life-cycle effect for the FASB, as measured by an acceleration of both the rate of statement issuance and the dissent rate of voting.

Brown examined only a small portion of final Statements which might have been insufficient in number for meaningful timewise segmentation. He created just one historical split: pre- and post-1/1/76 maps. He arrived at this date by reference to the occurrence of the Moss and Metcalf congressional hearings. Brown asserts that the standard setting agency did not experience significant environmental changes within each of these sub-periods. However, the effect of FASB life cycle on respondent groupings could not be directly determined from his study.

The foregoing results suggest that respondents' potential influence in the standard-setting process probably extends beyond the bounds of mere employment affiliation. Rockness and Nikolai have suggested that similar-preference groupings, if any, should be described as mainly "political" in nature. Moreover, such disproportionate influence should not be ascribed solely to Big-8 accounting firms, as both Newman's and Meyer's conclusions show no apparent power advantage for these subjects. Perhaps other categories of potentially influential respondents have been neglected. Finally, the

agency life-cycle studies show the dependence of opinion clustering (if any) upon the volume and nature of the particular issues under debate. Any study of outside influences in the accounting standard-setting process should therefore take these factors explicitly into consideration.

The present study attempts to incorporate some of these important variables. Both accounting and "special-interest" subjects' written opinions will be analyzed across a variety of broad financial-reporting topics. Their positions will be evaluated with respect to those of the FASB. In this manner, a preliminary indication of opinion clustering and relative alignment on policy issues is obtained.

More detailed information relative to the design of the study is presented in the following chapter.



## C H A P T E R I I I

### RESEARCH DESIGN AND SAMPLE SELECTION

#### Problem Statement

The primary objective of this study is the detection of differential FASB alignment with two potentially influential groups of its constituency: accounting subjects and non-accounting, "special-interest" subjects. This underlying goal will be approached via a number of initial, preliminary research questions. For one thing, can we identify clusters of subjects which take similar positions on certain accounting policy issues? Do such clusters represent a mix of both accounting and non-accounting lobbyists? Or are they homogeneous? If so, how can their composition be characterized (e.g., CPA firms? professional associations? same-industry firms? audit-client pairings?)?

Related to these issues is the FASB's ultimate position with respect to such groupings of like-minded constituents. Does it end up adopting the arguments of one group, as opposed to another? Or does it take an "outlier" stance, siding with no one? Are there any

issues for which the FASB opts for a "neutral" position--that is, by centralizing itself among diverse, extreme arguments?

A secondary but related objective is to identify those issues which are most "controversial"; e.g. which produce especially polarized clusters, or widely differing opinions. Keep in mind that the history of accounting policy-making is characterized by a number of legislative reversals in response to public protest over initial rulings. Identification of those issues which produce notable differences in opinion and alignment is undoubtedly a useful first step in gauging public reaction and possibly heading off such lengthy and inefficient circularity of rulings in the first place.

All of the above research interests are grounded in the setting of specific accounting policy questions. But it would also be desirable to make some overall comments regarding the extent of aggregate FASB alignment with one subgroup of subjects vs. another: namely, accounting and corporate subjects. Do overall differences in average alignment exist? Are such effects, whatever their magnitude, significantly moderated by such factors as a given subset of accounting policy issues?

The following section describes how these various factors will be operationalized in the context of this study.

### Selection of Sample Subjects

The problem of defining both "influence attempts" and "special-interest subjects" is rooted in the policy-making process of the FASB. A brief description of the stages which comprise this process is therefore appropriate at this point.

According to the general schematic depicted in Figure 1, the policy mechanism is triggered by the emergence, or re-emergence, of some general issue of interest. As illustrated in the specific example in Figure 2, this might constitute an unmet need for users of financial information, such as the desirability of reporting items in dollars of current purchasing power.

Such an issue is typically elaborated in the form of a neutral document which is known as a Discussion Memo (DM). It sets forth the particular, detailed implications of the broad issue for financial reporting. These may involve the usefulness, feasibility, and mode of presentation of this financial item. Sample questions for

general price level reporting are shown in Figure 2.

Once the issue has been crystallized in this manner, the Board solicits opinions from its "constituency." This population includes business entities who might be affected by proposed compliance procedures, as well as CPA firms which could conceivably be required to certify such disclosures.

Public response typically takes the form of letters of comment. These usually come from various representatives of industry, academe, accounting practitioners, and representatives of professional associations (both financial and industry-specific). These letters vary in length from one page to a veritable monograph.

Each DM clearly lists in boldface the policy questions emanating from a given issue. These questions thereby provide a natural framework for the expression of opinion in the letters of comment. (Naturally, a given respondent need not comment on all the issues contained within any one DM. Nor is his letter necessarily confined to those particular issues.)

The FASB prepares an "index," or table of contents, of those letters corresponding to each DM. The index lists all the letters received in chronological order,

identifying the respondent and his professional affiliation, if any. This index is bound together with the letters.

A second vehicle for constituent response is the public hearing. Here, respondents from the same professional categories are asked to present their thoughts verbally.

This forum of opinion is much more limited in nature than the letter-writing activity, however. The latter is (theoretically, at least) a much more accessible channel of communication. The agendas, allotted speaking time, number of presenters, etc., are presumably limited for public hearings. In contrast, anyone is free to write a letter of comments--with no such externally imposed constraints as to its length or content.

There is a third mechanism for public input. Letter writing also occurs in response to Exposure Drafts (EDs). These typically follow DMs and sometimes public hearings as well. However, the ED is not a "neutral document" in the same sense as the DM. The FASB supposedly has evaluated its input to the above two processes and may attempt to elicit comments corresponding to its own predetermined preferences... along the lines of "tell me what I want to hear." On the other hand, the policy

questions contained in each DM may be taken at face value. No outside direction is apparent from any of these lists to date.

After due consideration of the public's input, the logical next step is the declaration of the FASB's final decision with respect to the various issues raised. The Board's rulings appear in the form of a "Statement," or Statements. These address the initial policy questions and mandate proper accounting methods to be followed for each one. Usually some rationale is also given for the Board's decisions in a supplementary section, which responds point-by-point to recurring arguments raised in letters and speeches by the constituency.

The simplest, ideal scenario would be a 1:1 match between DMs and Statements. But three distinct variations are possible. First, a DM might result in more than one Statement. Note the profusion emanating from DM 2 in Figure 2, for example. As is the case in this instance, the multiplicity of Statements may correspond to applications of the "issue" at hand (e.g., "inflation-adjusted financial reporting") to various specific settings or industries.

Secondly, there may be no Statements following a given DM. The topic may be dropped from consideration for

various reasons, or deferred to an as-yet-unrealized later point in time. Certain DMs, such as the two dealing with the "Conceptual Framework of Financial Reporting," may be too broad in scope to produce rulings in the same manner as, say, the "appropriate" way to adjust for inflation in the financial statements.

Finally, a given Statement may correspond to more than one DM. Statement 39, on general price-level adjustments in the oil-and-gas industry, is a fine example of such a hybrid. It can be classified with both the General Price Level Adjustments DM and with the Extractive Industries DM.

These illustrations are really exceptions to the rule, however. For most policy decisions, Figure 1 represents a reasonably accurate depiction of the process. Furthermore, the rather detailed titles of both DMs and Statements enable a fairly reliable matching of both sets of documents, in terms of the issues addressed therein. Nine DMs were identified in this manner; they are listed in Figure 3.

Now that the basic framework has been established, the selection of subjects will be described. The first sub-sample consists of accounting-oriented subjects: the Big-8 CPA firms, plus five professional reporting

societies. These were also included in Brown's study; they appear in Appendix 1. [1]

Stepwise identification of subjects as "special-interest groups," however, is a bit more complicated. An initial attempt was made to select them in the following manner. A cross-classification matrix was generated by hand from the aforementioned DM indices. As shown in Figure 4, the individual respondents were listed as row elements of this matrix; and all of the included DMs comprised the columns. Check marks were placed in the cells to indicate those DMs to which each subject in the population of letter-writers responded. It was hoped that visual inspection of this matrix (that is, tallying the row totals) would enable quick identification of those who wrote letters to four or fewer DMs--a reasonable approximation to a working definition of "special-interest subjects."

This method of sample selection unfortunately proved to be unworkable. A number of DM indices (in particular, leases and debt restructuring) turned out to be composed of subjects which only addressed that particular DM; and

[1] Throughout this study, the word "sample" will refer to the judgmental cross-matching procedure to be described. It does not in any case imply a simple random sample.



no other. Under the "four-or-fewer" definition just Proposed, this would have meant including over 700 subjects for DM 7 and over 800 for DM 10 (please refer back to Figure 3 for totals)--clearly an unmanageable number.

However, an alternative method was theoretically sound and more easily operationalized too. Given the prior work done by Watts and Zimmerman (outlined in the literature-review chapter), there was published precedent for using "size" as a surrogate for "extent of lobbying activity."

The Fortune 500 list of April 30, 1984 was obtained. Companies in the top 200 were cross-matched to each corresponding DM index (except for four, to be discussed shortly). If they also wrote a letter of response to a particular DM, then they were included in its special-interest sub-sample.

Suppose there were insufficient special-interest subjects which qualified for inclusion as a result of applying this method (e.g., both on the Fortune 500 list and the DM index). It was decided to keep the overall sample at the same size as Brown's: 27 subjects and the FASB. This was done so as not to introduce an additional source of difference into the present study. In other

words, the only desired changes with respect to Brown were the coding scheme and the special-interest sub-sample. But keep in mind that the stability of the MDS solution can be increased simply by increasing sample size. To prevent this from being a confounder, the overall sample was kept at 27 (13 accounting and 14 special-interest subjects). Therefore, if cross-matching did not produce 14 of the latter, the balance of special-interest respondents was drawn at random from each affected DM index.

Also, it was noted that special-interest subjects have their own professional associations, just as accounting and finance do. These are not corporate entities, and so would not appear on the Fortune 500 list. But by leaving them off, we would be ignoring a potentially powerful source of influence (akin to, say, the AICPA, Financial Executives Institute, or the National Association of Accountants). Thus, such associations were included in the overall sampling frames automatically if they appeared in any given DM index.

In the case of four particular DMs, more specialized sampling frames happened to be available. The first of these was the Fortune 500 International list for August 20, 1984. This was used for DM 3, Foreign Currency Translation, as it was a more focused attempt at

identifying "large multinationals" as special-interest subjects.

For DM 7 (Leases), a very useful list of subjects was available in Abdel-khalik's research report to the FASB (1981). This frame was already stratified on both "size of company" (large vs. small) and "amount of non-capitalized leased property employed" (high vs. low). The same cross-matching procedure was followed.

Standard and Poor's Index for 1984 contains a list of commercial banks in descending order of the dollar amount of deposits controlled by each. This was used in the same manner for DM 10 (Debt Restructuring).

Finally, there were several research studies done to test the capital market's reaction to Statement 19. This pronouncement emanated from DM 13, Oil and Gas Disclosures. Sampling frames developed by Collins and Dent (1979) and Dyckman and Smith (1979) were already conveniently stratified into full-cost and successful-efforts sub-samples.

This means that the accounting subjects were constant across all nine included DMs. The special-interest subjects, however, were unique to each DM. All of the subjects are listed in Table 1 and identified by code. This labelling will aid interpretation of the graphical

output of the statistical methods employed (Chapter IV).

Now that the selection procedure for subjects has been discussed, the next topic of interest is the set of variables ("cues") to be utilized. These subjects' positions on policy issues will be extracted from their comment letters addressed to particular DMs. As mentioned earlier, each DM has a special section listing in boldface all of its associated policy questions. Between four and eight of these questions will be listed for each DM. (Please see Figure 2 for three such policy questions corresponding to DM 2.)

Because these DMs vary widely as to general topic area, the list of policy questions contained within each one also varies in length. There may be as few as four, or as many as thirty-plus, questions. However, the latter may be too fine a partition of the underlying issues. Brown was able to condense these successfully into four to eight questions in most instances. Furthermore, these longer lists are comprised of many detailed "sub-points," most of which will probably be disregarded by respondents in their comments addressed to basic issues. A secondary list of policy issues will be independently generated and will contain no more than ten questions for each DM. In cases of divergence from Brown's questions, the former

will be separately analyzed if each list contains more than one additional question. Otherwise, the complete set (Brown's, plus the one additional question) will be analyzed as a follow-up step. The entire list of questions appears in Appendix 2.

One last point must be made regarding the format of these policy questions. In order to compare a respondent's position with that of the FASB (e.g., "Did they agree? Did they disagree?"), these questions must be in yes-no form. This parallels directly the classification scheme of Brown's 1981 study. Some, but certainly not all, of the boldface questions appearing within each DM are in yes-no form. (Those which are not, but which deal with basic underlying issues, can generally be restated so as to conform.)

The letters of comment written by sample subjects (e.g., those identified as "special-interest respondents" from the aforementioned selection procedure will then be obtained. These are contained within binders corresponding to each DM within the FASB Department of Public Records. Copies of these letters are available to interested parties upon request.

From these letters, the respondent's position on each of the listed policy questions will be determined. The

FASB's corresponding position, on the other hand, must be drawn from the associated Statement(s) containing its pronouncements. (This flow was illustrated in Figures 1 and 2.)

The extent of agreement or disagreement on a given policy question will be recorded by referring to a paired-comparison matrix coding scheme. Brown's matrix is shown in Figure 5. Note that the diagonal of this symmetric matrix represents perfect agreement between both respondents on the issue at hand. Similarly, diametrically opposed views are coded as 9.

One sticky point, though, is the meaning of the middle category, which Brown calls "neutral or no response." According to this title, two quite distinct types of respondents could fall in this classification. Suppose a subject has both positive and negative feelings about aspects of a given question. Theoretically, then, he is "neutral" on the question when it is considered as a whole. However, Brown also placed respondents who avoided mentioning a given question at all in this category; note the second part of his title.

When interpreted in this light, Brown's central category is no longer necessarily unidimensional. It is impossible to determine from Brown's study how many

"positive-negatives," as opposed to "no-comment respondents," he actually encountered in the letters which he analyzed. (Recall, too, that his study was confined to a different subset of accounting topics and differently defined subjects.)

Figure 6 illustrates the paired-comparison matrix which will be used to compare and code each pairwise combination of subjects' opinions. Note that the two categories, "neutral" and "no response," have been disaggregated. As will be seen in Chapter IV, the two categories did in fact produce notably different groupings. Thus, the distinction appears to have been important in interpreting the graphical results contained therein.

A further explanation of the technique to be used to analyze this data is provided in the following section. In addition, a simple hypothetical example will be provided to help the reader understand the methodology more fully.

### Research Methodology

Multidimensional scaling (MDS) is an especially convenient technique for analyzing the extent of agreement, or disagreement, between the FASB and special-interest respondents on policy questions. The objectives of MDS are twofold: to identify the underlying dimensions which provide the best separation of "objects" (here, the FASB and selected respondents); and to place these objects in a space of N dimensions or less (Aaker, 1980).

The goal of MDS is to represent the totality of perceived similarities and dissimilarities spatially. Intuitively, two subjects who hold similar positions on a given question should plot close together in the space; those holding diametrically opposed views, in contrast, should be widely separated on the map. In other words, MDS will be taking these "proximities" (for n subjects, including the FASB,  $n(n-1)/2$  of these proximities exist) and converting them to "fitted distances" by moving the configuration of points around in N-dimensional space, in a stepwise manner. Ideally there should be a perfect inverse match between these proximities and fitted distances, according to the monotonicity property ("more



similar" implies "smaller distance"). Shepard diagrams show the extent to which the order relationship has been preserved at a given step (Dillon and Goldstein, 1984).

Recall that the goal of this study is the "extent of separation" (agreement or disagreement) between the FASB and special-interest respondents on selected financial-reporting issues. Through its stepwise fitting procedure, MDS graphs these subjects with respect to dimensions in space. The objective, as with other multivariate techniques, is parsimony. That is, we want to find the smallest possible number of dimensions for which there is a reasonably good match-up between the input similarity rankings and the resulting distances in the Euclidean space, according to Aaker.

What constitutes a "good fit"? Obviously, an "important dimension" is one which "separates the objects well" (e.g., preserves the aforementioned monotonic relationship between proximities and distances to a great degree). With  $(n-1)$  dimensions, we could place the  $n$  objects perfectly. But such a large space is, of course, impossible to depict pictorially. Perhaps some of the higher-order dimensions can be dropped without materially violating the rank-order constraint.

Now as with several other quantitative techniques, MDS does not have associated with it a test statistic whose distribution is known and tabulated, akin to  $t$ ,  $F$ , or chi-square. Therefore, "hypothesis testing" in the strict sense of the term is not possible. But an overall goodness-of-fit measure is available which is known as "Kruskal's stress." It assesses the extent to which the monotone relationship has been preserved; e.g., the closeness between observed similarities and fitted distances.

The goal, then, is to minimize stress with as few dimensions as possible. General guidelines exist with respect to "good" levels of stress. There are also several graphical methods. One can plot stress vs. the number of dimensions and look for an elbow in the curve, akin to Horn's method for principal components. Split-half sample cross-validation can also be performed, according to Dillon and Goldstein. The two-dimensional solution, if "best," is of course ideal in terms of visual presentation of the results.

At this point, a look at a sample MDS example is in order. Suppose that comment letters in response to DM 1 (R and D) have been obtained for the ten respondents shown in Figure 7. The FASB's corresponding position has been

drawn from Statement 2. This contains its final rulings with respect to the R and D issues which it initially listed within the DM for public consideration.

Let us assume that the scaling produces the two-dimensional map shown in Figure 7. Its associated value of Kruskal's stress is 0.0300. This goodness of fit tells us that excellent correspondence between the original similarities of subjects' positions and their mathematically fitted distances in space has been attained with just two axes. Adding additional dimensions would probably not improve the fit to any great extent. Therefore, we may proceed to interpret this two-dimensional solution.

Our first objective is to try and identify clusters of respondents which have plotted together in this perceptual space. This graphical proximity reflects similarity of position. If we wish, we may draw concentric circles, or iso-contours, around such points to aid in their location on the graph.

Several distinct groupings are apparent from Figure 7. At the leftmost extreme of Dimension 1 (horizontal axis), we find Earnest Products plotting very close to Impressive Labs. (The extent of this closeness may be determined by obtaining the Euclidean distance between

these two points.) Two other subjects are located in relatively close proximity to this pair: Hi-Tech and Alpha Computers. No other subjects plot as closely together as this foursome. This proximity is pictorially represented by the contour lines surrounding these points.

This process is repeated for the balance of the point scatter. A second pairing is evident near the origin of the space: Realist, Inc., and Jones Mfg. In like manner, the extreme right-hand side of Dimension 1 contains a cluster of four respondents: Omega Society; Hard-Liners, Ltd.; Smith and Co., CPAs; and the FASB.

Keep in mind that subjects which plot together hold similar positions; and vice versa. The obvious retort to this statement is: "Similar positions on what?" The next step, then, is to locate (if possible) that individual question (or questions) for which all the subjects in Cluster 1 held identical positions. But in addition, the subjects in Cluster 1 must hold diametrically opposed positions to those in Cluster 2. This is because these two clusters anchor opposite ends of the horizontal axis.

Suppose that all the subjects in Cluster 1 argued for across-the-board capitalization for R and D charges in their letters. Perhaps each of them felt that there are some initial outlays which may not pay off immediately,

but which are still necessary in order to fine-tune an eventually marketable product. (For Earnest Products, this could be test-marketing of an item which ended up being altered radically in response to suggestions from consumer focus groups.) The essence of such arguments is that these initial outlays should be deferred and attached to those of the ultimate successful end product. In short: all the subjects in Cluster 1 answered "yes" to the policy question, "Should research and development outlays be capitalized?"

In contrast, Omega, Hard-Liners and Smith and Co. all forcefully defended immediate expensing instead. In other words, they answered "no" to the question posed above. They felt that this accounting treatment was in keeping with both conservatism and the matching principle. This is because such charges do not lead to clearly definable future economic benefits.

As Figure 7 shows, the FASB also plots with the trio in Cluster 3. This exactly corresponds to its final ruling. In Statement 2, it stated that all R and D outlays must be expensed as incurred.

What about the centrally located duo in Cluster 2? Assume that both of their responses were a bit more complicated than "yes" or "no." For instance, Realist

might have said, "Direct start-up costs related to identifiable contracts should definitely be deferred. But other joint costs assignable to the totality of the research lab should be written off right away." Upon careful reading of such a reply, we might properly classify it as "neutral" with regard to the issue at hand. This is because the response basically boils down to, "'Yes' for some types of costs; but 'no' for others."

Thus, we can see that the graphical output of MDS has faithfully reproduced the correspondence between similarity of original opinions and fitted spatial distances. The "yes" subjects have indeed plotted together (Cluster 1), as have the "no" subjects (Cluster 2). But these two opposing clusters are maximally separated by the horizontal dimension. Likewise, the "neutral" subjects occupy a central position with respect to this axis.

Based on this pattern, we may label the horizontal axis as a "capitalize-vs.-expense" dimension. Also, as we scan the axis from left to right, we may observe a corporate-to-accounting continuum in general. This makes intuitive sense; corporate entities would probably argue against lump-sum expensing because of the resulting impairment of their reported profits. Accounting

entities, on the other hand, can "afford" to support more theoretical concerns, such as conservatism and matching--both of which would dictate immediate expensing.

MDS has no assumptions in place with respect to required minimum sample sizes. Thus a scaling could in fact be performed with just these ten subjects. But the larger the overall sample size, the greater the stability of the derived solution.

The actual dimensions will also vary with regard to how well they separate the points according to the monotonicity constraint. Referring back to Figure 7, we may observe that Dimension 1 does a much better job in this regard than Dimension 2.

A few comments are now in order concerning which particular MDS computer package to use. Basically there are six popular versions of the algorithm used to perform the iterative minimization procedure between observed and fitted distances. Schiffman, Reynolds and Young (1981) have published an excellent chart to help users decide which package would be best for any given research design. Brown used ALSCAL for his study and extensively discussed the similarity of results obtained thereby to those of INDSCAL.

In the present study, the KYST-2 package (Kruskal, Young and Seery, 1978) was used, after confirming that it produces essentially the same results as ALSCAL. For one thing, Schiffman, et. al., point out that for non-metric scalings, the resultant stimulus spaces are highly similar under KYST, ALSCAL and POLYCON. In fact, according to these authors, the only advantage of ALSCAL is that it allows both metric and non-metric scaling. But our purpose here is simply to preserve the rank orders of the original data via the categorical coding scheme of pairwise comparisons. This "metric" advantage of ALSCAL is thus irrelevant in the present context.

The authors go on to assert that for "Classical Multidimensional Scaling" (CMDS), the output from KYST is no different from that of ALSCAL or POLYCON. CMDS is the most basic type of scaling, whereby all possible pairs of stimuli (here, the FASB and its constituents) are compared and plotted in a single perceptual space. That is, the input data (pairwise codes for all respondents) takes the form of a square or triangular matrix. (The alternative is a rectangular matrix, for more complex multiway comparisons among stimuli.) The former two options are exactly the mode of data aggregation used in the present study. Therefore, KYST-2 should perform at least as well



for our purposes as any other package.

In fact, this equivalence was demonstrated by replicating Brown's results for his original sample, DM 1, using KYST-2 instead of ALSCAL. Except for rotation, both configurations were identical. As a result of these theoretical assurances and the replicational success, KYST-2 was used for the balance of this research study.

A couple of comments are necessary regarding the options contained in this package. First of all, keep in mind the meaning of "non-metric" in the context of MDS: only the rank order of the data is being preserved. But KYST-2 needs to know the direction of this ranking as well. Looking back at the pairwise-comparison matrix in Figure 6, we see that the more dissimilar any two subjects are, the higher the code assigned. (The largest possible difference, "yes-vs.-no," gets a code of 9.) Thus, the correct regression option for KYST-2 here is monotone ascending.

The other decision to be made is what to do with ties in the data. (A large number is expected in this case, given the limited number of coding input variables.) If we allow ties to be broken, we could generate a good mathematical fit artificially. This is because the constraint on preserving tied original proximities is

being arbitrarily overridden. It will be ignored by the program as it rearranges the configuration of points at each step. To prevent this, the ties will be kept tied in this study.

KYST-2 provides a wide variety of output. Here, the Euclidean distances and the elbow curves will be obtained for each DM which is analyzed.

Before proceeding to the actual statistical analysis, one final point needs to be raised: the issue of interjudge reliability. Ideally more than one person should read these comment letters and classify the respondents' positions. In this manner, the extent of rating agreement can be directly determined. This is especially important because the individual who selects the list of policy issues to be included is considered "biased" if he is the only one coding the opinions on these issues as well.

Several statistical reliability measures exist for determining the extent of convergence of judges' decisions. For instance, a number of variants of Cohen's kappa may be calculated in the case of two raters. For more than two judges, a probabilistic model of interjudge reliability has been developed (Dillon and Madden, 1983).

However, the reliability of this study is virtually self-evident, due to the identical set-up of most respondents' letters in directly addressing each question. These letters are typically divided into two sections: a general discussion of the authors' philosophy concerning the broad accounting topic under consideration; and a point-by-point reply to at least some of the questions which appeared in the front of the DM. For the latter, the author usually reprints each question verbatim and then responds directly below. There could be a "yes"; "no"; and/or a short rationale which may indicate a "neutral" response. As a result, the correct code was readily discernible in the vast majority of letters read. This format of responses implies a high interjudge reliability by its very nature. Rather than mathematically reproduce such obvious results, attention was focused instead on the more basic follow-up tests of subgroup-FASB alignment.

The following chapter presents the MDS results and interpretation for the nine included DMs. The Euclidean distances between the FASB and each subject are obtained from all these scalings. They, in turn, will become the primary basis of testing for the differences in sub-group/FASB alignment just described.

## C H A P T E R I V

### DATA ANALYSIS AND INTERPRETATION

#### Introductory Comments

The previous chapter described two research objectives which deal with the relative placement of sample subjects. First of all, we wish to identify clusters of respondents (accounting and corporate) who hold similar positions on select accounting policy issues. Next, we wish to locate the corresponding position of the FASB, relative to these subjects, by comparing its ultimate decision to the written suggestions of the former. Finally, we would like to be able to identify those issues which generate notable spread or polarization among these various subjects.

Multidimensional scaling can be used to provide graphical answers to research questions such as these. The following nine sub-sections of this chapter consist of scalings performed within nine DM topic areas. Brown's policy questions will be scaled separately for all DMs in which the additional list contains more than just a single

question. (The only exceptions turned out to be DM 1 and DM 3. For these, the entire set will be scaled as a secondary step.) Because there are nine essentially "different" topics, each set of graphical results will be immediately followed by an interpretation section. These nine sections, in turn, will be followed by a series of aggregate tests.

#### Discussion Memo 1

Research and development costs. The first issue to be analyzed, DM 1, concerns the proper accounting treatment for research and development (R and D) expenditures. This question touches upon a far more basic accounting dilemma: when exactly does a bona fide "asset" come into being? Large sums of money may be routinely spent on basic and applied research projects. Yet, their exact relationship to a clearly definable 'end product' is often unpredictable. Should these groundwork expenditures be deferred and capitalized, in the hope that they will eventually lead to something profitable? Or should they instead be expensed as incurred, in keeping with the principle of conservatism?

Furthermore, R and D is highly susceptible to virtual overnight obsolescence. Yesterday's highly touted

scientific breakthrough can easily be displaced by today's more modern technology. How should this be recognized in the financial statements? Separate disclosure? Guidelines for ultimate write-off? Special asset category? Some/all of the above?

R and D is therefore subject to the pervasive and often contradictory forces of three prominent accounting principles: cost, matching, and conservatism. We shall return to these issues in quite a few other forms, among them leasing and accounting for the extractive industries.

In the first part of the analysis, Brown's original four questions will be scaled. As it turns out, the independently generated list of issues contained one additional question. This will be added to the original set in a follow-up scaling, to see if it emerges as an interpretable dimension.

Figure 8 contains the point scatter which corresponds to the first pairwise combination of axes, Dimensions 1 and 2. The associated stress value is 0.0410--good-to-excellent, according to Kruskal. Subjects which plot relatively close together are grouped by contour lines. These groupings often reveal similar-interest clusterings of respondents. Also, their dispersion throughout the surface may yield clues as to

the interpretability of their underlying dimensions.

The contours identified in Figure 8 contain several notable groupings. Perhaps the most prominent of these is located in the northeast (first) quadrant. Here we see the FASB overlapping with three accounting subjects: the Big 8 firms of Touche Ross and Peat Marwick, as well as the American Institute of Certified Public Accountants (AICPA). Note that all of these points have coordinate values of (0.495, 0.646). In addition, three corporate subjects plot in the exact same position: Eli Lilly, Masonite, and International Harvester. In relatively close proximity, we find the National Association of Accountants (NAA). Thus, this is a tight but heterogeneous cluster, made up of roughly equal numbers of accounting and non-accounting subjects.

To its south, we can observe a second overlapping contingent of points. Six respondents share the (0.752, -0.328) spot: Arthur Andersen, Price Waterhouse, Coopers and Lybrand, the Financial Executives Institute, Edison Electric and G.D.Searle. The outer contour contains one accounting and one corporate subject: Haskins and Sells and Rockwell, respectively. This cluster, though somewhat larger than the first, appears to be nearly as mixed in terms of subjects' affiliations.

The subjects in the left half of the space, in contrast, are fewer in number and more scattered. Quadrant 3 contains one overlapping corporate pair: Marriott and Trans America. Directly above it we see the assorted trio of Arthur Young, the American Accounting Association (AAA), and TRW. (No coincident points may be found in the fourth quadrant.)

What can such heterogeneous clusterings tell us about alignment on policy issues? Subjects' opinions evidently did not split along lines of affiliation. That is, there are at least three distinct subgroups in this sample: Big-8 accounting firms; professional financial reporting societies; and industrial representatives. Yet, most clusters contained a balanced mix of all these types. Note, for example, that three of the four quadrants contained at least two of the Big 8. The professional reporting associations, too, are scattered throughout all four quadrants.

This results differs from one of Brown's key findings with respect to DM 1. Recall that he discovered a clear accounting/non-accounting separation along the horizontal axis of his two-dimensional solution. The same cannot be said of this study, as the above comments illustrate.



Now that the overall scatter has been evaluated, can anything be said about the dimensions themselves? Which issue(s) appear to underlie the separation of respondents which has been observed?

A glance at the space reveals that the vertical axis (Dimension 2) provides the greater spread. Inland Steel and Ernst and Ernst are extreme values in the bottom portion of the map. Directly opposite subjects at the other end include A.T. and T., 3M, and the FASB cluster noted earlier. The objective, then, is to identify the question(s), if any, on which these two camps took diametrically opposed positions.

As it turns out, this axis seems to capture the very first policy issue. It asks whether the FASB ought to be content with very broad guidelines for R and D, as opposed to prescribing piecemeal, per-industry rulings.

Those subjects who favored broad guidelines cited the virtually limitless types of R and D outlays which could occur. According to them, it would be impossible for the Board to come up with an exhaustive catalog of all such possibilities. In their opinion, there ought to be room for the exercise of individual judgment. General rules should suffice for this purpose, and above all should promote consistency in expense classification (a goal

repeatedly cited by the Big 8). Subjects who answered "yes" to this question include A.T. and T., 3M, Eli Lilly, Touche Ross, and the AICPA. Note that all these points appear in the top half of the space.

However, the letter of Inland Steel stands out in marked contrast from the rest. It called for the development of explicit, industry-specific guidelines. Though admittedly time-consuming, this approach above all others helps insure consistency among company statements. But just as importantly, such detailed rules would provide sorely needed guidance to industries struggling to comply with reporting rules. Broad guidelines, on the other hand, could be too vague to apply easily. As can be seen, Inland Steel occupies an extreme position in the bottom half of the space.

Another subject plotting in close proximity is the Big-8 firm of Ernst and Ernst. In its letter, it cautioned that the setting of guidelines inevitably touches off a conflict between flexibility and possible loss of credibility to the profession. That is, general guidelines do permit individual discretion, as noted earlier. Yet by implicitly tolerating too many alternative ways of reporting, the ability of the policy-making body to make rules is called into question.

Though Ernst and Ernst grudgingly acknowledged the impracticality of too many individual rules, its position is far less extreme than that of its accounting colleagues.

Recall the FASB's position in the top half of the space. It clusters along with certain accounting and industrial subjects who voted for general guidelines. As it turned out, the Board ended up agreeing that broad rules would suffice. Paragraph 8 of Statement 2 ("Accounting for Research and Development Costs") sets forth all-encompassing, abstract definitions of both "research" and "development" activities. (Examples of each are also provided for purely illustrative purposes.) This explains the FASB's plot with respect to the vertical axis.

The next pairwise space depicts the same sort of heterogeneous clusters. In this map, Dimension 3 appears as the y-axis. Once again, we find several overlapping groups which contain both accounting and industrial subjects (Quadrants 1 and 2). In fact, the cluster which is just to the right of the origin contains half of all the Big-8 firms, as well as the AICPA and the FASB. But, as before, these accounting subjects are joined by corporate colleagues: Masonite, Eli Lilly, and

International Harvester, in this case. The same mixing characterizes the other contours identified on the map. Thus, this pairwise-axis scatter also fails to reveal Brown's hypothesized accounting/non-accounting subdivision of the space.

Although both axes provided reasonably good spread in this case, no additional policy issues were discernible as underlying dimensions. The vertical axis seems to be a nothing more than a rotated version of the "guidelines" question--especially since Inland Steel once more emerges as an extremist.

At this point, a second difference with respect to Brown's results needs to be noted. Brown identified another issue as a dimension: the rather pivotal question of whether R and D costs should be expensed as incurred. However, this question failed to emerge in the present analysis.

The reason for this is relatively straightforward: the issue was simply not "controversial" in terms of MDS. That is, every single respondent said either "yes" or "maybe" (my special "neutral" category). No one supported unequivocal capitalization; thus, not a single "no" response was coded. As a result, the issue did not provide enough inter-subject separation to constitute an

axis in its own right.

Despite its apparent lack of statistical import, this central accounting question will be briefly discussed. A few common themes were evident in the letters of subjects who favored immediate expensing. They focused on the notion of "future economic benefits," a theoretical prerequisite to asset recognition. At the time many R and D outlays occur, it is simply impossible to tell whether or not they will eventually culminate in a usable product or service. Under such circumstances, the principle of conservatism dictates that these outlays should be treated as "period costs"; e.g., written off.

Another way to look at the argument is in terms of the desirable accounting goals of comparability and consistency. Attempting to forecast the ultimate success of basic, generalized R and D outlays results in unreliable and subjective estimates at best. Given the variety of ways in which such projections might be made, the financial statements of different companies in the same industry might not be directly comparable. But by narrowing down the possible choices of accounting treatment (in the case of expensing, to just one alternative), users may have much more confidence in the process of evaluating one set of financial results against

another. An important source of "noise," or variability, has in effect been partialled out. Better (that is, more internally valid) financial decisions could well result.

Some accounting and corporate respondents became a bit paranoid about one hypothetical side effect of a capitalization policy. They noted that current tax law allows deductibility of R and D expenditures. But if the FASB were to allow deferral instead, they feared that tax accounting would soon follow suit by disallowing this lucrative deduction. The end result, in their opinion, would surely be a drastic cutback in research activities; and, therefore, a slowdown in technological advances.

Other respondents, while agreeing with the above arguments, also thought there were situations which clearly called for cost deferral. They supported a "selective capitalization" policy for outlays which were clearly linked to identifiable products, services, and/or customers' orders. Several of the Big 8 recommended classification of such costs in the balance sheet as "deferred charges" with periodic amortization to cost of goods sold. The Financial Executives Institute cited "engineering development charges" as one example of inventoriable claims, while Trans America mentioned start-up costs. The latter subject suggested that

deferral would also be more in line with product management activities. That is, pricing policies would be more likely to include an adequate cushion of return on investment if such necessary outlays did not "disappear" from the divisional contribution-margin reports via a one-shot write-off.

The FASB weighed these opinions but opted for the conservative and expedient approach. Paragraph 12 of Statement 2 requires that R and D costs be expensed as incurred.

The last two of Brown's questions likewise failed to generate much controversy. The first asked whether R and D should include only direct costs. Subjects were virtually unanimous in suggesting that R and D also include a "reasonable allocation" of such traceable indirect charges as factory overhead. Precedent was apparently on their minds: they reminded the FASB that such practice is followed in cost accounting for inventory. However, nearly all were opposed to the allocation of general and administrative charges. As Coopers and Lybrand put it, current generally accepted accounting principles (GAAP) do not provide sufficient guidance to overcome the arbitrariness of such allocations. Furthermore, these costs were typically

reported as a lump sum, rather than being broken down, in conventional reporting by segments (an issue to be discussed in more detail in the analysis of DM 5). Therefore, they should not be commingled with R and D, in the interests of sheer consistency. The FASB wholeheartedly agreed and approved the inclusion of only direct and prorated indirect costs.

The remaining policy issue produced a similar consensus of opinion. It asked whether R and D should be separately disclosed in the financial statement.

All the accounting subjects favored not just separate disclosure, but also its segregation into capitalized (if permitted) and expensed subtotals. A number of subjects referred specifically to the existing disclosure criteria set forth in APB No. 22, suggesting that they also be extended to R and D. If feasible, outlays should be reported per product line or project.

A few corporate subjects chose to address only the capitalize-vs.-expense issue in their letters of comment. Thus, they omitted the secondary issue of mode of disclosure. However, those which did address the latter basically reiterated the above suggestions. They did not agree on the precise nature of the disclosure. Their comments ranged from separate line item (if total is



material), all the way to simple footnoting.

Only one special-interest respondent hedged its opinion on this issue. General Mills felt that the decision to disclose R and D outlays should be left entirely to management's discretion. Its reason: "competitive advantage" might be lost if the company were compelled to give detailed descriptions of its R and D activities. (This particular argument cropped up much more frequently with respect to segment disclosures, however. This will be elaborated in the forthcoming analysis of DM 5.)

The FASB stated that R and D disclosures are to be made for each reporting period. These of course refer to expensed amounts, as deferral was not permitted by Statement 2.

Thus far, the scaling of Brown's questions has produced a couple of significant results. The question on policy guidelines for research and development costs provided the best separation among respondents. We also noted the emergence of some highly concentrated, yet quite heterogeneous, clusters. Accounting firms, reporting societies, and industrial subjects were rather uniformly scattered throughout the perceptual spaces which were examined. The FASB appeared to group with such mixed

clusters in all cases. That is, it showed no propensity to side with any one subgroup over the rest for this issue.

The extra policy list contained one additional, somewhat hypothetical, question. It asks whether capitalized R and D costs should in effect be treated in the exact manner as other long-lived assets, and therefore periodically amortized. Because there was only one additional question, and because the original set produced relatively little issue-by-issue separation, the entire set will be scaled as a follow-up step.

Turning now to the first sub-space (Dimension 2 vs. Dimension 1, Figure 10), several distinguishing observations can be made about the point scatter. For one thing, the overlapping-point clusters are a bit smaller, more numerous, and more separated than before. Perhaps more importantly, these mini-clusters are slightly more homogeneous as well.

The trio in the northeast corner, for instance, is entirely corporate in nature. Eli Lilly, Masonite and International Harvester all share the (0.840, 0.921) coordinate position. The central set of contours jointly contains six accounting-oriented subjects (including professional societies), as well as the FASB. Rockwell

and Edison Electric are the sole representatives from industry. Immediately to its left, we see a trio of Big-8 firms overlapping with G.D. Searle in the (-0.751, 0.363) spot. The duo of Trans America and Marriott plots directly on the y-axis. About the only truly "heterogeneous" cluster is the rather spread-out grouping found in Quadrant 2.

The horizontal axis (Dimension 1) seems to capture the question of whether deferred R and D charges should be systematically amortized. Though admittedly hypothetical in nature, this scenario in effect gently reminds the subjects of the reporting burdens associated with deferral. Chief among them is the necessity of coming up with a 'logical and reasonable' amortization schedule which 'properly' matches expired asset costs to their associated distinct time periods. As with other intangible assets, it is no easy matter to do this.

All the Big-8 firms, as well as Inland Steel, answered "yes" to this question. In fact, most of them took this opportunity to reiterate their previous positions against arbitrary capitalization. They referred generally to the existence of future economic benefits and/or linkage to a specific productive output as prerequisites for R and D deferral.

Many of these respondents simply advised the "use of the matching principle" in their letters, without being more specific. However, a few of them produced more concrete examples as to how it should be implemented. Price Waterhouse suggested "volume of products manufactured or services offered" as a base, akin to units-of-output depreciation for plant assets. The AICPA advised making an estimate of the useful life of the end-result of the R and D expenditure; e.g., an improved machine or perhaps a patent.

But perhaps the most futuristic approach came from Peat Marwick. It rejected unitized methods, such as the two above, as ignoring the time value of money. Instead, it proposed estimating the present value of future cash inflows expected to result from technological advances. The associated R and D costs should be periodically written down by some fraction of the remaining unamortized balance, divided by the total present value of cash flows. (The latter should, of course, be updated as estimates are revised.)

Obviously, this suggestion digs deeper than the mere classification of R and D expenditures. Peat Marwick appears instead to be challenging the unit of measure used in the financial statements, particularly the

appropriateness of historical-cost dollars. (This issue will be examined more fully in the analysis of DM 2: "General Price Level Changes.")

Despite their advocacy of amortization plans for deferred R and D charges, most respondents also urged immediate write-off of such costs upon obsolescence. This makes sense in terms of both the matching and conservatism principles, for at such a point, no future economic benefits are expected. All of these subjects can be found in the left-hand side of the space.

They are balanced, however, by some "no" votes. Among the latter we find Eli Lilly, 3M, International Harvester, and Masonite--all of whom plot in the right half of the map.

A couple of these "no's" are simply an echo of the blanket opposition to deferral mentioned before: most notably, Masonite and International Harvester. In fact, the latter respondent referred to the difficulty in having auditors certify such deferrals and write-offs. 3M specifically mentioned the practical difficulty in matching costs to benefits precisely. It also re-expressed its fear of losing the R and D tax deduction because of a possible FASB approval of deferral. Eli Lilly agreed that amortization schedules for such

intangibles would probably be arbitrary at best.

As noted before, the FASB effectively sidestepped this whole thorny issue by requiring expensing across the board. This explains its somewhat middle position with respect to the x-axis.

At long last, one of Brown's key results emerges with respect to the next pair of axes. Figure 11 shows Dimension 3 vs. Dimension 1.

An accounting-to-industry separation is somewhat discernible in scanning this space from left to right. Note, for example, that five of the Big-8 firms cluster together in the central contour on the left. Three professional societies may also be found in the left half. In contrast, it contains only three corporate subjects. But the right side appears to be composed mainly of industrial representatives. The only exceptions are two professional societies (the Financial Analysts Federation and the American Accounting Association), plus the sole accounting firm of Arthur Young. While the FASB is also in the right half of the map, it is very near the origin (x-coordinate value of 0.141). Thus, there appears to be a common-interest type of continuum.

The analysis of DM 1 may be summarized in the following manner. Initial scaling of Brown's questions

produced tight but heterogeneous subject clusters. No common-interest segregation was evident, either in the groupings themselves or their relative positions on the maps.

A second indicator of this mix of respondents is their relatively close agreement on most of Brown's questions. The only issue to yield graphically significant separation was the question of scope of R and D guidelines. Even here, however, only two subjects (one from accounting and the other from industry) differed noticeably from the rest of the sample.

The key accounting question of whether R and D should be expensed did not emerge as a distinct dimension, unlike Brown's results. The present study utilizes a more refined categorical coding scheme (a distinct neutral category). This may explain the difference, as most respondents had mixed opinions on this particular issue. They either favored capitalization only under certain well-defined conditions, or not at all. As a result, inter-subject distances on this question were relatively small or nonexistent.

One additional policy issue was coded in the second phase of the analysis. It dealt with the desirability of amortizing deferred R and D charges. This issue was

discernible as an MDS dimension, as was just shown. In one sense, it taps a facet of the pivotal capitalize-vs.-expense question above. This is because it deals with the follow-up disposition of those R and D costs which are not immediately written off. Indeed, quite a few respondents reinterpreted the broader issue at this point, in particular those who answered "no."

Finally, the expanded set of issues produced slightly less concentrated but more homogeneous respondent groupings. An accounting/industry separation of one particular sub-space was also identified.

#### Discussion Memo 2

Accounting for general price level changes. The analysis of Discussion Memo 2 ("General Price Level Changes") will be done in three phases. In the first two parts, Brown's original policy questions will be analyzed. A distinct ambiguity in the first (and perhaps most basic) of these questions will be identified. This problem will be linked to the rather marginal fit obtained in Part One. While purely mathematical measures to improve the fit are taken in Part Two, the fundamental theoretical confusion in this policy question of course remains unresolved. Lastly, the analysis will be re-run using a more precise wording of



this basic policy issue. The results show not only an improvement in stress over the Brown list, but a clearer interpretation of the map in terms of this question as well.

A "fair" level of stress (0.1173) is attained in three dimensions. While certainly acceptable, this fit is notably worse than its three-dimensional counterpart in Discussion Memo 1 (0.0679).

What can account for this problem? For one thing, a greater number of policy issues were scaled for the general price level Discussion Memo than for research and development costs (seven vs. four, respectively). This is entirely appropriate, given the nature of the two topic areas. Certainly, the impact of inflation on the purchasing power of the dollar is a more pervasive issue than the proper disposition of research costs. As a result, the problem of reporting for general price level changes invariably generates more controversy from a wider cross-section of respondents.

The basic difficulty, however, is compounded by Brown's very first policy issue. The exact wording of this question is as follows: "Should reporting of the effects of general price level changes be required as supplemental information to the conventional

historical-cost financial statements?"

This question is not only premature; it confounds two distinct financial-reporting issues as well. For one thing, it seems meaningless to ask constituents what form general price level (GPL) accounting should take, before asking them if they would find such accounting information useful to begin with. Indeed, several letter-writers commented on this very problem. It also resulted in a coding dilemma. That is, a handful of subjects who for various reasons stated that GPL information was "not useful" (to be discussed later) simply ignored the balance of Brown's questions. (This was especially true of the special-interest sub-sample.) This plethora of missing values further contributed to the mediocre fit. However, the three-dimensional solution did produce some interesting outcomes and so will be briefly discussed.

Finally, the question, as originally stated, seems to be addressing two different policy questions; e.g.,

1. Should GPL information be required?
2. Should GPL disclosures, if required, be supplementary in nature (as opposed to integrated into the body of the financial statements)?

An examination of the letters of comment revealed that responses varied widely, depending on the way in which subjects interpreted this question. Adding this to

the above "usefulness" dilemma, it is easy to see how the hodgepodge of answers could become incomparable.

The vertical axis of Figure 12 (Dimension 2) contains the FASB at one extreme, and two financial-reporting-oriented respondents (Touche Ross and the Financial Executives Institute) at the other. This dimension seems to capture the question of whether GPL reporting should apply to all entities. Both Touche Ross and the FEI felt that inflation adjustments must be made by all preparers of financial statements. The FASB, however, restricted the reporting requirement to public enterprises meeting certain rigid "size" tests with respect to property, plant, and equipment or other assets (see Statement 33). Three years later, in Statement 54, the Board also specifically exempted investment companies from the GPL reporting requirement.

Other special-interest subjects proposed their own restrictions for GPL reporting. These include SEC filers; non-government entities; and those companies which are not closely held.

The National Association of Accountants, in contrast, chose to express no opinion, as its task force was deadlocked on the entire issue. This corresponds to its dead-center position on the y-axis.

Do the clusters of respondents themselves possess any distinct patterns? The horizontal axis (Dimension 1) of Figure 13 reveals a noteworthy grouping similar to Brown's. Note that the left-hand cluster contains six of the Big-8 accounting firms, along with two professional societies (the AICPA and the American Accounting Association).

The only private-industry respondent in this grouping is Commonwealth Edison. In contrast, its mirror-image right-hand cluster is comprised of seven corporate subjects, plus one Big-8 respondent (Touche Ross). Also in close proximity, and near the origin, we see the FASB and the National Association of Accountants.

These results parallel Brown's recurrent attestor-preparer clusters, respectively. Furthermore, the FASB-NAA proximity supports his theory that the Board is likely to reflect the supposedly user-oriented preferences of this professional organization. (Note, in general, the preponderance of corporate members in the NAA.) A somewhat similar pattern of separation--perhaps not as clear-cut--can be seen on the horizontal dimension of Figure 12.

Unfortunately, though, this dimension eludes the distinct interpretability of the axis which was just

discussed. Recall that the rather borderline stress of the three-dimensional fit is a hint of a poor correspondence between proximities and fitted distances. This may be due to the inherent ambiguity in Brown's first question, as was discussed earlier. Subjects essentially interpreted this question in one of three alternative ways; thus, the response patterns themselves were equally diverse. As a third and final step, this question will be disaggregated into these three components, and the letters re-coded.

However, before overhauling Brown's policy list in this manner, a simpler mathematical remedy will be attempted. Recall that goodness of fit should increase with the number of dimensions retained. Would an additional dimension provide a more interpretable scatter of inter-respondent distances?

The stress value is nearly halved (0.1174 to 0.0683) when a fourth axis is retained. The fit is now within Kruskal's "good" range. This solution will be examined to see if it yields any additional insights.

In fact, the vertical axis in Figure 14 taps an important question in GPL implementation: the "proper" choice of inflation index to be applied to the historical-cost accounting figures. Touche Ross (top half

of the space) favored the Gross National Product (GNP) deflator, as did a number of other respondents. Primarily, it was perceived as a familiar, commonly used index of U.S. macro-economic activity.

However, the broad-based nature of the GNP Deflator proved to be both a blessing and a curse. The copious "market-basket" assortment of goods and services included in its calculation makes it appropriate for a wide variety of U.S. businesses. This dovetails nicely with the accounting principle of comparability in financial-statement analysis. Diverse businesses can be more readily evaluated side-by-side if their statements have been adjusted by the same all-purpose index.

On the other hand, there is a clear danger in "over-averaging" such as that used to generate the GNP Deflator. Specific price movements can, in effect, cancel each other out in the process of arriving at the net adjustment for inflation. Yet it is just such "micro" price movements which might be of primary interest to users of financial statements, especially if they are contained within specific industries and do not move lockstep with the general level of prices. This "averaging" problem, by definition, plagues all price indices to a greater or lesser degree, naturally. In any

event, some respondents which opposed the GNP Deflator also argued for the desirability of alternative forms of reporting, such as "current value" or "replacement cost."

The FASB's "outlier" position (bottom portion of the vertical axis in Figure 14) may be explained by its outright rejection of the GNP Deflator. In Statement 33, it required the use of the Consumer Price Index for Urban Consumers (CPI-C). And recognizing the growing multinational nature of many corporate entities, it established separate adjustment procedures in Statement 70 for those foreign-based operations whose functional currency happens to be something other than the U.S. dollar. (More on this issue in the discussion of DM 3: Foreign Currency Translation.)

A few final comments about the composition of the clusters are in order. The right-most cluster contains four of the Big-8 accounting firms, with a fifth (Arthur Young) in close proximity. Adjacent to this is a trio of private-industry respondents: A.T. and T., Rockwell, and Gulf. And a fourth, Commonwealth Edison, is once again close by. Two overlapping subjects in the second quadrant are Texaco and the Financial Analysts Federation. A more homogeneous pairing in the upper right is Peat Marwick (a Big-8 firm) and the AICPA. Once again, NAA lies near the

origin; recall its abstention from comment due to a divided task force.

Any evidence of an "attestor-preparer" dimension appears somewhat weaker in this solution. Each quadrant contains at least one Big-8 firm and/or financial society. Also, the respondents are far more scattered than they were in Figure 13.

In like manner, a search for similar-industry groupings among the special-interest respondents proved fruitless. The four oil-company subjects (Gulf, Continental, Standard Oil, and Texaco), for instance, are widely separated on both axes. The sole academic respondent (Alfred University, drawn at random) appears equi-distant from the two accounting and industrial clusters in the lower right quadrant.

A last-ditch effort to uncover separation on Brown's first question at last paid off in Figure 15 (horizontal axis). At one end we find the pairwise groupings of four private-industry respondents (Inland Steel with Continental Oil, and Gillette with Masonite); at the other, two Big-8 respondents (Coopers and Lybrand and Arthur Young). The four corporate subjects all answered "no" to Brown's question (on whether GPL supplementary information should be required); the two accounting firms



responded in the affirmative.

Again, however, we are at a loss to uncover the subjects' underlying interpretations of this rather all-inclusive question. Do they find GPL disclosures useful in general? Perhaps more importantly, do the benefits of GPL exceed its costs? (It is entirely possible for information such as GPL to be desired, yet not produced, for it is simply not cost-effective to do so.) Should the FASB issue a requirement with respect to GPL reporting? And, if so, would supplementary GPL disclosures suffice?

In order to assess the salience of these fundamental issues to special-interest constituents, their responses to these four sub-component questions were separately scaled. The results of this final phase of analysis reveal not only improved fit statistics, but a much clearer picture of their GPL opinions as well.

The elbow curve for these refined questions shows better (lower) stress values than those of Brown's original list, beyond the one-dimensional scaling. In fact, we now attain about the same fit in three dimensions (0.0702) that Brown's questions took four dimensions to reach (0.0683). Therefore, simply in terms of parsimony (same fit--smaller space), these amended issues provide

the better solution. On the other hand, the four-dimensional solution slices the stress value down to 0.0354-- comfortably within Kruskal's "good-to -excellent" range. This solution will now be discussed.

Granted, overall fits are one thing....but is that catch-all question of Brown's more specifically interpretable now as well? According to Figure 16, the answer is yes. A look at the horizontal axis reveals one Big-8 subject (Touche Ross) diametrically opposed to a right-hand cluster containing Peat Marwick, Inland Steel, and Gulf. Closer inspection of subjects' letters of comment suggests that this is in fact the "usefulness" dimension.

Touche Ross felt that adjustments for the general level of prices provides little information for cash-flow prediction--a critical reason why users analyze financial statements in the first place. "Force of habit" is a powerful deterrent to change as well. Gillette labelled GPL as too confusing a departure from conventional historical-cost accounting. Arthur Andersen pointed out that lack of user enthusiasm in the past might simply reflect the scarce availability of these types of special disclosures.

NAA once again did not express an opinion on this issue. Another professional society (FAF) noted with alarm the accelerating rate of inflation in the U.S. during the early '70's and conceded that some sort of GPL adjustment would eventually need to be made. FAF also suggested, however, that before a final pronouncement is issued, the FASB ought to commission a study of the effects of inflation on stock prices and profitability for those companies which are either capital-intensive or have slow inventory turnover. Eli Lilly urged further studies of user needs with respect to GPL disclosures--more specifically, its effects on financial decisions and especially the 'costs' of misuse through user confusion about what these numbers really mean. (Typically, the most frequently cited misinterpretation of GPL adjustments is in mistaking them for indicators of value --e.g., "current cost" or "replacement cost".) This "undecided" cluster appears just to the right of the origin.

The hard-core advocates of GPL usefulness generally stress the way in which inflation distorts conventional historical-dollar amounts. The statements, in effect, contain a jumble of assets purchased at different times and, thus, different 'real' prices. Corporate performance over time is obscured by the confounding element of change

in the overall price level. As Gulf Oil (a member of this affirmative cluster) points out, GPL adjustment better standardizes the "true" unit of measure. It also enables users of financial statements to make better-informed capital budgeting decisions. Lastly, managers can assess the impact of price-level movements on divisional product performance.

How can the FASB's position on the "usefulness" issue be characterized? In Statement 33, it acknowledged the impact of changing prices on such key user concerns as cash-flow assessment, enterprise profit performance, and capital maintenance. Nonetheless, in the very same document it reaffirmed its basic belief that the financial statements should continue to be prepared on a historical-cost basis. The FASB cited the independent verifiability of historical-dollar totals, as well as the fact that such amounts usually result from "arms'-length" bargaining processes between buyers and sellers. Finally, it acknowledged the argument cited by some respondents, concerning user familiarity with historical costs.

As a result, the FASB's position can best be described as "neutral." The Board eventually settled these issues through the limited disclosures described earlier. Furthermore, in Statement 39, it expressed some misgivings

relative to the usefulness of GPL disclosures in the oil and gas industry. The exemption awarded to investment companies has already been noted. However, disclosures remain mandated for companies meeting the "size" tests listed in Statement 33. All this is graphically indicated by its generally middle position (but in the positive half) on the "usefulness" dimension.

The only other significant dimension to emerge is the "should GPL be required" issue. (This was already discussed in the analysis of Brown's original questions; please refer back to Figure 12 and the accompanying narrative.)

How, then, can these results be summarized? Respondents to DM 2 are primarily concerned with the underlying usefulness of GPL disclosures. A second, related area of interest is whether such disclosures should apply across the board to all entities. The form of such disclosures (supplemental vs. integrated) is apparently not as important, since it did not emerge as a significant dimension in any of the three scalings. Similarly, the cost-benefit issue did not generate notable controversy when separately examined.

In the original analysis (Brown's questions), an issue of GPL implementation emerged: the proper choice of

adjusting index. The FASB ended up taking a position which was diametrically opposed to that of all the sample respondents; its outlier status was uncovered and explained.

Lastly, an attestor-preparer dimension was discernible in Brown's initial (and somewhat marginal) three-dimensional solution. However, the underlying basis for this separation was not readily interpretable. Moreover, the attestor-preparer clustering was not as evident in both the improved-fit (four-dimensional) solution and the disaggregated-issue scaling.

### Discussion Memo 3

Accounting for foreign currency translation. The foreign currency translation issue, which will be analyzed next, is a fine example of policymakers' yielding to both users' wishes and economic reality. The FASB (in Statement 8) initially prescribed a laundry list of detailed (and, admittedly, often arbitrary) classifications of exactly which financial-statement items should be adjusted for changes in the exchange rate. Further, a strictly "U.S.-dollar mentality" produced problems for those companies whose foreign branches conducted all their business in some other currency. Fluctuations in the

exchange rate ended up being recognized in their current income. Yet these accounting gains and losses had no basis in the day-to-day business affairs of these foreign extensions, since they would never have occasion to deal in dollars to begin with.

The FASB substantially modified its stance with regard to both of these problems in a new pronouncement, issued six years later. Statement 52 greatly simplified reporting procedures for businesses whose "functional currency" is not the dollar. Exchange gains and losses of the type just described would not be immediately taken up into income. Rather, they would now be accumulated in a separate section of stockholders' equity and recognized only upon liquidation of the foreign component (at which point, presumably, U.S. dollars would finally change hands). The treatment of income-statement and balance-sheet items was greatly streamlined as well--all were simply converted at the current rate.

If, however, the foreign branch turned out to be little more than a 'clearinghouse' for American transactions and orders, then the "functional currency" was still actually the U.S. dollar. Under these circumstances, any changes in the exchange rate do substantially affect the operations of this branch and

must be immediately recognized. For these companies, use of the rules in Statement 8 is still required. That is, certain accounts are converted at historical rates; and the resulting exchange-rate gains and losses are taken up into income of the period.

The Board obviously became more flexible in its reconsideration of the topic area through its issuance of Statement 52. Multinational companies may now choose the rules to follow, depending on their monetary circumstances. As a result, the timing of their real gains and losses is better synchronized with reality--as opposed to being a meaningless bookkeeping convenience as before. Finally, their conversion procedures ('use current rate for all statement items') are now much easier to apply to the accounts.

Note that Statement 52 was issued two years after Brown's study. Therefore, the FASB's extracted position on his issues is expected to differ markedly, since he had to use the more rigid rules of Statement 8.

In the first step, his original set of policy issues will be scaled for the special-interest respondents. The supplementary list contains one additional question. This will be added as a second step, to see whether it emerges as a significant dimension.



For this particular DM, the four-dimensional solution will be interpreted. Its corresponding stress value is 0.0718--"fair to good", according to Kruskal's guidelines. (Brown, in contrast, chose to analyze a two-dimensional space which yielded a value of 0.2070. Note that this exceeds Kruskal's "poor" boundary.)

The horizontal axis of Figure 17 reveals several distinct groupings of respondents with inherent common interests. To begin with, the cluster in Quadrant 2 contains three of the Big-8 firms (Haskins and Sells; Peat Marwick; and Ernst and Ernst), as well as one professional association, the Financial Executives Institute. None of the corporate special-interest subjects cluster with these four respondents. Thus, it may be characterized as 'accounting/financial reporting' in nature.

A somewhat similar industrial grouping occurs in the central cluster (just at the left of the origin and below the x-axis). Three of the four oil-company subjects are within, or very close to, this cluster: Atlantic Richfield, Standard Oil of Indiana, and Texaco. The FASB appears within this cluster as well, along with the Big-8 firm of Coopers and Lybrand.

The final oil-company subject, Sun Oil, may be found in the upper-rightmost cluster. This group is notably

more diverse than the other two discussed thus far. It is composed of the sole representative of academe (Alfred University); the Big-8 firm of Price Waterhouse; and two industrial subjects, I.T. and T. and Sun Oil.

The final identifiable cluster found along Dimension 1 is almost as assorted in its content. It contains one reporting society (NAA), another Big-8 firm (Arthur Young), and a corporate subject (Dow Chemical). At its polar extreme (right side of Dimension 1), we see the AICPA plotting as an outlier and directly on this axis.

Now that a couple of similar-preference and general groupings have been identified, can Dimension 1 be interpreted in terms of any of Brown's policy questions? As it turns out, this spread is due to a rather minor implementation issue: the "proper" treatment of preferred stock. Surprisingly, this question generated a great deal of controversy in the letters of comment --far exceeding that of more basic issues, such as the "correct" choice of currency for reporting purposes, and the disposition of exchange gains and losses.

The AICPA, as well as respondents generally on the right-hand side of this axis, focused on the rather permanent nature of certain types of preferred stock. If it is not likely to be liquidated in the foreseeable

future, it essentially constitutes a non-monetary item. Therefore, they recommended translation at historical rates, in the same manner as for, say, fixed plant assets. The NAA, Arthur Young, and Dow all advised use of the current rate instead. However, none of these respondents gave reasons for their rationale in the letters of comment.

Note that the FASB plots very near to the origin, but on the 'current rate' side of Dimension 1. This may be explained by its reconsideration of the issue, as was noted earlier. In Statement 52, the Board opted for the greater convenience and simplicity of converting all balance-sheet items at current rates, for those companies with non-dollar "functional currencies." However, the old rules of Statement 8 (which required adjustment for non-convertible preferred stock) have been kept in place for multinationals whose functional currency turns out to be the U.S. dollar. As a result, the FASB became markedly more flexible with regard to both camps of opinion. This is reflected in its "balancing" position near the origin--a radical departure from Brown's results. (Recall that Statement 52 was issued several years after the completion of his study.)

One rather heterogeneous duo shows up with respect to the vertical axis: the pairing of the Financial Analysts Federation and Ford. Touche Ross and TRW comprise one extreme of this axis; General Mills, Chrysler, and Eli Lilly, the other. This dimension, however, eludes interpretation in terms of Brown's policy questions.

A glance at Figure 18 (in which the y-axis constitutes Dimension 2) reveals many of the same patterns noted in Figure 17. Note, again, the pure accounting orientation of the right-most cluster on Dimension 1. However, an interesting change involves the new proximity of "academe" (Alfred University) to this practitioners' circle.

Similarly, the negative end of the horizontal axis features the same NAA-Arthur Young-Dow Chemical trio as before. FASB also assumes its identical "balancing" position.

On the bottom portion of Dimension 2 (y-axis), we can observe in close proximity the three oil subjects which clustered together in the first space: Atlantic Richfield, Standard Oil, and Texaco. Once again, Sun Oil did not cluster with them, but rather with I. T. and T and Price Waterhouse. (A newcomer to the latter cluster is the American Accounting Association.)

Despite the spread of respondents it provides, Dimension 2 also is uninterpretable. In other words, there was no policy issue for which Coopers and Lybrand (top half, y-axis) took a position diametrically opposed to that of Atlantic Richfield and Standard Oil (bottom half).

A glance along the y-axis does provide moderate evidence of Brown's "attestor-vs.-preparer" dimension. The bottom portion of the space (negative y-values) contains only two accounting-oriented respondents, both of which are clustered in Quadrant 2: Price Waterhouse and the AAA. All the rest of the subjects in this portion of the axis are industrial special-interest respondents. The top half, in contrast, contains only four members of the latter category: Dow, Eli Lilly, Pepsi, and Ford. Symmetrically, these all appear in the fourth quadrant. The balance of subjects whose y-coordinates are positive are accounting firms and/or financial societies. As noted earlier, the FASB is nearly dead-center, the sole respondent plotting so near to the origin.

All remaining pairwise combinations of axes were similarly evaluated. However, the resulting point scatters basically replicated the results already uncovered in Figures 17 and 18; or else they turned out to

capture the same policy question (e.g., treatment of preferred stock).

The additional list of policy issues for DM 3 contained one question which was not on Brown's original list. This question is as follows: "Should the translation of accounts be affected by changes in the exchange rate subsequent to the end of a period, but prior to the issuance of the financial statements?"

Such fluctuations in the exchange rate could conceivably have a pronounced effect on net income, under the "old rules" of Statement 8. (Recall that gains and losses resulting therefrom had to be immediately taken up into income, regardless of whether the foreign branch ever dealt in U.S. dollars.) The question was thus considered relevant and worthy of inclusion in the policy list. The same respondents' letters were rescaled with respect to this question and the entire analysis was rerun.

Once again, the four-dimensional solution yielded a fit in the "fair-to-good" range. The stress value is 0.0700--virtually identical to its first-half counterpart of 0.0718.

These results yielded an unexpected twist. An additional interpretable dimension emerged which related not to this new policy question, but to a more

controversial implementation issue which was effectively masked in the original scaling.

Before revealing this "surprise" dimension, though, the additional policy question deserves some closer scrutiny. If it was indeed relevant, why did it fail to produce significant spread among the special-interest respondents?

As it turned out, there was very little substantive disagreement with regard to "post-statement-date" fluctuations in the exchange rate. The vast majority of respondents (in particular, the corporate subjects) felt that simple footnote disclosure should suffice. The Board, in fact, agreed with this position in Paragraph 34 of Statement 8; and it was not in any way amended within Statement 52. (Note also that this view corresponds to Statement of Auditing Standards No. 1, which requires disclosure of significant dollar effects, but not adjustment of the accounts themselves.)

Several of the accounting subjects cited possible extenuating (albeit rare) circumstances which would necessitate recalculation of account balances. Touche Ross, Arthur Young and the American Institute of Certified Public Accountants all mentioned the case of a foreign currency being artificially supported by central banks or

other economic agencies. If such support is abruptly discontinued, or the support rate changes sharply, then the amounts in the statements should be restated for the change.

Dow Chemical rather creatively linked the possibility of currency devaluation to the accounting issue of "future losses." In other words, prolonged severe inflation and other macroeconomic deterioration usually presages drastic remedial measures such as devaluation. That is, although the devaluation may officially occur after the closing date of the fiscal period, the economic conditions which necessitated it are properly matched to the preceding time interval--that which is covered by the financial statements. Therefore, the accounts should be restated to cover this "economic loss" in the same manner as is done for other negative contingencies. This step is in keeping with the dual accounting objectives of 'conservatism' and 'the matching principle.'

The two respondents who were most 'positive' on the issue of post-date restatement admittedly had to fall back on a rather vague benchmark concept. Chrysler advocated recalculation "if material". The Financial Analysts Federation went a step further in operationalizing materiality as "a rate change which is greater than, or



equal to, 3% ." Naturally, the arbitrariness of such cutoff points is self-evident (though, in the clear absence of a theoretical link, nothing beats a convenient rule of thumb).

To summarize, none of the respondents advocated unequivocal restatement of the accounts under these circumstances. Most opted for simple footnote disclosure...a position ultimately adopted by the FASB. Therefore, it comes as no surprise that the issue did not produce sufficient differences of opinion to emerge as a distinct MDS dimension.

Instead, the vertical axis (Dimension 4) in Figure 19 appears to capture another implementation issue. In some ways, this particular item is substantively more interesting and controversial than the treatment of preferred stock. It has to do with the "proper" conversion of deferred taxes.

Two Big-8 firms cluster together at the bottom of this axis. Both of them felt that deferred taxes should be adjusted for changes in the exchange rate. Haskins and Sells reminded the FASB that deferred taxes are generally expected to reverse. Use of the current rate would instead make them look like liabilities. Peat Marwick likewise supported use of the historical rate, since deferred taxes

are neither receivables nor payables, according to APB Opinion No.11. Therefore, they should be classified with other 'non-monetary' items, and converted accordingly. Texaco, Dow, and Sun Oil are three corporate subjects who agreed with the non-monetary nature of this item; note their positions in the same half of the space.

Chrysler, in contrast, strongly urged use of the current rate for deferred taxes. It also acknowledged the tendency of this item to reverse in future accounting periods. However, fluctuations in the exchange rate mean that the amount which is amortized to tax expense could differ markedly from the current tax expense it is meant to offset. The misleading consequence, then, is a distortion of the 'effective tax rate.'

Another corporate respondent, Eli Lilly, gave a more practical reason for its position. Since deferred taxes would most likely be settled in foreign currency, their eventual 'value' would be better approximated by use of the current rate. (Note that this rationale is, in effect, a precursor of the FASB's ultimate "functional currency" orientation.)

How can the FASB's position on this issue be characterized? Note that it appears in the top half of the y-axis. In Statement 8, it required a complex

four-way, three-tier classification scheme for the components of the deferred tax account. That portion which is both determined by the "gross change method" and does not correspond to balance-sheet items translated at current rates, is adjusted for changes in exchange rates. On the other hand, corresponding taxes calculated by the "net change method," but pertaining to assets and liabilities translated at the historical rate, are themselves translated at current rates. Likewise for the third possibility: deferred taxes pertaining to net assets translated at current.

Needless to say, the above rules are complex and unwieldy, requiring extensive disaggregation of the deferred-tax account balance. While such literal matching by account type may be theoretically sound, one may question whether any extra information is actually worth all of that trouble. The FASB ultimately opted for simplicity in Statement 52. Deferred taxes, along with all other accounts, could now simply be translated at current rates for non-dollar functional currencies. Therefore, its plot in the top half of this axis reflects the softening of its position.

Before leaving the subject of foreign currency translation, a couple of key theoretical issues will be

given a last look. The "correct" choice of reporting currency, as well as the "best" disposition of translation gains and losses, were previously identified as significant. Neither of them, however, turned out to be significant MDS dimensions. Despite their lack of purely mathematical import, these issues deserve brief mention because of their influence upon the FASB's turnaround via Statement 52.

The first policy question asked whether the currency of the parent company should be used for financial reporting purposes. Recall the implicit assumption of a "U.S.-dollar mentality" in Statement 8, even for those branches which conducted all their business in some other currency. Did respondents to the initial DM foresee the problems with this approach?

As it turns out, the comments made to this question are a veritable glimpse into the future world of Statement 52. The FASB's eventual definition of "functional currency" in this pronouncement seemed to mirror the rationale for their arguments.

To begin with, nearly all subjects basically answered "it depends," rather than taking solid yes-or-no positions. (This preponderance of "neutrals" certainly explains the lack of dimensional emergence of this issue.)

Commonly recurring suggestions for choosing the "appropriate" currency include the following:

1. where the parent company is headquartered
2. where the largest number of transactions take place
3. where most of the shareholders, creditors, and other suppliers of capital reside (especially since, as Texaco reminded the FASB, financial reporting exists for the benefit of such parties in the first place)
4. where the parent company is incorporated

It is easy to see how the FASB's eventual definition of "functional currency" evolved from these practical guidelines.

A second, related issue dealt with the proper disposition of translation gains and losses. They usually lacked economic relevance for companies whose functional currency was not the U.S. dollar. Yet, as was pointed out at the beginning of this discussion, Statement 8 mandated their inclusion in income of the period. Were these exchange adjustments misleading when included in this manner as components of 'changes in economic wealth'?

Arthur Young recognized the "bad timing" inherent in such immediate inclusion. That is, it argued that these exchange-rate adjustments pertain to assets and liabilities which are amortized over a period of time....in proper compliance with the matching principle.

Furthermore, it was concerned that users might misinterpret these amounts as changes in market value of the corresponding assets and liabilities--an echo of DM 2 and general price level reporting. Alfred University conceded that precise matching is fine in theory but would be very difficult to implement practically. Thus, direct write-off may be the more expedient solution.

Some respondents cited rather unique circumstances and/or rules of thumb to follow. Texaco would defer adjustment gains/losses under either of the following two conditions:

1. if the translation adjustment of long-term debt represents a true adjustment of the cost of borrowing
2. if the proceeds of such borrowing are used to purchase fixed assets just prior to a change in the exchange rate

Ingersoll-Rand proposed that the gain/loss ratio should be deferred only if it exceeds a specified percentage. Otherwise, it warned, there is a veritable "yo-yo" effect on net income if the exchange rate should fluctuate wildly. Income figures are often projected in the search for trends, as part of investment and credit decisions. This sort of instability obviously impairs the predictive validity of such calculations.

Interestingly enough, the opinion expressed by Atlantic Richfield most closely approximates the FASB's final ruling in Statement 52. It labelled these translation adjustments, not as gains and losses in the usual sense, but rather as "monetary corrections" to assets and liabilities. Therefore, they should not be part of net income, but instead closed out directly to retained earnings (with appropriate disclosure). And this is exactly what the FASB decided to allow, when it deferred recognition of gains and losses until liquidation of the foreign component, if its functional currency was something other than the dollar.

In summary, then, foreign currency translation is a classic example of a reversal in accounting policy-making. The FASB went from prescribing rigid, piecemeal rules (Statement 8) to a more flexible and expedient approach (Statement 52) as economic circumstances warranted. Its more "middle-of-the-road" policy emerged in the scaling. Also evident were two issues of implementation: the handling of preferred stock and deferred taxes. Respondents hedged their positions on the correct handling of translation gains and losses, rather than recommending the all-or-nothing type of approach which characterized Statement 8. However, this hedging proved to be remarkably

prophetic in terms of the Board's reversal of position. As was explained in the preceding section, they strongly urged consideration of the "true" economic operating environment of the foreign branch. Therefore, when the FASB ultimately took up this case-by-case position in Statement 52, it appeared to be an example of policy bending to constituents' preferences.

#### Discussion Memo 4

Accounting for contingencies. The area of accounting for future losses (also known as "contingencies") represents perhaps the purest embodiment of the principle of conservatism. Losses which seem imminent, but which are properly linked to transactions and events of the current period, ought to be recognized immediately. Not only is such treatment in keeping with the matching principle; it protects against painting an overly optimistic picture for readers, by not overstating net income.

Yet this issue is plagued with substantial questions of implementation. Exactly what constitutes a "reasonably probable" loss? In other words, how certain must we be of its occurrence before ascribing it to a given financial reporting period? What if its probability is high, but its expected dollar amount is difficult to pinpoint? How



should such an unstable estimate be communicated to readers of the financial statements?

This brings us to a complementary concern: what sorts of economic events may be considered "accruable future losses"? Procedures of estimation and prediction are admittedly better developed for some than for others. Actuarial science allows us to place considerable faith in the catastrophe reserves calculated by insurance companies, for instance. On the other hand, both the eventual outcome and the settlement amount of litigation may be anyone's guess. Expropriation losses by multinationals whose foreign holdings are suddenly seized are another example. The infinite number of variables in these two settings virtually guarantee highly unstable estimates at best. Yet the potentially overwhelming financial impact of such events on results of operations can hardly be denied.

The area of accounting for contingencies remains timely, even though it was one of the very first issues successfully tackled by the FASB. Statement 5, "Accounting for Contingencies," was issued in March of 1975. To this day, it remains the cornerstone ruling on accruable losses. Only four very minor modifications have been made to date. This is remarkable when compared to

the reversal of position which the FASB was forced to make for oil and gas reporting, for instance. Brown labelled future losses as the first controversial issue taken up by the FASB. This may have been so for its time; but its aftermath was nothing like the public fallout over reporting for changing prices, or the question of capitalization of long-term leases.

As it turned out, Statement 5 was relatively straightforward in both form and content. It provided a lengthy list of potentially accruable contingent events. It also clearly stated two criteria, both of which must be present for the loss to be currently accruable. A quick glance at the list of possible contingencies is enough to convince anyone of the relevance of this ten-year-old ruling. The past decade has seen countless instances of terrorism, natural disasters, overseas nationalization of properties, and staggering lawsuits. The issue is therefore worthy of inclusion in the present study.

Brown chose to analyze a two-dimensional solution with the rather poor stress value of 0.1718. The two-dimensional space of the present study would have generated a slightly better fit (0.1455). Nonetheless, an additional dimension will be added in order to reduce the stress value to a much more acceptable 0.0564.

Before going on to examine the individual pairwise spaces, one unique result must be previewed for DM 4. This is the only DM for which scaling of Brown's questions did not yield "content-identifiable" (in terms of individual issues) dimensions. However, the clusters of respondents which emerged revealed some notable patterns. (Recall, too, that in this particular application of MDS our primary objective is generation of the distances among subjects. Interpretable axes are of course desirable and interesting; but there is no guarantee that they will occur.) The pairwise maps will now be examined in greater detail.

The first two axes (Figure 20) produce a plot which replicates one of Brown's key findings but in much sharper detail--and uncovers an additional result of note. First of all, the horizontal axis provides clear evidence of an attestor-preparer dimension. The left half of the space contains all but one of the Big Eight firms. Both of the financial reporting societies (FEI and FAF) are found here as well. The only corporate exceptions are Inland Steel (which clusters with Coopers and Lybrand) and A.T. and T. In contrast, all of the remaining corporate subjects appear on the right-hand side.

But a closer look at the right side reveals a newer and even more interesting finding: a huge special-interest cluster. Every single one of the insurance companies included in the study is located in this grouping. Also plotting with them are three of their own professional associations: Insurance and Financial Analysts Society; the American Insurance Association; and the American Society of Insurance Management. (The American Academy of Actuaries, the fourth special interest association, is in extremely close proximity, near the origin. Since drawing in the iso-contours is a matter of judgment, it could easily be identified as part of this rather fluid grouping.) It is also interesting to observe that two accounting societies, the AICPA and the AAA, group with these insurance-oriented respondents.

The FASB plots in the left half of the map; that is, along with the majority of accounting respondents. However, note that these subjects are nowhere as cohesive as their special-interest counterparts; rather, they are relatively scattered in the sub-space. For this reason, the FASB cannot exactly be characterized as "clustering" with the accounting subjects.

The same sort of respondent distribution is apparent in Figure 21. This should not be too surprising, since

Dimension 1 is still the horizontal axis. However, Inland Steel has now shifted its alignment partner, from Coopers and Lybrand (Figure 20) to the FASB. Also recall that Arthur Young, Price Waterhouse, and the National Association of Accountants were "outliers" with respect to the previous vertical axis. Now, A.T. and T. and Ernst and Ernst appear as polar opposites on Dimension 3. The FASB has moved a bit closer to the origin; its vertical coordinate value is presently 0.295, as opposed to 0.619.

The remaining pairwise space finds the large, fluid cluster in a more central location. But this time its membership is noticeably greater--and much more heterogeneous as well. All of the insurance-company respondents still plot here, along with the associations identified earlier. But now they are joined by three of the Big Eight accounting firms: Price Waterhouse (formerly an outlier), Arthur Andersen, and Haskins and Sells. Furthermore, both the FEI and the FAF are now located in this cluster, as are the FASB and Inland Steel (but now these two are on opposite sides of the cluster, as opposed to their pairing in Figure 21). The only professional society (of any sort) which fails to appear in this portion of the space is NAA.

Despite careful scrutiny of the outliers on each dimension, an attempt to match their relative positions to individual policy issues was unsuccessful. Nevertheless, the letters of comment yielded certain conclusions for each of Brown's five policy issues. These will be briefly summarized.

The first question was undoubtedly the foundation of all the rest in DM 4. It asked simply whether losses should be accrued in advance of their occurrence. Most accounting respondents proposed specific lists of criteria as to when contingencies should be recognized. Not surprisingly, the theoretical duo of matching and conservatism were frequently cited. The majority of special-interest subjects, in contrast, addressed the bulk of their comments to the more specific types of losses considered in some of Brown's other questions. A couple of subjects expressed concern about the temptation to use loss accruals as an income-smoothing device. Both FAF and Standard Oil of Indiana warned against calculated "managing" of reserves; that is, over-deducting and then selectively restoring, with an eye on the bottom line.

In Paragraph 8 of Statement 5, the FASB set forth two general criteria, both of which must be in place before a loss may be accrued in advance. These may be condensed as

reasonable probability (of either a liability incurrence or an asset impairment); and estimability (of dollar amount of the loss). This FASB position can be characterized as middle-of-the-road. This is because the stated criteria are general enough to allow for considerable management discretion. (Contrast these two rules with the four criteria for lease capitalization. The latter, while not quite tamper-proof, are certainly more detailed as well as complicated.)

Three of Brown's questions went on to deal with specific types of contingencies. The first of these asked whether expropriation losses by foreign governments ought to be accrued in advance of their occurrence. The key question here seems to be: how much of such a "risk" is inherent (i.e., by definition), as opposed to excessive? The FAF was one of those who took the former position. It felt that "excessive" risk (if any) was already taken into consideration by the securities markets. Therefore, any haggling as to the form and/or timing of related disclosures was redundant at best. Texas Instruments was of the opinion that common sense should override purely statistical considerations when necessary. Granted, the relative rarity of such an event precluded the luxury of a large sample, and thus calculation of very precise,

low-variance estimators. However, some best-guess attempt should be made anyway, in the interests of avoiding misleading financial statements. As the FEI reminded the FASB, there is simply no way to avoid the use of "judgment."

Most respondents who answered "yes" to this question simply said, "It meets our criteria, as outlined in response to Question 1." A number of them suggested footnote disclosure as a possible alternative to loss accrual. One unusual dissenter was Inland Steel. It claimed that detailed revelations with respect to expropriation losses amounted to giving away too much valuable inside information to one's competitors. (This "loss of competitive advantage" argument will figure even more prominently in the analysis of DM 5, "Segment Disclosures.") If some accounting treatment must be used, said Inland Steel, "segregation of retained earnings" should suffice. Finally, as before, the majority of insurance subjects did not respond to this question.

The FASB included expropriation losses in its list of ten potentially accruable contingencies (Paragraph 4, Statement 5). Keep in mind, though, that this particular loss, along with all the others, is subject to the two criteria discussed in Question 1.



The next type of loss studied by Brown at last elicits the bulk of the insurance subjects' comments. As stated, Brown's question reads, "Should accrual of future catastrophe losses of property and casualty insurance companies be allowed in advance of their occurrence?" In general, insurance subjects felt that the actuarial sciences were sufficiently developed to allow for reliable projections and timely accruals.

One unusual theoretical argument deserves to be singled out. The American Academy of Actuaries felt that periodic accrual was in keeping with the going-concern concept. For one thing, there was a "tendency of policy-holders to renew." But more importantly, "exposure to catastrophic loss is continuous," and therefore this should be reflected by spreading recognition across time.

Accounting respondents were particularly concerned about mismatching and income smoothing. With regard to the former, Arthur Young cited actual evidence of accruing "losses" for policies not yet in existence. In a complementary vein, Peat Marwick stressed that losses must emanate from current events or operating conditions in order to be assigned properly to the given accounting period.

A number of subjects concluded that the only possible reason for such practices was, again, the desire to "manage" reported net income. But a partial deterrent to such activities was proposed, oddly enough, by the Society of Insurance and Financial Analysts. It suggested that the Board set up rigorous criteria for adding to, or subtracting from, existing reserves.

As with expropriation losses, the FASB listed "catastrophe losses" in Statement 5. In other words, they also qualify, provided they meet the two general criteria.

The final type of loss considered by Brown was "pending or threatened litigation." In general, accounting respondents stated "reasonable approximation" as a necessary precondition for accrual. However, a number of them commented on the practical difficulty of meeting this criterion in the case of litigation. A couple of subjects likened this type of contingency to provisions for self-insurance, which would be entirely reasonable in their opinion. Litigation losses once more appeared as a line item in Statement 5.

Brown's fifth and final issue is perhaps most interesting, because it is in some ways a "mirror image" of his first, most basic question. Through its two criteria in Statement 5, the FASB in effect agreed that

yes, certain losses should be accrued. But, as noted earlier, these rules are very general in nature--leaving considerable room for management discretion. Furthermore, both of them must be met in order to recognize the contingency in accounting terms.

This means, of course, that there will be potential losses which fail to meet one, or both, criteria. There could be a contingency which is virtually certain to occur, but whose expected value is highly variable. Or a loss could be pinpointed at a fairly precise (and potentially staggering) amount--yet its probability is elusive. Now suppose that both of these contingencies are firmly rooted in events of the current operating cycle. Do they warrant some sort of accounting recognition? Would outside parties be misinformed if such events are omitted from mention in the statements? In this regard, the criteria for loss recognition bring to mind the dilemma of the rules for lease capitalization. That is, are such rules enough of a "safety net?" ; or can certain economic events be slipped through as a result of clever circumvention by managers? Perhaps what we have here is a case of "letter-vs.-spirit-of-the-law." The relevant policy issue asks if accounting standards should also be set for the disclosure of non-accruable future losses.

Quite a few accounting subjects pointed out that, in fact, precedent already exists for doing so. They frequently referenced both ARB No. 50 ("Contingencies") and APB No. 43, Chapter 6. These rulings suggest that disclosures should be made as to the underlying economic events leading up to such losses, as well as their estimated effect upon reported accounting figures. Still another guiding principle, mentioned by Peat Marwick, was APB No. 22, "Disclosure of Accounting Policies." Among other things, it draws a distinction between "losses" vs. "risks" and requires "...a brief description of unusual risks assumed by the reporting entity."

However, several accounting subjects also warned of the need to distinguish carefully between normal, day-to-day operating risks, vs. unusual conditions. One must not get carried away and exaggerate the negative impact of the former.

Not surprisingly, corporate subjects were far more tolerant with respect to the form of accounting for non-accruable losses than were Big-Eight firms. The latter categorically tended to oppose appropriations of retained earnings; a couple of the former specifically mentioned that they could find nothing wrong with this treatment.

In the FASB's opinion, disclosure was definitely warranted if the loss was reasonably likely to occur, based on present circumstances. More specifically, the company needs to disclose its nature, as well as its expected value (or the range within which it is likely to occur). If a reliable estimate of its expected value cannot be made, but the loss is reasonably probable, this shall be stated. Disclosure, however, is not required if the loss is unlikely to occur. (Again, since no numerical or other such guidelines were given as to what constitutes a "reasonable probability," the determination is largely in the hands of individual managers.)

In a surprising departure from Big-Eight opinion, the FASB decided not to forbid appropriations of retained earnings for this purpose. However, such appropriation must be clearly labelled as a separate line item of stockholders' equity. Such an appropriation, though, is really nothing more than a channel of communication. It most definitely is not a "reserve," such as is set up for accruable losses. This is because the FASB went on to prohibit write-offs against this appropriation. Nor may any portions of it be transferred to net income, in the event that the non-accruable loss fails to occur.

At this point, three additional policy issues will be considered. These are primarily concerned with the impact and placement of accruable future losses within the financial statements.

The solution quickly converged to an outstanding fit. Stress of 0.0177 was attained with just three dimensions.

Once again, the MDS solutions produced a number of reasonably homogeneous clusters. Several of these are prominent in Figure 23. Quadrant 2, for instance, shows that half of the Big Eight accounting firms not only plotted together--they actually overlapped. These are Ernst and Ernst; Arthur Andersen; Arthur Young; and Touche Ross. Reading clockwise, we note the FASB and Peat Marwick pairing up as coincident points, and as relative outliers with respect to the vertical axis. Near the origin we see three insurance firms (Aetna, Traveler's, and Fireman's Fund) along with the American Insurance Association. Also located in this cluster is Searle. Directly above it is a mixed cluster containing two accounting societies (the AICPA and the AAA), as well as the American Insurance Society and Lincoln National Insurance. Finally, the top of the vertical axis reveals the accounting-oriented pair of Coopers and Lybrand and the NAA. Just to its right we can locate Texas

Instruments and the American Academy of Actuaries.

Three observations may be made about this particular point scatter. The clusters which have emerged are notably smaller than their counterparts for Brown's questions. However, they are also tighter and less fluid, since they are all composed of perfectly overlapping points. Lastly, they are slightly less homogeneous as a result. Observe that both the insurance and accounting societies are more separated than before. So too are the Big-Eight firms; the four which did not appear in the southeast cluster are relative outliers in the perceptual space.

We can also observe a weak respondent separation with respect to the y-axis. The top portion of the map appears to be dominated by professional societies and insurance firms; the bottom, by accounting firms and non-insurance-oriented corporate subjects.

Happily, the horizontal dimension turns out to be interpretable as well. It is anchored by Chrysler and A.T. and T. on the left side; and by Haskins and Sells, Standard Oil of Indiana, and the FEI on the right. The question which produced this split asks whether standards should govern the disclosure of the method of accruing future losses. That is, should the individual firm be

forced to reveal its computational formula?

Most of the accounting respondents believed that a general description of the method used, plus reconciliation of any changes in the balances of reserves, should suffice. Furthermore, they believed that adequate legislation was already in place, in the form of APB No. 22, "Disclosure of Accounting Policies." In fact, a couple of subjects believed that requiring such disclosure of accrual method was a potential deterrent to the income-smoothing behavior described earlier--at least necessary, if not quite sufficient. (The three outliers on the right side are among those who responded "yes" to this question.)

Once again, the insurance subjects were much more concerned about issues of measurement than disclosure, and opted to skip comment on this question. But an emphatic "no" came from Chrysler, A.T. and T., and Inland Steel. They cautioned that too much disclosure along these lines was again tantamount to giving away valuable inside information. Only the beginning and ending balances of the reserve account need be provided, so that the reader may calculate for himself the net change therein.

The FASB's resolution of this issue is as middle-of-the-road as its graphical position vis-a-vis the



horizontal axis. In one decidedly terse sentence in Statement 5, it acknowledged that the nature (as well as, sometimes, the amount) accrued is necessary so that the financial statements will not be misleading. No further elaboration is given by the Board.

Although the vertical axis provided excellent respondent spread, it turned out to be uninterpretable. Therefore, the next pairwise combination of axes will be examined at this point.

At first glance, Figure 24 looks like a simple rotation of its immediate predecessor. In fact, the composition of the labelled clusters is identical to those in Figure 23.

However, a subtle shift has actually occurred with respect to a few key outliers. Haskins and Sells now stands diametrically opposed to the coincident duo of Texas Instruments and the American Academy of Actuaries.

The relevant policy question is an issue of placement with respect to contingencies. It asks, "Should accrued future losses be classified as liabilities in the balance sheet (as opposed to the use of an asset-valuation account, or a special category)?"

Most accounting subjects felt that the "liability" category would be most appropriate for bona fide pending

legal claims. On the other hand, if the "loss" constituted a write-down or other sort of revaluation, then the asset category would be preferable. Commonly cited precedents for the latter treatment included the reserves for bad debts and for depreciation.

Haskins and Sells, however, rejected both alternatives as being too narrow. It advised accumulating the contingencies separately as credit balances, and then placing them in a unique category on the right-hand side of the balance sheet. In this regard, its extreme relative position in the space is justified. (Standard Oil also opted for a deferred credit.)

A rather specialized and detailed answer to this question was offered by the American Academy of Actuaries. It gave several operational definitions of what it termed "reserve liabilities." The first of these, "claim reserves," was defined as the "estimated value of future payments for death and disability." "Policy reserves" constituted the "present value of the difference between expected future costs and expected future valuation premiums." Lastly, there was to be a reserve for "deficiencies in gross premiums." Incidentally, the Academy felt that no new FASB rulings on this issue should be necessary; in its opinion, the "Audit Guide for Stock

Life Insurance Companies" already provided adequate coverage of the issue.

The FASB ended up supporting the dual treatment advocated in the accountants' positions. Such contingent events as probable tax assessments, warranty obligations, and guarantees of third-party indebtedness were to be classified as liabilities. On the other hand, certain other future losses constituted asset impairments and should be recorded as such. These include probable uncollectible receivables and asset expropriations. In both cases, however, the FASB cautioned that the amount must be "reasonably estimable" in order to earn placement in the balance sheet. This dual position essentially matches the FASB's central placement with respect to the vertical axis, as can be seen from Figure 24.

The one remaining pairwise combination of axes generated no additional information. Figure 25 reveals basically the same sorts of respondent clusters (albeit rotated) that have already been identified.

The last of the supplementary policy issues also failed to emerge as a distinct dimension. This may be due to a redundancy in content. As originally stated, the question reads, "Should accruable future losses be measured by the effect on the results of operations (both

periodic and irregular charges, as applicable)?" But the essence of this question brings to mind the matching principle. Most respondents dealt extensively with this concept in their answers to Brown's first issue (e.g., "should contingencies be accrued in advance?"). Therefore, its failure to emerge here is not too surprising or disappointing.

The results of analyzing DM 4 may be summarized in the following manner. Brown's original issues were scaled as an initial step. These had to do with the overall desirability of accruing future losses, as well as several specific, common types. An attestor-preparer dimension was clearly discernible in the sub-spaces. A cohesive cluster of insurance respondents and professional societies was also evident in the maps.

The second scaling (three additional issues) produced an excellent overall fit. Respondent clusters were now smaller, but even more cohesive, being composed in all cases of overlapping points. Many of these clusters are now slightly more heterogeneous as well (particularly with regard to the professional societies). However, some accounting firms still tended to plot together, as did insurance companies.

Two of these additional policy issues emerged as identifiable separators. They dealt with proper classification of accruable losses; and with disclosure requirements for non-accruable losses.

The area of accounting for contingencies certainly remains relevant today. Businesses continue to be faced with uncertain international political environments; natural disasters; and an exponential growth in volume of litigation, among other potentially catastrophic events. In this regard, DM 4 was almost ahead of its time. Though it was issued ten years ago, the past decade has seen numerous memorable examples of all three types of losses in the headlines. The real challenge, as pinpointed by several subjects, is to give proper recognition to such losses--without overstepping the bounds of "reasonable" conservatism. Central to their recognition, too, is the need to come up with a workable definition of just what constitutes an "unusual and catastrophic" future loss in the first place.

#### Discussion Memo 5

Financial reporting for segments. Two of the Discussion Memos talked about thus far may be labelled as "the measuring-unit problem." DM 2, on general price level

changes, dealt with the issue of a "standard" dollar yardstick whose "true" value fluctuated with inflation. And foreign currency translation (DM 3) asked whether the U.S. dollar was the appropriate denominating currency for operations whose transactions were primarily conducted in some other national monetary unit.

The main issue raised in DM 5 ("Segments") has to do not with the measuring unit, but rather with the thing being measured. In fact, it can be seen as a "level of aggregation problem." Should financial statements be prepared only on a companywide basis? Or should reporting be broken down into smaller and more homogeneous units, such as product lines? In an age of conglomerates and diversification, important information may be concealed in the summing process of the former approach. Divisional return on capital assets and product-line profitability are two prime examples which come to mind. Stellar performers need to be managed differently than long-standing cash drains. Furthermore, different items are controlled by different product managers. Company-wide results are useless in terms of relevant, timely feedback to accountable cost centers. Only a more disaggregated reporting system can adequately serve internal marketing needs.

In selecting this ideal partition of reporting, though, there is no escaping the thorny "allocation problem" first referred to in the DM 1 discussion. Certain figures, such as sales revenue, cost of goods sold and administrative outlays such as advertising, may be linked fairly reliably to specific product lines. But what about more generalized charges, such as plant insurance or fixed maintenance fees? They clearly benefit all products sold, as operations simply could not proceed otherwise. But can they be cleanly split up among these many diverse product lines? More to the point-- should they? Users might mistake them for the direct costs mentioned above if the two are commingled in the statements. Yet their omission seems to ignore the necessary incurrence of these charges....and, in effect, "overstates" product income as a result. How, then, should such disaggregated segment statements be prepared?

Brown's original questions dealt with such basic issues; they will be scaled in the first step and the results analyzed. As in the case of DM 3, the FASB later reversed its position on an issue which was not on Brown's list. This issue, along with two others, will be examined afterward.

The first two axes (Dimensions 1 and 2 in Figure 26) feature an assortment of subject groupings. The bottom cluster (third quadrant) is composed of four accounting-oriented subjects (Ernst and Ernst; Arthur Andersen; Touche Ross; and the National Association of Accountants), as well as two corporate subjects, Honeywell and L.T.V. To its northeast, we see the trio of Price Waterhouse, the American Accounting Association, and Dow Chemical.

In the top portion of the space, an equally varied group of respondents clusters on the y-axis. Texaco pairs up with the Financial Executives Institute. It is interesting to note, though, that two other petroleum subjects are in close proximity to Texaco: Mobil and Standard Oil. Masonite virtually overlaps with the AICPA, just to the left.

Now that respondent clusters have been identified, does the perceptual space give any clues as to the underlying meaning of these dimensions? As it turns out, the horizontal axis (Dimension 1) captures the most basic of these policy issues. On the extreme left-hand side, we see Procter and Gamble. Several other corporate respondents can be found in this cluster. Its counterpart in the right half is the Financial Analysts Federation,



with Peat Marwick in close proximity on the axis.

The question which produced this split asks whether financial information should be reported per segment--the 'level-of-aggregation' issue raised at the outset of this section. Procter and Gamble strongly opposed this divisional partition of the financial statements. According to them, previous studies showed that sales and profitability disclosures by segments did not result in more accurate earnings forecasts. As for external parties, P and G also demolished the widely touted belief that segment reporting was 'useful' to creditors. After all, they said, lenders of small amounts tended to base their decisions on the totality of company operations. And larger creditors were surely sophisticated enough to obtain as much product-line information as they really needed, without having to wait for accountants to "formally" supply it. (Standard Oil of Indiana concurred with this argument of negligible usefulness of disclosures.)

Other respondents who plotted in this half of the axis gave more normative reasoning against segment disclosures. Texas Instruments felt that managers should be maximizing the value of the company as a whole. Haskins and Sells also suggested that segment reporting could

erroneously lead potential investors to believe that segments are interchangeable across companies. Thus, the only logical least-common-denominator is the firm. CPC cautioned that users in general could develop a sort of tunnel vision. In other words, they might exaggerate the relative importance of section(s) of the firm, to the detriment of others. Another respondent which opposed a requirement for segment reporting is Rockwell. Note that all of these subjects can be found in the same half of the space.

There were several other notable arguments against segment reporting. A recurring theme (to be elaborated later) is the arbitrariness of cost allocation schemes--inevitable when common expenses are somehow to be divided up among distinct divisions. Related to this is the sticky problem of pricing inter-segment transfers--equally inescapable when products move from one division to another in various stages of completion. Moreover, wouldn't detailed revelations of activity per product line (i.e., revenues, advertising outlays, target markets) amount to surrendering valuable 'inside information' to potential competitors?

On the other hand, doesn't there already exist a veritable 'information overload' with respect to required

financial disclosures? Do readers really need or want yet another set of figures? Or--even if they say they do--would the purported benefits of segment reporting exceed the additional costs of its preparation? (Recall the studies cited by P and G and Standard Oil.) More importantly, can these additional disclosures be prepared and released quickly enough to be useful....or will the 'timeliness' objective fall short with yet another burdensome set of reports to be issued?

Proponents of segment reporting, in contrast, concentrate on the diversity of "pieces" comprising this companywide total. According to the Financial Analysts Federation (right-hand extreme of Dimension 1), these segments often have vastly different target markets, product growth rates, profit margins, and returns on investment. Summing over them (and thereby ignoring this variability) washes out individual effects and thus hampers cash-flow forecasts and earnings-trend projections. A.T. and T., Peat Marwick and Arthur Young agreed with the usefulness of such disaggregated disclosures. Price Waterhouse also observed that individual product-line results can run contra to overall macroeconomic activity (e.g., products at the end of their life cycles, despite upswings in consumer spending

statistics) and deserve not to be obscured. And the American Accounting Association cited a report by the Financial Analysts Federation to the Trueblood Committee. According to this study, analysts typically request segment disclosures in order to better assess relative risk patterns across product lines.

Upon weighing all the evidence, the FASB opted for a "middle-of-the-road" position, corresponding to its somewhat central location in the space. In Statement 14, it set up three distinct criteria. Those divisions which met at least one of these three tests would qualify as "reportable segments." These criteria are as follows:

1. Segment revenue greater than or equal to 10% of total enterprise revenue
2. Segment operating profit/loss greater than or equal to 10% of combined operating profit/loss of totality of segments
3. Identifiable segment assets greater than or equal to 10% of total company fixed assets

Those segments not meeting at least one of the above tests were exempted from the disclosures mandated in Statement 14. (The exact nature of these disclosures will be taken up shortly.) Therefore, the FASB's position on the issue of reporting requirements may be summed up as "It depends." Hence, the middle position.

As it turns out, the vertical axis of Figure 26 is equally interpretable. Note that Monsanto plots diametrically opposed to a cluster containing (among others) Ernst and Ernst, Touche Ross, Arthur Andersen and Honeywell. This dimension appears to be the equally broad secondary issue of whether the FASB should specify the "proper" guidelines for segmentation.

In a rather prophetic recommendation, Monsanto urged the FASB to prescribe what it called a "10% rule" for segment reporting--remarkably similar to the aforementioned tests in Statement 14. Another subject which plotted in this half, Texas Instruments, urged the Board to set rules of thumb which were both "broad" and "flexible" (it did not elaborate further).

In marked contrast, Honeywell felt that such percentage-based segmentation was entirely too arbitrary. It felt that management was in the best position to determine, in each case, just what constitutes a "reportable segment." Similarly, Price Waterhouse and Arthur Andersen stated that popular classification schemes such as Standard Industrial Classification (SIC) codes were too cut and dried and did not always reflect actual corporate subdivisions. Haskins and Sells conceded that SIC codes (but not beyond three digits) can be a helpful

first pass; but other company-specific information (e.g. ROI, rates of growth, relative risk measures) should also be used to define segments. Ernst and Ernst suggested a multiple-criterion approach, based on such "size" measures as revenue, net assets, and gross margin. All these subjects may be located in the bottom half of the y-axis.

Once again, the FASB's central location matches up with its ruling on the 'guidelines' question. In Paragraph 2 of Statement 14, it carefully weighed the pros and cons of classification schemes such as the SIC. It conceded the impossibility of prescribing one all-purpose definition of a "reportable segment," thereby recognizing the need for multiple measures as well as a healthy dose of managerial judgment. The result was the set of three criteria listed earlier.

The two policy issues discussed thus far have been rather broad-based in nature. That is, they deal with the overall desirability of segment disclosures and the FASB's duty to prescribe them. Inevitably, though, these questions give rise to more "implementational" concerns: exactly what financial information needs to be reported per segment? Should complete statements (income statement; balance sheet; statement of changes in financial position) be prepared for each individual

product line? Or will select components of these statements (e.g., net assets; sales revenue; capital-asset acquisitions) suffice? Would simple footnote disclosures of key segment events be enough?

One such implementational issue surfaces in Figure 27. A glance along the y-axis (Dimension 3) reveals several distinct clusters--and a prominent extremist too. The topmost cluster contains CPC International, Texaco, and the FEI. Just to their southeast, we see A.T. and T., Price Waterhouse, and Dow Chemical. A strictly accounting cluster lies just below, and on the x-axis: the trio of Arthur Young, Peat Marwick, and the AICPA. Near the origin we find the NAA, LTV, Ernst and Ernst, and Arthur Andersen. And in the extreme opposite (bottom half of space), we find the FASB itself.

Which question caused the Board to deviate from much of its constituency? It turns out to be the issue of requiring balance-sheet disclosures for each reportable segment. CPC, Texaco and the FEI (topmost cluster) were all strongly opposed, due to the allocation problem cited earlier. Certain fixed assets benefit more than one product or division simultaneously. Yet there may simply be no single defensible way to apportion such assets among discrete divisional balance sheets. The FASB, in

recognition of this problem, required disclosures related to "identifiable net assets" (including aggregate depreciation).

The horizontal dimension turned out to be uninterpretable in terms of any of the remaining policy issues. It should also be noted that the scatter of respondents is not clearly divisible into the "accountants-vs.-industry" sub-spaces which were evident in both Brown's work and prior DMs. Both types of subjects are pretty widely dispersed among all four quadrants.

As a final step, the perceptual spaces containing Dimension 4 were examined. However, this axis was also not readily interpretable. Furthermore, it did not yield any additional insight in terms of notable subject groupings.

Before proceeding to an analysis of the additional policy questions, some comments will be made with respect to the remaining implementational issues referred to above. A distinct continuum of opinion emerged regarding the desirability of segment information for the three different financial statements listed. Respondents mainly favored income-statement information (albeit in somewhat limited form--more elaborate discussion will follow); they



were rather mixed as to the balance sheet; and most of them opposed requirements relating to the statement of changes in financial position. Once again, the traceability of costs and revenues to segments underlined specific recommendations.

With regard to the income statement, this philosophy can be summed up in the familiar accounting label "contribution margin." That is, disclosures as to net billable sales revenues, cost of goods sold and segment-specific marketing and administrative outlays are highly desirable. Nearly all the subjects opposed any sort of attempts at cost allocation, however. As both Standard Oil and Mobil put it, the critical question to be asked is, "Would these expenses still exist, even if the division did not?" If so, it would simply be best to disclose them as a lump sum within the aggregated statements.

Perhaps the strongest 'contrary' argument came from Monsanto. It supported the SEC's recommendation of reporting "income before extraordinary items and taxes." (Note that this would require allocation of costs.) Monsanto also thought that companies which could not--or would not--report per-segment operating income should be forced to justify their non-compliance.

Cost allocation was not the only potential roadblock to a pristine derivation of "segment income." Inter-segment transfers also posed a problem, according to the two accounting professional societies. The AAA and the AICPA both noted the rather nebulous nature of this item: neither 'sales' nor 'expense' in the true sense, but necessary nonetheless. Should it be included in the computation of segment income? If so, in which category?

At a minimum, though, all subjects agreed on the desirability of disclosing sales revenue per product line. This figure is perhaps most determinable, and immune from the allocation problem as well, since pricing and sales records are readily kept for each product.

With regard to the balance sheet, the more extreme opinions have already been noted. LTV perhaps typifies the greater concern over tenuous net-asset allocations. Certain fixed assets can undoubtedly be linked directly with identifiable divisions. Yet according to LTV, such "partial asset allocations" are misleading and unrealistic. Few companies would divide up all their plant assets for self-appraisal purposes in this manner, anyway. And the resultant figures do not lead to useful indicators of overall corporate performance.

Several respondents, however, identified key balance-sheet items which (if directly traceable) could be useful to financial analysts. These include product inventories; divisional equipment (with accumulated depreciation); net current assets; and segment debt and equity. As FAF stated, these items could help explain why ROI, cash flow and earnings growth often differ markedly across product lines--even within the same conglomerate.

Thus far, we can characterize the "vote" on income-related disclosures as a "yes" (due to the overwhelming desire for revenue data in particular). And balance-sheet information, as explained above, warrants at least a "maybe." What, then, is the verdict on the last major statement: changes in financial position?

Here, the tentative nature of the responses comes disturbingly close to a "no." The most succinct reasons come from Caterpillar Tractor. It reminded the FASB that the components of the funds-flow statement, after all, emanate from activities relating to both the balance sheet (financial position) and the income statement (results of operations). Therefore, if these "parent" statements cannot themselves be entirely segmented, then neither can the statement of changes in financial position. Standard Oil also felt that the statement of changes was most

pertinent to the company as a whole. Chopping it up into segments would be a useless mathematical exercise at best.

Not surprisingly, a few respondents acknowledged the desirability of per-segment funds-flow information if "reliable," "practicable," "traceable," etc. But only two such specific items were consistently mentioned: "capital expenditures by line of business" and "working capital provided per segment."

The FASB ended up mandating disclosures from all three of these statements, however. In paragraphs 23-27 of Statement 14, it required the following information from "reportable segments":

1. aggregate revenues (with inter-segment pricing policies consistently applied and departures disclosed)
2. divisional operating profit/loss (with cost allocation schemes consistently applied and departures disclosed)
3. the aggregate amount of "identifiable divisional net assets," with disclosure of accumulated depreciation, depletion and amortization
4. acquisitions of fixed plant assets per segment during the period
5. information pertinent to investments in vertically integrated equity-method investees
6. per APB Opinion 20, the effects of a change in accounting principle upon the operating profit/loss of individual segment(s)

Other disclosures relate to the types of products/services sold. They are given in Paragraph 2 of the statement.

The Board was flexible concerning the form that these disclosures should take. They may be presented in any of the following ways (Paragraph 28):

1. as part of the financial statements themselves
2. as footnotes to these statements
3. as supplementary schedules

Now that the major issues of implementation have been examined, a trio of supplementary questions remains. The first of these concerns the desirability of additional disclosures, other than those already discussed. The second is a re-emergence of a sticky problem encountered in foreign currency translation changes which occur after the fiscal-period closing date but before the public release of the financial statements. Should segment disclosures be retroactively restated in such cases? The last issue is perhaps the most interesting, since it constitutes a complete change of heart by the FASB. A year after Statement 14 went into effect, the Board issued another pronouncement which effectively suspended its stand on this very question. The topic: interim reporting by segments.

The same subjects' letters were read for these three issues and their responses scaled. Compared to the preceding solution, Figure 28 reveals two markedly homogeneous clusters. The third quadrant contains the industrial foursome of Mobil Oil, Dow Chemical, Procter and Gamble, and Texas Instruments. Directly to the left, we can see four of the Big-8 firms (Ernst and Ernst, Peat Marwick, Touche Ross and Haskins and Sells), as well as the AICPA. Only two corporate respondents, A.T. and T. and Monsanto, plot with this group. Three other professional reporting societies (AAA, FEI and FAF) are also located in this quadrant. In fact, as we scan the perceptual space from northeast to southwest, we can observe a moderate split between accounting-oriented and industrial subjects.

But it is the vertical axis (Dimension 2) which captures the controversial policy issue of interim segment reporting. According to Caterpillar Tractor, the imposition of yet another such reporting requirement could unnecessarily delay its issuance. Since timeliness is especially crucial for the shorter fiscal periods covered by interim reports, such delays could ironically make the released figures "old news" to readers. Honeywell went a step further, in declaring that this sort of

over-disaggregated information could easily be misinterpreted. For example, excessively short reporting periods may not be representative, particularly in the case of seasonal or cyclical fluctuations in product demand.

Some accounting-oriented respondents also opposed interim segment reporting requirements. Arthur Andersen, for example, pointed to the lack of workable existing guidelines for interim reporting in general. If usable rules haven't yet been worked out for companies in the aggregate, isn't it a bit premature to impose a divisional requirement at this time? The NAA also felt that such disclosures should be left up to management's discretion.

At the opposite end of this axis, we can find three ardent supporters of interim requirements. LTV acknowledged the existence of seasonal fluctuations, but it felt that adequate disclosure could help prevent the sort of confusion alluded to by Honeywell. Standard Oil agreed that, although consolidated amounts may remain unaffected, changes in bases of segmentation or material swings in revenue/cost totals, deserve revelation immediately upon their occurrence. Masonite also supported interim segment reporting.

There was a noticeable "split" within the Big 8, pertaining to the required amount of interim segment disclosure deemed necessary. This is perhaps reflected by their dual locations (top half vs. middle) on the y-axis. For instance, both Ernst and Ernst and Peat Marwick, possibly mindful of the "timeliness" problem, thought that interim reporting was a good idea--but it should be done in a greatly condensed form. Haskins and Sells also urged summary data in the manner presented within APB 28 ("Interim Financial Reporting"). Note their position in the "mostly-accounting," right-hand-side cluster. Incidentally, the other members of this group agreed with this position. A.T. and T., Monsanto, and the AICPA all opted for limited disclosures at best.

How can the FASB's extreme position on this axis be explained? At first glance, it seems a bit surprising to find it plotting with the "no" subjects. After all, didn't it require a veritable laundry list of segment disclosures in Statement 14?

Actually, the FASB initially took a highly similar position with regard to this issue. According to Statement 14, issued in 1976, companies which prepare complete aggregate statements on an interim basis were required to include segment disclosures as well. However,



just one year later, the Board drastically altered its stand. The FASB admitted receiving numerous letters complaining that Statement 14 was much too vague. As a result, in Statement 18 the Board announced that it was suspending the interim requirement, pending completion of its own technical study of the situation. (No additional pronouncements have been issued to date.)

In like manner, the horizontal axis of Figure 29 (Dimension 1) proves to be interpretable. But first, note that the respondent split pointed out in Figure 28 is even more clearly evident here. At one extreme we find the four corporate subjects Texas Instruments, Mobil Oil, Procter and Gamble, and Dow Chemical. Located at the other end is the same predominantly accounting cluster found in Figure 28. Though there is some mixing of respondents in the middle, a distinct corporate-to-accounting trend can be seen as we move from left to right.

Which question triggered such an attestor-preparer split? It had to do with the usefulness of additional segment disclosures, other than those within the statements themselves. Accounting subjects tended to subscribe to the maxim, "more is better." On the other hand, corporate subjects saw little value beyond the

revenue and income disclosures already proposed.

Dow and P and G both believed that net sales and operating income figures should suffice. According to their letters, any additional disclosures ought to be left up to individual managers--a position also supported by Mobil. Texas simply stated that additional disclosures were unnecessary.

The accounting respondents, however, drew up veritable "wish lists" of items they would like to see reported per segment. The following is a compilation of recommendations made by the subjects on the right-hand side of this axis:

1. segmentation bases (including changes)
2. major products/services offered for sale
3. pricing policies relating to inter-segment transfer of goods
4. cost-allocation procedures
5. accounting methods used
6. unusual and infrequently occurring items
7. explanation of inventories accounted for by the equity method
8. treatment of corporate minority interests
9. material changes in the net amount of income/loss reported (especially if the bottom-line amount is the "contribution margin per segment")

In fact, the Financial Analysts Federation urged that individual segments which differ markedly from the rest should be forced to present a complete set of statements in their own right.

Throughout Statement 14, the FASB managed to mention all, or most, of the above disclosures. Recall, however, that this statement applies only to those segments meeting one or more of the three "tests" discussed at the outset. Hence, its somewhat "midpoint" plot relative to the x-axis can be explained. Furthermore, the FASB wavered on the question of whether these disclosures should be made within the statements, or outside them, as was also noted. Therefore, with regard to their form, the FASB may once again be viewed as "neutral."

The vertical axis reveals a mixed cluster in the bottom portion of the space. Price Waterhouse, Rockwell, Honeywell, and the NAA all plot here, along with the FASB. However, Dimension 3 was not directly interpretable.

How can the analysis of DM 5 be summarized? In the scaling of Brown's questions, two basic issues and one implementational issue emerged as clear separators. These had to do with the overall desirability of segment requirements; the appropriateness of FASB guidelines with regard to bases of segmentation; and the usefulness of

balance-sheet disclosures.

Three additional questions were scaled as a follow-up step. One of these, concerning interim reporting for segments, constituted a FASB turnaround. The Board did, in fact, plot with those subjects whose opinion it eventually adopted in Statement 18. With regard to the desirability of additional disclosures, however, the FASB opted for a more neutral position.

The perceptual spaces for these three issues also revealed the "preparer-attestor" split so often mentioned in Brown's work. Generally speaking, accounting-oriented subjects argued the theoretical merits of greater divisional disclosures. Corporate respondents, on the other hand, were much more likely to focus on the mechanical and interpretational problems of such additional reporting requirements.

The FASB's strategy with regard to segment disclosures is a recurrent phenomenon. That is, the Board tends to resolve such policy questions by carefully circumscribing their content and form. It set up size tests for reportable segments in Statement 14. Any division not meeting at least one of these tests was automatically exempted from the requirements. Furthermore, it permitted such information to be placed in

supplementary notes. This "compromise" approach is also evident in the areas of leasing, GPL reporting, foreign currency translation, and pension disclosures.

These findings are therefore in line with Wolk, et. al.'s observation that the FASB copes with controversial issues by allowing for some individual discretion. Not only is it expedient; it may be the only way to resolve accounting issues for such imprecise concepts as "reportable market segments." Supplying information whose limitations are made known may be preferable to not reporting it at all.

However, the possibility of information overload must always be kept in mind. Given the capabilities of data processing technology, it is admittedly tempting to crank out a veritable blizzard of figures. An infinite number of items could conceivably be reported relative to manufacturing, distribution and marketing strategies. But is all of this additional information really useful? Does most decision making boil down to just one or two key figures --which are already being supplied? Users would be paralyzed with indecision if they were forced to treat each item of disclosure as being of equal importance. More work needs to be done about such inherent "multicollinearity" in accounting information.

Discussion Memo 7

Accounting for leases. The issue of accounting for leases neatly illustrates the dilemma in following the letter vs. the spirit of the law. Lessors typically prefer to omit leases from their balance sheets. After all, they claim, they do not hold title to the leased property; therefore, it is not one of "their" assets. By this omission, of course, they deftly improve their debt ratios and rates of return on assets. By not reporting the corresponding debt obligation, they may also manage to avoid violating credit restrictions in existing debt covenants.

Opponents of this "off-balance-sheet financing" take a more liberal approach to the ownership issue. What matters most in their view is not a legalistic threshold such as passage of title. Rather, anyone who enjoys a definable stream of economic benefits from the leased property, in effect, has an "asset" which should be acknowledged (along with its corresponding debt obligation) in the financial statements.

Furthermore, proponents of the efficient markets hypothesis argue that the capital market is not fooled in the least by this sort of lease concealment. Lending institutions such as banks are well aware of the popularity of leasing, and they routinely factor its

effects into evaluation of credit applications as well as setting of borrowing restrictions. Why, then, try to hide something whose effects are known anyway?

In the first scaling, Brown's original eight questions will be examined. These have to do with treatment of various types of leases by both lessors and lessees. Several of these questions are somewhat overlapping in their content. This "multicollinearity" resulted in the emergence of fewer distinct interpretable dimensions than with other DMs. Furthermore, a large number of respondents (most notably the corporate special-interest subjects) took a very narrow, legalistic interpretation of some questions--especially the "asset-recognition issue"--thereby causing them to omit many of the secondary questions. All these factors impaired the fit and interpretability somewhat.

The supplementary policy list contained four additional questions which dealt with various types of disclosure. These are scaled separately. As will be seen, this set produced a dramatic improvement in fit; and thus more clear-cut groupings of subjects.

The most striking feature of the first map (Figure 30) is not its clusters, but rather the overall picture. The left-hand side is dominated by accounting subjects;

only two industrial respondents (3M and Sunoco) plot here. In contrast, the right half almost entirely belongs to these special-interest groups (with the exception of NAA, Price Waterhouse and Touche Ross).

Which policy issue engendered this sharp split between accounting and non-accounting subjects? It actually turns out to be two questions which seem to tap the same underlying asset-recognition issue.

Question 1 asked whether leases which are, in substance, "installment purchases" ought to be capitalized. This seems to be a question of substance vs. form. Most of the accounting respondents felt that the right to enjoy use of the leased property was certainly enough to warrant calling it an asset. Not surprisingly, though, the majority of corporate respondents opted for the narrower "who-holds-title" interpretation-- believing their financial performance was enhanced by omitting such property from their statements.

Most accounting subjects offered specific tips as to judging when a lease becomes a bona fide asset. Coopers and Lybrand felt that a "noncancellable lease term of over three years' duration" was sufficient evidence. The Financial Analysts Federation specified two different criteria. The lease term ought to extend over at least



75% of the remaining useful life of the property. Also, the terms of the lease contract should permit the lessor a complete recovery of his original investment in the property, plus a "reasonable" return on such funds. Many others cited this sort of "material equity" argument, among them the AAA and the AICPA. Peat Marwick reached back to the underlying definitions of financial statements in its opinion. It stated that, by not recording such leased property as assets, the balance sheet would fail to reflect all of the economic resources and obligations of the entity (and thereby also all significant sources of its financing).

The crux of the split between both groups is perhaps even more glaringly evident in the second policy issue. This question asks whether leases whose terms give rise to debt in the strict legal sense should be recorded as liabilities. In effect, this constitutes the mirror image of the asset-recognition question, for a corresponding equity would need to be shown.

Most accounting respondents felt this was a moot issue at best. The key question, according to them, is not the legal creation of a debt obligation, but rather the acquisition of an economic resource (e.g., use of the leased property). All such leases should be capitalized

as assets; therefore, the criterion implied by the second policy question is "necessary but not sufficient."

In contrast, the special-interest subjects hedged their responses in the direction of a legalistic interpretation. Hoover and Marriott, for instance, felt that there had to be concrete evidence of a purchase (e.g., a bill of sale) prior to equity recognition. Frontier Airlines specified yet another pre-condition: a firm option to buy, rather than lease, which had to be in effect from the start of the lease term.

International Multifoods offered perhaps the most forceful argument against balance-sheet recognition of leased properties. It pointed out the inevitable rise in debt ratios, but with the following insidious "postscript." The company might be forced to scuttle those products or divisions which derive mainly from such leased property. It might also be pushed back into the equity markets, to raise alternate financing to counteract the "pseudo-debt" of the lease. This would have an inflationary effect upon the macro-economy through pressure on interest rates. Furthermore, the company's tax burden would increase, as "corporate franchise taxes" are linked directly to total net assets held.

One accounting respondent which sided with these corporate subjects is the NAA, as depicted by its position in the right half of the space. Regarding liability recognition, NAA admitted that the readers of financial statements do bear a "social loss" if potentially predictive information is not disclosed. Yet....in an age of intricate legal liabilities, can managers be blamed for hesitating to commit to paper a figure which is not precisely determinable? After all, the "liability" would involve discounting minimum lease payments to present value. Who can say with certainty what the "appropriate" interest rate should be, given the ups and downs of the lending markets?

The remaining residual value of the property upon expiration of the lease is yet another unknown which enters into the calculations. Would it not be safer, according to the NAA, to disclose such an amount as "contingent"? Also, it felt that more work is needed on the basic conceptual framework of accounting (e.g., exactly what constitutes an "identifiable asset"), before delving into specifics such as capitalizing or not capitalizing individual items.

In Statement 13 ("Accounting for Leases"), the FASB clearly opted for the more liberal view of asset

ownership. Paragraph 7 set up four distinct tests to be applied to the acquisition of leased property. If the lessee meets even one of these tests, he is to recognize the lease as an asset (with its corresponding liability) in his financial statements. The tests are as follows:

1. The lease transfers ownership of the property to the lessee by the end of the lease term (e.g., basically the straightforward "passage-of-title" condition)
2. The lease contract awards the lessee a "bargain purchase option" on the leased property (e.g., significantly less than its fair value on the open market at the time)
3. The term of the lease extends through at least 75% of the expected economic use life of the asset (this test does not apply if the lease contract is initially entered into during the last 25% of the asset's life)
4. The present value of the total minimum lease payments, less such transitory costs as insurance, taxes, and maintenance expenses, is at least equal to 90% of the "fair value" of the property to the lessor, less any investment tax credit accruing to him (again, an exception is made for lease contracts which begin during the last quarter of the property's economic use life)

Why is this interpretation considered broader in scope? The FASB is clearly considering alternative evidence of "ownership" than the mere passage of title (Test 1). If the lessee has use of the property for a substantial portion of its expected life, then it is realizing tangible economic benefits which deserve to be acknowledged as assets (Test 3).

Similarly, the lessee might get an opportunity to buy the property at a price far below what an outsider would be expected to pay for its current value (Test 2). Why would such a price break be awarded? One possible reason is that the periodic leasing "expense," or payments, would in total substantially equal the value of the asset (Test 4).

In other words, the lessee is building up a "material equity" in the property through these large periodic payments. Wolk, Francis and Tierney (1984) pointed out that this material equity is a gradual buildup of "ownership" by the lessee, and thus as much evidence of possession as the one-shot event "passage of title."

How exactly is the leased property to be recorded? A "Leased Asset" account is debited for the aforementioned present value of minimum payments--but not exceeding the fair market value of the asset at the outset of the lease, in keeping with the principle of conservatism. However, several deductions are to be made from the present-value summation. These include the executory costs (Test 4); residual value of the property; bargain-purchase options; and any non-renewal payment penalties.

With regard to the second policy issue, the conservatism principle again shows up in the guise of the

"proper" interest rate to be used by the lessee in the discounting procedure. The FASB allowed use of the lessee's "incremental borrowing rate" in general. (Note that this is somewhat readily obtainable and verifiable, assuming that the lessee borrows for other purposes, and in other forms, in the capital markets, according to Wolk, et. al. This somewhat mitigates the argument made by International Multifoods in response to this question.) However, if the lessor's implicit interest rate is obtainable and smaller than the incremental rate, it must be used instead.

How is this "conservative"? Wolk, et. al., point out that this lower rate, when applied in the discounting process, results in a higher present value. This makes Test 4 easier to meet (or, perhaps more to the point, harder to beat!) for the lessee.

In terms of the second policy issue, one important point should be noted regarding the discharge of the liability through periodic lease payments. The FASB prescribed the use of the "effective interest method." In other words, the payment is to be split into two distinct parts: reduction of the loan itself, and recognition of interest expense thereon.

Looking now at the vertical axis (Dimension 3), we note the Financial Analysts Federation and Price Waterhouse (among others) in the bottom portion. Arthur Young, Hoover and Eastern Airlines, in contrast, have relatively large positive y-values. By far, though, the bulk of respondents (along with the FASB) are centrally located on this axis.

The question which produced this split asks whether accounting by lessees and lessors should be symmetrical. Those subjects who said "no" pointed out the limitations of such rigid absolutes in the face of extenuating circumstances. Eastern Air reminded the FASB that establishment of "ownership" is not always clear-cut. Arthur Andersen cited the case of a lease transaction which is treated as a "purchase" by the lessee. Yet, the lessor collects only a very minimal down payment, and retains what Arthur Andersen calls "significant unperformed activities" relative to this leased property. In such a case, the transaction cannot simply be handled as a clear-cut "sale/purchase." Arthur Young refers generally to "varying economic interests and risks by the various parties to a transaction." These frequently necessitate special--if sometimes asymmetrical--accounting treatment in order to reflect their nature as accurately

as possible. As Hoover neatly sums it up, symmetry is nice-- if it arises naturally. But it shouldn't be the most important consideration.

On the other hand, some subjects feel that symmetry shouldn't be too difficult to attain in its own right. The credibility of the reporting profession will suffer otherwise, according to Hoover, if marked inconsistencies are tolerated. The Financial Analysts Federation went a step further, urging that auditors insure symmetry by specifically communicating with all parties to the leasing agreement.

Not surprisingly, however, the bulk of respondents linked their answer to the more basic issue of asset recognition. In other words, they claimed that symmetry is a function of the clarity of accounting standards and definitions. If the policy-making agency can reach specific agreement on exactly when a "purchase" or "sale" occurs in the first place, then "proper" reporting will be much easier to attain.

There is one economic conflict of interests which tends to discourage symmetry in reporting between lessees and lessors, according to Wolk, et. al. The latter would enjoy better operating performance by treating the lease as a "sale", and thus reporting related revenues.



However, the lessee would much prefer not to consider the leased property as a "purchase"--and thus a capitalizable asset--for the reasons cited earlier.

Nevertheless, the FASB attempted to make the reporting of both parties as parallel as possible. The four capitalization tests of Statement 13 apply to the lessor as well. He would correspondingly recognize a receivable for the present value of total installment payments plus total residual value of the property, less the same sort of periodic maintenance fees. The lessor also is to use the effective interest method to subdivide these installment payments into reduction of the receivable and earned interest revenue.

If none of the four tests are met, the property is simply treated as an "operating lease" by both parties. This means that the transaction is nothing more than a rental. The installment payments are not capitalized as assets by the lessee in this case. Rather, they are expensed as incurred. Similarly, the lessor treats them as periodic rental income.

The FASB did not manage to close all possible avenues of deviation in recording lease agreements, though. Wolk identifies two components of the calculations which could theoretically result in different net amounts for lessees

and lessors--despite the presence of the same economic transaction. One of these, the interest rate used in the discounting of payments, was referred to earlier. While the lessor can only use his own implicit rate, the lessee must select the lower of his incremental borrowing rate and the lessor's implicit rate.

A second area of difference is in treatment of the residual value of leased property. According to the fourth capitalization test, the lessor uses the entire residual value when computing his receivable. But the lessee only adds in that portion which has been guaranteed.

Despite these departures from perfect symmetry, Statement 13 greatly standardized the conditions under which a lease is to be capitalized. Because the four tests apply to both lessee and lessor, reporting by both parties to the transaction became notably more consistent.

The next perceptual map (Figure 31) depicts an even clearer spread of accounting-vs.-non-accounting subjects (left to right, respectively). The vertical axis in this case failed to reveal either definitive clusters or conceptual interpretability.

With eight distinct policy questions scaled, why did only three emerge in the analysis? As mentioned earlier,

there is marked collinearity among these questions. A glance at Brown's list reveals that most of them deal with some aspect of capitalized leases, from both the lessee's and the lessor's viewpoints. (The complementary nature of the first and second questions--capitalization and liability recognition--was just discussed with respect to the first horizontal dimension.)

A related problem deals with the narrowness of special-interest subjects' responses to the Discussion Memo, and the resultant "missing values" for most of the remaining questions. Corporate lessees have a natural incentive to keep leased property off the balance sheet. Therefore, their overriding objective in their letters was to talk the FASB out of any notions of capitalization. In other words, they either addressed only Brown's first policy issue, or else they re-interpreted the remaining issues in this light.

Take, for example, policy issue 4. This question asks whether footnote disclosure represents a satisfactory alternative with respect to capitalization for users' information needs. Since many corporate subjects were so vehemently opposed to asset recognition, they in fact viewed footnoting as the only acceptable alternative anyway.

The accounting subjects, however, took a more literal interpretation of the question. Some of them were concerned that too-heavy reliance on footnoting once again undermined the credibility of the standard-setting agency. That is, footnote disclosure should not be used as a dumping ground for potentially useful information which accounting policy-makers otherwise don't know how to classify correctly. (This goes back to the AAA's initial recommendation to establish a solid conceptual framework as a top priority.)

Others felt that footnoting should not be viewed as the sole alternative to capitalization. Ernst and Ernst suggested that such leases could be segregated and shown below other net assets on the face of the balance sheet, in much the same manner as earnings-per-share data is separately provided on the income statement. Still, many of these respondents kept getting drawn back to the issue of asset recognition. If the balance sheet is to reflect fairly all of the company's resources and obligations, the lessee must somehow decide whether the lease fits this definition--that is, whether it constitutes an "asset." For if the answer is "yes," footnote disclosure is clearly insufficient.

Two other questions looked at leasing from the lessor's viewpoint. Question 8 asked if leases which are the equivalent of sales should be accounted for as such. In a complementary vein, Question 9 asked whether financing-type (non-sales) leases should result in profit recognition by the lessor.

Both questions resulted in numerous "skips" when coded for the corporate subjects. Again, their personal overriding concern was lease capitalization and thus they had little interest in stepping into the lessor's shoes.

The accounting subjects basically answered both questions by pointing to the same simple concept. They overwhelmingly said "yes" to the first, and "no" to the second, because in their opinion the earnings process is "reasonably complete" only for sales-type leases.

"Substance over form" was once again the catch-phrase for Question 11. It asks if leases which are "financing arrangements for the purchase of property" should be identified by the same criteria as those which constitute "sales of property." Several of the Big 8 pointed out that, in this case, the lessor effectively wears two hats: financing agent and seller. If the bulk of the risks and rewards of ownership have passed to the lessee, then in essence the transaction is a sale.

Finally, the question of accounting for leveraged leases primarily interested only the accounting subjects. This question asked whether leveraged leases warranted special accounting consideration. In retrospect, Arthur Andersen's response came closest to the ruling of the FASB. It advised disaggregating the various interests of a leveraged lease transaction, and applying existing standards to these pieces--rather than piling on yet another set of copious rulings for this situation.

Both Peat Marwick and Price Waterhouse referred specifically to the tax effects as the most distinctive aspect of leveraged leasing. The latter firm reminded the FASB that the investment tax credit is often the subject of considerable haggling among the parties. If the lessor should win its acquisition, Price Waterhouse believed that it should be deducted from total net investment in the lease. Furthermore, any cash savings from tax deferrals must be regularly accrued, rather than recognized in a lump sum as they materialize. Price Waterhouse was especially concerned with separate disclosure of tax effects, particularly cash savings, in terms of users' analysis of financial position. Above all, several subjects felt that tax effects alone should never drive optimum reporting considerations.

The independently generated list of policy issues contained four additional questions. These were separately analyzed; a detailed explanation of the results follows.

At first glance, the unannotated graph of the first two axes (Figure 32) looks downright sparse. That is, fewer than usual distinct points (letters and numbers) were initially printed out. Recall, however, that all points can be located in the space through their respective coordinate values.

This identification process revealed perhaps the highest degree of overlap--and therefore the tightest clusters--of any discussion memos thus far. Take a look at the northeast grouping in Quadrant 1 of Figure 32. For one thing, it is exclusively accounting in nature, containing half of the Big 8 as well as the AICPA. But an even more startling fact emerges from scrutiny of these respondents' coordinate values --they virtually overlap. In many cases, their x- and/or y-values are either identical or differ by thousandths of a unit of measure. This degree of homogeneity (particularly among common-interest respondents) is quite a find.

The same phenomenon is evident in the rightmost cluster on Dimension 1. Three other Big-8 subjects, as

well as the Financial Executives Institute and Hoover Corporation, once again occupy the exact same spot on the map.

An industrial grouping can be seen just to the left of the origin. International Multifoods, Howard Johnson's, A and P, Ashland Oil and Storage Technology are tightly concentrated in this group. NAA, Gulf Oil, and Touche Ross are in close proximity.

In sum, the horizontal axis separates accounting and non-accounting subjects to some degree (positive vs. near-zero values, respectively). But is this separation identifiable in terms of any additional policy issues?

Two distinct questions appear to characterize this split. Both happen to deal with lease disclosures, but under distinctly different circumstances. The first question represents the scenario which most corporate subjects would prefer--namely, keeping installment leases off the balance sheet entirely. If this were to be permitted, the question states, should disclosure of the effects on net income, had these leases been capitalized, be made anyway?

The vast majority of accounting respondents believed such dual hypothetical accounting treatment would do more harm than good. It somehow implies that the original,



within-statement treatment of leases (e.g., non-capitalization) was in essence incorrect; otherwise, why hedge one's reporting via the completely different disclosure? Not only would users of the statements be misled; the credibility of the derived net income figure (and thus of the standard-setting agency) is once more called into question. The existence of a sound conceptual framework (and particularly of "generally accepted accounting principles") should always inspire public confidence that the best and most acceptable method was used in the statements themselves. In short, you can't have it both ways; as Arthur Young so aptly put it, "As-if accounting impugns as-is accounting."

If one believes that the substance of disclosures takes precedence over their form, it should come as no surprise that several industrial respondents also opposed this sort of back-door asset recognition. Union Oil, Hoover and Marriott all referred to the aforementioned credibility problem which taints these multiway presentations. Furthermore, Sunoco felt that users would be confused, instead of enlightened, upon being swamped with such a mass of calculations.

Perhaps the most unique negative opinion came from 3M. It claimed that the sum of "depreciation plus rental

expense" (the capitalization alternative) is not readily comparable to "rental charges" (the non-capitalization alternative). For one thing, how does one offset "periodic maintenance charges" vs. the "pride of property ownership"?!

But there are also several items of difference which are all too easily overlooked at first glance. These include income-tax provisions, profit-sharing payments, and dividends declared. As a result, users could easily miscalculate the actual cash-flow implications of one method vis-a-vis the other. Note that all of these special-interest subjects plotted in the same (right) half of the space.

Despite such general opposition, there were a few respondents who thought that these alternate disclosures were a pretty good idea. Eastern Airlines, the subject with the most extreme left-side coordinate value, answered "yes" to this question. According to its interpretation of Accounting Series Release No. 147, the hypothetical effects on net income should be stated regardless of whether or not the lease is actually capitalized.

Frontier Airlines also supported such disclosures. It believed, however, that firms should have the option of smoothing reported net income by allowing the hypothetical

interest plus depreciation to equal the lease payments. (Recall that the effective interest method would accelerate expense recognition in the earlier years of the lease contract, thereby unfavorably reducing the hypothetical reported net income.) The AAA stated that this requirement would greatly enhance comparability between lessees and those firms which happen to acquire similar property by other means (e.g., installment purchases).

The FASB, through the four test criteria in Statement 13, effectively rendered this issue superfluous. That is, by applying these rather all-encompassing tests to their particular lease contracts, both parties can readily tell whether their lease constitutes a purchase or a rental. Therefore, the single most appropriate accounting treatment (capitalize vs. expense) flows naturally from the classification procedure--no dual reporting is necessary. In other words, the FASB's "answer" in this regard (hypothetical disclosures) is "no"; hence, its position in the right half of the space.

This was not the only issue underlying the horizontal separation of subjects, however. A somewhat more realistic aspect of disclosure also characterized this separation. According to this second question, is

balance-sheet capitalization of "purchase" leases enough?  
Would any additional disclosures about such leases be  
superfluous?

This question brought a resounding--and, in fact,  
unanimous "no"--from the accounting respondents. The  
following list is a compilation of disclosures which they  
believed would definitely be useful:

1. periodic payment schedules and terms
2. interest rate applied
3. contractual restrictions on additional borrowing,  
leasing, dividend payments, etc.
4. renewal and/or purchase options and guarantees
5. type of property leased
6. sub-lease income (if any)
7. basis for computing depreciation schedules (e.g.,  
accelerated vs. straight-line)
8. other future lease commitments (at both gross  
amounts and discounted to net present value),  
segregated by type of leased asset

Once again, Eastern Airlines took a diametrically  
opposed position. However, it gave no reason as to why  
additional footnote disclosures were unnecessary for  
already-capitalized leases in its opinion.

Several respondents pointed out that capitalization  
and footnoting are not all-or-nothing propositions. For  
instance, Hoover suggested parenthetical balance-sheet

disclosure as another choice. Perhaps FAF put it best when it stated that the two forms of reporting are complementary in nature. Inclusion in the balance sheet fulfills the statement's avowed purpose of listing all economic resources and obligations. Footnotes, on the other hand, should provide any additional information which would be useful for analyzing the company's financial condition and results of operations for the period. (The items in the aforementioned list serve as fine examples.)

Evidently the FASB agreed with this viewpoint. In addition to the four capitalization tests, Statement 13 required the lessee to disclose the following additional information relative to capitalized leased property:

1. Total gross dollar amount of leased assets
2. A five-year schedule of future minimum lease obligations
3. Non-cancellable sub-lease rentals receivable (if any)
4. Total contingent rentals accrued

Basically, then, the FASB agrees with the (mainly accounting) subjects that some additional information relative to capitalized leases should be required. This explains its position in the right portion of the map.

The map in Figure 33 is of interest primarily because it illustrates the same tight clusters as its predecessor. (Remember: the three clusters sketched in on the right-hand side are actually farther apart than they look. The x-coordinates of these points are virtually identical, as noted earlier; thus, they literally overlap.)

Also note the failure of a couple of same-industry respondents to cluster together. The four oil-company representatives (Gulf; Sunoco; Union Oil; and Ashland Oil) are scattered throughout three quadrants. And though Frontier Air and Eastern Air both appear in the third quadrant, they too are widely separated.

Before leaving the topic of leases, a few comments are in order regarding the two questions which failed to emerge. Question 3 asked whether the income effects of capitalized leases should differ from those of operating leases. Perhaps the most notable aspect of the responses is the corporate subjects' paranoia about the effect of accelerated expense recognition (via interest and depreciation charges) in the early years of leasing. This is nothing more than the "income-smoothing" argument encountered earlier.

The remaining question, however, has much more substantive financial-analysis implications. Its failure

to emerge as a dimension was a distinct disappointment. This question reads as follows: assuming no change in present requirements for capitalization of leases, should disclosure of the present values be required for certain non-capitalized lease commitments as well?

This issue virtually split apart the accounting subjects--in stark contrast to the other leasing issues discussed. Some of them felt such disclosures would be useful in cash-flow prediction. Others, however, labelled them as just another example of "as-if" accounting.

Most of the corporate subjects omitted this question, concentrating all of their efforts on talking the FASB out of tougher capitalization requirements in the first place. One of them, though, came amazingly close to the FASB's ultimate decision in its letter. Union Oil of California suggested that the reporting requirement should apply only to non-cancellable lease arrangements of at least three years' duration. Union Oil also advised that present values should be disclosed alongside the total gross amounts.

The FASB studied the situation and eventually mandated (in Statement 13) the following disclosures for non-cancellable operating leases in excess of one year:

1. Total rental obligations for the next five reporting periods

2. Total rental payments receivable under non-cancellable sub-leases (if any)

3. Certain pertinent features of the lease contract

However, the FASB's policy ruling on disclosures constitutes a curious reversal, according to Wolk, et. al. Recall that Statement 13 considerably toughened up the requirements for lease capitalization. However, its supplementary disclosures are markedly less stringent than those of Statement 13's predecessor ruling. APB No. 31, which preceded it by just three years, specifically required that all future rentals must be disclosed at both gross and discounted totals. This dual requirement applied regardless of the duration of the operating lease contract. Statement 13 eliminated the reporting of present value and restricted its supplementary disclosures to so-called "long-term" arrangements only.

Wolk, et. al., were convinced that lessees would attempt to "beat" this requirement through manipulation of the terms of the leasing agreement. Even if they were unable to do so, however, the authors believed that they ended up shortchanging readers, as they no longer had to report present values. In any event, this question failed to emerge as a distinct dimension, in spite of its avowed (by Wolk) controversial economic-consequences nature.



The results of the analysis of accounting for leases may be summarized as follows. By far, the most significant aspect of this topic is the issue of asset recognition of leased property by the lessee. The questions dealing with capitalization and recording of related liabilities sharply divided the accounting and corporate subjects. Also especially salient was the question of symmetry in accounting by lessees and lessors. Several complementary disclosure issues were examined as a follow-up step. These related to the desirability of additional disclosures for leased property which has already been capitalized, as well as hypothetical income effects of non-capitalized leases.

All of these issues pointed up the industrial subjects' preoccupation with "form over substance" of such requirements. That is, they worried excessively about the effects of lease capitalization on their debt ratios and borrowing covenants. They also noted with alarm the effects of corresponding depreciation and interest expense upon their reported net income figures.

Not surprisingly, the accounting respondents had more theoretical concerns in mind. They defended capitalization of installment-purchase leases in keeping with the "economic resources" definition of the balance

sheet.

This issue perhaps again illustrates the necessity of reaching clear agreement on a solid conceptual framework of accounting. Questions such as those pertaining to leases critically depend upon establishing exactly when a bona fide "asset" comes into existence, as well as how it ought to be measured. As noted repeatedly in the subjects' comments, the perceived credibility of any standard-setting organization such as the FASB depends vitally upon its ability to derive unambiguous--and unbreakable --guidelines which would resolve such concrete applications as the "correct" recording of leased property.

#### Discussion Memo 9

Accounting for pensions. The area of accounting for pension plans is perhaps more "legalistic" in nature than the other Discussion Memos presented thus far. It also brings the "separate-entity assumption" into sharp focus. Exactly what constitutes the employers' obligation to provide retirement benefits? Is it limited to those assets and other investments set aside to be used for future benefits as they fall due? What happens if they are insufficient to cover such benefits, even if through

no fault of the depositor (e.g., lower rate of return on these investments than originally anticipated)? Or suppose the final amount is directly keyed to salary levels, which vary with changes in the rate of inflation. Should these future obligations be reflected as liabilities now? If their future amounts are somewhat uncertain, how should they be calculated? And exactly whose liabilities are they: the employer's? or the entire pension plan's? or maybe the fund's? Many practical questions remain unresolved to this date, despite issuance of several DMs and Statements.

Brown did not include pensions among his original set of projects. As a result, the five policy issues which will be analyzed are all from the "supplementary" list.

In the first perceptual space to be examined (Figure 34), the accounting and professional societies seem to be especially tightly concentrated. Note, for example, the cluster which is positioned directly on the left-hand side of the x-axis. It contains half of the Big 8 (Ernst and Ernst; Haskins and Sells; Touche Ross; and Arthur Andersen), along with one prominent accounting society, the AICPA. In close proximity, we also find the American Accounting Association. Two corporations also plot with these accounting subjects: Atlantic Richfield and

Honeywell.

Just to the northeast, we see an even more homogeneous grouping. Peat Marwick and Price Waterhouse cluster with the Financial Executives Institute. Also located in this cluster, interestingly enough, is the Pension Benefit Guaranty Corporation (PBGC). The PBGC was set up in 1974 according to the Employees Retirement Income Security Act (ERISA). The primary purpose of the PBGC was to insure a percentage of benefits for vested employees of terminated plans; it does this by collecting periodic premiums from qualifying sponsors.

Two similar special-interest respondents pair up in the bottom portion of Quadrant 2: the American Academy of Actuaries and the American Life Insurance Company. Note, however, that neither Prudential nor Liberty National Insurance plot within this cluster.

Continuing to read clockwise, we find a familiar governmental respondent contained within a rather diverse trio. The Internal Revenue Service plots with Rockwell and the National Association of Accountants.

Dimension 1 (x-axis) did not provide much spread within this particular perceptual space. As shown in Figure 1, all of the respondents appear to have small-to-moderate coordinate values on this dimension.

However, a glance along the vertical axis (Dimension 2) reveals a couple of extreme values: U.S. Steel and Prudential, respectively. Note that most of the Big-8 firms plot in the upper half of the space as well. The insurance companies and professional societies are in the bottom portion.

The question providing this separation asks whether the assets and liabilities of the pension plan should be measured at historical cost. U.S. Steel reminded the FASB that a "plan" is simply a reporting entity, like any other; and it should therefore be accounted for in compliance with "generally accepted accounting principles" (GAAP) as well. Therefore, according to the cost principle, the only acceptable measurement base is historical cost. The use of current value, according to U.S. Steel, is somewhat pessimistic, as one must assume liquidation to arrive at the amounts which would be obtained for net assets of the pension fund.

Finally, keep in mind that fund assets often consist of a mixed set of investments, both short- and long-term. Market prices for these securities often are subject to reversible fluctuations. U.S. Steel believed that taking such temporary gains/losses into either income or equity (as would be necessary to keep restating the fund at

"current value") is misleading to users.

Prudential, however, took the opposite position, reminding the FASB that ERISA had mandated the use of "fair market value" for assets of the pension plan. Two other respondents gave identical reasoning in their letters of comment: the American Academy of Actuaries and American Life Insurance. The latter subject, in fact, defined fair-market value as "surrender value" of contracts held by insurance companies.

A sizable number of subjects (especially Big 8) advocated a piecemeal approach to the valuation of net assets of the pension plan. The recommendations given by Arthur Young are representative of these itemized suggestions. It advised segregating debt investments into those which are expected to be held until maturity, and those which are likely to be sold off sooner. Since the former are in the nature of "long-term assets," they should be kept at cost (net of any amortized premium/discount)--regardless of their current liquidity. The latter, however, should be recorded at the lower of "cost" or "net realizable value." Declines in liquidity are therefore recognized, in keeping with the principle of conservatism. Equity securities should be shown at current values (using market quotations); and leases

should be recorded as the present value of expected cash flows. Finally, there are probably some plant assets (e.g., office equipment) which are used in the general administration of the company's pension plan. Since these are simply fixed, long-lived assets, they should be shown at cost less accumulated depreciation. Other respondents in this category proposed similar multiple-valuation asset plans.

This mixed approach also appealed to the FASB. In Statement 35 ("Accounting and Reporting for Defined Benefit Pension Plans"), it grouped net assets into three categories. Investments such as real estate, debt and equity instruments were to be shown at fair market value. Contracts with insurance companies should be valued according to the ERISA reports already being filed. (In effect, this expedient ruling eliminated the need to "keep two sets of books.") Finally, fixed plant assets which are allocable to pension-fund activities would remain on the books at cost less accumulated depreciation.

An even more basic reporting issue emerges in the next set of pairwise axes (Figure 35). First of all, it may be noted that these two dimensions provide far greater separation within the space; both axes now show distinct extreme values.

The northwest corner of the space is predominantly accounting-oriented in nature. The topmost cluster of Quadrant 4 is composed of Touche Ross, Haskins and Sells, and Arthur Andersen. Right below, we see the pairing of Ernst and Ernst, along with Honeywell and Atlantic Richfield. Even the FASB is located in this portion of the map, although it is paired with Union Carbide.

Quadrant 3 features three professional societies and a government agency. The IRS is paired with the Financial Analysts Federation. In addition, both the NAA and the AAA plot in this quadrant.

In fact, we can note a weak accounting/non-accounting separation as we scan the space from top to bottom. This is because all of the Big-8 firms, as well as the FASB and one professional association (FEI) appear in the top half of the graph.

Turning first to the vertical axis (Dimension 3), we can find U.S.Steel and TRW at the bottom extreme. Quite a few subjects form the opposite pole, including five of the Big-8 firms, plus Marcor and Commonwealth Edison.

Likewise, the trio of Touche Ross, Haskins and Sells and Arthur Andersen anchors the left-hand side of the horizontal axis (Dimension 1). Other extreme values on this side of the axis include Atlantic Richfield, Ernst



and Ernst, Honeywell and the AICPA. The right-hand side of the horizontal axis is anchored by Coopers and Lybrand, Marcor, Commonwealth Edison, the American Academy of Actuaries, and American Life Insurance.

Dimension 1 in fact turns out to capture two distinct policy issues. The first (and perhaps most basic) of these concerns the proper choice of reporting entity for pension assets. Should financial statements be prepared for the plan, or the fund?

Those subjects who opted for the plan cited both the "stewardship function" and the "accrual basis of accounting" in support of their choice. As Touche Ross saw it, a "fund" is nothing more than an existing collection of assets. However, it does not reflect such contingent obligations as accumulated, but unfunded, vested benefits. Therefore, according to Ernst and Ernst, the fund is too limited with respect to users' needs to know the amounts of such imminent claims. Atlantic Richfield, in particular, referred to risk assessment as a salient interest in its similar position. Furthermore, both Arthur Andersen and Honeywell felt that disclosures per "fund" could mislead users. This is because the fund frequently contained a mix of assets pertaining to separate, distinct pension plans.

Supporters of the fund, in contrast, offered more down-to-earth reasons for their choice. Contingent liabilities notwithstanding, the assets actually available to provide these benefits are limited to those in the fund--this from Marcor. American Life Insurance reminded the FASB that obligations to contribute pension assets are often transferred to outside parties, such as Health Maintenance Organizations (HMOs) or insurance companies. This corresponding obligation would be listed in the third-party accounting reports. But there was no place in the framework of the "plan" to show such transferred duties.

Coopers and Lybrand was the only one of the Big 8 to avoid staunch advocacy of the plan. In fact, its response basically asked what all the fuss was about. Generally speaking, the fund is a vehicle for aggregating assets earmarked for pension fulfillment, and the plan is a collection of rules and regulations which governed this accumulation process. Other respondents who favored the fund were Prudential, Commonwealth Edison, and the American Academy of Actuaries.

In Statement 35, the FASB opted for the plan as the proper reporting entity. Taking a somewhat legalistic interpretation of the issue, the Board stated that the

plan best reflected both the obligation to fund benefits, and the investments made in fulfillment thereof. This is graphically depicted by its position in the left-hand side of the space along with other advocates of the plan.

What sorts of disclosures were required for each plan? The "net assets available for benefits," as well as any material changes therein during the reporting period, must be accounted for using the accrual basis. In addition, the obligation for pension claims (as well as any any changes) must be disclosed. This amount is calculated as the "actuarial present value of accumulated plan benefits"; it may appear in notes to the statements, if desired.

There was a second issue for which the horizontal axis provided good separation. This had to do with the classification of unfunded vested benefits. Should they be reported as a bona fide liability?

Both the American Academy of Actuaries and American Life Insurance preferred to classify this item as an equity interest, or balancing account. The former respondent pointed out the rather nebulous, futuristic nature of such claims--as opposed to such fixed contractual claims as current or long-term notes payable. Marcor also referred to the probabilistic nature of the

total amount "due," depending as it does on such unknowns as future salary levels and total number of vested employees to date.

Once again, Coopers and Lybrand invoked the separate-entity assumption in its recommendation. Regardless of mandated contributions of the sponsoring organization, the amounts available for actual distribution are practically limited to concrete assets of the plan.

The AICPA effectively refuted the "uncertainty" argument cited above, by noting the widespread use of actuarial calculations in the estimation process. Honeywell similarly circumvented another aspect of the uncertainty issue, by suggesting that the liability be limited to current retirees and vested employee benefits. Atlantic Richfield concurred that such benefits are bona fide future claims against pension-plan assets; thus, any category less than a liability would effectively understate the total economic obligation to transfer resources. All these subjects may be found on the left-hand side of the axis.

As was just noted, the FASB supported disclosure of accumulated pension benefits. In fact, it issued a special pronouncement (Statement 36) which served as an

update of APB 8. Appendix A of this statement illustrates the manner in which total benefits must be segregated into "vested" and "unvested" portions. Directly below this amount, "net assets available for benefits" must be shown. Recall that these amounts may appear in notes rather than in the body of the statements. However, in the prescribed format, any net excess of unfunded benefits over available assets subtly conveys the essence of a liability. Therefore, the ruling amounts to effective disclosure in substance rather than form; e.g., the Board's "balancing" position in the space. One footnote: those sponsors with plans for which accumulated benefit information is not available may continue to comply with APB No. 8. However, they must explicitly state the reason for exemption from the rules of Statement 36.

One final perceptual map yielded insight into policy differences. Figure 36 shows the rather heterogeneous clusters found in this space.

Several noteworthy points can be made about this map. The FASB, despite its somewhat central position, clusters with two Big-8 firms: Touche Ross and Haskins and Sells. Secondly, three of the four insurance-oriented subjects may be found in the third quadrant: Prudential, American Life Insurance, and Liberty National. In addition, two

financial societies plot in this quadrant: FAF and AAA. However, the PBGC clustered not with these insurance companies, but rather with a mix of accounting and corporate subjects in Quadrant 2. Finally, the American Academy of Actuaries did not cluster with either of these groups. Instead, it may be found in Quadrant 4.

Of these two axes, Dimension 4 proves to be interpretable. We can find U.S. Steel at one end, and the trio of TRW, Arthur Young, and Peat Marwick at the other.

This axis captures the question of whether the FASB should specify the way in which assets and liabilities of the pension plan are to be measured. Those respondents who favored guidelines thought that they should be general in nature; in other words, a broad classification scheme for reporting should suffice. According to Peat Marwick, uniformity and comparability between alternative plans would be enhanced by a FASB-suggested format. Arthur Young agreed with the need for a directive, but it cautioned the Board not to get too carried away with creativity. More specifically, the FASB ought to keep in mind the long-lived nature of fund assets, as they are earmarked for satisfaction for future claims. Therefore, any experimentation with current valuation schemes would

be inappropriate.

U.S. Steel, in contrast, answered "no" to this question without stating a reason in its letter. Note its corresponding outlier position on the y-axis.

The FASB eventually prescribed the multiple valuation scheme (corresponding to type of asset) discussed in the analysis of Figure 33. The prescribed format was illustrated (and slightly elaborated) in Statements 35 and 36. However, in the latter pronouncement the Board acknowledged that some plans exist which do not have complete information on accumulated benefits to date. These plans are exempted from the reporting requirements illustrated in Statement 36 and are to continue their compliance with APB No. 8. This explains the FASB's position in the space: located in the top half of the y-axis, but near the origin.

The results of analysis of the pensions DM may be summarized in several ways. This topic produced great homogeneity among accounting respondents. Several clusters which contained at least three of the Big 8 firms, and/or financial societies, emerged in the scaling. The insurance subjects tended to plot apart from both the accounting and other corporate subjects, though not necessarily together. But the PBGC plotted closer to the

accounting/corporate groups than to these insurance subjects. Given the "insurer" function legislated to the PBGC by ERISA, this was surprising. We also observed the FASB taking a "balancing" role in two of the three spaces generated.

Several basic pension issues emerged as salient dimensions. They concerned FASB prescriptions as to the reporting entity; the classification scheme of pension assets and liabilities; and the cost valuation base to be used in reporting them. We noted that, except for the first of these issues, the Board demonstrated considerable flexibility in its pronouncements. Multiple valuation bases were permitted, depending on the nature of the net assets. Some choice was allowed as to placement of reported amounts (notes vs. statements). Lastly, qualifying exemptions for some pension plans were specifically legislated within Statement 36. The question of pension accounting, in fact, is far from settled. The FASB is still fine-tuning APB No. 8; Discussion Memos 21 and 22 were issued during 1984.

#### Discussion Memo 10

Accounting for debt restructuring. The issue of debt restructuring (Discussion Memo 10) is actually a hybrid of



three accounting topics already discussed. Accounting for the terms of renegotiated loans involved elements of the cost principle ("should new debt be recorded at historical entry value, or some form of current value?"); accounting for contingencies ("when should probable losses be recognized?"); and the conservatism principle ("recording the lower of cost or market value, as well as recognizing probable losses but not gains in advance").

There is a variety of ways in which troubled debt can be restructured. The creditor may decide to forgive a portion of the original debt, thereby reducing the amount of total principal due. He may lower the interest rate, and/or extend the due date(s) of payment(s). Alternatively, he might agree to accept some consideration other than cash (e.g., property or fixed assets).

Brown's original four questions deal with revaluation of the loan under such alternative scenarios. Specifically, he asks whether historical entry value is the proper costing approach in all cases.

In the second phase of the analysis, four additional questions will be scaled. These have to do with the scope of the ruling on debt restructuring, as well as the inclusion of contingent interest payments in debt revaluations. The latter issue effectively combines the

revenue realization principle with the principle of conservatism. Theoretically, interest revenues and costs should be recognized as soon as they fall due. But what should be done if it is unlikely that they will be remitted? The first scope question asks which types of debt restructurings should be affected by this DM. Likewise, the second question zeroes in on a special type of borrowing relationship. In memory of New York City's "Big Mac" fiscal debacle of the mid-70's, it asks if state and local government debt instruments should comply with this ruling.

The rather tight clusters shown in Figure 37 reveal several distinct common-interest groupings. Note, for instance, the triple contour on the left-hand side of the horizontal axis. Three of the five banking societies may be found here: Mutual Financial Officers Association, Mutual Banks Association, and the Bank Administration Institute. A fourth society, American Bankers Association, lies just to the southwest of this cluster. Within this grouping we also find the FASB and Irving Trust. Two of the Big 8 accounting firms, Ernst and Ernst and Haskins and Sells, are in very close proximity.

In like manner, the cluster on the right-hand side is composed mainly of banks. Here we see Chase Manhattan,

First National Bank of Chicago, Banker's Trust of New York, and Manufacturers Hanover. New Jersey Banker's Association, the fifth professional society, can be found here. Finally, the Big-8 duo of Touche Ross and Peat Marwick virtually overlap in the sub-space.

The vertical axis (Dimension 3) also reveals a couple of same-interest clusters--much smaller in size but more widely separated. In the top left half we find a pair of banks: Security Pacific Corporation and J.P. Morgan. Its mirror image in the bottom portion of the space is an accounting duo: Arthur Andersen and the National Association of Accountants. One interesting but more heterogeneous pair turns up in the top right-hand side. We see the Financial Analysts Federation, which is a reporting society, teaming up with Security Pacific Bank.

The question which caused this vertical split deals with the creditor's forgiveness of part of the original debt. It asks whether the remaining amount due should be kept on the books at its historical entry value.

This issue divided the accounting subjects, while at the same time virtually unifying the special-interest respondents. Both the NAA and Arthur Andersen (bottom portion) advocated revaluing the remaining debt at current market value. Arthur Andersen claimed this approach

maintained consistency in the books. This is because the original debt was recorded at an amount which reflected market conditions for borrowing at the time. In particular, interest rates for similar loans are likely to have changed. NAA, too, felt that market value would best reflect current economic conditions of the debt markets.

The opposite position was taken by J.P. Morgan and Security Pacific. They favored historical entry value since it reflects the (remaining) amount which the debtor is legally obligated to pay. In fact, virtually all the banks advocated some form of historical costing.

Some respondents hedged their opinions with the more conservative "LCM" (lower of cost or market) position. That is, if the creditor realistically expects to receive less than the remaining face value of the debt (due perhaps to the creditor's still-precarious financial position), he should write it down to its net realizable amount.

The FASB, as was noted earlier, ended up plotting with several professional banking societies. This position is best explained by referring to a narrow "slant" in some of their letters. The Bank Administration Institute, National Association of Mutual Savings Banks, and the American Bankers Association argued against the

idea of "current costing" in general, rather than addressing themselves to the particular questions posed within the DM. They cited some unpleasant macroeconomic side effects from the use of current-valuation methods. Short-term fluctuations in interest rates would of course introduce instability into the income statement via gains and losses. As a result, lending institutions might be hesitant to restructure debt in the borrower's favor in the first place. Total lending might even be drastically reduced, as debtors cut down on their holdings of marketable securities. Debt rollovers might only be agreed to on a short-run, variable-percentage basis. And, as we saw in the discussion of DM 3, an increase in foreign-currency exposure hedgings could also result.

The FASB opted for retention of the historical-valuation method in Statement 15 ("Accounting by Debtors and Creditors for Troubled Debt Restructurings"). How does this constitute "agreement" with these banking societies? Recall that in its study of general price level accounting (DM 2), the FASB reiterated its support of historical cost as the appropriate unit of measure for the body of the financial statements. (Current costs and inflation adjustments were relegated to footnotes.) Therefore, the FASB in fact ended up agreeing

with opponents of alternative valuation schemes.

Respondents basically agreed on how to record the amount of debt forgiven. They advised the creditor to write it off against a valuation reserve, in exactly the same manner as the allowance for doubtful accounts receivable. If no such reserve has been set up in advance, the forgiven amount is to be directly charged off to income.

Debtors likewise have two options. One is to increase the contributed-capital account in stockholders' equity by the amount of the forgiveness. Similarly, a second (less preferable) method is to include it in income. But proper placement in the income statement is vital. As the debtor does not normally obtain earnings from having his loans forgiven (hopefully!!), this amount should not be placed with operating income. Instead, the amount forgiven must be disclosed as an extraordinary item.

The horizontal axis of Figure 38 (Dimension 2) exhibits the same sort of homogeneous groupings. Irving Trust and the Mutual Bankers Association team up with the FASB. Directly to its right we find Bankers Trust, Manufacturers Hanover, the New Jersey Bankers Association, First National Bank of Chicago, and Chase Manhattan.

Arthur Young and Touche Ross are located near the origin. These mini-clusters may be fused into one larger contour as indicated. This contour also includes both reporting associations (FEI and FAF), as well as Peat Marwick.

The right-hand side of the x-axis is anchored by the two Big-8 firms of Ernst and Ernst and Haskins and Sells. Arthur Andersen is located directly on this axis as well. The AICPA and NAA appear directly below. This non-accounting(banking)-vs.-accounting separation is not as clear-cut as for some other DMs. Nevertheless, the extremes of the axis are characterized by common-interest groupings.

This dimension captures two very closely related scenarios of debt restructuring. Question 7 deals with an exchange of debt which has a different maturity amount. Question 8, in contrast, alters only the amount and/or timing of cash payments, without a change in overall stated maturity. In each of these cases, should the new debt instrument be recorded at historical value?

Responses to both questions revolve critically around the existence of a bona fide transaction. Basically, subjects agreed that an "accounting event" occurs in the first case but not the second.

Regarding a change in maturity, Haskins and Sells advised recording the new debt instrument at its fair market value, in keeping with reflection of the economic exchange which has occurred. Both Arthur Andersen and the NAA concurred with this viewpoint. They reminded the FASB that such unknowns as the ultimate date of full payment may be reasonably estimated. The majority of the AICPA task force also advocated use of market value.

One other respondent found in this portion of the space hedged his answer just a bit. Ernst and Ernst warned that two separate aspects of debt restructuring can sometimes become confounded. A reduction in principal is sometimes offset by higher interest charges. According to Ernst and Ernst, these two effects must be separately identified in order to see if a net gain or loss actually exists.

Most other banking and accounting subjects acknowledged the existence of a transaction; yet stuck by their support of historical-entry value. As several of them put it, the reduction in principal effectively amounts to a partial forgiveness, and it should be treated as such. In other words, they suggested the same write-off against an allowance for the creditor, with an increase in paid-in capital (or extraordinary income) for



the debtor. The FASB reiterated its approval of historical-entry value. Note its appearance, with these subjects, in the left-hand side of the space.

By the same token, most of these subjects believed that a mere change in due date did not constitute an "accounting event." In other words, an exchange of this sort is nothing more than a normal debt rollover.

Again, some exceptions to this position characterize the right half of the x-axis. Haskins and Sells in this case advised of a possible parallel change in interest rates. The combined effect might alter net realizable value to such an extent that fair value should be used for the new debt obligation. Ernst and Ernst conceded that perhaps a pushback in due date was a symptom of a deteriorating economic situation for the creditor. If so, he should recognize the probable loss in keeping with accounting for contingencies. The NAA advocated adequate supplementary disclosure of such circumstances, in place of within-statement recognition. Finally, the AICPA's task force was deadlocked--not all members could agree to historical entry value, though no reason was stated in its letter.

The vertical axis is somewhat ambiguous in terms of its separation. The bottom portion contains two

professional societies: one from banking (ABA); the other from accounting (AAA). Two banks appear in the extreme top half: Security Pacific and Continental Bank.

Brown's remaining policy issue did not generate enough disagreement among subjects to emerge as a dimension. Recall that this scenario involved the surrender of non-cash assets for all or part of the debt. The majority of accounting subjects felt there was sufficient evidence of an exchange transaction to warrant use of market values. Likewise, the banking respondents advocated the lower of market or net realizable value.

How does this scaling compare with Brown's original analysis? He also identified distinct "historical-value" vs. "current-cost" proponents. In addition, he correctly linked these opposing viewpoints to the "existence-of-transaction" concept. However, Brown did not go on to discuss specific types of debt restructurings in the manner described above. In other words, his one interpretable dimension did not appear to be linked to any of the four scenarios which he himself set up in his questions.

There are two possible reasons for this confounding: one of them is conceptual and the other mathematical. Note that each of Brown's policy questions asks about the

proper choice of accounting for both the debtor and the creditor. This tacitly assumes symmetry in reporting; that is, that the "best" choice (historical vs. current) was appropriate for both parties.

Coding of responses, however, revealed that this was not necessarily the case. (Recall Ernst and Ernst's support of fair value for creditors and historical value for debtors in Question 8, for instance.) In fact, asymmetry was tolerated to an even greater extent than for lease accounting. This created a disproportionate number of "neutrals" in the coding process, thereby washing out extremes.

All of this suggests that perhaps Brown's questions were over-aggregated. That is, accounting for debtors and creditors should have been treated as separate issues. This flaw may, in fact, underlie the purely mathematical problem of poor fit. Brown settled for a two-dimensional solution with a stress value of 0.1617.

Because of its simplicity and adequate fit (0.0583), the two-dimensional solution will be examined for the additional issues. Figure 39 shows the clusters formed by this perceptual space.

Two relatively large, centralized contours are readily identifiable. The group in Quadrant 4 consists

primarily of professional banking associations. Here we can find the American Bankers Association, Mutual Banks Association, the Municipal Officers Association and Bank Administration Institute. Two accounting firms, Arthur Young and Touche Ross, plot together with the banking societies. A financial association (FEI) is located just to the south of this cluster.

A much larger assortment of accounting and banking respondents can be found to the southeast of the origin. It contains four of the Big-8 firms, two accounting organizations, one regional banking society, and five banks. The FASB plots with these subjects as well.

Note that the vertical axis provides the greater spread of the two. It captures the essence of the first "scope" question. It asks whether certain types of debt should be excluded from the FASB ruling on restructuring.

A handful of subjects answered "no" to this question. AAA, NAA, Security Pacific, and J.P. Morgan felt that the DM on debt restructuring should apply across the board. Note that these subjects appear in the top half of the space.

In contrast, Arthur Andersen and Coopers and Lybrand specifically mentioned several items which should be exempt. The former subject referred to debt

restructurings having "minimal economic consequences," such as the simple extensions of due date and/or small revisions in interest charges discussed earlier. Also, both Arthur Andersen and Coopers advised excluding conversions of debt into stock. Coopers mentioned normal rollovers (simple trade of one debt instrument for another).

Most other respondents, in fact, were able to pinpoint specific exemptions in addition to those just discussed. They include the following items:

1. optional pre-payments or other acceleration of debt repayment
2. short-term commercial loans
3. consumer installment loans (e.g., credit cards)
4. government-insured mortgage agreements
5. mortgages secured by real estate owned by the borrower
6. home-improvement loans
7. loans which are renegotiated at a percentage rate below prime

Why should such a large number of borrowings be excluded from the ruling? The New Jersey Bankers Association claimed it would simply not be cost-effective for small lenders to do so.

The FASB's position on this issue is somewhat ambiguous and may be termed a qualified "yes." In

Statement 15, it provided a lengthy abstract definition of so-called "troubled loan situations" (Paragraph 2) with equally broad examples (Paragraph 5). Paragraph 8 cited some specific exclusions, such as lease and pension-plan contracts. Yet, the FASB did not explicitly discuss the commonly cited exclusions which respondents preferred (above). Therefore, it is unclear whether or not the Board's broad definition was well understood and easily applied by preparers of financial statements. Thus, the FASB plots along with some of the respondents who favored exclusions--although the Board's exclusions were not identical to theirs.

In a sense, the most basic of the four additional questions was the only significant MDS dimension to emerge. As it turns out, one of the remaining issues generated near-perfect agreement. The remaining two issues deal with a valuation scheme with which the Board ultimately disagreed. Therefore, their lack of emergence is not too disappointing in a practical sense.

Question 2 asked if different restructuring rules should be set up for debt of state and local government. All the respondents who addressed this question said that this would be unnecessary. Several of them acknowledged one advantage which government debtors have over their

business counterparts: the ability to raise revenues by taxation. Perhaps this explains Chase Manhattan's and Security Pacific's warm praise of government debtors as 'reliable.' However, Haskins and Sells balanced out the picture by reminding the FASB that government and corporate borrowers are alike in some key respects. Both face the same sort of budgetary constraints and uncertainties in their periodic capital planning activities. Therefore, there is really no reason why a broad-based ruling such as Statement 15 shouldn't apply to government debt instruments also. This position was adopted by the FASB too. With such unanimity of opinion, it is no wonder that Question 2 did not emerge as a separating dimension.

Questions 3 and 4 presumed that some sort of present value attribute would be used to measure the restructured debt. In such a case, the two questions asked whether contingent interest payments should be included in the calculation for the debtor and the creditor, respectively.

In this pair of issues, we can observe the combined forces of two distinct accounting principles, from the creditor's point of view. Theoretically, he will be entitled to collect both principal and interest at some future point(s) in time. But if contingent interest is

included in the discounted total, doesn't this amount to recognizing revenue before it is realized? Quite a few subjects thought so.

The story from the debtor's viewpoint, however, has quite a different ending. Most subjects pointed out that--if and when such a contingent amount becomes reasonably probable and estimable-- it qualifies as a "loss contingency" per Statement 5. Thus, in keeping with conservatism, the amount must be immediately recognized as a loss.

As it turned out, the FASB excluded contingent interest for both parties. This is certainly justifiable theoretically from the creditor's viewpoint but not the debtor's. This across-the-board ruling might well have been made for purposes of simple expediency....or perhaps to encourage symmetry.

Yet the FASB has tolerated moderate departures from perfectly parallel accounting, as we noted in the leases DM. Furthermore, respondents have consistently viewed symmetry as a desirable side effect rather than an end in itself. That is, it ought to flow naturally from accurate economic representation of a transaction.

Evidently, this ruling is yet another example of what Wolk, et. al., refer to as "rigid uniformity." But such



speculation is beyond the purpose of this particular analysis. Suffice it to say that the two questions did not generate enough disagreement among the subjects to emerge as dimensions.

In summary, the analysis of DM 10 produced several noteworthy results. For one thing, professional banking associations tended to cluster together in both scalings. Banks themselves constituted the majority of a few large contours. With regard to Brown's questions, special-interest respondents were more unified in their opinions than their accounting counterparts. The former generally opposed use of any current costing techniques to revalue restructured debt. This was a position which the FASB also adopted, perhaps in keeping with its corresponding stand in Statement 33.

Specific types of restructuring which emerged in the analysis were forgiveness as well as modifications of terms of the debt. All subjects generally agreed that the alteration of due date alone did not constitute a reportable accounting transaction. However, material changes in terms, such as principal and/or interest rate, warranted recognition. Here, too, the FASB mandated the use of historical entry value.

The second phase of the scaling revealed similar homogeneous subject clusterings. The most salient issue was the proper scope of the debt-restructuring DM. Most subjects felt that certain types of loans should be exempted from these rulings. The FASB attempted to develop a broad-based definition of so-called "troubled-loan" situations. The clarity and applicability of such a definition, though, is an empirical question. Perhaps it represents the FASB's attempt to put into practice a call for a "sound conceptual framework"--an issue encountered in the asset-recognition tests for leases. The similarity of the problem in the case of troubled debt did not escape the attention of several subjects; they argued against a "piecemeal" approach in their letters. At any rate, the ultimate success of the FASB's response remains to be tested.

#### Discussion Memo 13

Accounting for the extractive industries. The area of accounting for the extractive industries brings to mind an issue already posed in research and development: exactly what counts as a "success"? Searching for oil fields is by definition a chancy venture. Invariably a large amount of money will be spent on false leads prior to discovery

of a producing well. Can these seemingly unproductive initial outlays be deferred and assigned to the well, on the assumption that they are necessary for the ultimate find? Or should they be written off immediately, with only those charges directly attributable to the producing well classified as a bona fide "asset"?

These opposing viewpoints represent the "full cost" and "successful efforts" methods of accounting, respectively. They are also the focal point of the most controversial issue ever tackled by the policy setting agencies of accounting. Over the past 21 years, standard setters have in fact come full circle on this issue. Two agencies, the APB and the FASB, were forced to retreat from advocacy of the successful-efforts approach. In each case, the policy setter initially made its pronouncement with the full blessing of its primary "overseer" organization, the SEC. However, massive lobbying efforts ultimately forced the SEC to capitulate and allow alternative methods of reporting.

As a result of this desertion, accounting standard setters had no choice but to follow suit. The APB's response was to sidestep the topic altogether--it simply dropped oil and gas reporting from its agenda of issues. In the case of the FASB, however, the surrender was even

more dramatic. The FASB initially mandated successful-efforts accounting in Statement No. 19. This pronouncement was issued in 1977, only after exhaustive research studies and lengthy consultation with the SEC. However, just two years later the FASB suspended the effective date of this requirement via a new ruling, Statement No. 25. Public pressures to do so had simply been too intense, and particularly well organized. Once the SEC decided to permit either accounting method, the FASB reversal was inevitable.

Why should the choice between full cost and successful efforts stir up such controversy? Not surprisingly, the "effect on the bottom line" was the primary catalyst. Successful efforts, with its mandatory charge-off of all expenses not directly linkable to "hits," naturally produced a lower net income. Full cost, on the other hand, effectively "smoothed" net income according to Wolk, et. al. This is because it deferred all preliminary expenditures as being assignable to the eventual "hit."

The negative income effect of successful efforts on small ("wildcatter") and/or relatively new companies could be especially severe. If a certain amount of unproductive groundwork is par for the course, were such companies not

in effect being unfairly penalized for their patient efforts by successful efforts? More specifically, were they handicapped in the capital markets by their lower reported net income?

Supporters of successful efforts (yes, there have actually been some!) reply that, on the contrary, full costing in effect feeds misleading information to investors and creditors. This is because deferral of costs not directly associated with future benefits (e.g., exploratory costs tied to a dry hole) is for all practical purposes a camouflage of failure and risk. Optimal resource allocation in the capital markets cannot occur unless risk is clearly highlighted.

What all of this boils down to is the question of proper asset recognition and the matching principle. At what point does an expenditure become linked to a future economic benefit (e.g., a net revenue stream)? We encountered a somewhat similar issue in leasing, where the primary controversy was "form over substance" relative to an economic resource.

But in this case, as with R and D, there is an additional twist to the issue of cost deferral. Just how certain do we have to be of future economic benefits at the time a cost is incurred in order to capitalize it? If

success comes at the price of some "false starts," perhaps the sum total of all outlays should be deferred. But what if the industry is invariably subject to luck? What if a specific expenditure is chancy? Would it not be prudent to defer such charges with middling probabilities, until such time as their realizability can be more reliably assessed? Or would it be misleading to report such "iffy" outlays alongside other, more tangible "assets"?

Analysis of this issue is especially noteworthy, because there have been some major policy changes since Brown's original study. He worked only from Statement 19, which made the successful-efforts method mandatory, as was noted earlier. Now, however, either accounting method is permitted. Also, in November of 1982 the FASB issued Statement 69, which required certain present-value disclosures relating to proven oil and gas reserves. These rulings naturally alter the FASB's position with respect to several of Brown's original issues; therefore, they warrant re-examination in this light.

The first pairwise combination of axes (Figure 40) reveals four very tight clusters--and one of them sizable. From left to right, we can locate the oil-industry trio of Texas Gas Transmission, Southern Natural Resources, and Shell. All these subjects occupy an identical position

(-1.022, 0.207) in the space. Next we find a cluster in which three of the Big 8 (Price Waterhouse; Haskins and Sells; and Coopers and Lybrand) coincide with the two oil firms of Getty and Standard Oil of California. To its southeast and near the origin lies the heterogeneous trio of Ernst and Ernst, NAA, and Exxon. The final pairwise grouping of note consists of a Big-8 firm and an extractive-industries trade association: Peat Marwick and INGAA.

Several overall patterns are discernible--but just barely. Oil-company respondents are scattered throughout the space. A surprisingly large number of these, however, plot singly--note especially Quadrant 1. All but two of the Big-8 firms plot in the left half of the space. However, this cannot be said to constitute an accounting-vs.-industry separation as reported by Brown. For one thing, the professional reporting societies dominate the right half. Also, at least one oil firm plots in each quadrant. The FASB appears in the right half, but directly on the x-axis and near the origin.

Several other differences from Brown's results are apparent. Here the FASB plots alone, rather than with so-called "attestor affiliates." It also occupies a closer-to-center position. While Arthur Andersen is an

outlier in both sets of results, Exxon and Shell now appear in the same half of the space. A greater number of clusters has been identified in the present study, all of which represent overlapping points (thus, a zero intragroup variance). Recall that Brown settled for a two-dimensional fit of 0.1908, which provides very poor separation according to Kruskal's guidelines. The two-dimensional solution of this study yielded a fit of 0.1565--better, but not yet satisfactory.)

Turning next to interpretation of these dimensions, we unfortunately run into a slight indeterminacy. First, though, note that Dimension 2 (y-axis) provides especially good spread. It is anchored by Standard Oil of Indiana and the Financial Analysts Federation at the top; and by Arthur Andersen, Touche Ross and Atlantic Richfield at the bottom. The FASB's position with respect to this axis is dead-center (zero y-coordinate value).

As it happens, the policy issue which best matches this separation is the central one of this DM. It asks whether the FASB ought to adopt the successful-efforts method for the extractive industries.

Analysis of the letters of comment revealed marked disagreement among the Big-8 subjects, which corresponds to their relative separation in the space. Arthur



Andersen, for instance, answered "no". In its opinion, full cost would be preferable due to the difficulty in establishing a stable quantifiable relationship between initial expenditures and eventual oil discoveries. (A potential problem with using this particular response as a discriminator in labelling the axes will be taken up shortly.)

Touche Ross went even further in its negative response to this issue. It maintained that, since such exploratory outlays were necessary to the ultimate "hit," full costing represented a better application of the matching principle. In its view, asset understatement was every bit as serious a reporting error as overstatement. Peat Marwick (also appearing in this half of the space) backed up this opinion by stating that all oil investment is made with some prior probability of initial failure. As such, all preliminary expenditures become legitimately attachable to the "success"--without which the investments would certainly not have been made in the first place.

Atlantic Richfield's response was more mixed. While theoretically favoring successful efforts, it supported a rather liberal amortization policy for non-attachable costs--more specifically on a "countrywide" (vs. "field") cost-center basis. Thus, for all practical purposes, it

is not surprising to find this subject appearing in the full-cost half of the perceptual map.

Both outliers in the top half, however, were staunch supporters of the successful efforts approach. Standard Oil of Indiana reminded the FASB that oil and gas reserves were becoming steadily scarcer natural resources. As such, financial statements ought to highlight clearly those dollars expended which did not yield a measurable return on investment. Otherwise, comparability between different oil and gas enterprises would be severely compromised.

The other outlier respondent in this half is the Financial Analysts Federation. It too voted for successful efforts. In doing so, FAF specifically rejected the argument that successful efforts harmed small companies in the capital markets. After all, said FAF, the choice of accounting method should not drive the process of raising investment capital. Rather, the purpose of financial disclosure is to allow for the assessment of relative risk across enterprises. In this regard, successful efforts provides a better picture of corporate effectiveness by revealing as period costs unproductive expenditures. FAF especially rejected the often-cited analogy between "dry holes" and "normal

spoilage rates" in manufacturing. In their view, the former was more in the nature of a bona fide "failure" or loss.

In keeping with its eventual reluctant tolerance of either method, the FASB appears directly in the middle of axis 2. This corresponds exactly to the ruling of Statement 25, which suspended the successful-efforts requirement of Statement 19. As expected, then, the graphical plot of the FASB differs from that of Brown's map. Since his study was completed prior to the issuance of Statement 25, his results showed the FASB clustering with supporters of the successful-efforts approach. The present scaling of positions has therefore faithfully reproduced the FASB's newest stand vis-a-vis the extreme advocates of both sides.

Where, then, does the aforementioned "indeterminacy" come into play? The problem arises in connection with the position of Pennzoil (Quadrant 1). It answered "no" to this issue for essentially the same reasons as Touche Ross. Pennzoil stated that, strictly speaking, the matching principle did not require a precise correlation between expenditures and revenue-generating reserves within any given year. As such, the entirety of preliminary expenditures could be "matched" to the

producing well, regardless of how much later it was discovered. In other words, Pennzoil was voting for full costing; thus, it should have graphed along with the subjects in the bottom half of the space.

How can this discrepancy be accounted for? The fit statistic of 0.0674 implies that the correspondence between subjects' proximities and fitted distances is about as good as it can get. In other words, the problem is not purely mathematical in nature.

As it happens, the underlying meaning of the horizontal dimension yields a powerful clue. It captures a question which appears to ask nearly the same thing as the preceding issue. Such "multicollinear" (content-wise) questions could well be responsible for this sort of confounding.

To be specific, this second question asks whether the degree of association between a cost incurred and minerals discovered ought to affect the capitalization/expense decision. Why the overlap in content? Proponents of the successful-efforts method are especially likely to argue for the cause-effect link, thereby only capitalizing those costs directly associated with producing wells. On the other hand, full-cost advocates either claim that such a precise relationship cannot possibly be reliably

estimated, or else that "cause/effect" should be interpreted in the broadest possible sense of the term. To be sure, there were several cases of inconsistency across responses to the two questions-- which could very well distort the overall fit. But, by and large, these questions are basically tapping two closely associated aspects of the same underlying issue.

Please re-read Arthur Andersen's response to the first policy question at this point. Doesn't it sound as though the subject is addressing the second issue instead? Yet in their letters, subjects' individual responses are clearly preceded by a repeat of the question to which they intend to reply. As regards the answer to whether a cause-effect relationship should exist, Arthur Andersen responded "yes"--a formula, in fact, if it can be mathematically derived. This is but one example of the aforementioned response inconsistencies.

As a matter of fact, the vast majority of CPA firms answered "yes" to this question (despite the fact that they were split on the successful-efforts issue). Most referred to the need to establish "future economic benefits," per the matching principle, as a precondition for capitalizing cost outlays.

Notice that, although the horizontal axis separates less well, its left-hand extreme is characterized by a trio of coincident respondents. Texas Gas Transmission, Shell, and Southern Natural Resources are among those who supported a causal relationship.

The other end of this axis contains Pennzoil, Peat Marwick and INGAA, among others. Pennzoil (in a curious twist to its other answer) said "no": that, in effect, all costs incurred are for the ultimate purpose of reserve discovery. Peat Marwick said that, in practice, the relationship of acquisition, drilling and exploration costs to proven wells is too indirect to pin down via formula. INGAA, too, felt that only such complete deferral would result in "proper" matching.

To summarize, the MDS technique has provided satisfactory separation, in light of the fact that some subjects' responses to essentially identical questions were inconsistent. This can be explained in two ways. Either the subjects failed to perceive the connection intended by the FASB; or else they made a deliberate distinction between the two criteria.

The Oil and Gas DM listed several distinct facets of the capitalization-expense decision. Brown only included the first: the aforementioned cause-effect association

between costs and mineral discoveries. In order to explore this central issue more fully--as well as possibly get around the preceding collinearity-- five of these additional questions will be separately scaled as a follow-up step.

The next perceptual space (Figure 41) looks like a rotated repeat of Figure 40 at first glance. Since Dimension 1 is still the x-axis, this is not too surprising. The three clusters on the left-hand side of the space are identical to their Figure-40 counterparts. The only "new" grouping to emerge is the overlapping pair of Inexco Oil and the Financial Analysts Federation on the right side.

However, Dimension 3 (the new y-axis) generates the greater spread and reveals some new outliers. In the top half we find Arthur Young, Texaco and Mobil. Directly opposite are Standard Oil, Touche Ross and the FASB (the last, no longer occupying its frequently observed "balancing" position).

Unfortunately, this new dimension proves to be uninterpretable in terms of either of Brown's remaining two questions. These will be briefly reviewed.

Brown claimed to find discrimination for the question of whether Statement 9, "Accounting for Income Taxes: Oil

and Gas Producing Companies," ought to be re-addressed in connection with the current project. Recall, though, that the effect of this question was combined with that of the full-cost vs. successful-efforts issue on Brown's map. In other words, it did not emerge as a distinct separator.

There are two possible reasons for this result: one conceptual and one statistical. Certainly the tax issue can be considered peripheral to the key question of whether full cost or successful efforts is the "most proper" accounting method. Indeed, the coding of the present study revealed quite a few "skips" for the tax question. Most respondents instead devoted the bulk of their letters to a lengthy theoretical argument for either successful efforts or full cost; or, in the case of the latter, elaborate cost classification schemes to decide which are sufficiently "associated" with producing wells to qualify for deferral.

The final point of difference is, again, the fit. Brown settled for a two-dimensional solution with a rather poor stress value of 0.19. Thus, it is no wonder that the discriminatory effects of his issues could not be disentangled.

Just as a review, Statement 9 deals with the recognition of an unusual "interaction effect." This



involves the excess of statutory depletion over cost depletion, interacting with the book/tax timing differences of interperiod tax allocation.

Three special-interest subjects (Standard Oil of Indiana; Shell; and Atlantic Richfield) gave the same reason for their response of "no" to this question. They argued that this so-called "interaction" is both rare and immaterial in actual practice. This is because the Tax Reduction Act of 1975 restricted its recognition only to certain small, independent, low-volume producers. As a result, the provisions of Statement 9 are, in their opinion, "reasonable" enough. In other words, why spend time and resources on fine-tuning a ruling with limited applicability?!

The FASB ended up simply repealing the recognition of this interactive effect, as part of Statement 19. Two years later it reaffirmed this stance in Statement 25, by explicitly refusing to reconsider the issue.

Finally, the last of Brown's issues failed to emerge as a separator in both his, and the present, study. This may have to do with an ambiguity in the original wording of the question. It asks, "Should the traditional historical-cost financial statements be supplemented by financial statements (emphasis mine) in which reserves are

valued by some basis other than historical cost?"

This question appears to have two distinct components--form and content--a guess reaffirmed by reading the letters of comment. That is:

1. Are alternative valuation schemes (other than historical cost) advisable for the oil and gas industry?
2. If so, should they be in supplemental-statement form (as opposed to, say, footnote disclosures)?

Actual responses varied as to whether they addressed one, or both, of these secondary questions. By and large, a majority of accounting and special-interest subjects opposed non-historical-cost units of measure on theoretical grounds. They correctly identified this question as simply an offshoot of DM 2, "General Price Level Reporting." In their opinion, why single out one industry (oil and gas) for such a major reporting change which had not yet been made mandatory across the board?

A few subjects (both accounting and special-interest) felt current value information would perhaps be all right in supplementary disclosure form. (This does not necessarily imply entire statements. ) But even they preferred to wait until more preliminary work was done on the entire issue: e.g., upon completion of the FASB's Conceptual Framework project, and/or the SEC's experiment with Regulation S-X.

The FASB tried to opt for the path of least resistance in two separate rulings. Statement 39, "Financial Reporting and Changing Prices: Specialized Assets--Mining and Oil and Gas," extended the supplementary requirements of Statement 33 to the extractive industries. But in Statement 69 ("Disclosures about Oil and Gas Producing Activities"), the FASB essentially salvaged the SEC's somewhat failed experiment in reserve recognition accounting. This involved discounted present-value estimates relative to the net cash flows from proven reserves, as well as ongoing revisions of the development of past ore discoveries. Based on its feedback, the SEC decided these estimates were too unreliable to be required in its filings. The FASB, however, felt that such disclosures could still be useful to readers, provided they were made in supplementary form rather than in the body of the statements. Statement 69 also restricted this requirement to "publicly traded companies with significant oil and gas producing activities."

As noted earlier, five additional considerations relative to the capitalization-expense decision were scaled separately. Despite the very good separation attained by this solution, only one pairwise combination

of axes turned out to be substantively interpretable. This map is shown in Figure 42.

Several observations may be made from this space. For one thing, the Big-8 firms are more scattered than for the previous set of questions-- they appear in all four quadrants, in fact.

Note also the distinct "professional-association" cluster on the extreme right-hand side of the horizontal axis. The American Accounting Association, Financial Analysts Federation, and Interstate Natural Gas Association of America plot together. They are joined by the Big-8 firm of Haskins and Sells, as well as two oil companies (Conoco and Pennzoil). Yet another professional society, the NAA, is in close proximity (Quadrant 1). As a matter of fact, with the exception of the Financial Analysts Federation, all the professional societies appear in the right half of the map.

The remaining two clusters have one thing in common: a CPA firm plotting with oil subjects. Near the center, we find Price Waterhouse teamed with Atlantic Richfield and Texas Gas. (The Big-8 firm of Arthur Andersen plots just to its northwest.) Directly below, we can observe Coopers and Lybrand, along with Texaco and both of the Standard Oil respondents.

Recall that for the first set of policy questions, we noted a central cluster containing three of the Big 8 (Figures 40 and 41). In neither of these scalings, however, is there support for Brown's accountants-vs.-industry separation. (The only somewhat "homogeneous" division is that of the professional associations referred to above. But even this label is misleading, as these groups come from three distinct categories: accounting (NAA, AAA, AICPA); finance (FEI); and the extractive industries (INGAA).)

One final comment is in order about the identifiable clusters. The pairing of Shell and FAF (bottom portion) proved remarkably stable. It turned up in all of the remaining pairwise spaces.

Once again, it is the vertical axis (Dimension 2) which provides the better spread in this perceptual map. We can observe the Big-8 duo of Touche Ross and Ernst and Ernst at the top. Directly opposite we find Getty Oil (which in fact lies right on the y-axis), as well as the Shell-FAF pairup just discussed.

This separation seems most characteristic of the following policy issue. "Should the degree of risk (uncertainty), the stage of operations during which a cost is incurred, and the concept of conservatism affect the

capitalization/expense decision?"

Ernst and Ernst felt that, at best, these three variables are conditioning factors, rather than basic criteria. In its view, they were too subjective and arbitrary to serve as operational guides to accounting policy. Touche Ross concurred with several other subjects that a cause-effect association between costs and minerals should be the sole criterion.

The Financial Analysts Federation, however, believed that both the level of risk and the stage of operations were critical variables in cost disposition. In fact, these two factors were inversely proportional. This is because the farther along a company is in the exploratory/development process, the less "risky" (in terms of low probability of future benefits) the dollars expended at that point (and thus, more properly capitalized as "assets").

FAF also made an analogy which turned up in quite a few other letters of comment as well. It likened the cost problem in the extractive industries to the issue of accounting for research and development expenditures. Both of these industries, according to FAF, are characterized by inherently high risk, relatively low prior probability of success for any given outlay, and

highly variable returns on investment. Since the FASB had already decided on an expense-as-incurred policy in the case of R and D, precedent was in place.

Getty Oil went even further in its "yes" reply, by including an operational definition of "risk." For the oil and gas industry, it meant the "success rate of the number of producing wells." In Getty's experience, this should be a significant factor in cost treatment, as it has a strong positive relationship with "future economic benefits."

Shell Oil agreed that risk was simply a proxy for "prior probability of success/failure." Thus, it warranted careful estimation at the capital-budgeting stage, when the company evaluates alternative investment prospects.

The FASB appears in the top portion of the space, but with a relatively small y-coordinate value. It made no mention of either "conservatism" or "stage of operations" in Statement 19. Its position on risk was basically that it is inherent to all companies operating in the extractive industry, simply by definition. Only the "magnitude and number of projects" undertaken by each individual firm vary. The Board went on to advocate successful efforts, because of its more accurate depiction

of failed ventures as period costs. However, recall that this requirement was later suspended in Statement 25. Therefore, the FASB properly does not plot at either extreme; but rather, closer to the center.

The remaining pairwise combinations of axes failed to yield any other interpretable dimensions. This means that none of the remaining capitalization-expense criteria emerged as significant separators.

The second of these questions asked whether the type (e.g., IDC, geological, geophysical) or the nature of the cost incurred (e.g., tangible vs. intangible) should affect this decision. Again, the overriding criterion to many respondents was the notion of "future economic benefit," regardless of type of cost. One interpretation (reminiscent of the leasing DM) was that all outlays incurred prior to the acquisition of actual property rights must be expensed. As noted earlier, some subjects devised detailed schematics of how to handle a variety of possible charges at each stage of drilling and development.

The next question asked if the medium or method of expenditure (e.g., using the company's own personnel as opposed to outside contractors) should affect the capitalization-expense decision. Most of those who



addressed this issue correctly realized that it was a question of form over substance. Why should the same transaction be handled differently, depending on who carries it out? It hardly bodes well for the important accounting criterion of comparability among companies.

One policy criterion was simply too vague to be meaningfully operationalized. It asked if "management's mode of operations," or the way in which it plans the acquisition and development of reserves, should be a deciding factor. A number of respondents (including virtually all the accounting subjects) recognized that this was a nebulous term at best. Once again, comparability would suffer if different oil companies defined it in different ways.

The last of these criteria, though, was a disappointment in its failure to surface. Wolk, et. al., classified it as equivalent to the cause-effect association, in deciding whether full cost or successful efforts should prevail. The question reads, "Should the size or nature of the cost center affect the capitalization/expense decision?" As explained in Wolk, supporters of full costing in effect consider the entire company as the cost center. On the other hand, successful efforts assumes only the individual well as the

appropriate cost center.

Quite a few oil-company respondents, as well as the Financial Analysts Federation, felt that the concept of "cost center" was nothing more than an accounting tool for the accumulation of expense records. As such, according to Arthur Young and Shell, the size of the cost center should be the effect, not the cause, of the capitalization/expense decision. In fact, Arthur Young suggested that the decision process should proceed in the following order:

1. detailed analysis of overall company operations
2. step-by-step analysis of the circumstances under which each type of cost outlay is made
3. decision as to how costs should be linked to mineral deposits discovered (extent of cost linkage essentially represents full cost vs. successful efforts)
4. choice of corresponding "appropriate" cost center

Evidently, though, the choice of cost center was not sufficiently controversial to emerge as a distinct MDS separator of subjects.

Both sets of tests will now be summarized. The scaling of the first subset of questions (Brown's originals) produced markedly greater subject scatter than has been evident for other DMs. The oil subjects, in particular, were especially spread out. The tight

clusters which did emerge were heterogeneous (Big-8 firms clustering with select oil companies, as shown in the maps). Although a better fit was attained in the present study than in Brown's, there is no evidence here of the accounting-industry separation which he claimed to find.

Despite the improved stress, only three policy issues were evident as dimensions. Two of these ("successful-efforts-vs.-full-cost" and "the degree of association between costs and minerals") were collapsed into one axis. Several possible reasons for this finding were discussed. The third issue, reconsideration of tax effects, was also discovered by Brown. However, unlike in his study, it emerges here as a separate axis--probably as a result of the better stress value.

Two comments are in order regarding the relative position of the FASB. First of all, it appeared in a central "balancing" position in those spaces which were interpretable. Recall that the FASB was pressured into allowing either full cost or successful efforts-- a development which occurred after Brown's original work. Thus, MDS has correctly reproduced the Board's new "compromise" position (rather than having it cluster with the proponents of successful efforts).

Five additional facets of the capitalization/expense decision were then scaled separately. There was even more scatter among the Big-8 firms in this subset of results. Several small but stable groupings of accounting firms with special-interest oil subjects were evident. Again, there was no evidence of a preparer-attestor separation. Professional societies tended to cluster in the same half of the space, however.

Only one of these additional issues provided discernible subject separation. This had to do with the degree of risk and the stage of mining operations in the capitalization/expense decision.

### Concluding Comments

The nine DMs just analyzed contain an assortment of answers to the research questions posed at the outset of this section. Clusters of like-minded respondents have been identified in the perceptual spaces. The corresponding position of the FASB has been located in each map. In quite a few instances, these patterns of separation have provided clues as to the meaning of their underlying dimensions; these have been discussed in great detail. For the reader's convenience, Appendix 3 contains

a summary of the DMS analyzed and corresponding stress values for one through four dimensions.

But keep in mind the specific limitations which are in a sense the price paid for the versatility of MDS. In particular, no hypothesis testing can be done. This is because Kruskal's stress is not a bona fide tabulated test statistic. This means we must be content with rules of thumb, rather than relying on tabled p-values. As a consequence, the preceding mix of results cannot be re-aggregated via MDS to aid our more basic search for undue constituent influence.

Nevertheless, these scalings have produced as optional output a measure which may itself be input into a second round of overall tests. We may use the Euclidean-distance measures (a continuous variable) to test for differences between sub-groups in average FASB alignment. The resulting conclusions will therefore be more global than the issue-by-issue approach of the preceding scalings. Moreover, the tests to be employed permit a variety of hypothesis testing. These will be discussed in the next section.

### Follow-Up Aggregate Tests

The preceding series of multidimensional scalings was performed with two goals in mind. The first objective was to uncover clusters of respondents who held similar positions on accounting policy issues. Secondly, analysis of these subjects' relative positions was aimed at identifying those individual issues which generated the most controversy. In this manner, both the point scatter (subjects) and the dimensions (accounting issues) were substantively interpretable.

At this point, some additional questions come to mind concerning subjects' positions vis-a-vis those of the FASB. Recall that the primary graphical measure of agreement is the simple Euclidean distance. Since it is readily obtainable as MDS output, it provides an especially convenient vehicle for additional testing. The closer two sample points are in the derived spatial configuration, the smaller the Euclidean distance between them.

In the preceding scalings we observed several examples of the "ultimate" agreement: namely, coincident subjects or points. The Euclidean distance between any two overlapping points is zero. Conversely, the more widely separated two subjects are on the map (that is, the more they disagree), the greater the Euclidean distance

between them. Therefore, this measure can be used as a surrogate for alignment (e.g., respondent vis-a-vis FASB). Because it is a continuous variable, it is also amenable to a wide variety of statistical tests.

More specifically, the following questions will be examined. Do accounting subjects differ from special-interest subjects in terms of average alignment with the FASB? What about within each individual discussion memo--is there a difference in average alignment for a given subset of accounting issues?

Recall, too, that Brown's questions were supplemented by an additional set of policy issues for most DMs. A separate scaling was performed whenever there was more than one additional question for a given DM. The preceding sections highlighted some notable shifts in respondent groupings for the extra questions. But is there an overall difference in average respondent-FASB alignment for these additional questions, as compared with Brown's original set? These supplementary research questions will be examined in this chapter.

The underlying shape of the distribution of the Euclidean-distance variable must first be examined. This initial step is a prerequisite to selection of the appropriate statistical tests. For instance, if marked departures from normality exist, then nonparametric methods should be applied.

Figure 43 lists several summary measures applied to test for normality. These tests were applied to three samples (left column). The first contains all 459 pairwise-Euclidean distances, comparing the FASB to each respondent, for all the DMs that have been included in the analysis. Next, an attempt to avoid "double counting" was made by including only the complete set of questions for DMs 1 and 3 (recall that each of these contained only one additional policy issue). Finally, Brown's questions were directly compared to the additional set; there were 378 such responses.

A quick "eyeball" measure of distribution is the coefficient of skewness, listed in the right-most column. The amount in parentheses is the value divided by its standard error. Looking down this list, we note a negative skew in all cases. That is, there are more "close-alignment" values (small Euclidean distances) to FASB than expected for the usual bell-shaped curve. This skew is most pronounced for the Brown-vs.-additional-questions subsample; in fact, its standardized coefficient exceeds the 2.00 absolute-value benchmark. And it is least for the comparison of the accounting-vs.-special-interest subgroup.

This negative skew is pictorially evident in the normal probability plots for the subsamples shown in Figure 44. A bell-shaped plot would appear as a straight



line of points through the origin. By contrast, observe the lower values, in the southwest corner of each plot. If a straight line were sketched in as a rough guide, these points would fall above it. Again, these represent the greater-than-average number of small values which reflect the slight negative skew.

However, a more powerful statistical measure is also available to us: the Kolmogorov-Smirnov test. Its calculated Z-values are shown in the first column of Figure 43. In each case, the subsample was tested against a hypothesized normal distribution function; viz.:

$$H_0: F(x) = F_0(x) \text{ for all } x_i$$

$$\text{where } F_0 = N(0, 1)$$

$$H_A: F(x) \neq F_0(x) \text{ for } \geq 1 \ x_i$$

As can be seen from the robust Z-values and associated p-values of zero, there are significant departures from normality in all three cases. This means that nonparametric tests should be chosen for the defined research questions.

One such nonparametric measure appears in the middle column of Figure 43. As described in Daniel (1978), the Wald-Wolfowitz runs test is a quick and general way to determine the similarity in shape of two subsamples. That is, we can use it to tell whether or not they come from the same population (however distributed). It also

enables us to determine if they differ with respect to each other. However, the Wald-Wolfowitz test cannot tell us if a difference is due to means, standard deviations, or both. Nonetheless, it is a useful first pass at comparing subgroups such as those of the present study.

As Figure 43 shows, the Wald-Wolfowitz test statistic was calculated for both the accounting-vs.-special-interest and the Brown-vs.-additional-questions subsamples. Since there were ties, both the minimum and maximum possible number of runs in the data sets were evaluated. The associated p-values are generally averaged in such cases.

The hypotheses may be stated as follows:

$H_0$ :  $n_1$  and  $n_2$  come from the same population

$H_A$ : population  $\{n_1\}$  x population  $\{n_2\}$

The test results are somewhat marginal in the case of the accounting and special-interest subjects. The averaged p is 0.06015. There is much more convincing evidence of a difference between Brown's questions and the additional issues (averaged p = 0.00055). Again, however, we have no way of knowing whether the Euclidean distances of both groups differ with respect to mean, standard deviation--or perhaps both--at this point.

Additional investigation of differences in FASB alignment between accounting and special-interest subjects seems warranted. Based on the above results, this will be done separately for Brown's questions and the additional issues.

Because of the non-normal distributions (as evidenced in Figure 43 tests), the Mann-Whitney U test statistic is the proper one to use. However, one of its underlying assumptions is that the variances of the subsamples being compared must be equal. But recall that the Wald-Wolfowitz test, run as a preliminary step, could not provide any conclusive evidence as to whether this holds true.

Fortunately, there is a way out of the dilemma. Two measures of equality of the dispersion parameters were run for the two subsamples.

The first of these is called Levene's test and is shown in Figure 45. Its related hypotheses are as follows:

$$H_0: \sigma_1^2 = \sigma_2^2$$

$$H_A: \sigma_1^2 \neq \sigma_2^2$$

Now strictly speaking, Levene's test theoretically requires a normally distributed population. But one of its properties allows us to sidestep this catch-22; it happens to be much less sensitive to departures from

normality than some of its counterparts--most notably, Bartlett's test. So it is not unreasonable to look at its value, again as an initial pass.

In practice, it is common to use  $\alpha = 0.01$  as a cutoff. In other words, if  $p\text{-calc}$  exceeds 0.01, it is safe to assume that the two subgroups have the same variance. (Otherwise, in the case of a normally distributed population, we must compare groups using the "t-separate," rather than the "t-pooled," calculated statistic. Both of these are automatically provided in BMDP3D.) Figure 45 shows us that this is indeed the case for both subsamples ( $p\text{-calc} = 0.2118$  and  $0.1809$ , respectively).

There is a second alternative to testing for equality of variances. This nonparametric statistic has far less restrictive assumptions in place; namely, it does not require equal subgroup means. This is known as the Moses test. Note from Figure 45 that the Moses test also would have led us not to reject the null ( $p\text{-calc} > 0.01$  in both cases). In other words, the groups being compared are assumed to have equal within-group variances. Based on the results of both the Levene and Moses tests, we may now proceed with the Mann-Whitney U test for sub-group comparisons.

Since the equality of subgroup variances cannot be rejected, we may now examine the research questions posed at the outset. The first of these research questions asks

if accounting subjects and special-interest subjects differ in their average alignment with the FASB. A Mann-Whitney U test was performed using mean Euclidean distances; e.g.,

$$H_0: \mu_{ACCTG} = \mu_{SIG}$$

$$H_A: \mu_{ACCTG} \neq \mu_{SIG}$$

According to the results shown in Figure 46, we cannot reject the null hypothesis. The calculated value of the test statistic is 18,816.50, with a two-tailed p-value of 0.1588.

(Just as a point of interest, Figure 46 also shows corresponding results for the "t-trim, pooled" statistic. This robust measure is based on eliminating the largest and smallest 15% of observations in BMDP3D. This is done in order to minimize the influence of extreme values on the calculated t (and perhaps gain a more nearly normal subsample as well). The tradeoff, of course, lies in a reduced overall sample--really less of a problem here than with initially small sample sizes. While the associated p-value is different in absolute amount, it too would have led us not to reject the null.)

Next we can examine whether there is a difference in average Euclidean distance between Brown's questions and the additional set. That is:

$$H_0: \mu_{\text{BROWN}} = \mu_{\text{MARYD}}$$

$$H_A: \mu_{\text{BROWN}} \neq \mu_{\text{MARYD}}$$

Note that the Mann-Whitney U test provides marginal evidence for assuming that a difference exists. Figure 46 shows a 2-tailed p of 0.0553 for the calculated t of 19,511. (Note that the trimmed t is in close agreement: its p equals 0.0444.)

Now there is no a priori theoretical reason to assume that the alignment for Brown's questions should be closer than for the additional set; or vice versa. (That is why one-tailed hypotheses were considered appropriate.) All we can tell at this point is that a difference exists.

It would certainly be desirable to know if accounting subjects and special-interest subjects differ in their respective alignment for Brown's questions, as opposed to the additional issues. However, due to sample-selection restrictions, this cannot be tested in the context of the present study. The question would call for a repeated-measures ANOVA. Yet only the accounting subjects remain fixed throughout all of the included DMs. The special-interest subsample was unique to each DM because there was no corresponding pool of non-accounting subjects who responded to all of the DMs.

But it is definitely possible to probe further than Brown did in his original work. He, too, concluded there was no overall difference in accounting and non-accounting subjects. He reached this conclusion by preparing an aggregate MDS map, as well as performing a discriminant analysis on preparer vs. attestor subjects.

However, keeping in mind the nature of the averaging process, one wonders if some significant individual differences ended up getting obscured thereby. Curiously enough, Brown bypassed working with Euclidean distance measures, even though they are readily obtainable as output in ALSCAL. He thereby overlooked a natural means of testing for differences in alignment (accounting vs. corporate) within each of his specific topic areas.

This, then, is the natural follow-up step of the present study. The average alignment for accounting vs. special-interest subjects will be tested within each of the included DMs. Since prior overall test results revealed a difference for Brown's questions and the additional issues, these will be treated separately within each DM. The only exceptions, as before, are DMs 1 and 3, for which there was just one extra question. To keep consistent with the unit of analysis of MDS, only the complete set of questions will be examined for these two DMs. Likewise with DM 9, which was not included in the Brown study--since all the questions here are

"additional," by definition.

The results of applying the Mann-Whitney U test to accounting vs. special-interest respondents appear in Figure 47. The question we are asking is if accounting and special-interest subjects differ with respect to FASB alignment for a given DM and within a given subset of questions (Brown vs. additional).

Significant differences between both groups are evident for several cases. The complete set of questions for research and development produced a p of 0.0715. These issues dealt with the desirability of guidelines, as well as disclosure requirements and the proper costs to be included.

For the contingencies DM, only the additional issues produced statistically significant differences ( $p=0.0479$ ). These had to do with disclosure and classification requirements for accrued future losses.

On the other hand, Brown's issues produced the greater differences for the topic of leases ( $p=0.0108$ ). These questions included capitalization of installment-purchase leases; liability recognition of corresponding debt; the desirability of footnoting as an alternative to statement inclusion; and symmetry in accounting by lessee and lessor.

Interestingly enough, the additional DM (not in Brown's original set) turned out to be significant too.



The topic of pensions generated a p-value of 0.0345. The reporting entity, unit of measurement, and the proper treatment of unfunded accumulated vested benefits comprised this issue.

The final sample which produced a difference between accounting and special-interest subjects was Brown's set of issues for DM 10 (Debt Restructuring). The p-value for this set was 0.0026. These issues were basically a list of alternative forms of satisfaction of debt. In each case, the primary focus of interest was the choice of measuring unit of the new debt: historical vs. current value.

Keep in mind that each of the above results is based on a two-tailed test. That is, accounting and special-interest subjects were hypothesized simply to differ somehow. But what if we wish to make inferences with respect to the direction of these differences? In other words, are there any subsets of issues for which average distance to the FASB is expected to be smaller than for special-interest groups? And vice versa? These sorts of questions require one-tailed tests instead.

Figure 48 presents a summary of issues for which accounting subjects align more closely with the FASB. The table shows the DM, question source, and level of significance (based upon comparing the calculated t statistic given in Figure 47 to the tabled values in

Daniel).

The first of these is the complete set for research and development, as discussed earlier. The pension subset and Brown's leasing questions also turn out to be significant at the  $\alpha$  levels shown.

However, now Brown's issues for future losses show up in the list as well. These comprised a list of possible items which theoretically might qualify as accruable in advance (e.g., pending litigation; foreign expropriations; catastrophe losses).

In addition, the extra questions for leases produced smaller average distances to the FASB for the accounting respondents. These had to do with hypothetical disclosures for both capitalized and non-capitalized lease commitments-- in particular, the effects on reported net income of various alternatives.

In contrast, the two subsets of issues for which the special-interest subjects aligned closer to the FASB appear in Figure 49. These are the additional questions for contingencies and Brown's questions for debt restructuring.

To summarize, the topics which produced the most difference in average alignment are research and development; leases; pensions; future losses; and debt restructuring. Additional conclusions and suggestions are given in the following section.

## C H A P T E R V

### CONCLUSIONS AND EXTENSIONS

#### Introduction

Now that the statistical results have been set forth, it is appropriate to re-examine them in the context of the broader research questions of this study. There were actually five basic objectives. The first of these was to identify clusters of respondents holding similar positions on accounting policy issues. Both accounting and special-interest subjects comprised the two primary sub-samples. A second goal was to identify the FASB's corresponding position with respect to these respondents. In other words, did it side with a sub-group of respondents? Or did it instead take an outlier or neutral stand? Related to these two questions is the objective of discovering, if possible, those specific accounting policy issues (dimensions) on which these subjects took diverse positions.

The series of multidimensional scalings discussed in the data-analysis chapter provided graphical answers to

these three types of questions. Recall, however, that these were performed for nine essentially different accounting topic areas. Therefore, relative positions and conclusions were somewhat piecemeal in nature.

The final two research objectives attempted to be a bit more global as a result. Did accounting and special-interest subjects show differential average alignment with the FASB? And did average FASB-subject distance depend upon the particular subset of issues (Brown's vs. additional) being analyzed? The Euclidean-distance measures from the preceding scalings were used in a series of follow-up tests to answer these questions.

The purpose of this chapter is to reframe the statistical results obtained in terms of these basic objectives. First, these findings will be reviewed and their implications discussed. Next, some limitations of the study design and methodology used will be presented. As a final step, a few proposed extensions of this work will be briefly outlined. These are definitely worth pursuing, given renewed public interest in the possibility of undue influence in accounting standard-setting.

### Implications of Research Findings

A number of results found in this study correspond to conclusions of prior work which was outlined in the literature-review chapter. For instance, several distinct accounting/non-accounting dimensions emerged in the preceding scalings. More specifically, they occurred within the areas of general price level reporting; future losses; segments; and leases. Brown also reported attestor-preparer dimensions in overall and individual form. Yet a couple of key differences stand out. This study did not find such a split on the oil-and-gas issue, unlike Brown's results. And in a number of cases, the separation of attestor and preparer subjects along a given axis was not as clear-cut as claimed by Brown.

Furthermore, a number of individual issues resulted in heterogeneous clusterings (research and development, for instance). Most notably, the oil-and-gas DM was characterized by Big-8 oil-industry groupings. This brings to mind the auditor-client similarities of opinion over time, as described by Rhode, Whitsell and Kelsey and illustrated statistically by Rockness and Nikolai.

However, a large number of homogeneous groupings were uncovered in specific settings. Recall the cohesiveness

of insurance-oriented respondents for DM 4; the stable grouping of banks and banking associations for DM 10; and the unity of accounting subjects for DM 9. Meyer's claim of lack of alignment along employment categories is not supported in these instances.

Especially noteworthy is the number of times in which the FASB emerged as a "balancer." In two cases (foreign currency and oil and gas) the FASB ended up reversing and/or suspending its initial rulings following substantial public protest. The middle-of-the-road position of the FASB was also evident in such central issues as segment disclosures and reporting requirements for pension-fund assets. In contrast, the FASB appeared to be an outlier for very specific and almost peripheral supplementary questions, such as the particular deflator (GNP vs. CPI) to be used in general price level adjustments.

The foregoing clusters, as well as the dimensions that were identified, pertain to specific DMs. However, an attempt was made to aggregate these piecemeal results and return to questions such as those posed by Newman and Hussein and Ketz. Overall, does the FASB show a propensity to align more closely with accounting, as opposed to non-accounting (here, "special-interest")

subjects? Both of these studies found no disproportionate influence on the part of Big-8 accounting firms. In keeping with Brown's sub-sample, the present study broadened this base a bit, by including professional reporting societies as accounting subjects too.

There was also no evidence of a difference in overall FASB alignment (here, operationalized as mean Euclidean distances) between accounting and corporate subjects. However, a follow-up question revealed an important moderating variable in this comparison. There was borderline statistical evidence of a difference in overall mean distances for Brown's original issues, as compared to the additional set.

This suggests that the FASB's ultimate position vis-a-vis clusters of like-minded lobbyists is very much dependent upon the subset of particular accounting questions being analyzed within any broad topic area. As a result, the average FASB distance for the accounting vs. the non-accounting subjects was re-examined within each DM, with the subset of issues (Brown's vs. additional) serving as a "blocking factor." The question asked was this: for which subsets of issues was average distance to the FASB significantly closer for the accounting subjects than for the special-interest subjects? And vice versa?

One subset for which accounting subjects aligned more closely with the FASB was the complete set of questions for research and development. These included the desirability of general guidelines; the costs to be included (direct vs. indirect); and the proper accounting treatment of such outlays (capitalize vs. expense). But the one additional issue, the question of separate disclosure, was also significant.

Brown's set of issues for contingencies also resulted in a closer FASB alignment for the accounting subjects. These dealt with the overall desirability of accruing losses in advance, as well as more specific types (e.g., expropriations, pending litigation, catastrophe losses) and the desirability of disclosure requirements for non-accruable contingencies.

In the area of leases, alignment was closer for the accounting sample for questions of capitalization of installment purchases; symmetry in accounting treatment by lessees and lessors; and the suitability of specific criteria for individual types of leases (e.g., leveraged leases and sales equivalents); among others. These questions appeared in Brown's original set.

But the additional questions also revealed a closer distance for the accounting subjects on average. These



had to do with hypothetical disclosures for leases which escaped one or more of the FASB's strict capitalization criteria.

The final topic for which accounting alignment turned out to be closer for the accounting sample was the pensions DM. (Recall that Brown did not include the topic of pensions in his set of projects. Thus, all of the questions are "additional" by definition.)

In contrast, two topics produced closer distances between the Board and the corporate (special-interest) subjects. One of these was the additional set of questions for future losses. These dealt with the desirability of standards for disclosure for non-accruable contingencies, as well as the proper placement within the statement of accrued future losses.

The second of these was Brown's set of questions for debt restructuring (DM 10). All of Brown's questions here were hypothetical scenarios of various forms of debt restructuring (e.g., forgiveness; transfer of alternative assets in settlement; revisions in payment schedules). In all of these cases, the basic question was whether to record the debt at current value or historical cost.

However, in all of the remaining sets of issues there was no basic difference in alignment as between accounting

and non-accounting subjects. This includes all the issues for general price level changes; foreign currency translation; segment reporting; and accounting for the extractive industries.

What are the implications of these results for the FASB? As noted in the literature-review chapter, the Financial Accounting Standards Board is the third structural attempt to keep standard-setting in the private sector. Its two predecessors collapsed in large measure as a result of their strictly ivory-tower approach to accounting standard-setting. That is, they pictured accounting as a pristine science, with very precise, derivable rules. In doing so, they failed to take into account the conflicting objectives of various factions of their constituency--as well as the ferocity with which lobbyists could publicly promote their own goals.

As a result of recommendations made by the Moss and Metcalf committees, the FASB consciously incorporated procedures for public input into its method of operation. But how successful has it really been in striking a balance among opposing interests? Is there evidence of consistent alignment with accounting subjects? This has always been suspected, despite the lack of direct evidence from the various studies cited earlier. In fact, the

Dingell congressional committee hearings which began in February of 1985 are once more focused on this very question.

From the aforementioned results, it appears as though the accusations of preferential alignment are unjustified as a whole. Note the profusion of general issues for which no statistically significant difference emerged. One of these, GPL changes, was highly touted as controversial in its time. Yet the FASB has evidently balanced out constituents' preferences rather nicely. Not surprisingly, attestors can afford to subscribe to the assumption "more information is better"; they typically clamor for all sorts of additional disclosures. For corporate respondents, though, this represents yet another reporting burden. By limiting the nature of such GPL adjustments to certain selected supplementary disclosures, the FASB appears to have struck a workable compromise between both opposing groups. It also subsequently issued a series of statements illustrating how to present GPL disclosures for specific industries. This "willingness to educate" may have helped win the (albeit grudging) cooperation of corporate constituents.

In fact, a similar balancing was evident in the FASB's treatment of segment reporting--another DM which

showed no differences in alignment for any of the issues contained therein. Again, the accounting subjects tended to advocate as much additional information as possible, without regard to the feasibility or consequences to corporate filers. However, multiple-product-line firms were quite naturally concerned about loss of competitive advantage if they were forced to reveal too much inside information relative to marketing strategies. Furthermore, there was some concern about an accounting agency prescribing definitions as to what constitutes a "reportable" market segment. Once again, the Board attempted to compromise by providing broad-based (yet easily computable) "size" tests; and by limiting required supplementary disclosures to only such relatively available amounts as gross-margin line-type items (e.g., total sales revenues and cost of goods sold).

What do these conclusions imply for the FASB and its critics? The Board is evidently successful at remaining "neutral" in those instances where it relegates proposed new disclosures to supplementary notes; and it also carefully limits the number of such disclosures which must be made in this form. In other words, one of Wolk, et. al.'s frequent comments seems to be a prudent legislative strategy. The authors noted that accounting policy-makers

typically deal with "controversial" disclosures by allowing them to appear as notes, rather than requiring them to be placed in the body of the main financial statements. Given the ever-present danger of "democratic paralysis," in trying to be all things to all people, this may ultimately be the most expedient course of action. No doubt the FASB could point out the above instances to the Dingell investigators, as illustrations of its compromise solutions in the past.

Suggestions are somewhat less clear-cut from the results of two other issues, though. One which did not reveal significant differences in alignment seems to imply an alternative policy-making strategy. This topic was studied in DM 13, accounting for the extractive industries. Recall the rather stormy history of this topic, and the way in which the FASB was forced to alter its rulings in response to the outside pressures of the SEC as well as industrial lobbyists. In this instance, the Board's "neutral" position actually meant that it simply had to back off and allow individual companies to choose for themselves between full cost and successful efforts. Basically, this eventual flexibility is behind the lack of differential sub-sample alignment.

The lesson here for the FASB is that there is a world of difference between "theoretically preferable" alternatives (successful efforts) in principle vs. in practice. For while its overseer organization agreed that this approach was conceptually sound, even the SEC (as well as other governmental agencies, such as the Federal Power Commission) grudgingly came to tolerate flexibility in their own respective required filings. The FASB could clearly have saved itself considerable effort by adopting this flexible approach at the outset of its acceptance by the SEC, rather than having to face the embarrassment of a complete reversal due to outside pressures.

The remaining "no-difference" issue suggests that a somewhat different approach may sometimes be necessary for the policy-making body, depending on the issue. The question of foreign currency translation represents another radical turnaround in FASB position. Its original solution was to develop a lengthy schematic of which items should be translated at current rates and which at historic rates. Protests from essentially self-contained multinationals compelled the FASB to adopt an admittedly arbitrary, but much more expedient, rule: simply translate all accounts at the current rate. This neatly sidestepped the problem of what to do with exchange gains and losses

which arose for ongoing operations.

But here too the FASB softened its stance a bit by proposing the "functional currency" rule. This broad-based definition allows individual companies to make their own determination of the "correct" currency for their respective economic operating environments. Thus, when examined as a whole, the Board's ultimate solution in the case of foreign currency also parallels its "balancing" positions as described for the preceding issues.

To sum up, the FASB can point to quite a few instances of its "neutrality" in answering its critics who charge it with undue alignment of any sort (accounting or other special interests). In such cases, its "middle-of-the-road" stance may be explained by its tolerance of both broad guidelines (thereby allowing for some individual discretion, albeit circumscribed) as well as reporting of additional proposed financial information in limited footnote form in many cases.

However, the evidence here is a bit muddled as to which basic, underlying issues (as opposed to accounting questions quoted verbatim from particular DMs) are more salient to accounting vs. special-interest subjects. We noted earlier that the particular subset of issues within

each DM is a significant moderating factor in the search for differences in subject alignment with the FASB.

One suggestion to the Board is apparent from these results. Perhaps a two-pronged approach to the issuance of DMs for public reaction is advisable. As explained earlier, each DM simply lists a long and varied assortment of accounting questions for constituent response. But shouldn't certain more basic questions be submitted to the public first? Why not decide if GPL disclosures are useful and feasible, before going on to consider alternative deflators and modes of classification, for instance? (We saw how the poor wording of the "usefulness" question by the FASB when it issued DM 2 produced a confounding of the letter writers' responses and also a graphically uninterpretable axis as a result.) Isn't it more efficient to decide if losses ought to be accrued in advance at all, before weighing the merits of specific types of such contingencies?

Such a dual approach to DM composition could also help lobbyists focus their letter-writing activities more sharply. Recall the number of "skips" we encountered for implementation-type questions in a number of scalings, such as non-catastrophe losses in the case of insurance respondents to DM 4. Rather than being inundated with



30-plus-item letters, and being compelled to place all of these individual items on its agenda simultaneously, the FASB could more readily determine areas of subgroup agreement by considering more basic questions as a first pass. This would help it discern the commonalities in respondent preference functions (e.g., criteria that accounting reports should possess, which are preferred by all constituents) that Bromwich proposed.

At this point, it is worthwhile to contrast some of Brown's findings with the follow-up results of the present study. In his constructed classification function for preparers vs. attestors, Brown found the FASB grouping with the accounting subjects for R and D, contingencies, foreign currency, segments, and oil and gas. On the other hand, the Board aligned more closely with preparers for marketable securities, GPL changes, leases, and debt restructuring.

There are a number of reasons for the differences in results. The FASB changed its positions on foreign currency and oil and gas subsequent to Brown's work, as explained earlier. Its neutral position marks a movement toward special-interest subjects and away from strictly conceptual accounting considerations. Thus, the application of MDS in the present study resulted in a

"correctly" centralized FASB plot in both of these cases.

The topic of marketable securities was not included here because it was not preceded by a DM. Brown admitted that it emanated directly from an exposure draft. However, the latter is not a neutral document, quite unlike the construction of DMs. Thus, it would have introduced an undesirable source of noise into the balance of the (all-DM-based) sample.

Some similarities in both studies are evident; the attestor alignment for Brown's questions on contingencies and leases, to be specific. In like manner, the alignment for attestors matches Brown's results in the case of debt restructuring. However, the choice of particular issues is crucial in making these sorts of comparisons, as was statistically discovered and pointed out earlier. The additional questions for leases also show up for the attestor group. But the extra contingencies issues reveal closer special-interest alignment. Thus, Brown's results match up across the board for the topic of leases; but the area of future losses turns out to be a split issue (closer attestor alignment for one subset and closer preparer alignment for the balance of questions). This only underscores the need to disaggregate broad accounting topics very carefully into basic vs. supplementary

questions before making any claims as to FASB-subject alignment patterns.

The present study design contains one structural improvement over Brown's work. The coding scheme has been expanded so as to disaggregate neutral respondents and missing values. (Recall that they had been combined in Brown's work.)

This distinction made a difference in a number of cases. A notable example is the research and development DM. Recall that the capitalize-vs.-expense question did not emerge as a significant dimension here. Respondents were not as polarized because the majority of answers were actually neutral ("capitalize these accounts but expense those"). The improved coding scheme may also explain the fact that many of the two-dimensional solutions had better stress values than Brown's.

The second difference is in the composition of the second (non-accounting) sub-samples. Here they have been separately drawn from each DM index. This is in keeping with the initial research objective; that is, to examine the clustering and placement of "special-interest respondents" on policy issues.

At this point it is worthwhile to mention a few limitations of the present study design. These will be

briefly discussed next.

### Limitations of the Study

One of the most basic limitations of this study lies in the sample-selection procedure for special-interest subjects. An initial attempt to use frequency of DM response proved unsuccessful. The "size" surrogate seemed to be a reasonable method, given Watts and Zimmerman's work and the availability of the Fortune 500 lists as sampling frames. More specialized sampling frames were utilized for debt restructuring, leases, and the extractive industries. But perhaps there are alternative ways (other than size or response frequency) to select special-interest subjects, which in turn would lead to markedly different results.

Also, keep in mind that influence attempts were measured at only one point of the legislative process: namely, written responses to DMs. Shifts and reversals can certainly occur at other points, most notably public hearings and issuance of Exposure Drafts. These would of course not be captured by the present study.

Several limitations are inherent to the primary statistical technique which was employed. MDS has minimal

assumptions in place; there are no restrictions as to sample size, functional relationships among the variables, or the underlying shape of their distribution. But the tradeoff comes in the fact that it has no statistic associated with it whose underlying distribution is known and tabulated. Therefore, no hypothesis testing is possible with MDS. In particular, the goodness of fit statistic is a matter of judgment. Users must rely on published guidelines which are rough rules of thumb at best. This is in marked contrast to using chi-square test statistics as goodness-of-fit measures in linear structural relations, for instance.

While MDS does not require lack of collinearity among its variables, it produces orthogonal dimensions as output. This implies that the issues underlying these axes are independent. But even a cursory glance at the policy questions in Table 2 suggests otherwise. Recall that the first two questions for leases deal with capitalization and associated liability recognition. Or note the relationship between the issue on capitalizing leases and their subsequent amortization if they are capitalized.

Perhaps an even more basic limitation lies with the amount of judgment required to interpret each scaling.

Both the number of dimensions to be retained, and the interpretation of the underlying dimensions, are basically a subjective exercise.

There are certain other ways of looking at the primary research questions raised in this study. Some of them would circumvent the present limitations, through study design and/or methodology employed. A few of these will be mentioned in the following section.

#### Extensions of the Study

Throughout the interpretation of the nine DMs which were analyzed, a common theme repeatedly emerged. This was the need for the FASB to identify a sound conceptual framework prior to attacking accounting issues on a piecemeal basis. In fact, there were a number of fairly common threads running through supposedly diverse questions. Note, for instance, that oil and gas, R and D, and leases basically dealt with asset recognition. The choice of measuring unit was the main theme of GPL changes; yet it reappeared in pensions, debt restructuring, and foreign currency translation. Separate disclosure was an item of interest in segment reporting, R and D, and leases.

Factor analysis, or some other multivariate data reduction techniques, could be employed to uncover such recurring themes for various sets of interrelated accounting policy issues. Once such a list of underlying attributes has been determined, the FASB could stratify its constituents and sample their perceived similarities, as well as their preferences, for the inclusion of these characteristics in future financial reporting requirements.

This sort of research would provide a more direct gauge of which reporting objectives are salient to, or preferred by, sub-groups of the general public. Since it directly takes into account interdependencies in the basic issues, it would help the FASB predict both consensus and dissent on possible items within its proposed conceptual framework. This would no doubt expedite the legislative process.

In terms of the present study design, however, a number of less drastic modifications come to mind. For one thing, the unit of analysis could be reduced to just one DM, and all of the questions scaled within it for a set of respondents. This would eliminate the judgmental factor of having to choose only a sample of questions contained therein. As a result, the differential impact

of Brown's questions vs. the additional set would be completely removed.

Perhaps certain characteristics of respondents are associated with their opinions on policy issues. A chi-square automatic interaction detection (CHAID) could be performed, given additional information such as industry, number of product lines, length of time in business, number of employees, etc. If sub-group splits can be attained on such respondent characteristics, the results could be a more detailed and precise definition of "special-interest groups" than the simple size surrogate employed here. (Note: because the sample size must be at least several hundred for a reasonably stable solution, this sort of analysis would best be performed within a given DM with a large data base. Leases and debt restructuring would certainly have sufficient numbers of responses; R and D, on the other hand, would not.)

Earlier it was reiterated that the FASB policy-setting process consists of several distinct stages. Would the relative patterns of alignment discovered here remain the same if letters to Exposure Drafts were analyzed instead? Or the minutes of public hearings?



We noted dramatic FASB reversals in two DMs studied by Brown: foreign currency translation and accounting for the extractive industries. A new DM, pensions, was added. Yet it too is in a state of flux at present, particularly with the recent issuance of DMs 21 and 22. If and when the latter two documents culminate in final FASB Statements, the present analysis could be repeated, to reposition subjects' opinions relative to the new and different FASB rulings.

In the discussion of sample selection, it was noted that there was no single set of respondents who wrote letters to all nine DMs. But suppose a constant non-accounting sub-sample could be identified for a related subset of DMs (e.g., R and D, Oil and Gas, and Leases as surrogates of the concept "Asset Recognition").

If possible, this would open up a range of tests that could not be utilized in the present study. For example, is there an interaction effect between type of respondent (accounting vs. special-interest) and type of accounting issue (e.g., Brown's vs. mine; or "basic" vs. "implementational," as discussed earlier)? Given a constant set of all sampled subjects across all included DMs, a repeated-measures ANOVA could be performed in order to answer this question. Or suppose that no significant

interaction exists; but accounting and corporate subjects do differ in alignment with the FASB. Having the luxury of a constant non-accounting sample would enable the researcher to acknowledge statistically the interdependence among questions. He could do this by calculating Hotelling's T to test for differences. Because it does not require independence among its variables as a basic assumption, it does not understate the p-value in the same manner as in repeated application of the two-group t-test to a list of intercorrelated measures, according to Dillon and Goldstein. This means that the chances of Type I error are diminished by its use.

#### Concluding Comments

Political influence attempts are an unavoidable occurrence-- regardless of the particular setting. This study has re-examined prior assumptions of undue accounting influence within an established channel of communication in the FASB's legislative process. It has also extended the search for this effect by including non-accounting, special-interest subjects in its total sample. While certain conclusions agree with those of

prior work (no overall FASB-accounting alignment), a couple of important moderating variables ("topic area" and "subset of issues within each") were shown to affect this result significantly. Possible offshoots of this study were just discussed. Given the ongoing interest in the accounting policy-making process (most notably, the Dingell hearings), any and all potential indicators of undue influence deserve to be vigorously investigated in various alternative forms.

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## APPENDIX 1

## List of Sampled Subjects

Note: Assigned number identifies each subject's plot(s) in the perceptual spaces which appear in Figures 8 through 42.

<u>Subject</u>	<u>Number</u>
Arthur Andersen	1
Arthur Young	2
Coopers and Lybrand	3
Ernst and Ernst	4
Haskins and Sells	5
Price Waterhouse	6
Peat Marwick and Mitchell	7
Touche Ross	8
American Accounting Association (AAA)	9
American Institute of Certified Public Accounts (AICPA)	10
Financial Executive Institute (FEI)	11
Financial Analysis Federation (FAF)	12
National Association of Accountants (NAA)	13
Financial Accounting Standards Board (FASB)	14
Marriott	15
G. D. Searle	16
Eli Lilly	17
American Telephone and Telegraph (A.T. & T.)	18
Masonite	19
Rockwell	20
General Mills	21
Minnesota Mining and Manufacturing (3M)	22
Texas Instruments	23
International Harvester	24
Edison Electric	25
TransAmerica	26
TRW Corporation	27
Inland Steel	28
Gillette	29
Continental Oil	30
Commonwealth Edison	31
Alfred University	32
Texaco	33
Gulf Oil	34
Ford Motor Corporation	35
Standard Oil of Indiana	36
Dow Chemical	37
Sun Oil	38
Atlantic Richfield	39

## APPENDIX 1 (continued)

<u>Subject</u>	<u>Number</u>
PepsiCo	40
Chrysler Corporation	41
International Telephone and Telegraph (ITT)	42
Ingersoll-Rand	43
Fireman's Fund	44
American Insurance Association	45
Traveler's Insurance	46
Lincoln National Insurance	47
American Society of Insurance Management	48
American Academy of Actuaries	49
Insurance and Financial Analysts	50
Aetna	51
Caterpillar Tractor	52
Honeywell	53
Monsanto	54
L.T.V. Corporation	55
C.P.C. International	56
Procter and Gamble	57
Mobil Oil	58
Hoover Corporation	59
Howard Johnson's	60
Ashland Oil	61
Atlantic and Pacific Tea Company (A&P)	62
Storage Technology	63
Frontier Air	64
Eastern Air	65
Sunoco	66
International Multifoods	67
Union Oil of California	68
Ingram Corporation	69
American Life Insurance	70
Prudential Insurance	71
Union Carbide	72
Pension Benefit Guaranty Corporation (PBGC)	73
Liberty National Insurance	74
Internal Revenue Service (IRS)	75
U. S. Steel	76
Marcor	77
Municipal Finance Officers Association	78
Manufacturers Hanover	79
Chase Manhattan	80
J. P. Morgan	81
Security Pacific Bank	82
Mutual Bankers Association	83
Bankers Trust	84
Irving Trust	85



## APPENDIX 1 (continued)

<u>Subject</u>	<u>Number</u>
American Bankers Association	86
First National Bank of Chicago	87
Continental Bank of Chicago	88
Bank Administration Institute	89
New Jersey Bankers Association	90
Security Pacific Corporation	91
Southern Natural Resources	92
Pennzoil	93
Conoco	94
Getty Oil	95
Texas Gas Transmission	96
Interstate Natural Gas Association of America (INGAA)	97
Standard Oil of California	98
Inexco Oil	99
Shell Oil	100
Exxon Oil	101

## APPENDIX 2

## List of Policy Questions

## Discussion Memo 1

## Accounting for Research and Development Costs

Brown's questions: 1,2,3,and 5

1. Should there be broad guidelines with respect to R and D, as opposed to more detailed (per company or per industry) prescriptions?
2. Should R and D include only direct costs?
3. Should R and D costs be expensed as incurred?
4. Should R and D costs which are not initially expensed be systematically amortized?
5. Should R and D items be separately disclosed in the financial statements?

## Discussion Memo 2

## Reporting the Effects of General Price Level Changes

Brown's questions: 1,4,5,6,7,8, and 9

1. Should reporting of the effects of general price level changes be required as supplemental information to the conventional historical-cost financial statements?

2. Is financial information which has been restated for changes in the general price level useful?
3. Do the benefits of making price level adjusted accounting information available outweigh the costs involved?
4. Should a requirement for presentation of price level adjusted financial information apply to all entities?
5. Is the GNP Price Deflator the most appropriate measure of changes in the general purchasing power in the U.S.A.?
6. Should amounts in the general purchasing power financial statements be stated in terms of dollars of purchasing power at the end of the current accounting period (as opposed to some other base period)?
7. Are the criteria for distinguishing between monetary and non-monetary items, as set forth in APB Statement No. 3 appropriate?
8. Should all general purchasing power gains/losses which result from holding monetary assets/liabilities be included in the determination of current net income?
9. Should general purchasing power financial statements of earlier periods be restated in terms of current-period purchasing power, when such earlier statements are presented for comparative purposes?

#### Discussion Memo 3

#### Foreign Currency Translation

Brown's questions: 1,2,3,5,6,7,8, and 9

1. Should the parent company's reporting currency be

the appropriate unit of measurement for the financial statements of its foreign entities?

2. Should exchange adjustments be recorded immediately (as rate changes occur)?
3. Should gains and losses be accrued on forward-exchange contracts entered into to eliminate the risk on assets and liabilities of foreign entities?
4. Should the translation of accounts be affected by changes in the exchange rate subsequent to the end of a period, but prior to the issuance of financial statements?
5. Should inventories of foreign entities be adjusted for changes in exchange rates between the local currencies of the foreign entities and the reporting currency of the parent company (or use current rates)?
6. Should fixed assets of foreign entities be adjusted for changes in exchange rates between the local currencies of the foreign entities and the reporting currency of the parent company (or use current rates)?
7. Should deferred income taxes of foreign entities be adjusted for changes in exchange rates between the local currencies of the foreign entities and the reporting currency of the parent company (or use current rates)?
8. Should preferred stock (of a permanent nature) of foreign entities be adjusted for changes in exchange rates between the local currencies of the foreign entities and the reporting currency of the parent company (or use current rates)?
9. Should long-term liabilities of foreign entities be adjusted for changes in exchange rates between the local currencies of the foreign entities and the reporting currency of the parent company (or use current rates)?

## Discussion Memo 4

## Accounting for Future Losses

Brown's questions: 1,6,7,8, and 9

1. Should losses be accrued in advance of their occurrence?
2. Should accruable future losses be measured by the effect on the results of operations (both periodic and irregular charges, as applicable)?
3. Should accrued future losses be classified as liabilities in the balance sheet (as opposed to using an asset valuation account or a special category)?
4. Should standards be set for the disclosure of accruable future losses in the financial statements?
5. Should future losses not meeting the criteria for accrual be disclosed?
6. Should accrual of future losses from expropriation by foreign governments be allowed in advance of their occurrence?
7. Should accrual of future catastrophe losses of property and casualty insurance companies be allowed in advance of their occurrence?
8. Should accrual of future losses from pending or threatened litigation be allowed in advance of their occurrence?
9. Should standards be set for the disclosure of non-accruable future losses in the financial statements?

Discussion Memo 5  
Financial Reporting for Segments  
of a Business Enterprise

Brown's questions: 1,5,6,7,8, and 9

1. Should information about segments be included in the financial statements?
2. Are additional disclosures necessary, other than those within the statements?
3. Should previously reported segment information (which is presently in the current period for comparative purposes) be retroactively restated?
4. Should segment information be included in interim financial reports?
5. Should the FASB specify guidelines for segmentation (as opposed to the entity determining the 'best' segmentation)?
6. With respect to the income statement, should some measure of segment income be reported (as opposed to only 'revenue' information)?
7. With respect to the balance sheet, should selected segment information (e.g., property, inventories, etc.) be reported?
8. Should selected segment information with respect to the Statement of Changes in Financial Position be reported?
9. Should a requirement for inclusion of segment information in financial statements be made applicable to only certain profit-oriented business enterprises?

## Discussion Memo 7

## Accounting for Leases

Brown's questions: 1,2,4,8,9,10,11, and 12

1. Should leases which are in substance "installment purchases" be capitalized?
2. Should leasing agreements whose terms give rise to debt (in the strict legal sense) be recorded as liabilities?
3. If leases are capitalized, should the effect on net income differ from that otherwise resulting from the pattern of lease rental payments?
4. Does footnote disclosure represent a satisfactory alternative to lease capitalization in fulfilling users' needs for information concerning lease transactions?
5. Assuming no change in the present requirements for lease capitalization, should disclosure of the present values be required for certain non-capitalized lease commitments?
6. Should disclosure of the effect on net income, had these leases (previous question) been capitalized, be required?
7. If some leases are capitalized, does this obviate the need for disclosing information in footnotes concerning these leases?
8. Should leases which are the equivalent of "sales" be accounted for as such by the lessor?
9. Should accounting for leases by lessees and lessors be symmetrical?
10. Should "manufacturer" or "dealer" lessors be permitted to recognize a proportionate share of their profit with respect to some leases which are not the equivalent of sales?

11. Should leases which are considered to be financing arrangements for the purchase of property be identified by the same criteria as those which are considered equivalent to 'sales of property'?
12. Are leveraged leases unique, in the sense that special accounting standards are required to recognize their economic effects?

Discussion Memo 9

Accounting and Reporting for

Employee Benefit Plans

Brown's questions: none

1. Should the accounting and reporting entity be the plan (vs. the fund)?
2. Is the accrual basis of accounting the most appropriate one for preparing the financial statements?
3. Should historical cost be the measurement base?
4. Should some measure of the obligation for pension benefits be presented as a liability or equity interest in the financial statements (as opposed to footnote or other disclosure)?
5. Should the FASB specify how assets and liabilities should be classified in the financial statements of the pension plan?



## Discussion Memo 10

## Accounting by Debtors and Creditors

## When Debt Is Restructured

Brown's questions: 5,6,7, and 8

1. Should the matters covered by a Statement be limited by the exclusion of specific types of debt restructurings?
2. Because debt of state and local government units may be considered by some to be different from that of other entities, in a restructuring of debt of a state or local government unit: should the attribute measured differ from that which is measured by some other entity (e.g., a business corporation)?
3. If a present value attribute is measured by the creditor to determine the amount of the receivable resulting from a restructuring, should contingent interest payments be included in that measurement?
4. If a present value attribute is measured by the debtor to determine the amount of the debt resulting from a restructuring, should contingent interest payments be included in that measurement?
5. When there is satisfaction of a receivable or debt by forgiveness, should the remaining balance be accounted for at historical entry value (as opposed to some form of current value) by both the creditor and debtor?
6. When there is satisfaction of a receivable or debt in whole or in part by transfer of receivables, real estate, or other assets, should the remaining balance be accounted for at historical entry value (as opposed to some form of current value) by both the debtor and creditor?

7. When new evidence of debt is issued for outstanding (old) debt and there is a change in the stated maturity amount of the debt, should the new debt be valued at the historical value of the old debt by both the debtor and creditor?
8. When there is a change in the amount or timing of cash payments of outstanding debt without a change in the stated maturity of the debt, should the restructured debt be valued at the historical value of the old debt by both the debtor and creditor?

Discussion Memo 13

Financial Accounting and Reporting

in the Extractive Industries

Brown's questions: 1,7,8, and 9

1. Should the degree of association between a cost and minerals discovered and developed (a cause/effect association) affect the capitalization/expense decision?
2. Should the degree of risk (uncertainty), the stage of operations during which a cost is incurred, and the concept of conservatism affect the capitalization/expense decision?
3. Should the type (e.g., IDC, geological, geophysical) or nature (e.g., tangible or intangible) of the cost incurred affect the capitalization/expense decision?
4. Should the medium or method of expenditure (e.g., company's own personnel vs. outside contractors) affect the capitalization/expense decision?
5. Should management's mode of operations, or the way in which it plans the acquisition and development of reserves, affect the

capitalization/expense decision?

6. Should the size or nature of the cost center affect the capitalization/expense decision?
7. Should the FASB adopt accounting policies conceptually similar to successful efforts costing (as opposed to full costing)?
8. Should Statement No. 9, "Accounting for Income Taxes--Oil and Gas Producing Companies," be re-addressed in connection with the current project?
9. Should the traditional historical cost basis financial statements be supplemented by financial statements in which reserves are valued on some basis other than historical cost?

APPENDIX 3  
MDS Stress Values

DM	Source*	# of Dimensions			
		1	2	3	4
1	B	0.3134	0.0776	0.0410	0.0098
1	C	0.3564	0.1542	0.0472	0.0222
2	B	0.4050	0.2081	0.1174	0.0683
2	M	0.4110	0.1520	0.0702	0.0354
3	B	0.3459	0.1754	0.1138	0.0718
3	C	0.3639	0.2137	0.1165	0.0700
4	B	0.3113	0.1455	0.0564	0.0323
4	M	0.3167	0.1373	0.0177	0.0148
5	B	0.3899	0.2249	0.9800	0.0486
5	M	0.3235	0.1081	0.0406	0.0309
7	B	0.3420	0.1651	0.0940	0.0590
7	M	0.2471	0.0800	0.0216	0.0090
9	C/M	0.3404	0.1540	0.0728	0.0340
10	B	0.1880	0.1023	0.0676	0.0455
10	M	0.2776	0.0583	0.0296	0.0097
13	B	0.3490	0.1565	0.0674	0.0127
13	M	0.4125	0.1642	0.0905	0.0536

\*B = Brown's subset  
M = Mary D's subset  
C = complete set

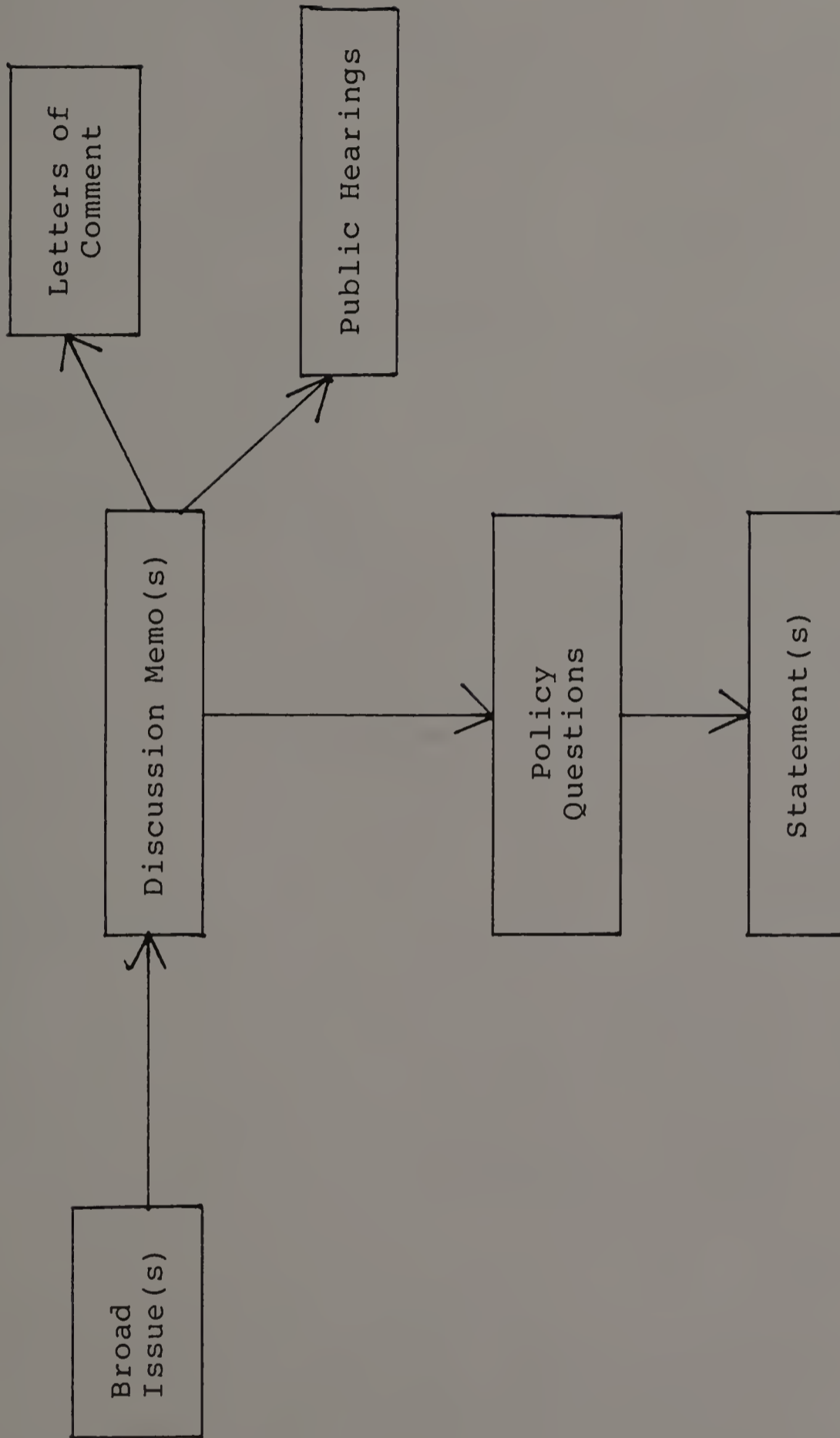


Figure 1. Relevant components of the standard-setting process.

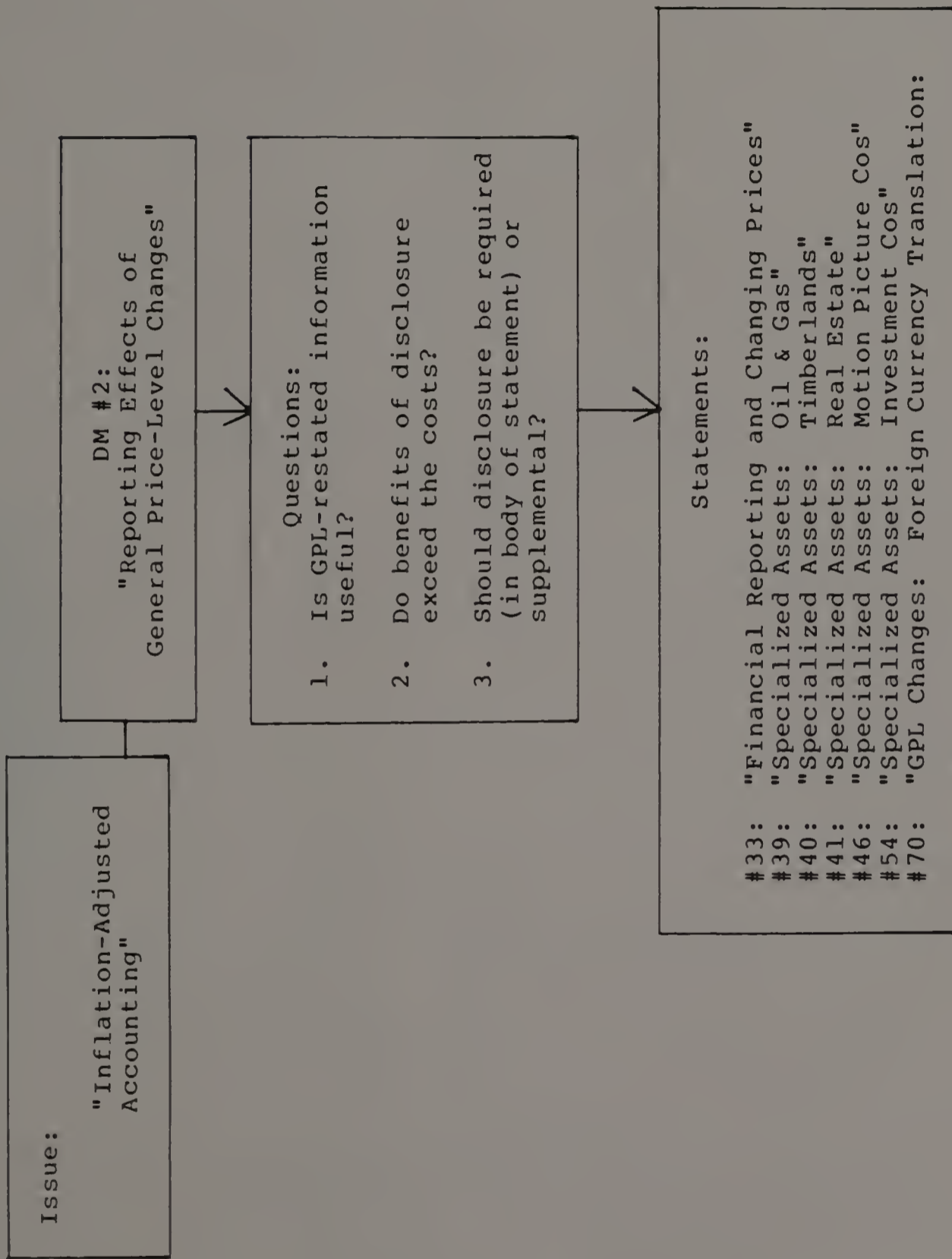


Figure 2. A specific illustration.

DM No.	Title	Date	No. of Letters
1	Accounting for Research & Development & Similar Costs	12/28/73	75
2	Reporting the Effects of General Price Level Changes in Financial Statements	2/15/74	133
3	Accounting for Foreign Currency Translation	2/21/74	90
4	Accounting for Future Losses	3/13/74	85
5	Financial Reporting for Segments of a Business Enterprise	5/22/74	141
7	Accounting for Leases	7/2/74	305
9	Accounting & Reporting for Employee Benefit Plans	10/6/75	103
10	Accounting by Debtors & Creditor when Debt Is Restructured	5/11/76	895
13	Financial Accounting & Reporting in the Extractive Industries	12/23/76	140

Figure 3. List of included DMs.

	1	2	3	<u>Discussion Memo</u> .....	22
<u>Respondent</u>					
Shell Oil	✓		✓		
Deloitte Haskins & Sells	✓	✓	✓		✓
Columbia Univ.			✓		
etc.					
General Electric			✓		✓

Figure 4. Cross-classification matrix: respondents by DMs.



Respondent #1*				
R e s p o n d e n t	Yes	Neutral or No Response		No
	Yes	Very Similar (1)	Intermediate (5)	Very Dissimilar (9)
Neutral or No Response	Intermediate (5)	Very Similar (1)	Intermediate (5)	
# No 2	Very Dissimilar (5)	Intermediate (5)	Very Similar (1)	

\*one of these being the FASB

Figure 5. Paired-comparison matrix for data aggregation.

from Brown, 1981, pg. 238

	Yes	No Response	Neutral	No
Yes	(1)	(3)	(5)	(7)
No Response	(3)	(1)	(3)	(5)
Neutral	(5)	(3)	(1)	(3)
No	(7)	(5)	(3)	(1)

Figure 6. Paired-comparison matrix.

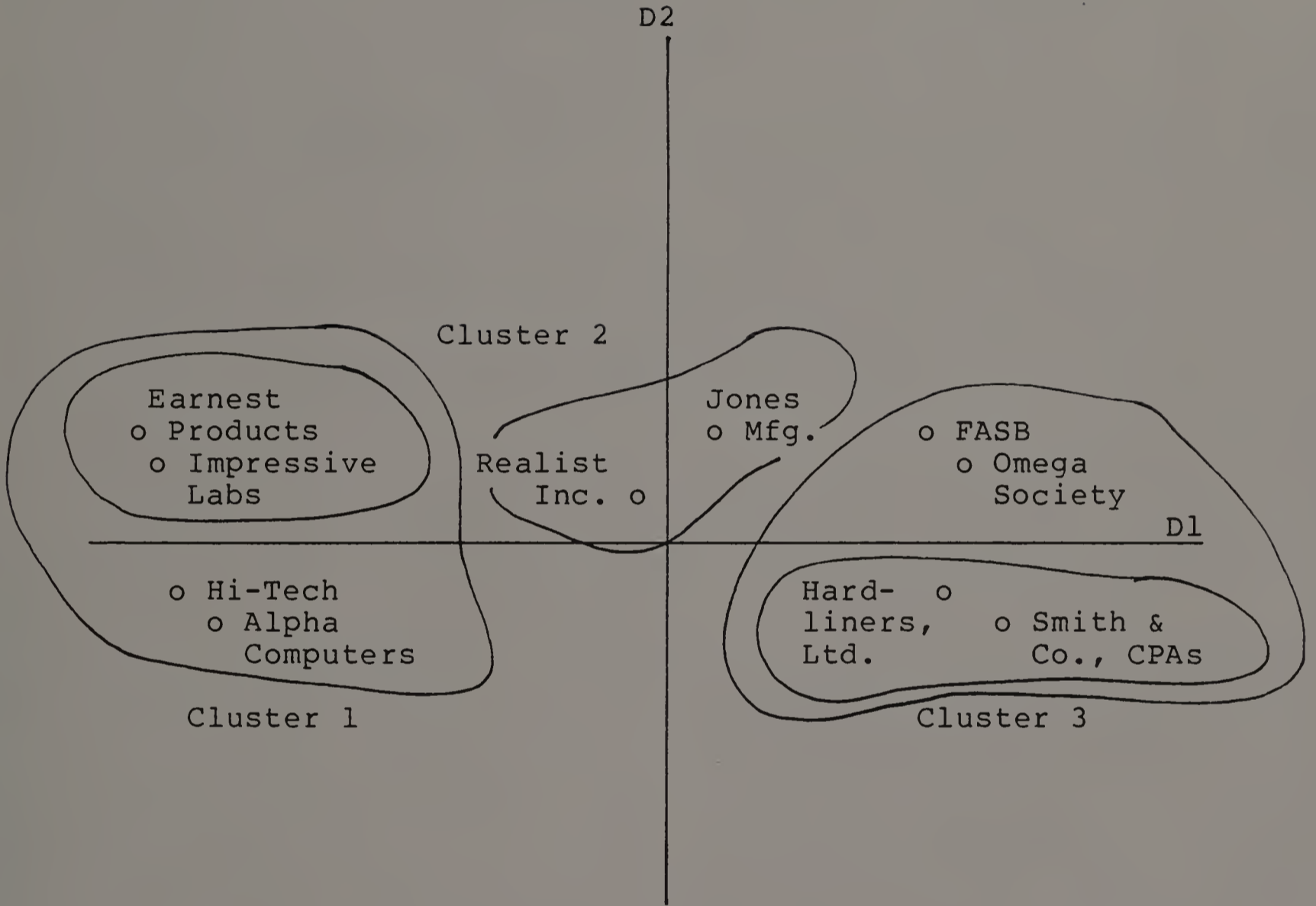


Figure 7. A sample two-dimensional MDS solution.

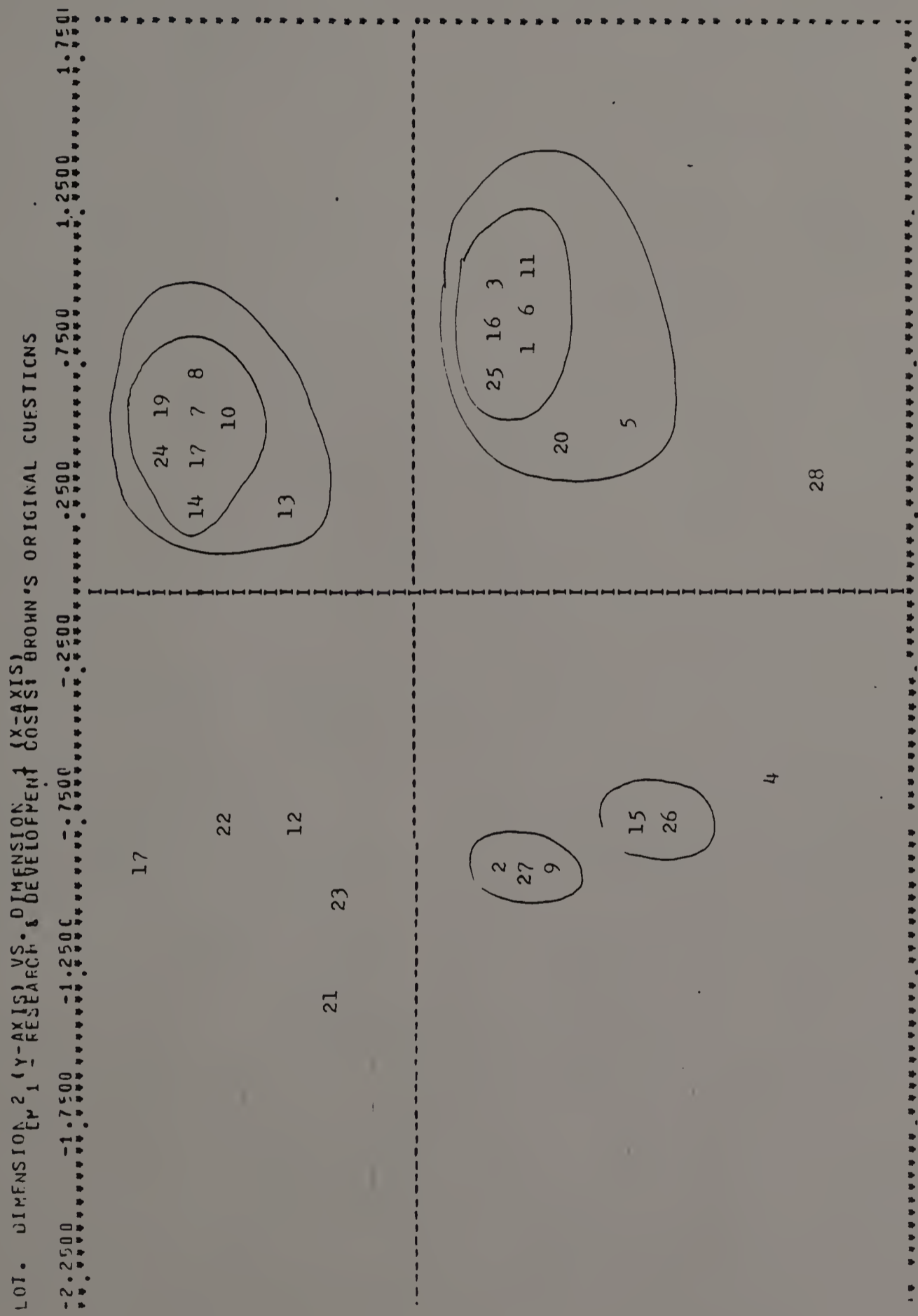


Figure 8. DM 1 - Space 1.

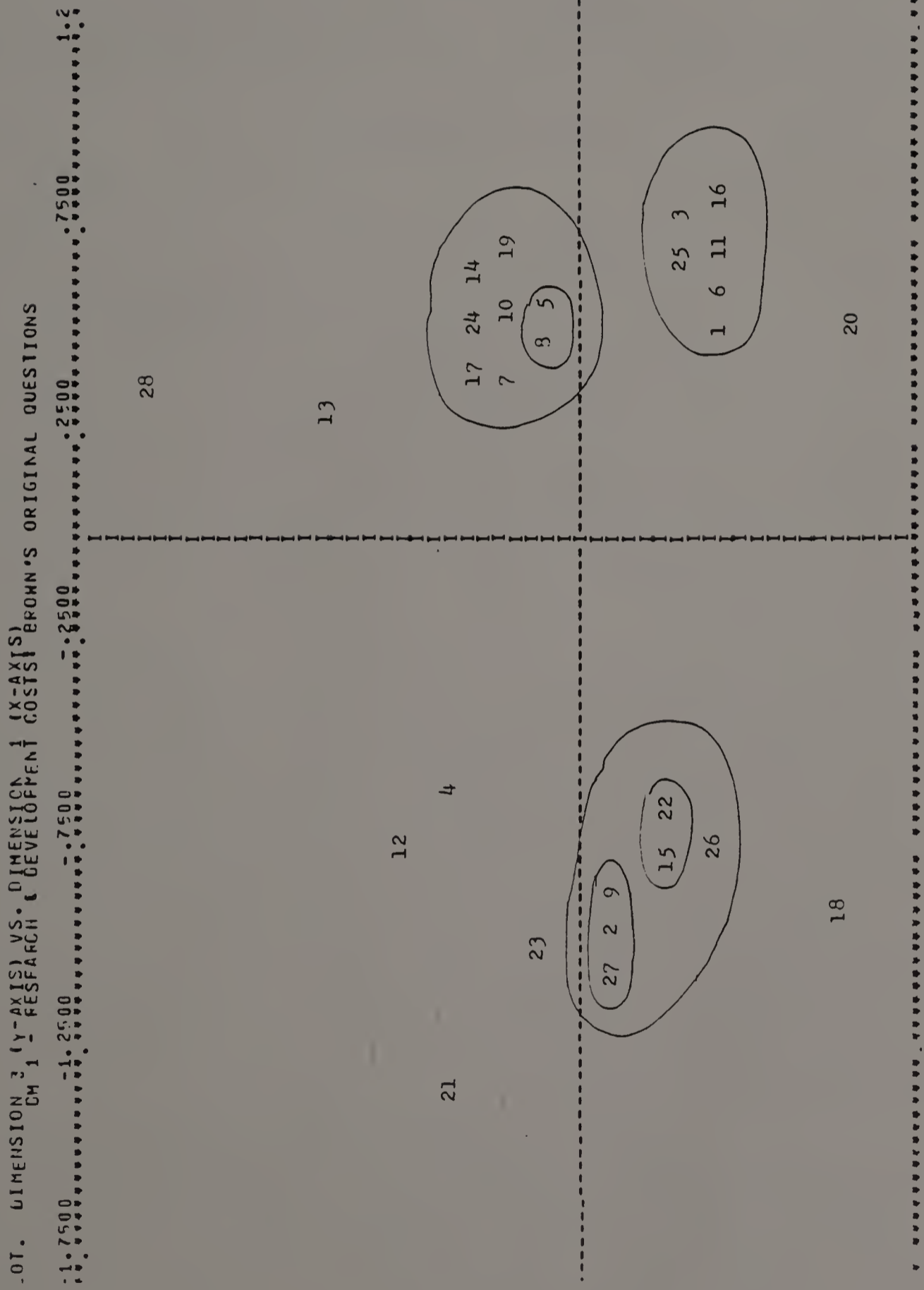


Figure 9. DM 1 - Space 2.

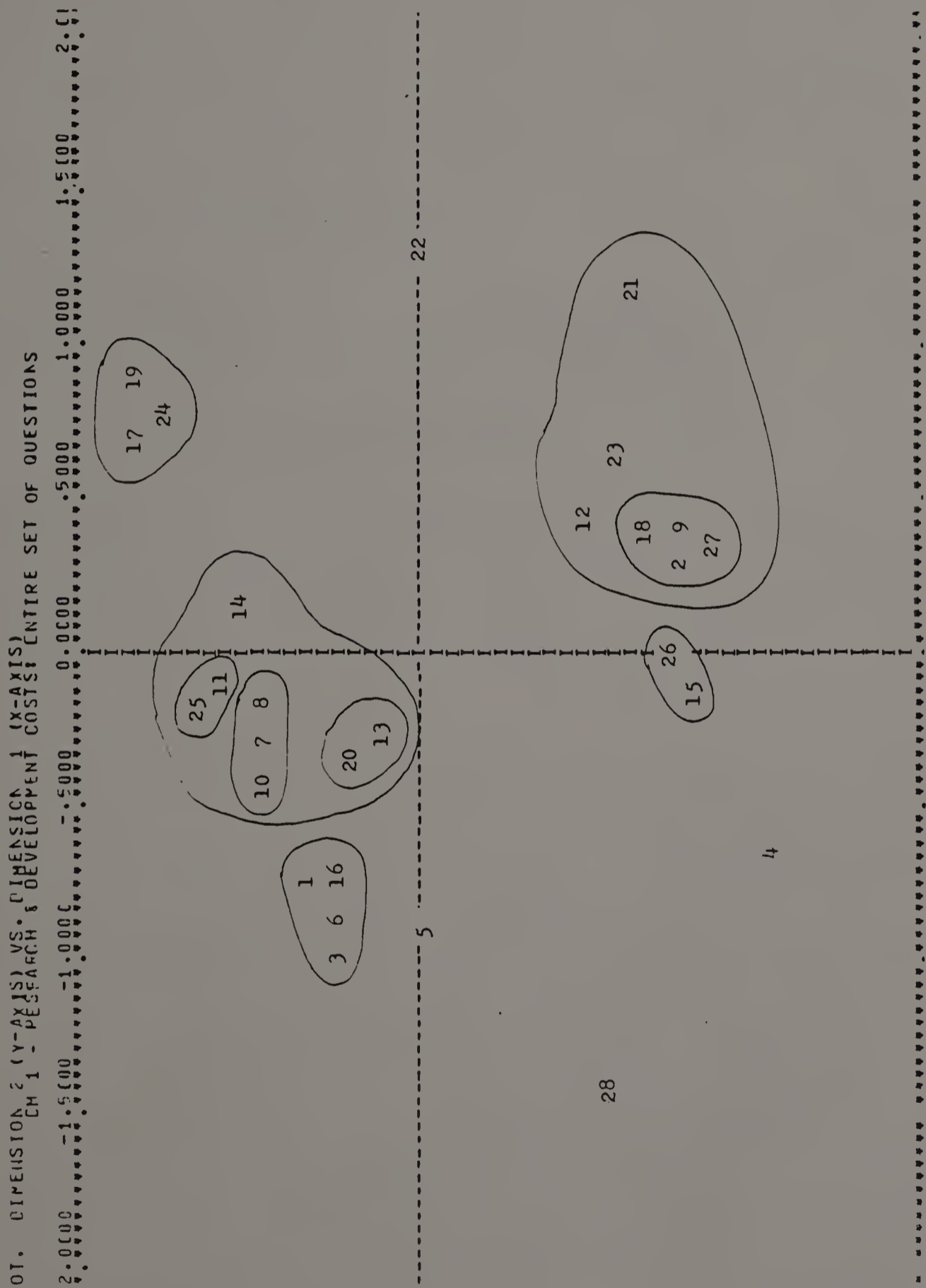


Figure 10. DM 1 - Space 3.

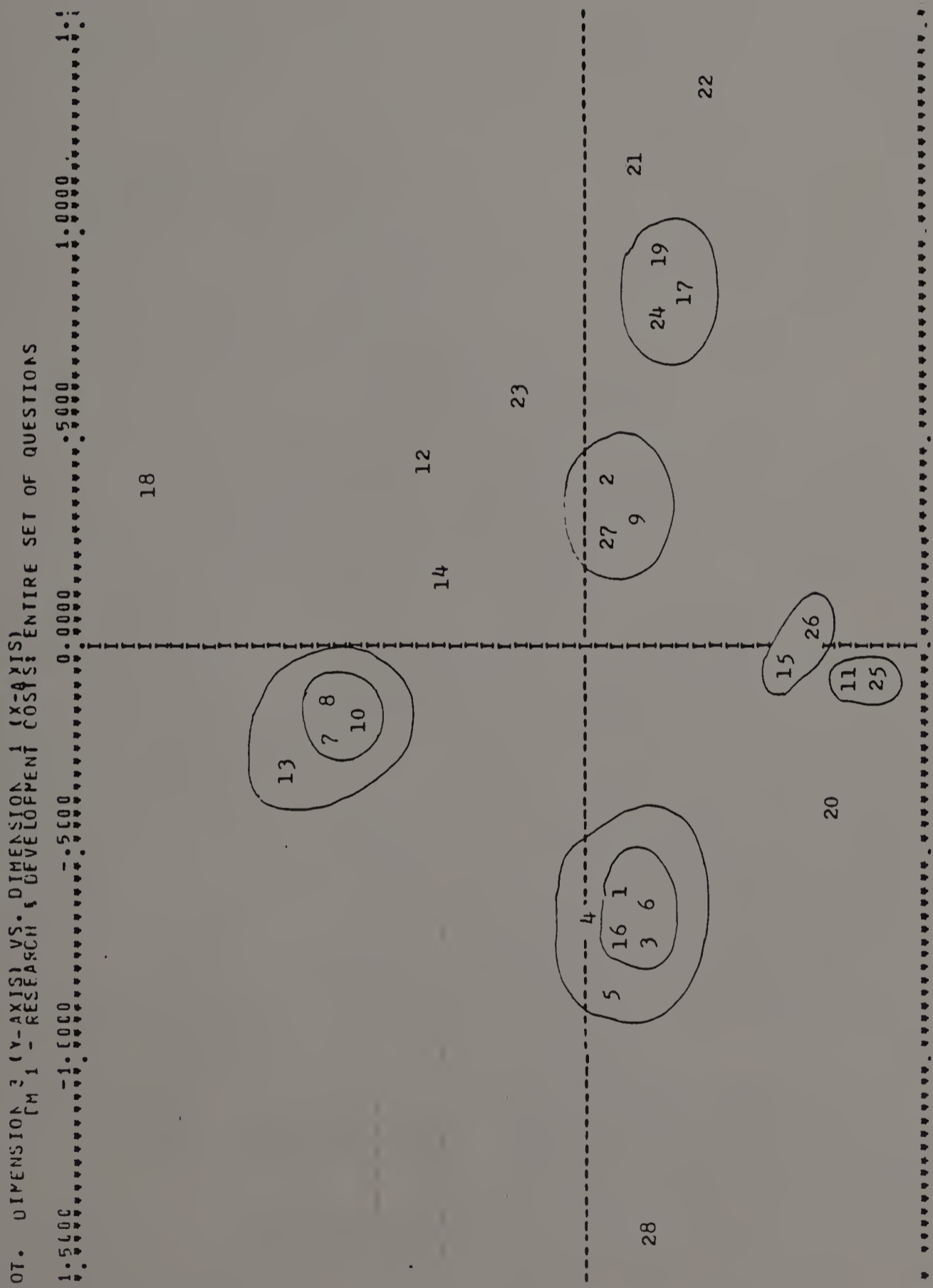


Figure 11. DM 1 - Space 4.

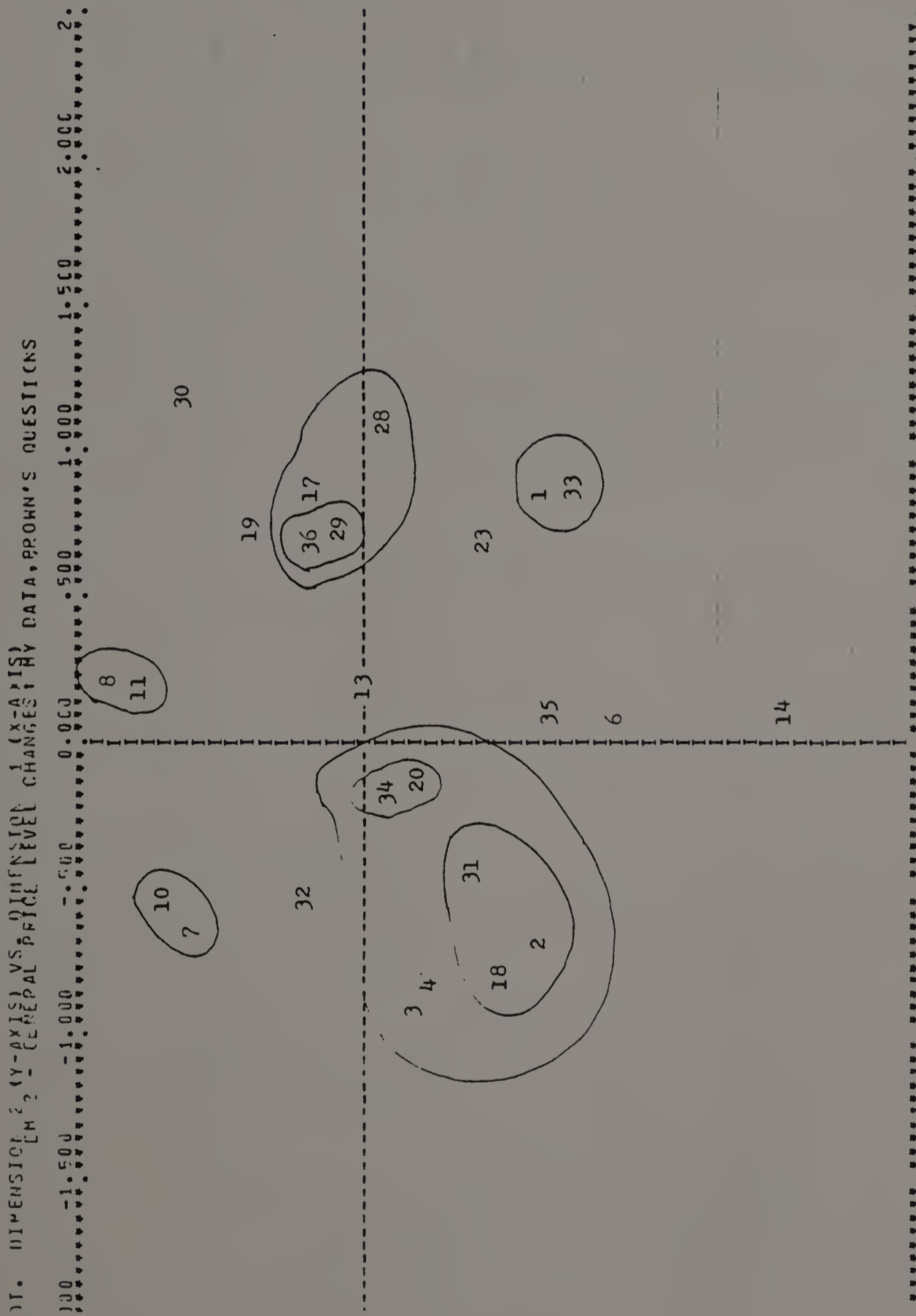


Figure 12. DM 2 - Space 1.



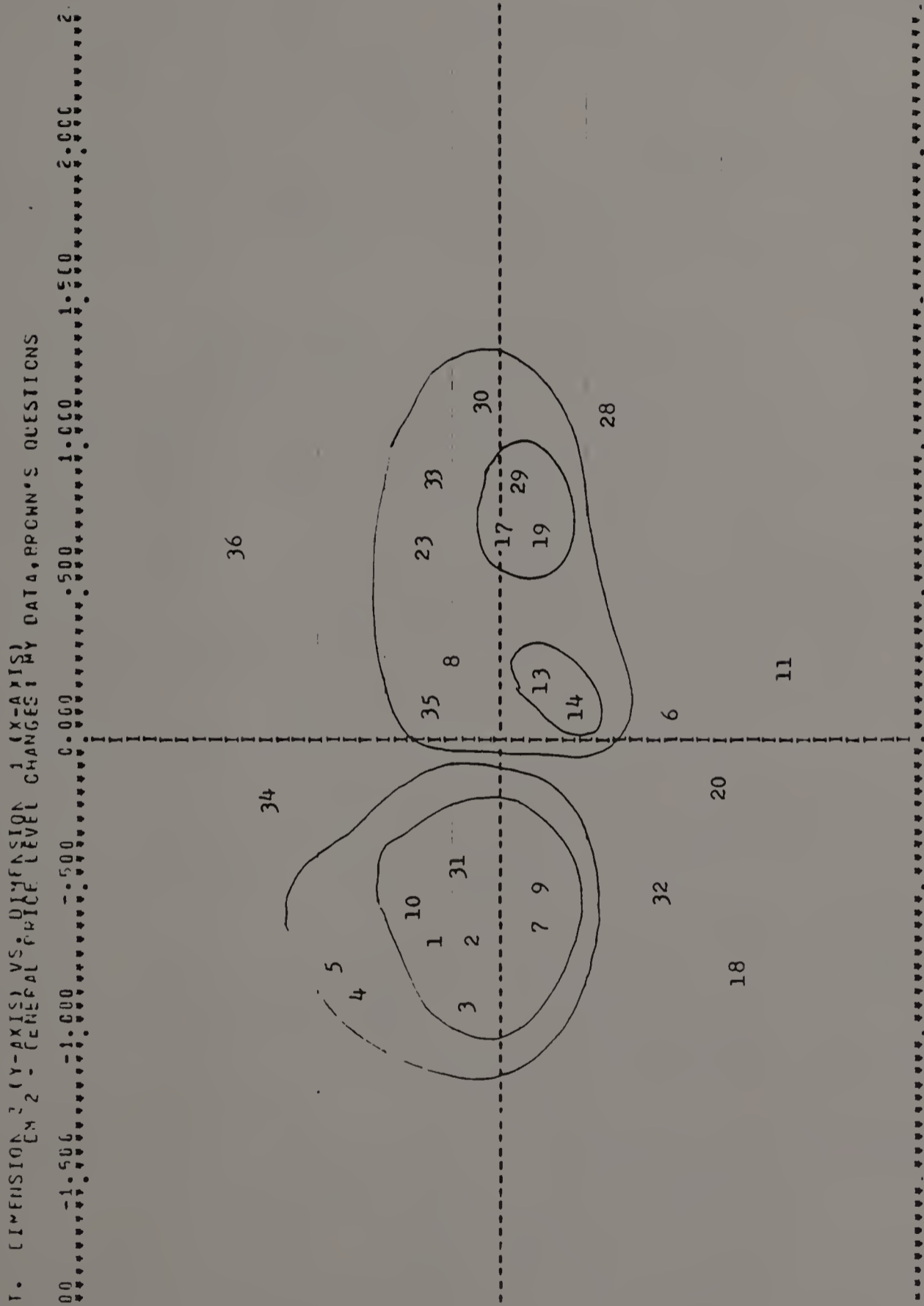


Figure 13. DM 2 - Space 2.



Figure 14. DM 2 - Space 3.

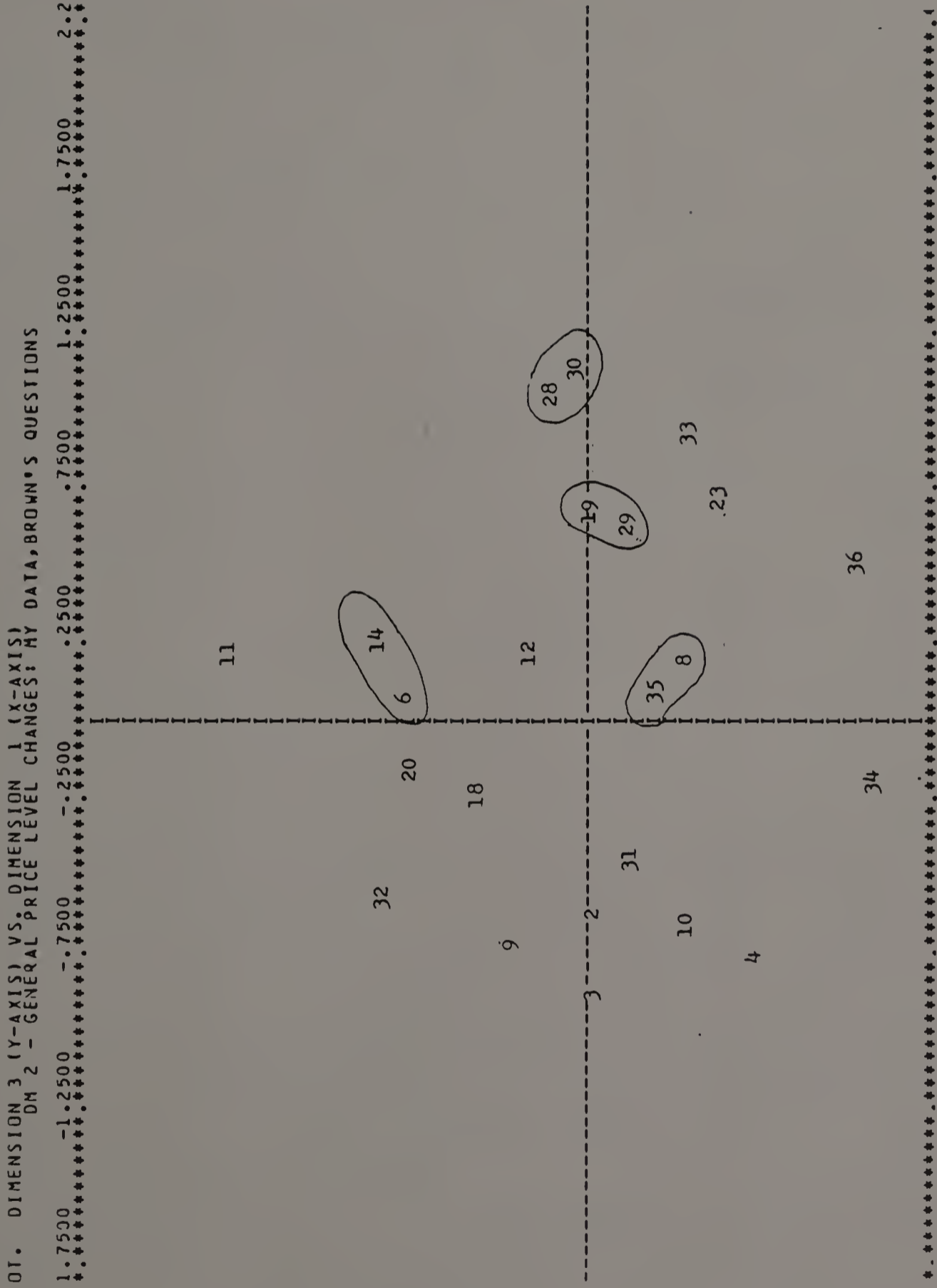


Figure 15. DM 2 - Space 4.

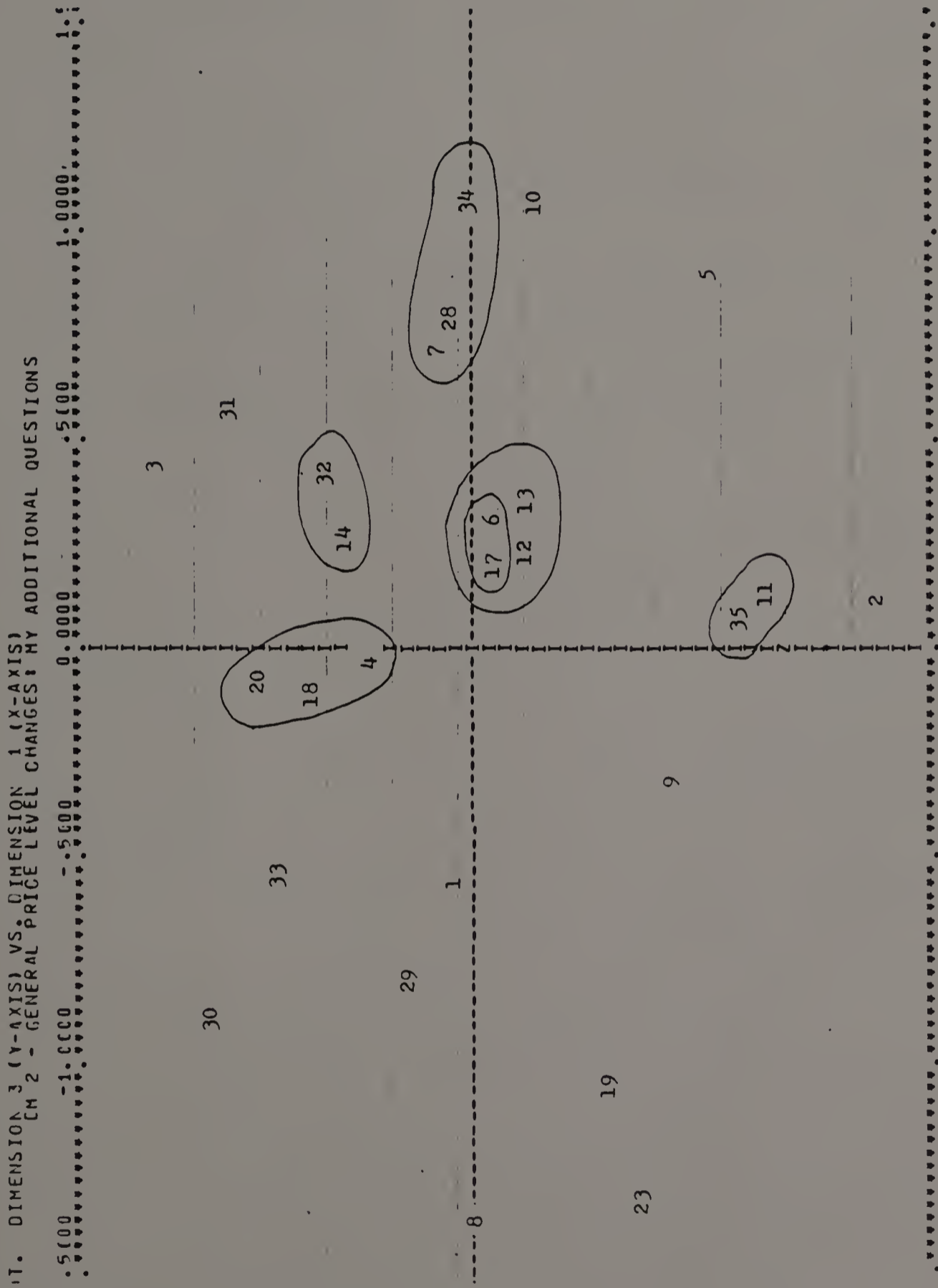


Figure 16. DM 2 - Space 5.

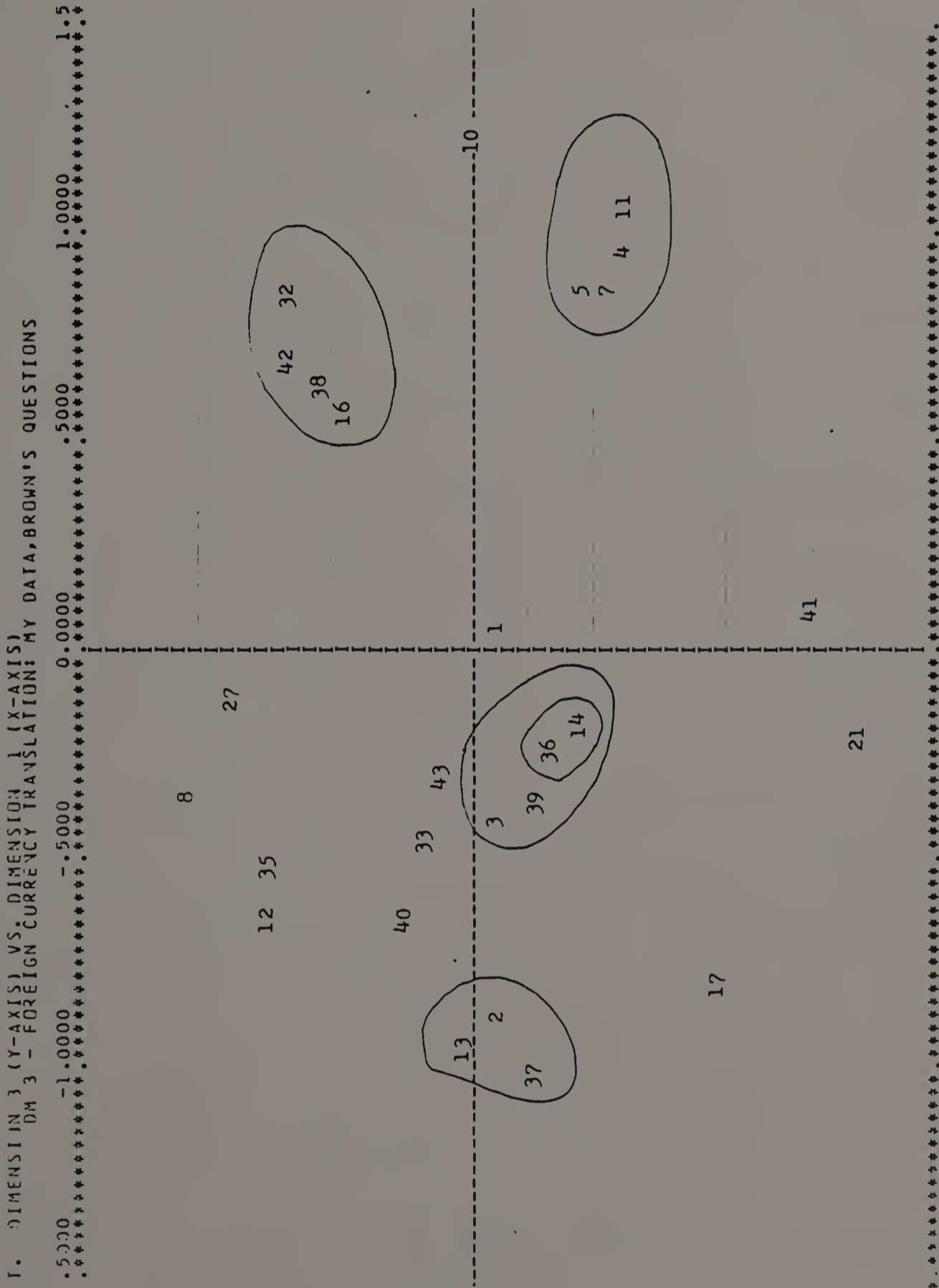


Figure 17. DM 3 - Space 1.

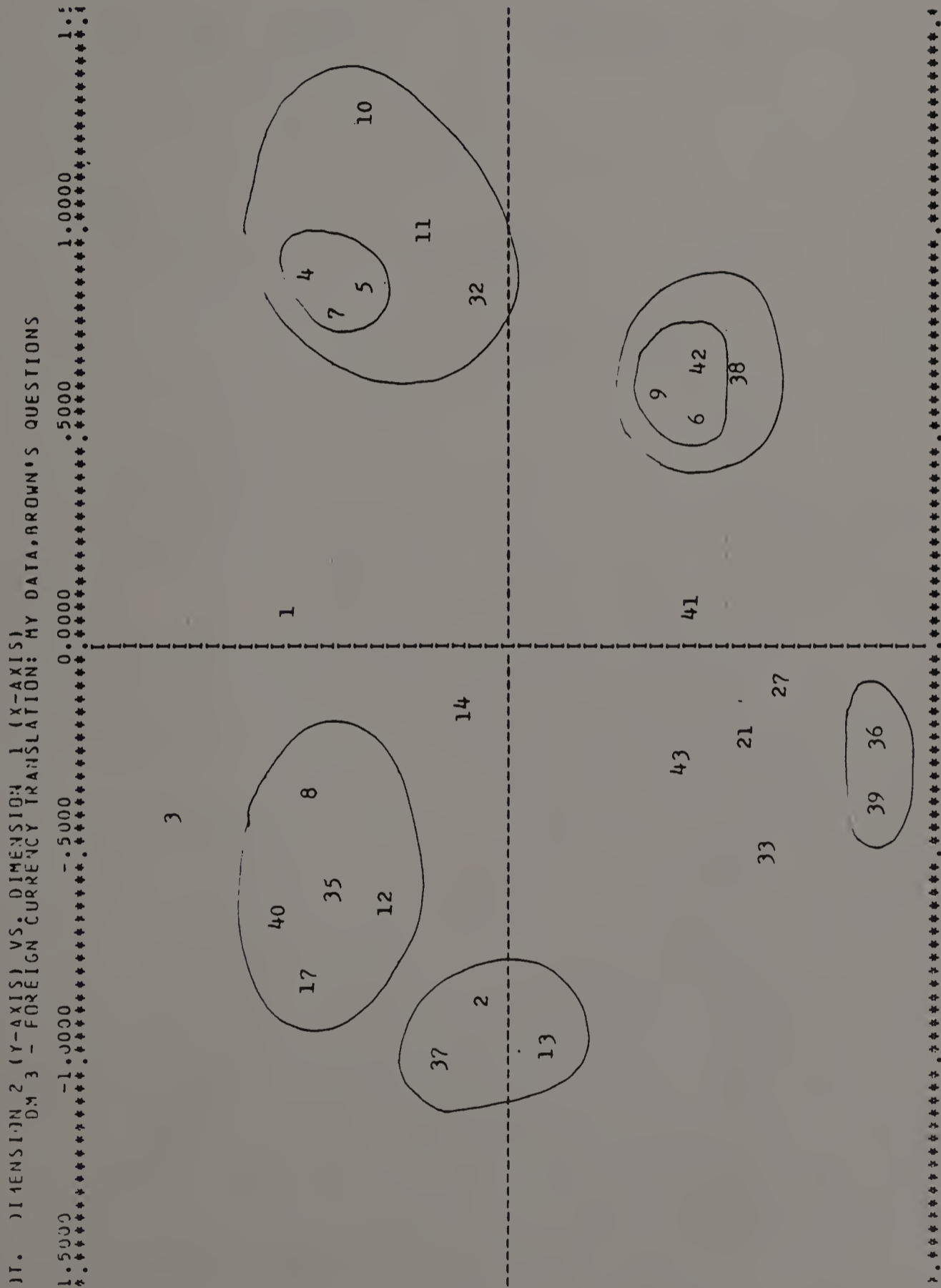


Figure 18. DM 3 - Space 2.

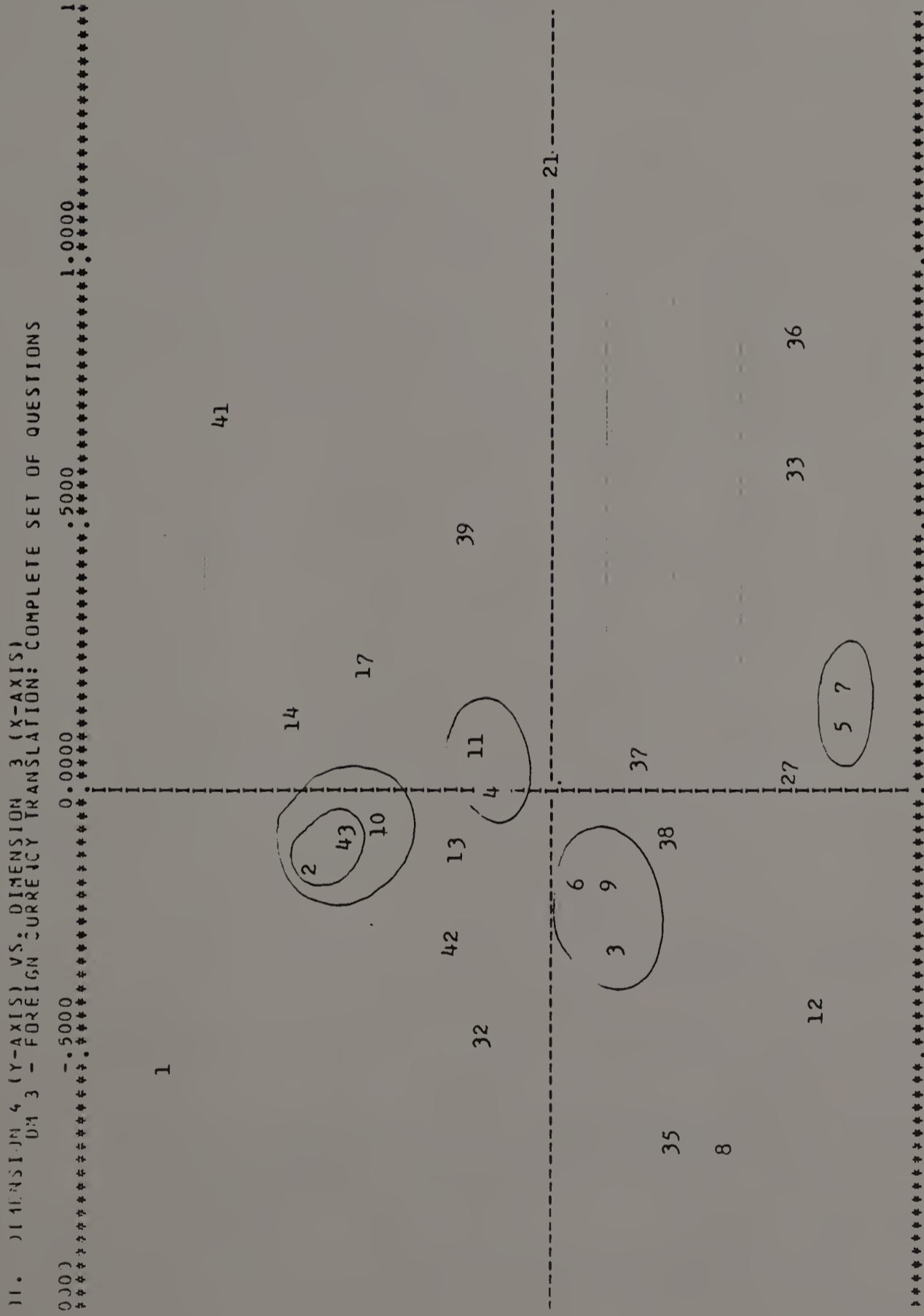


Figure 19. DM 3 - Space 3.

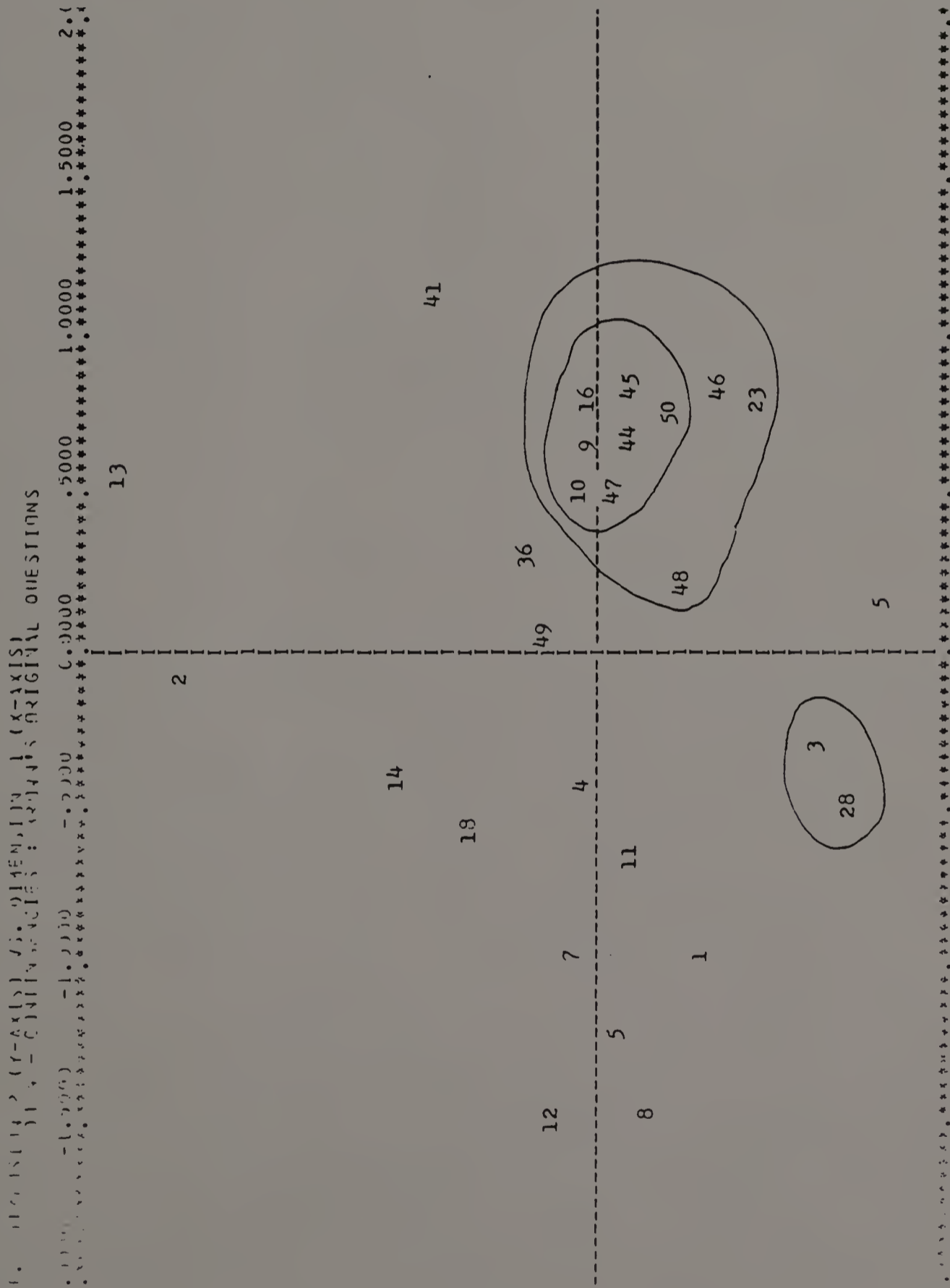


Figure 20. DM 4 - Space 1.



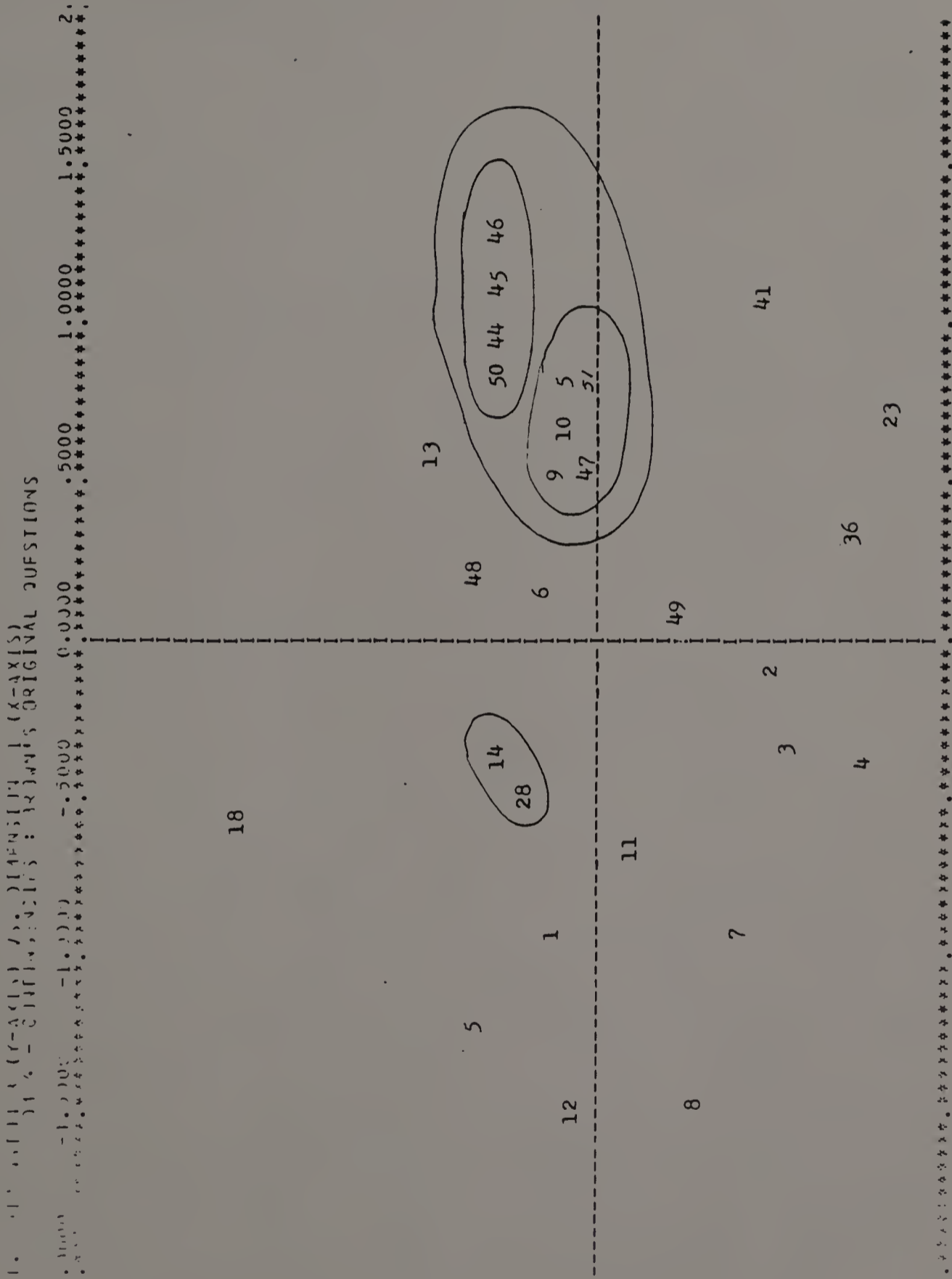


Figure 21. DM 4 - Space 2.

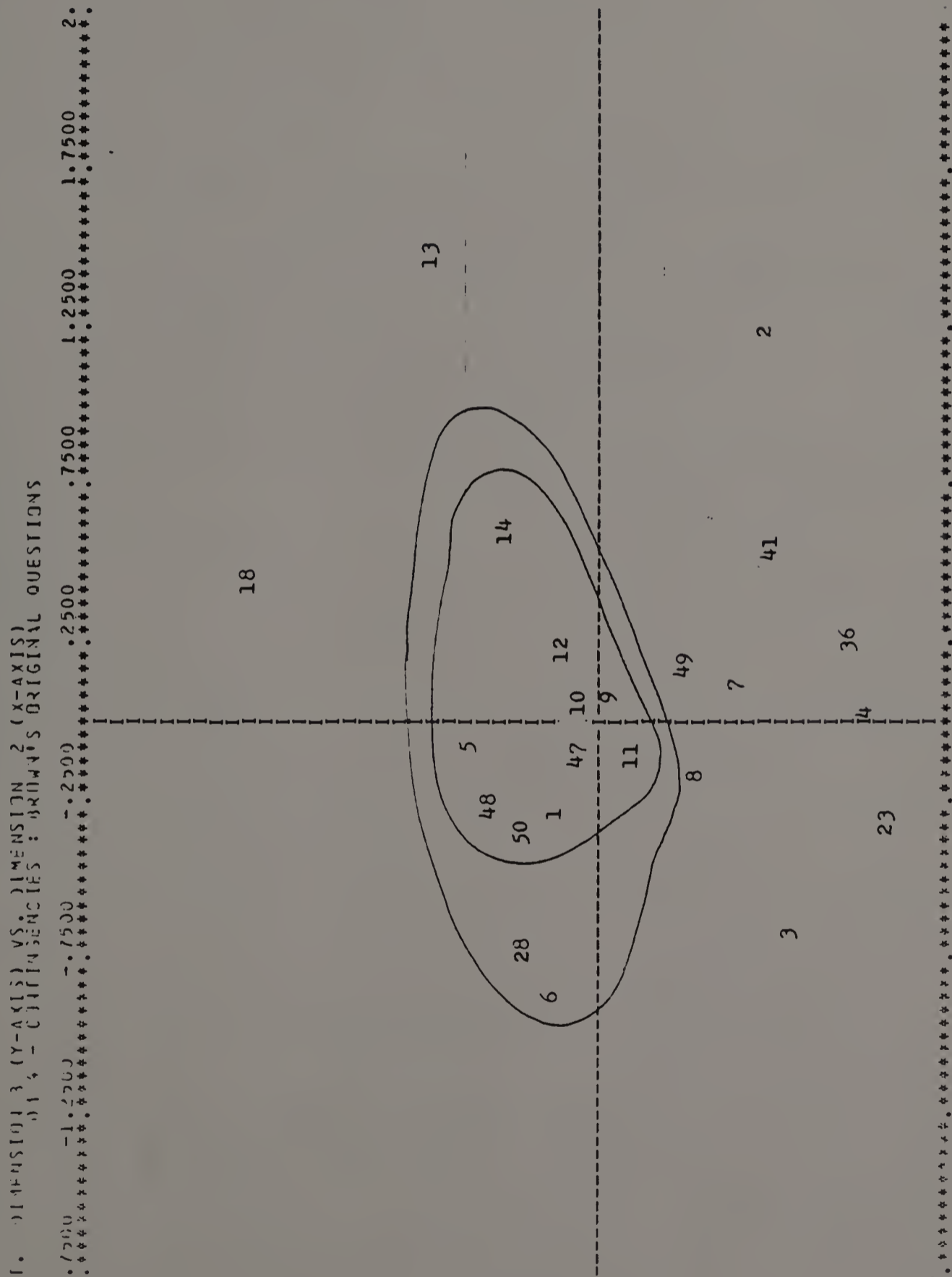


Figure 22. DM 4 - Space 3.

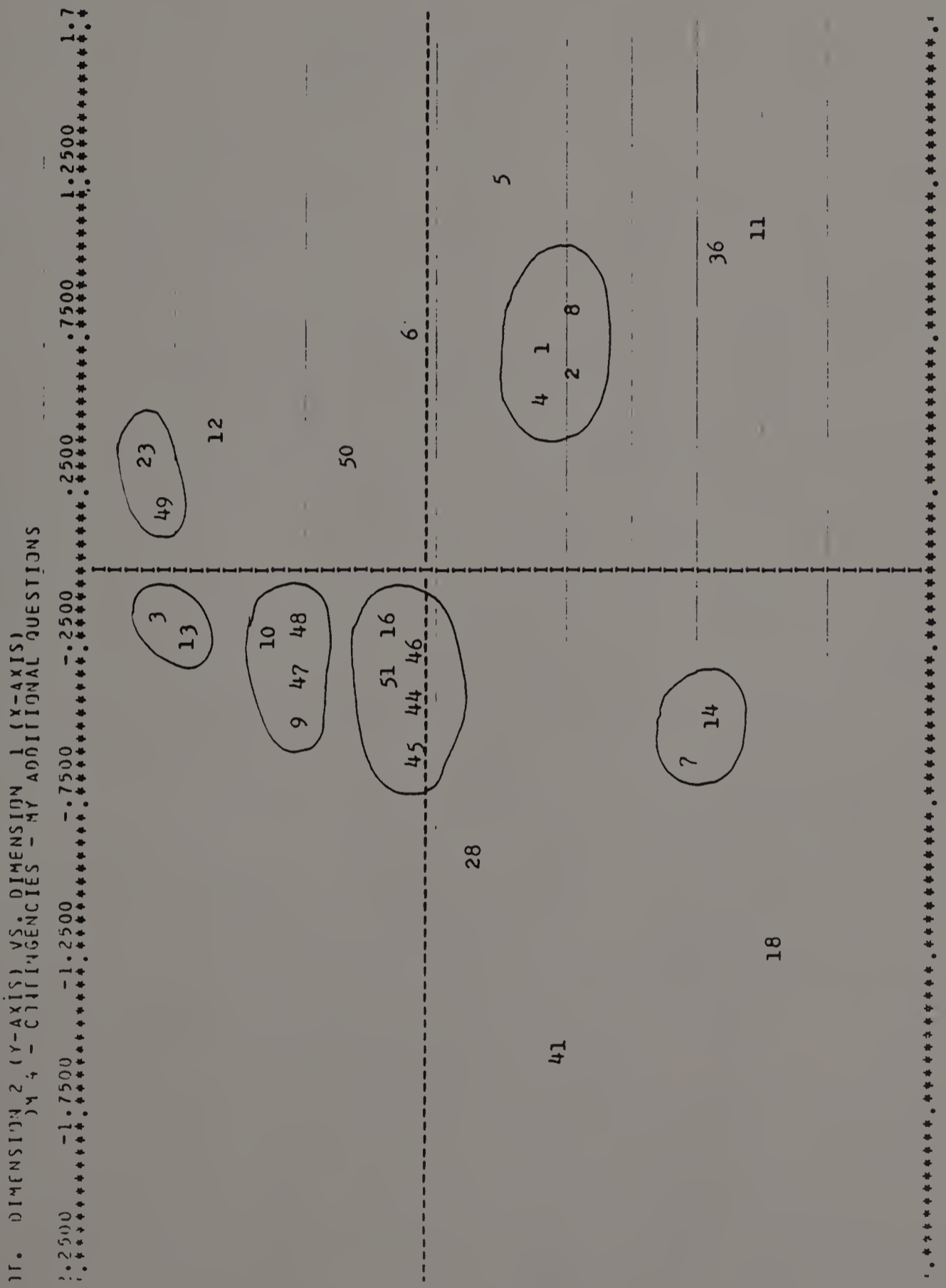


Figure 23. DM 4 - Space 4.

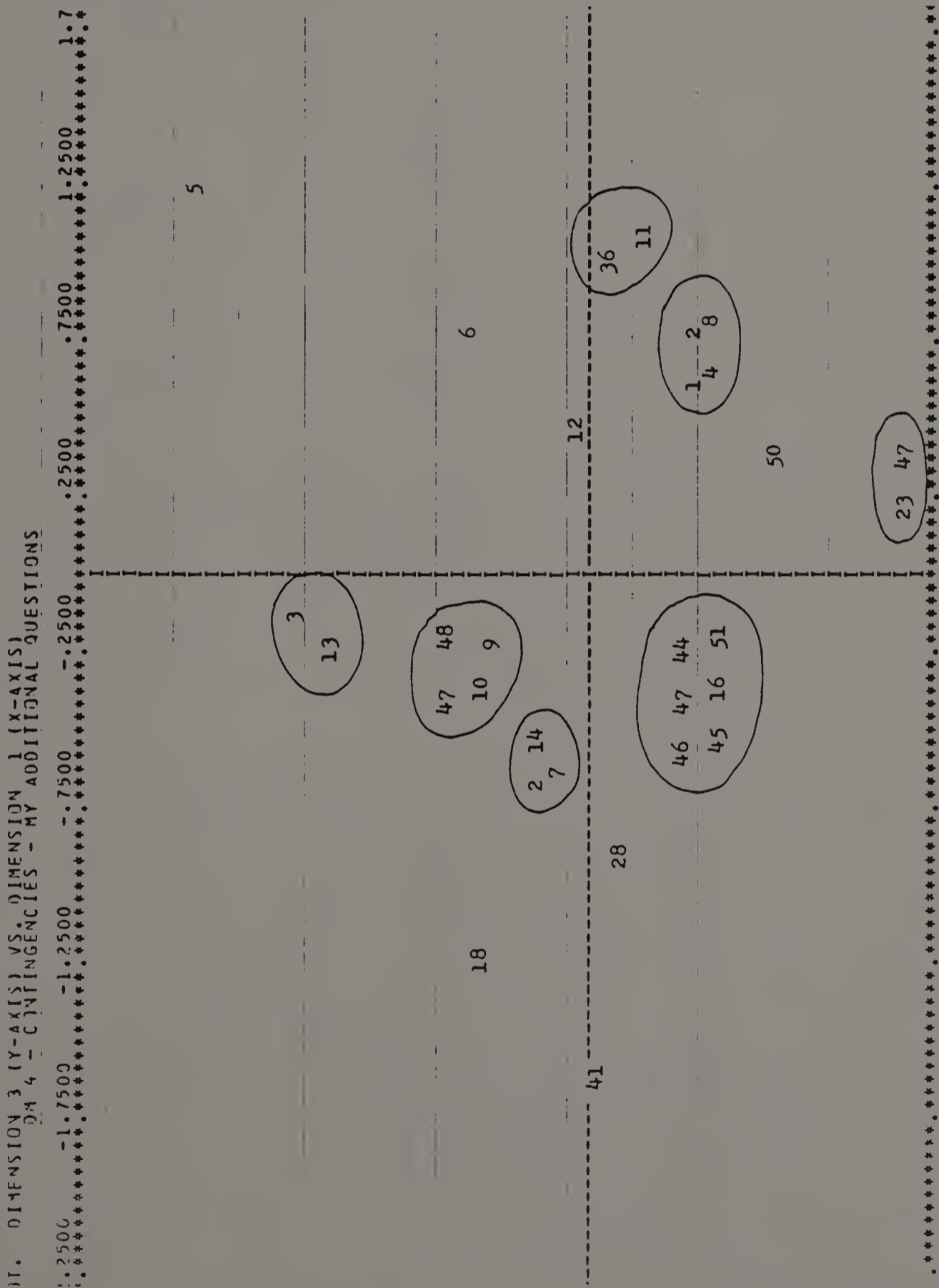


Figure 24. DM 4 - Space 5.

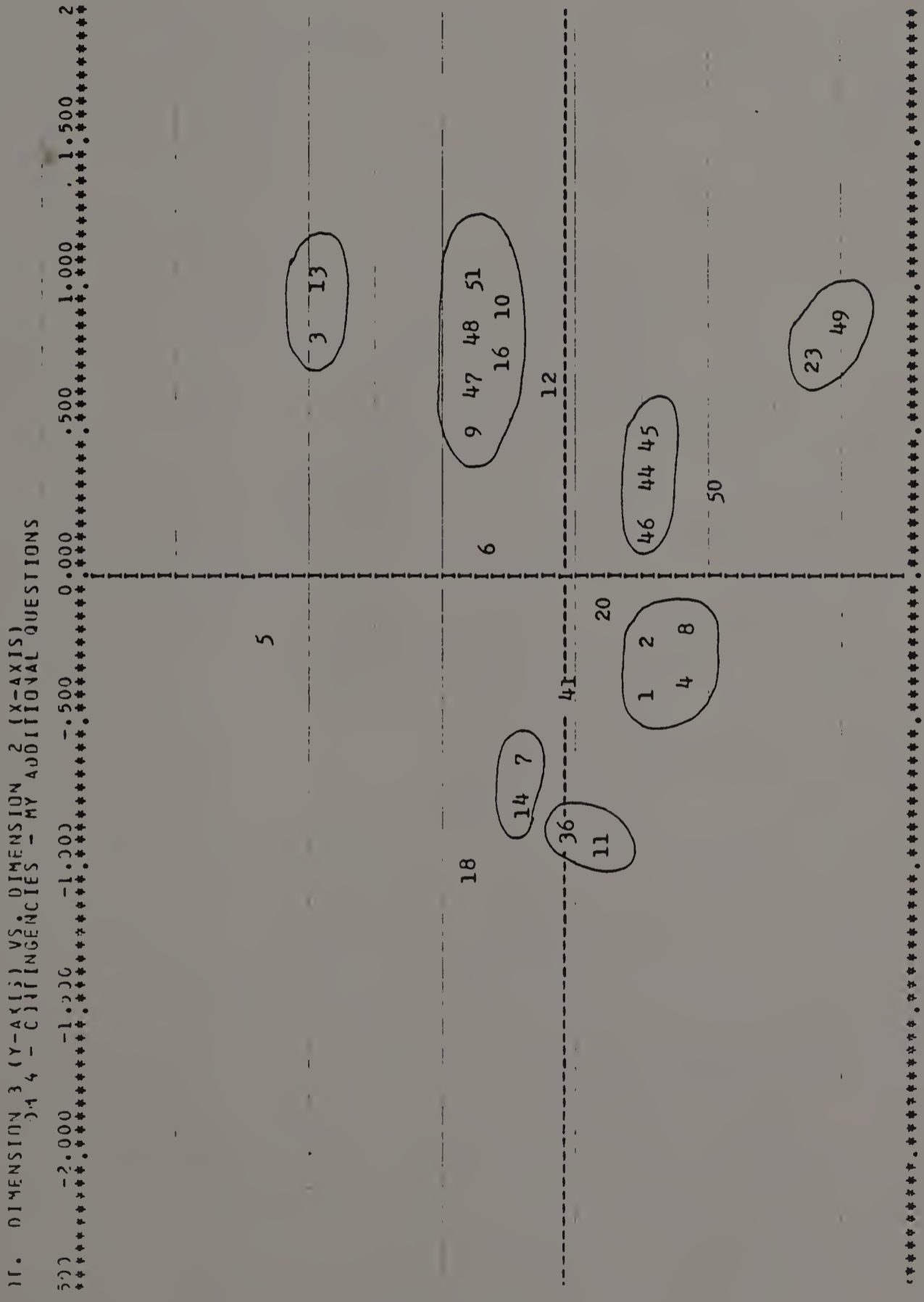


Figure 25. DM 4 - Space 6.

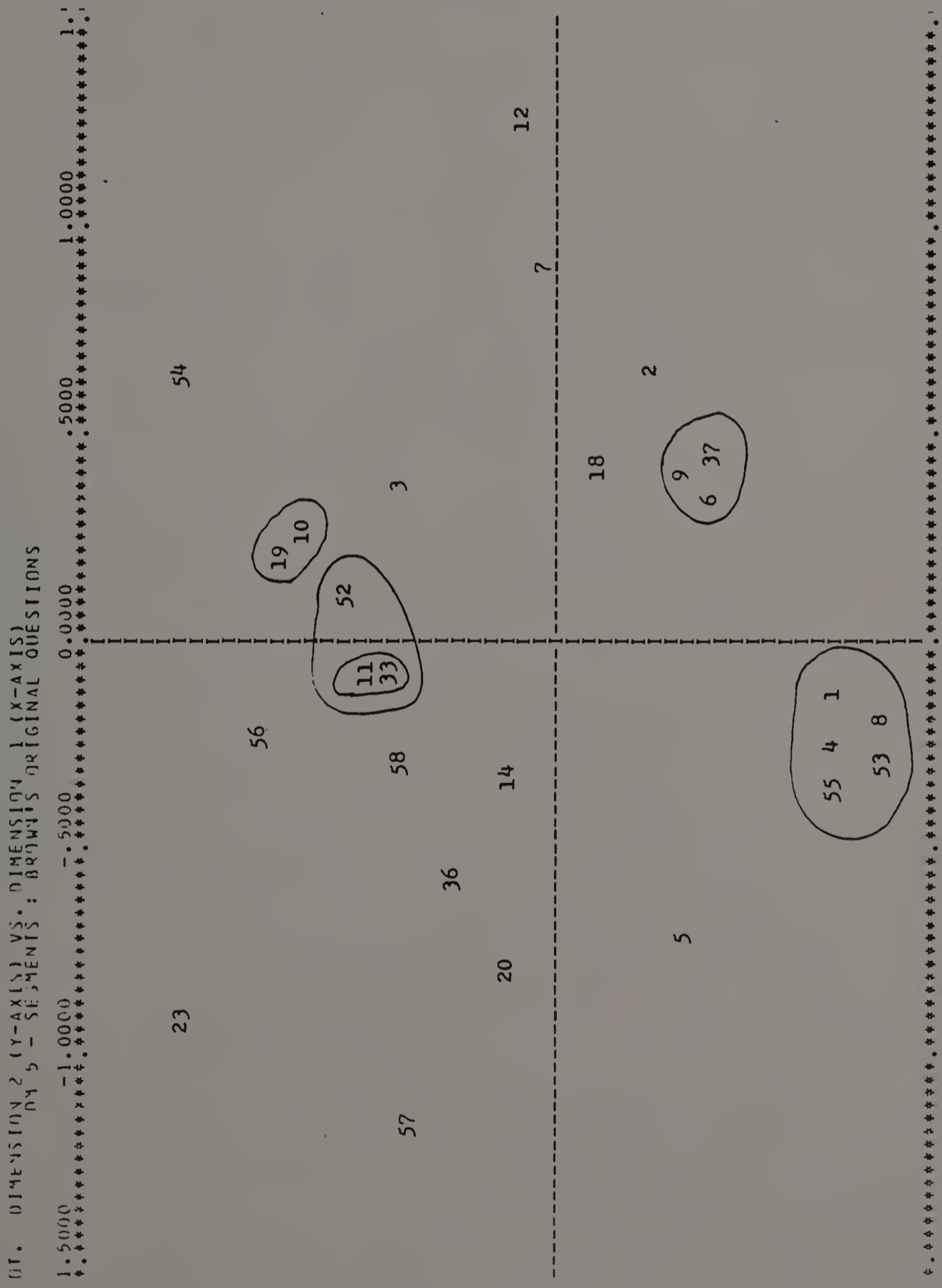


Figure 26. DM 5 - Space 1.



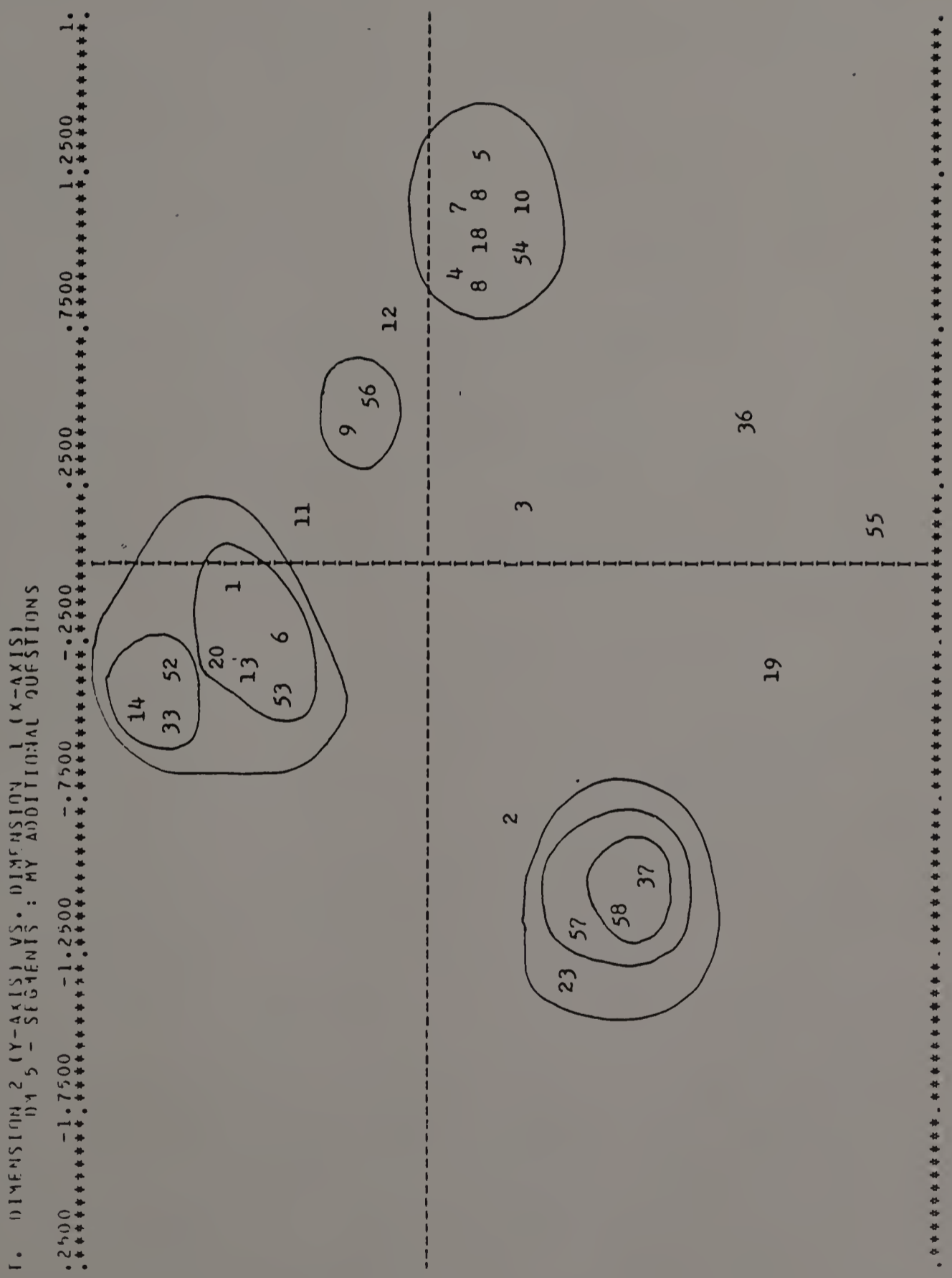


Figure 28. DM 5 - Space 3.



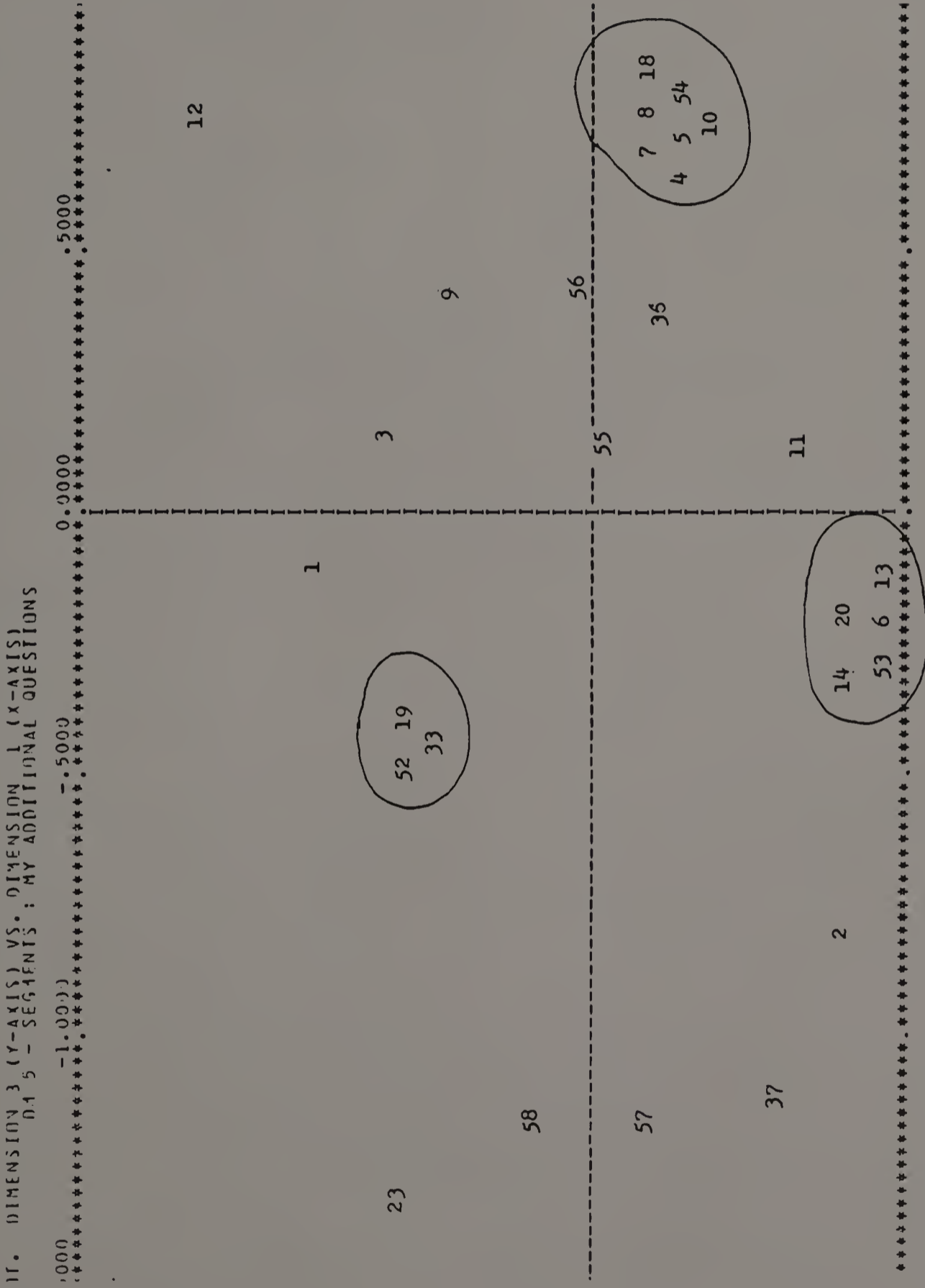


Figure 29. DM 5 - Space 4.

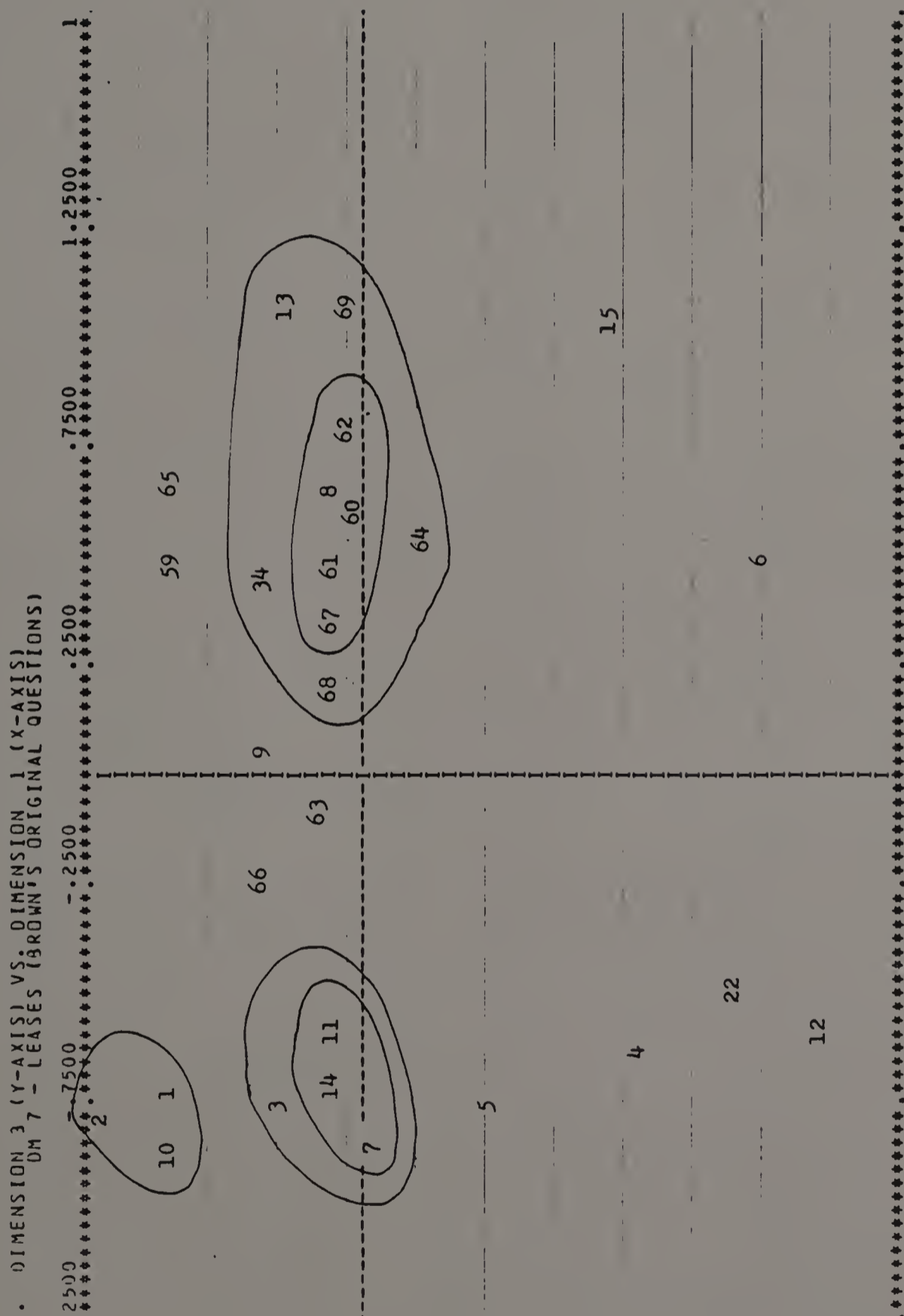


Figure 30. DM 7 - Space 1.

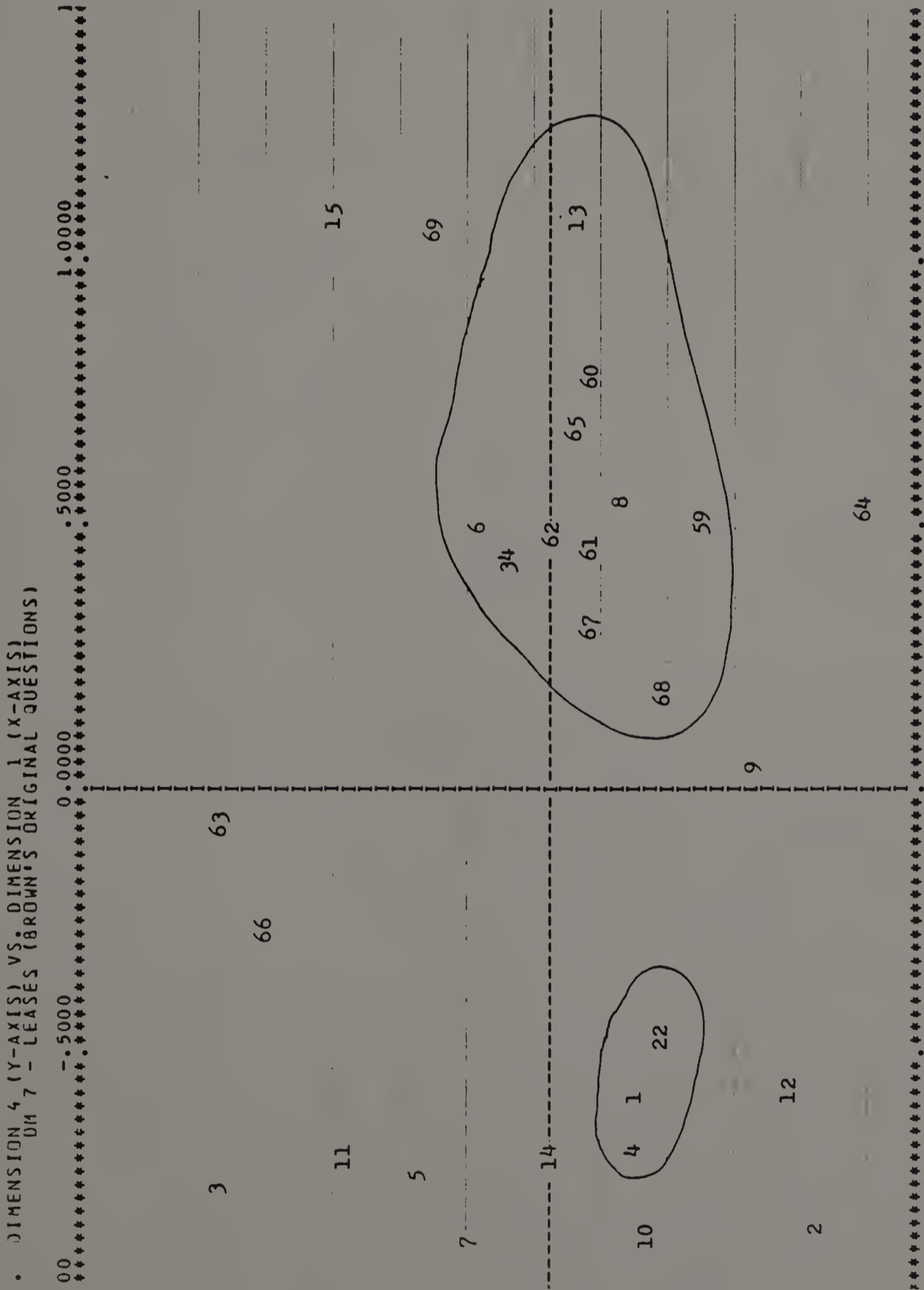


Figure 31. DM 7 - Space 2.

IT. DIMENSION 2 (Y-AXIS) VS. DIMENSION 1 (X-AXIS)  
DM7 - LEASES (MY ADDITIONAL QUESTIONS)

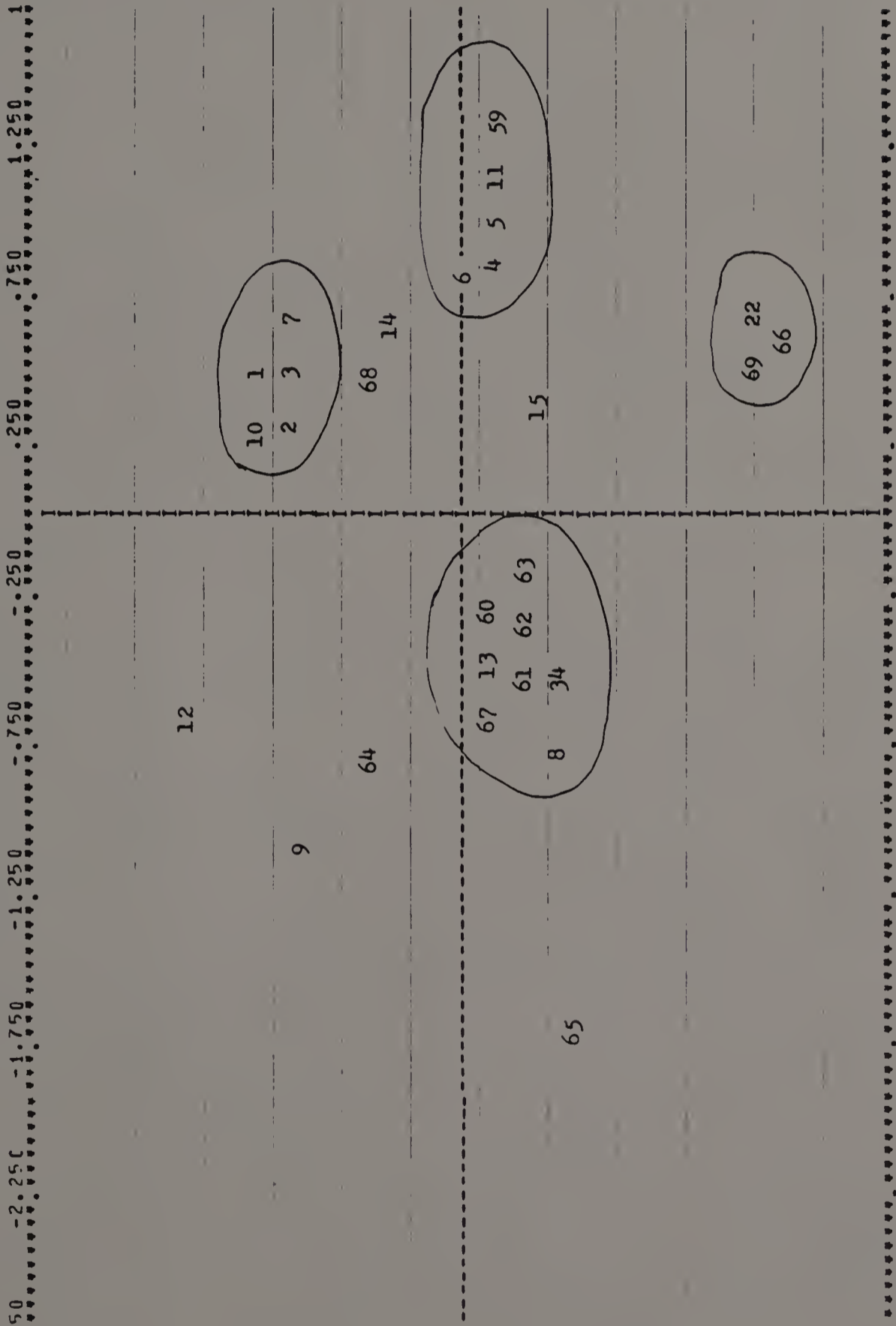


Figure 32. DM 7 - Space 3.

1. DIMENSION 3 (Y-AXIS) VS. DIMENSIONAL QUESTIONS  
 CM7 - TESTES (BY ADDITIONAL QUESTIONS)

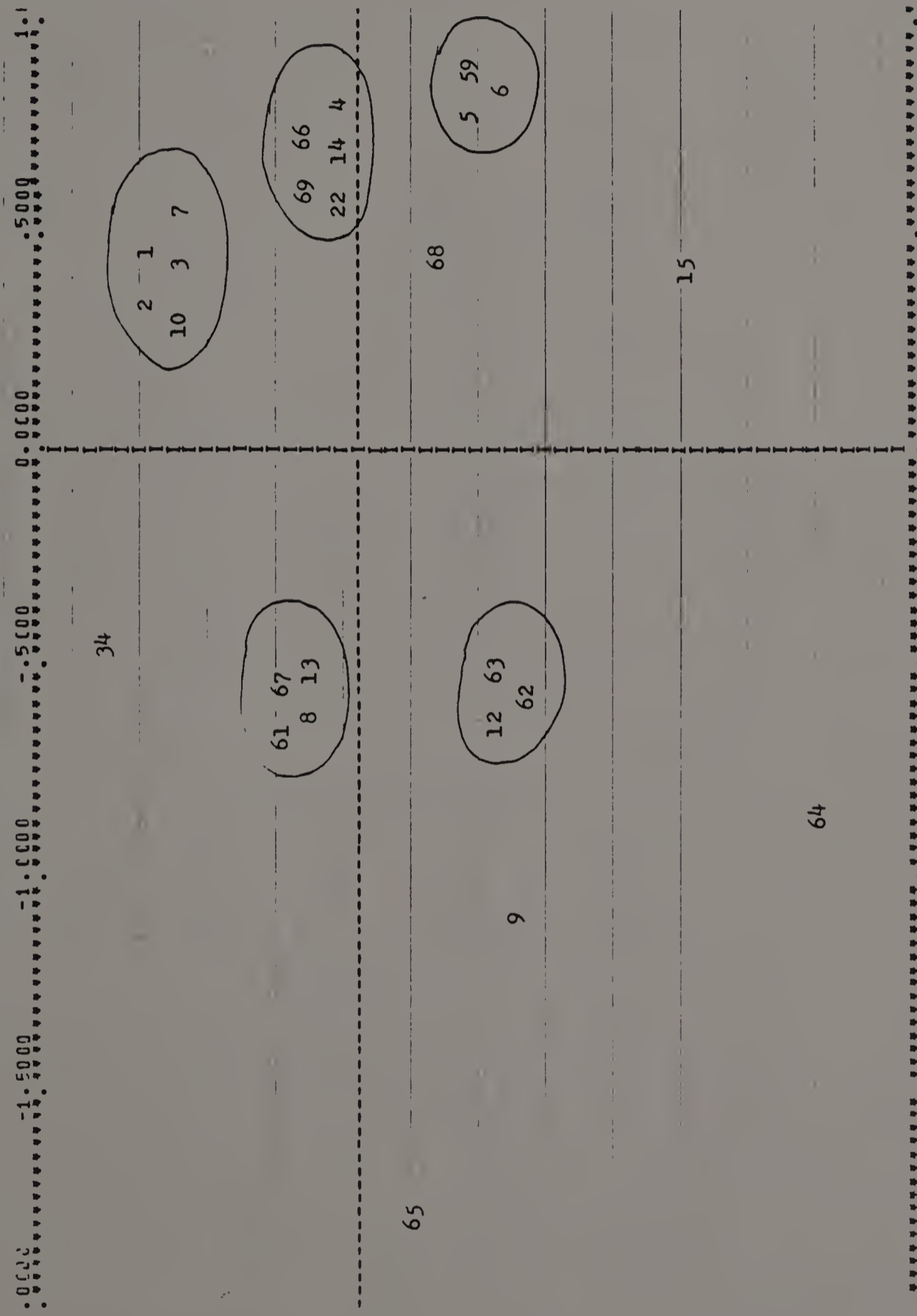


Figure 33. DM 7 - Space 4.

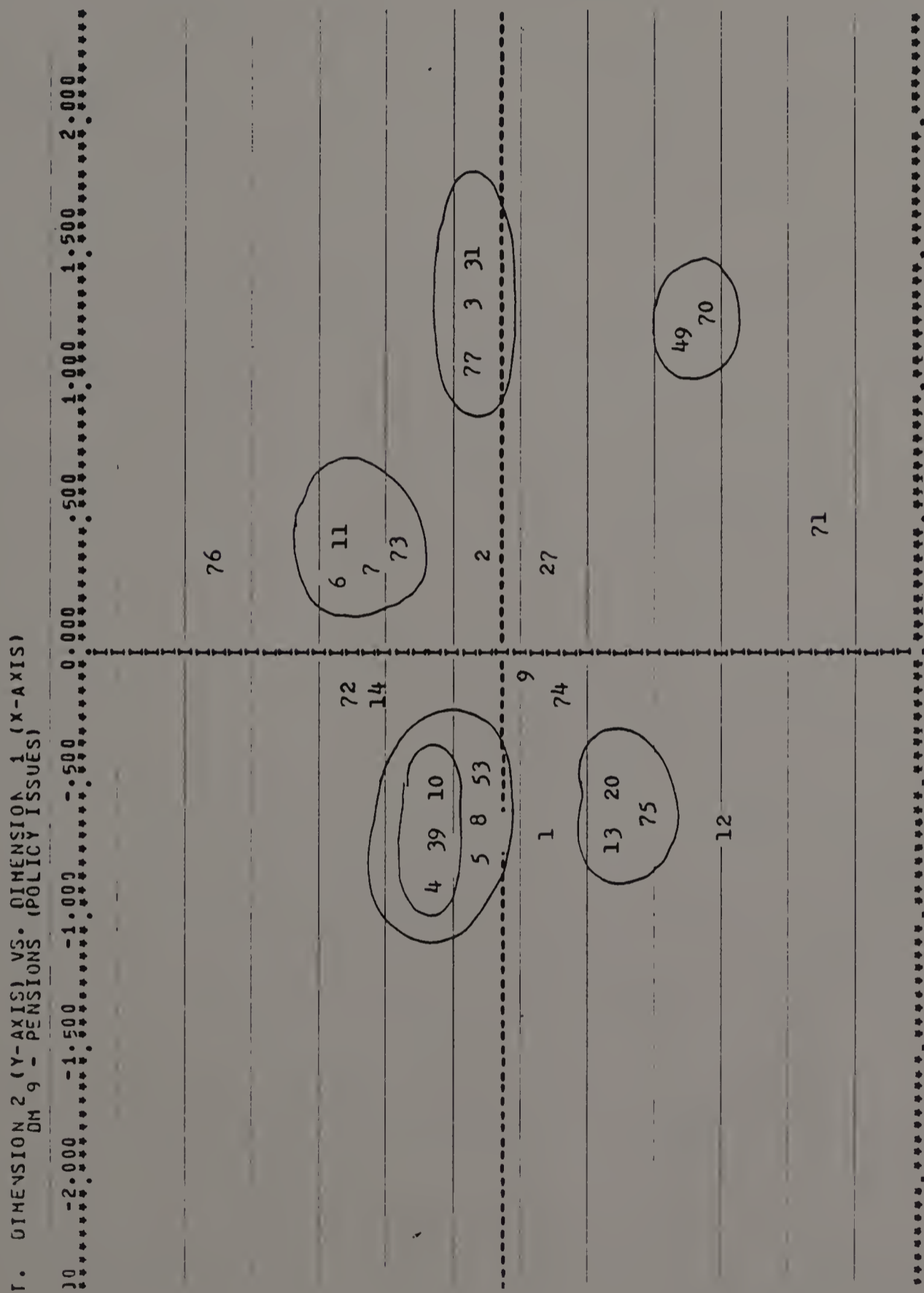


Figure 34. DM 9 - Space 1.

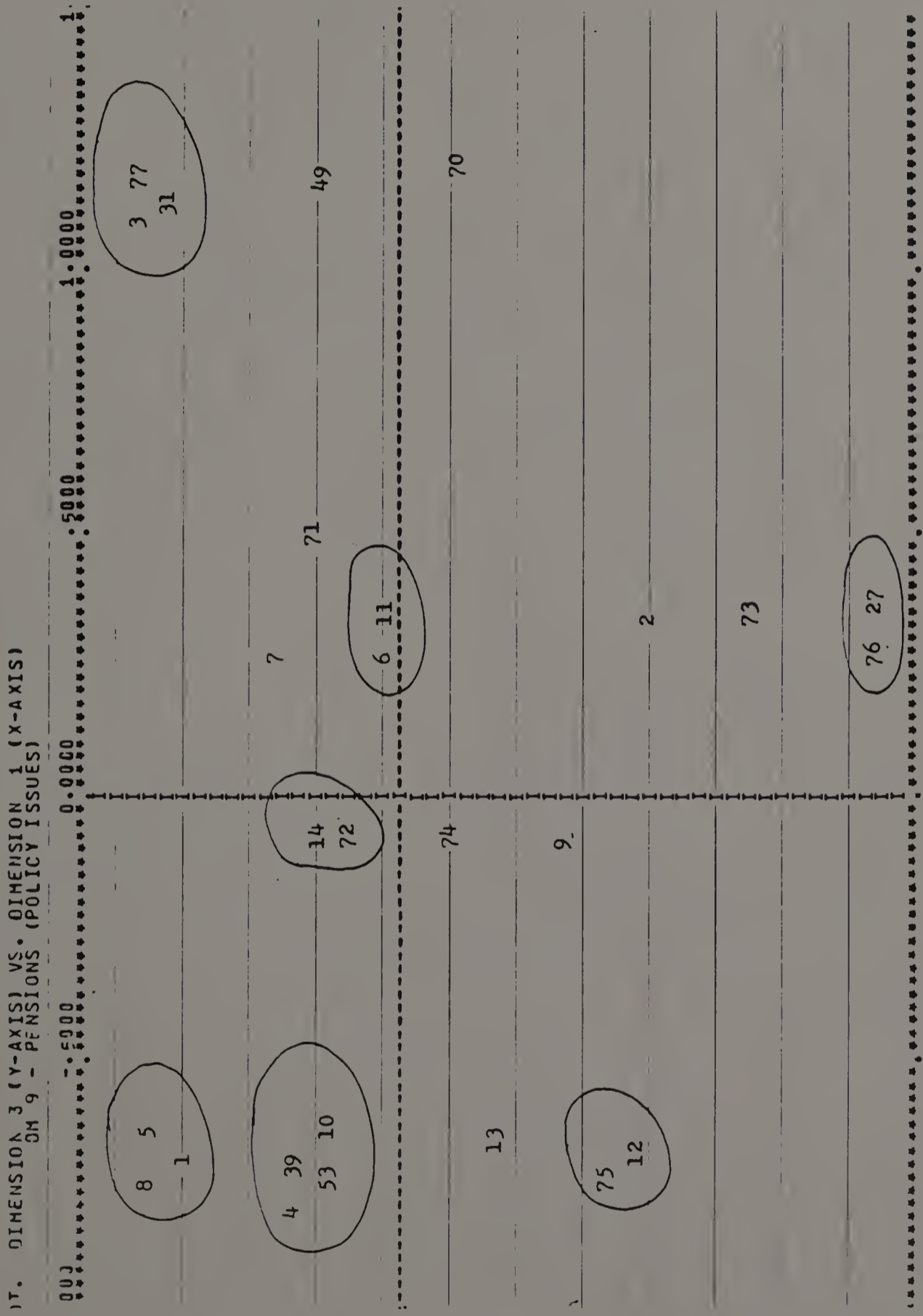


Figure 35. DM 9 - Space 2.

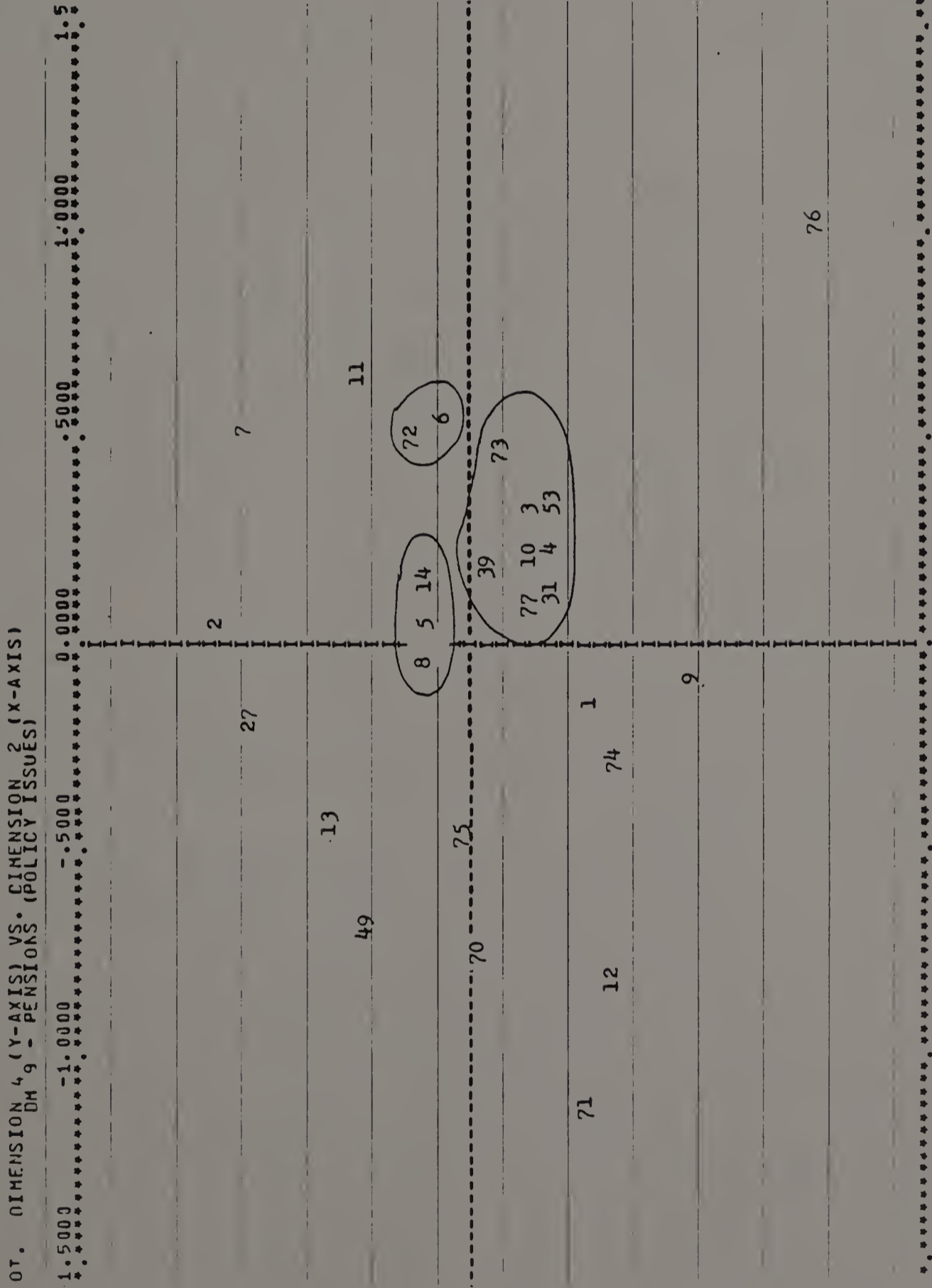


Figure 36. DM 9 - Space 3.



DT. DIMENSION 3 (Y-AXIS) VS. DIMENSION 2 (X-AXIS)  
 DM 10 - DEBT RESTRUCTURING (BROWN'S ISSUES)

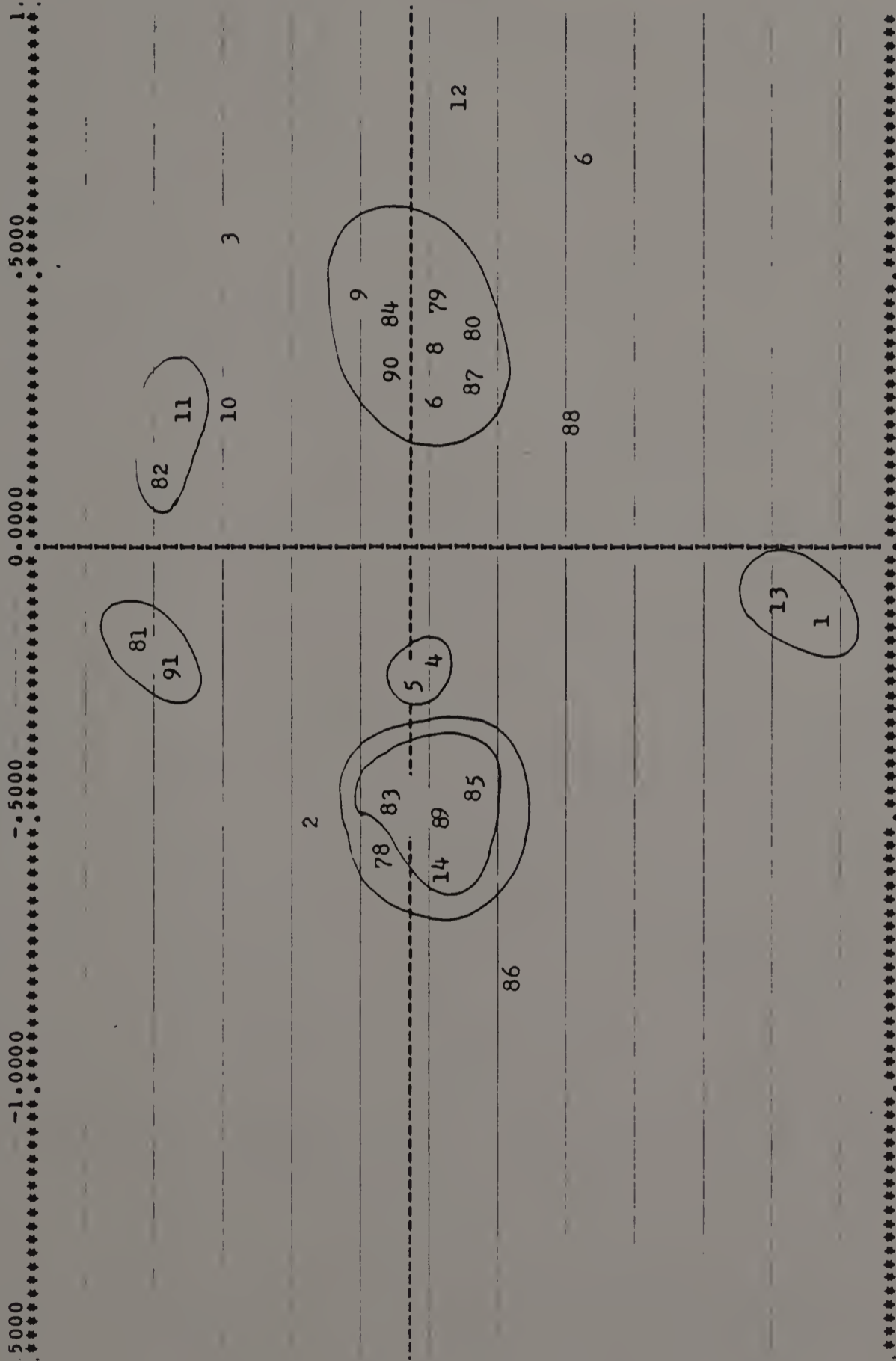


Figure 37. DM 10 - Space 1.



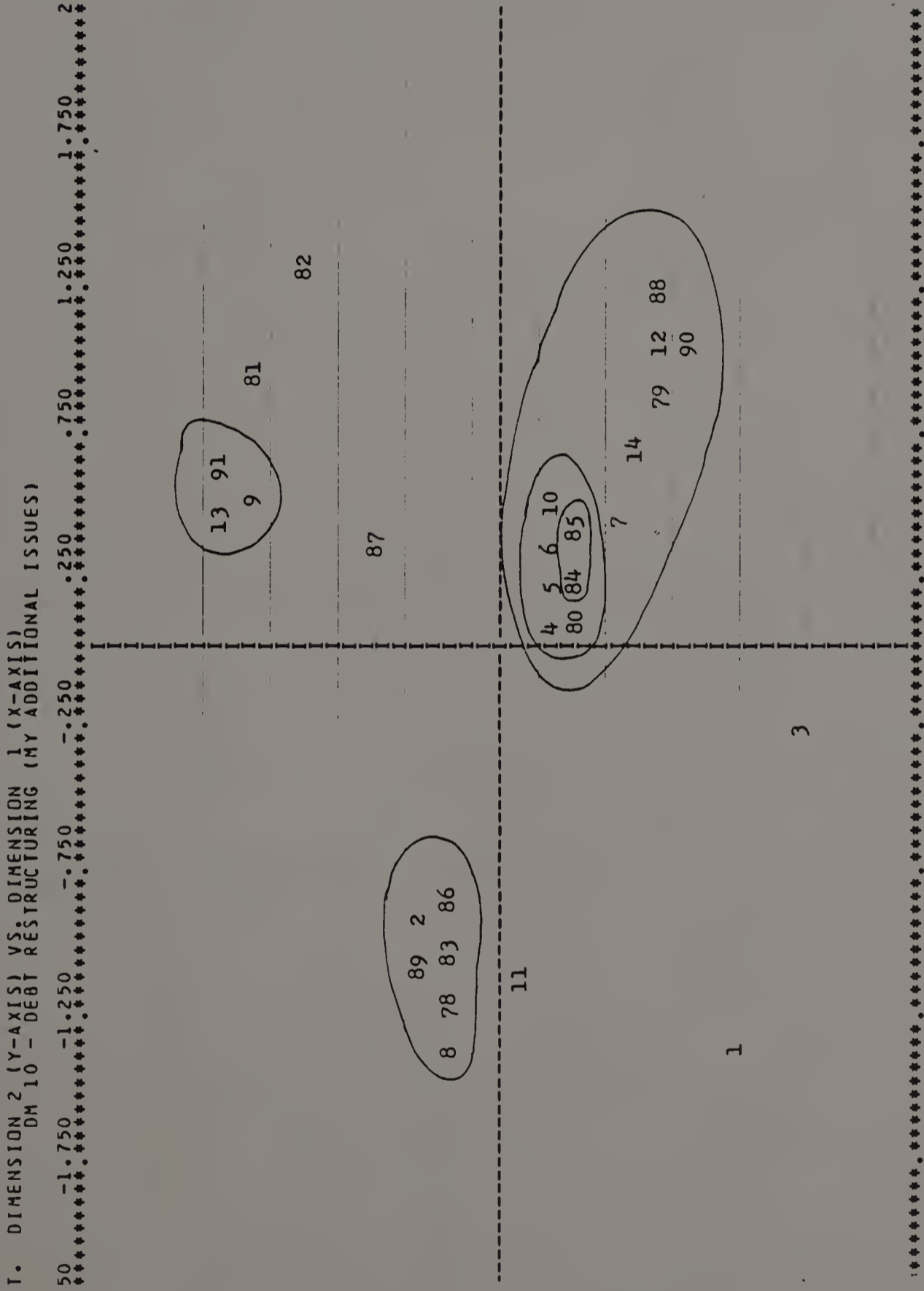


Figure 39. DM 10 - Space 3.

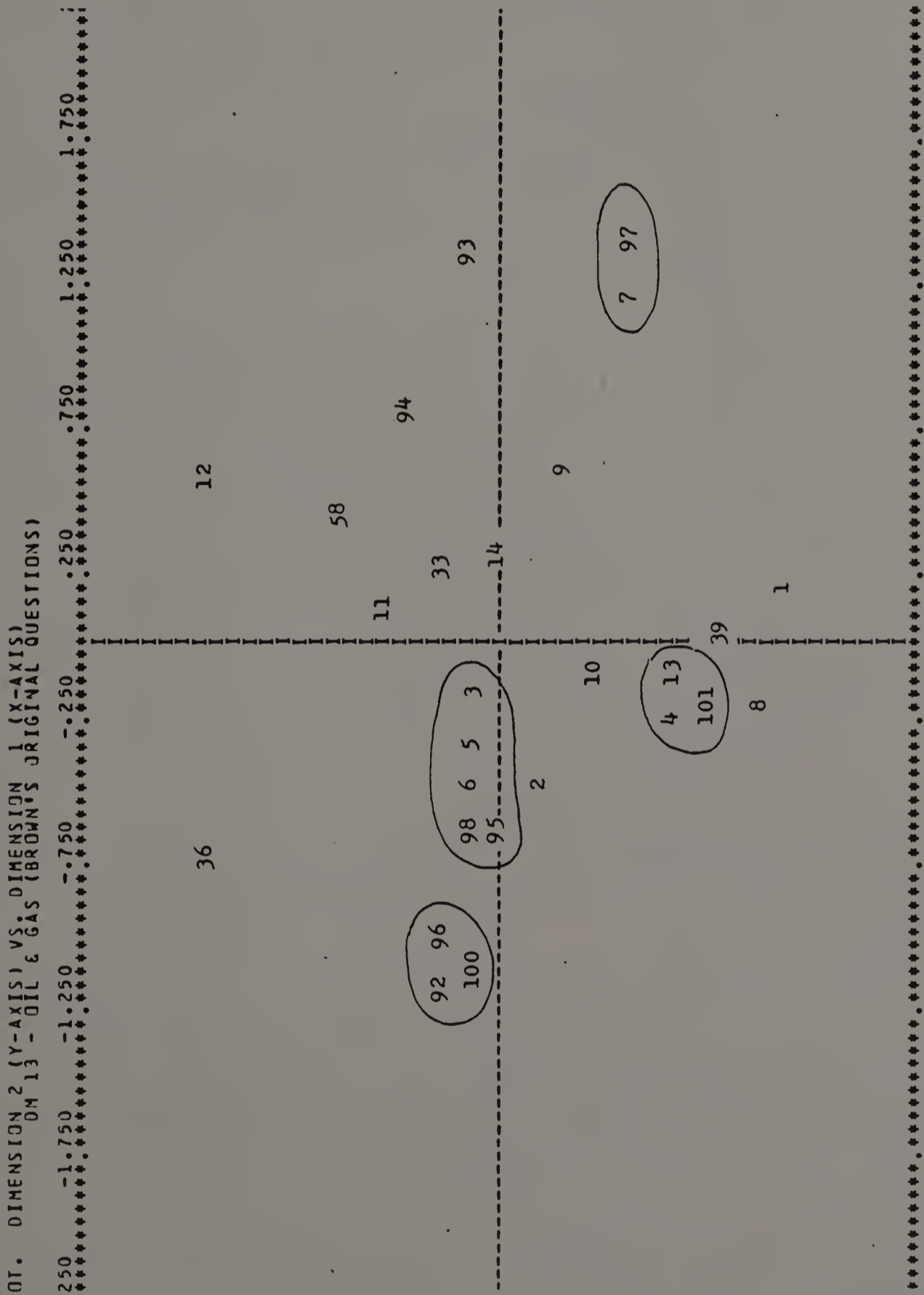


Figure 40. DM 13 - Space 1.

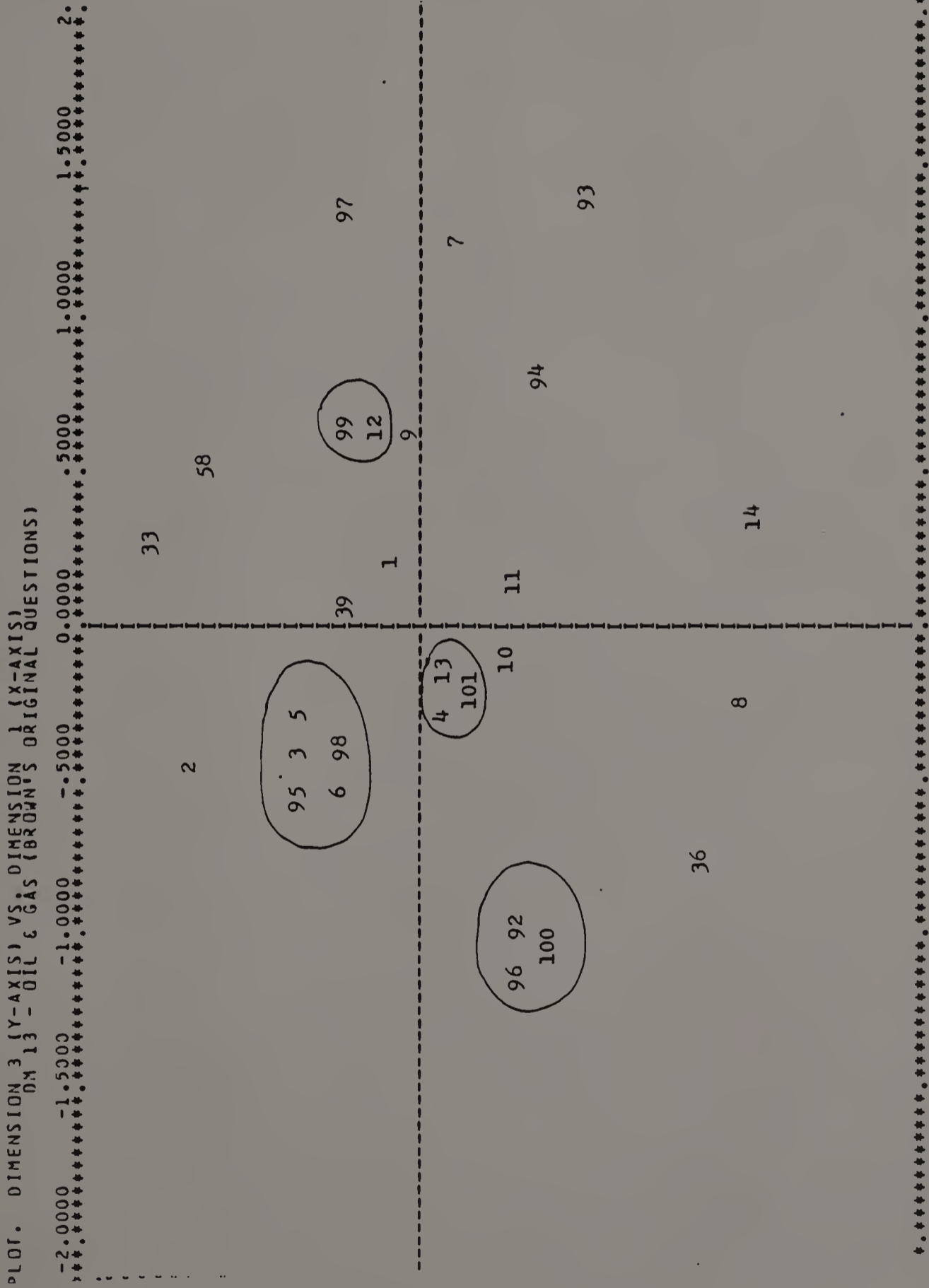


Figure 41. DM 13 - Space 2.

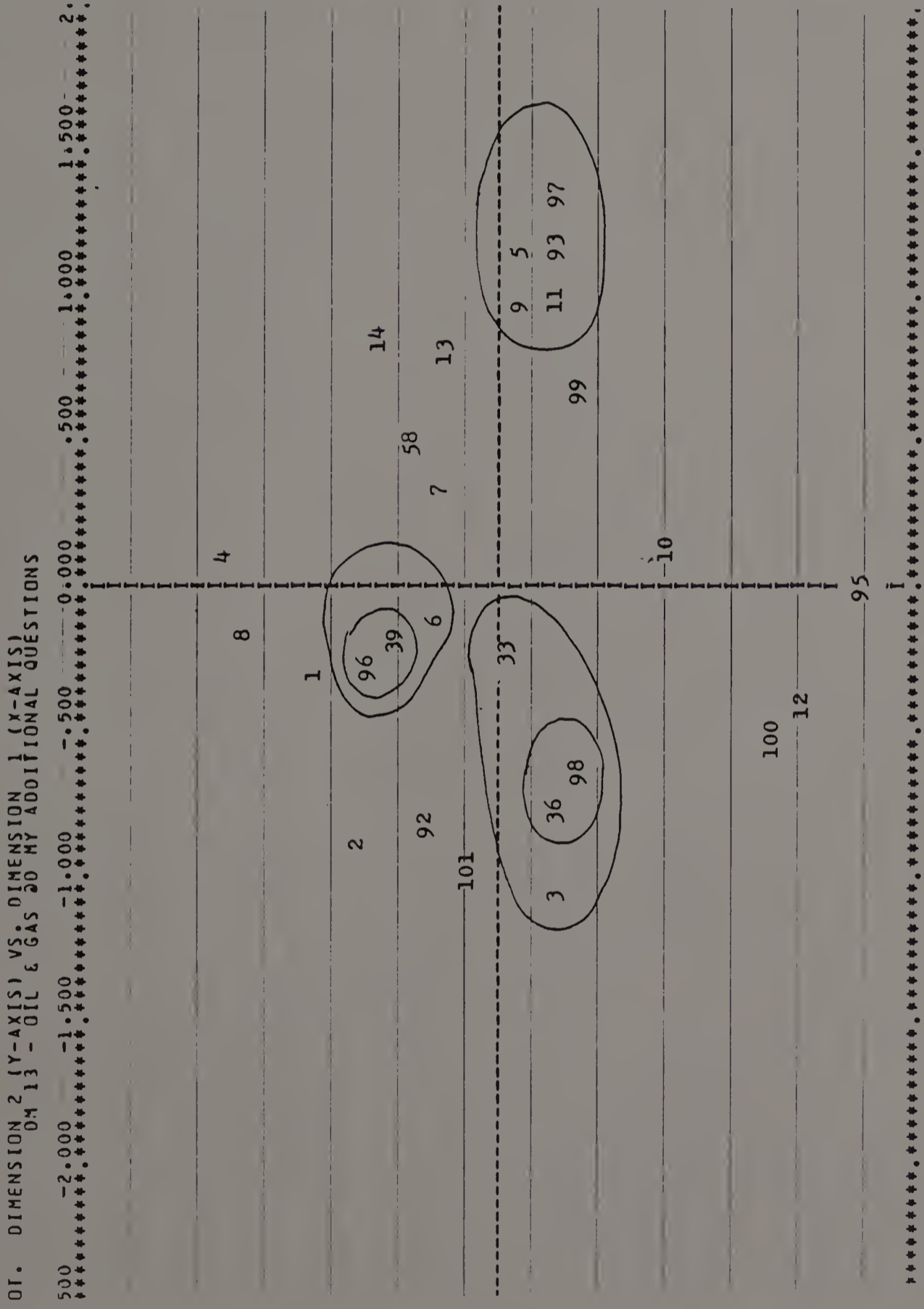


Figure 42. DM 13 - Space 3.

Type	Kolmogorov-Smirnov Z	Wold-Wolfowitz Z	Coefficient of Skewness
Pooled (n = 459)	12.435 (0)**	--	-0.21 (-1.81)***
Accounting vs. Special Interest (n = 405)	13.389 (0)**	min. -8.4916(0)* max. 1.1736 (.1203)*	-0.13 (-1.10)***
Brown's Question vs. Mine (n = 378)	11.342 (0)**	min. -8.4739 (0)* max. -3.0721 (.0011)*	-0.29 (-2.32)***

\* based on 2-tailed value

\*\* based on 1-tailed value

\*\*\* (coefficient) - (std. error)

Figure 43. Tests of normality and subgroup distribution.

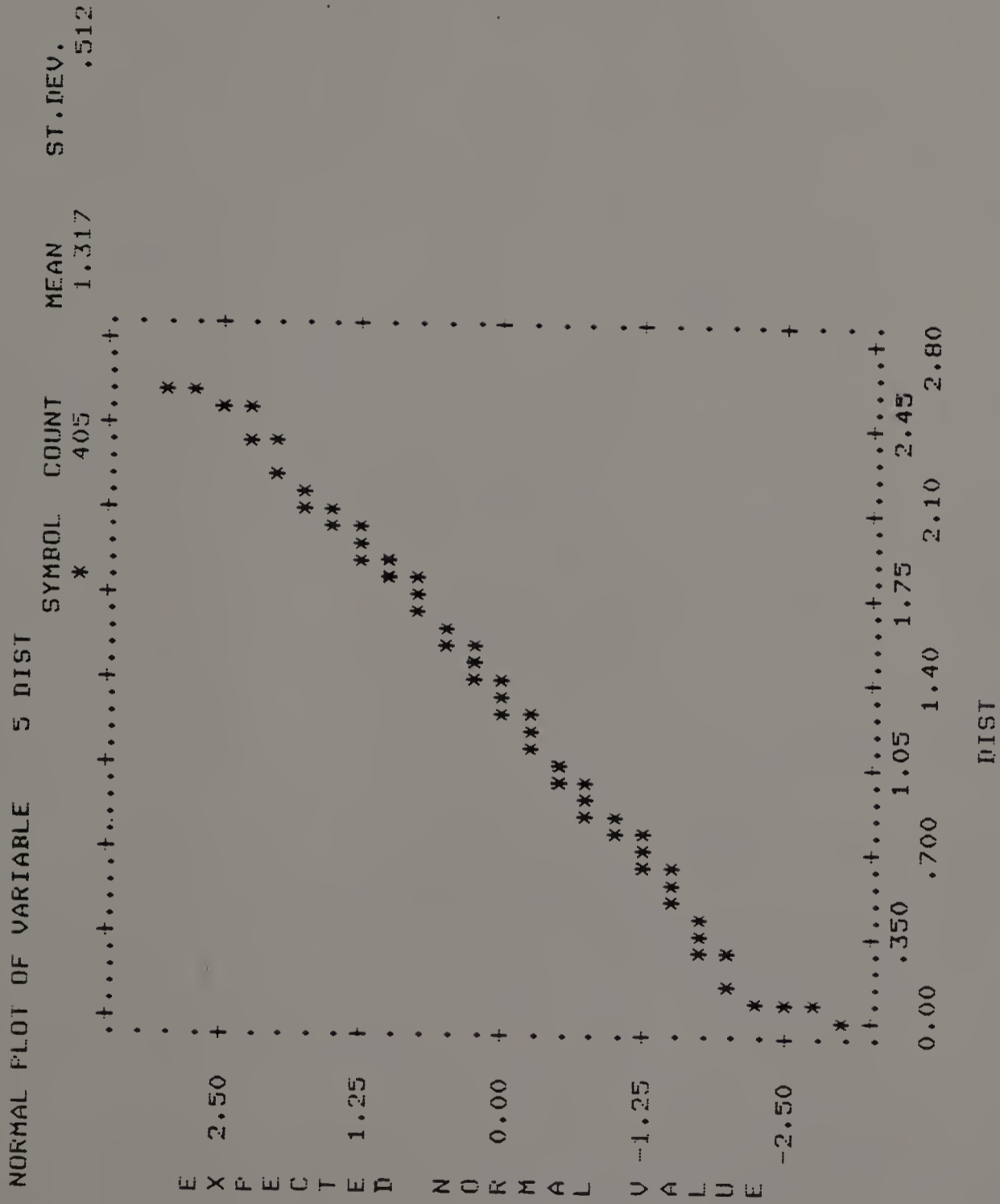


Figure 44(a). Normal Probability Plot: Accounting vs. Special-Interest Subjects.



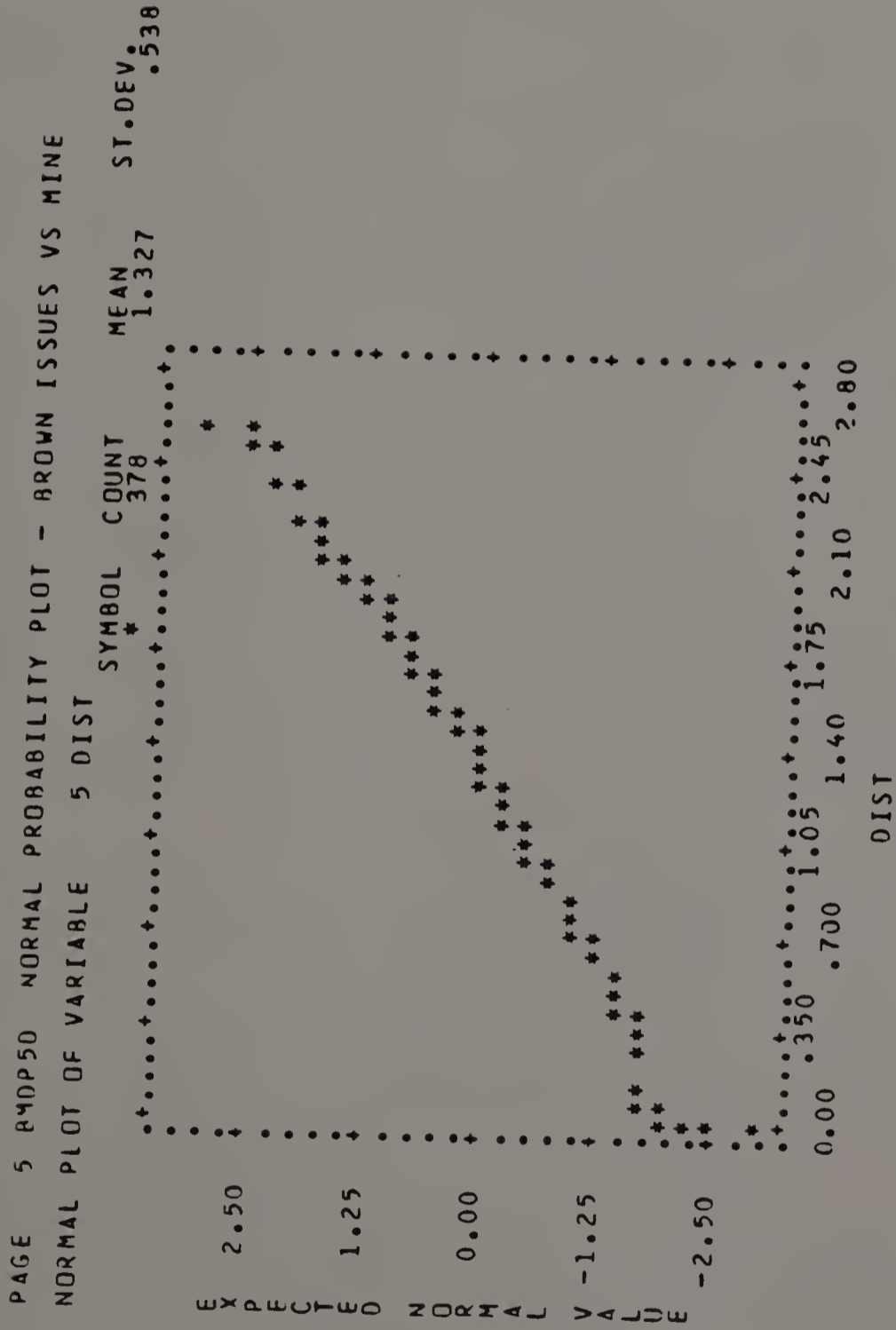


Figure 44(b). Normal Probability Plot: Brown vs. Additional Questions.

	Accounting vs. Special-Interest	Brown vs. Add't Questions
Levene's Test:	1.56	1.80
p-value	0.2118	0.1809
d.f.	1.403	1.376
Moses Test:	2.459	2,165
p-value	0.8092	0.0973

Figure 45. Tests of equality of dispersion parameters.

Type	Accounting vs. Special-Interest	Brown's Question vs. Mine
Mann-Whitney $\mu$ Test Statistic	18,816.50	19,511
p-value (2 sided)	0.1588	0.0553
t (trim pooled)	-0.90	2.02
p-value (2-sided)	0.3685	0.4444
d.f.	399	372

Figure 46. Tests of equality of subgroup means.

DM	Source!	Mann-Whitney $\mu$	2-Tailed p
1	C	54.00	0.0715***
2	B	114.00	0.2640
2	M	104.50	0.5121
3	C	87.50	0.8650
4	B	61.50	0.1515
4	M	131.50	0.0479**
5	B	87.50	0.8651
5	M	83.50	0.7152
7	B	38.50	0.0108**
7	M	59.00	0.1149
9	C/M	47.50	0.0345**
10	B	153.00	0.0026*
10	M	97.00	0.7674
13	B	83.00	0.7313
13	M	81.50	0.6444

\*s. at  $\alpha = 0.01$   
 \*\*s. at  $\alpha = 0.05$   
 \*\*\*s. at  $\alpha = 0.10$

!B = Brown  
 M = Mary D.  
 C = complete

Figure 47. Mean differences.

DM	Source	Significant at* $\alpha$ level of:
1	C	0.05
4	B	0.10
7	B	0.01
7	M	0.10
9	C/M	0.025

\*Using tabled values in Daniel (1978).  
Calculated values of Mann-Whitney  $\mu$  are  
listed in Figure 47.

Figure 48. Subsets for one-sided tests: Accounting > Special Interest.

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DM	Source	Significant at $\alpha$ level of:
4	M	0.025
10	B	0.01

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Figure 49. Subsets for one-sided tests:  
special-interest > Accounting

