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VARIABLE COSTING  
AS A MANAGERIAL TOOL

by

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I dedicate my thesis  
to my father, Prof.M.Kemal ÖZTUNÇ.



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## VARIABLE COSTING AS A MANAGERIAL TOOL

In this study, the relationships between the method of cost accounting, the pattern of classification of costs, the preparation of financial reports, the managerial decision making, and the performance of companies are examined. With the general fact that effective managerial decision making leads to managerial and company success, the variables that will enforce effectiveness are explored in this work.

Textile industry of Turkey is choosen as the sample and the data collection method consisted of the questionnaires and interviews by the sampled companies' top managers, and financial data gathered by the Chamber of Industry of Istanbul. The statistical methods employed in the research are one-way frequency distribution, joint-frequency distribution, Pearson correlations and Discriminant analysis.

The results have showed that the employment of computer in the operations of the company has direct relationship with the classification of costs as variable and fixed costs, the application of variable costing in internal reporting, the usefulness of balance sheet and income statement in long-term planning, short-term planning, in pricing and purchasing decisions and the usage of ratio analysis for the evaluation of the company performance. Direct relation-

ships have also been observed between the application of variable costing, the usage of breakeven analysis in managerial decision making, the classification of costs, the usefulness of balance sheet and income statement in long-term planning, investment decisions, and the usage of ratio analysis in evaluations.

## YÖNETİCİLİK TEKNIĞI OLARAK DEĞİŞKEN MALİYET SİSTEMİ

Bu çalışmada, maliyet sistemleri, maliyetlerin tasnifi, mali raporların hazırlanması, karar verme modelleri ve şirketlerin icraatları arasındaki ilişkiler araştırılmıştır. Yöneticinin etkin karar vermesinin şirketin başarısına yardımcı olduğu düşüncesiyle, yöneticinin karar vermesine etken değişkenler incelenmiştir.

Bu amaçla, Türkiye Tekstil Endüstrisi araştırmancının örneği olarak seçilmiş ve bilgi toplama tekniği olarak anket, yöneticilerle görüşme ve İstanbul Sanayi Odası'nın hazırladığı bilgiler kullanılmıştır. Sonuçların değerlendirilmesi için Ki-Kare İlgili analizi, Pearson Korelasyon analizi ve Discriminant analizi istatistik tekniklerinden yararlanılmıştır.

Sonuçta, şirketlerin bilgisayar kullanmalarının maliyetlerin sabit ve değişken olarak tasnifi, şirket içi raporlamada değişken maliyet sisteminin uygulanması, bilanço ve kâr-zarar tablolarının uzun ve kısa vadeli planlamada, fiyat tesbiti ve satın alma kararlarına yardımcı olması, oran analizinin şirketin faaliyetlerinin sonuçlarının değerlendirilmesinde kullanılması ile doğrusal ilişki olduğu görülmüştür. Ayrıca, değişken maliyet sistemi uygulaması, başbaşı analizinin karar verme modelinde kullanılması, maliyetlerin tasnifi, bilanço ve kâr-zarar tablolarının uzun va-



deli planlama ve yatırım kararlarına yardımcı olması ve oran analizinin uygulanması arasında ilişkiler bulunmuştur.

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## I. INTRODUCTION

### A. Costing Systems

Cost accounting is considered as the key managerial partner in the planning and control activities, furnishing management with the necessary accounting tools to plan, control and evaluate operations. The objectives of modern cost accounting are to aid and participate in the creation and execution of plans and budgets, to provide information to management related with problems that involve choice from among two or more alternative courses, to establish methods and procedures that permit control and reduction or improvement of costs, to create inventory values for costing and pricing purposes, and to determine costs and profit for an accounting period.

Cost data are accumulated under either periodic cost accumulation or perpetual cost accumulation systems. Periodic cost accumulation systems provide only limited cost information during a period and require quarterly or year end adjustments to arrive at the cost of goods produced. Periodic physical inventories are taken to adjust inventory accounts to arrive at the cost of goods produced. This system of cost accumulation is not considered a complete and efficient cost accumulation since the costs of work-in-process and finished goods can only be determined after physical inventories are taken into account. Periodic cost accumulation systems are generally used by small manufacturing firms where control of physical inventories is not that much difficult. Perpetual cost accumulation systems accumulate cost data through work-

in-process account in such a way that provides continuous information about work-in-process, finished goods, and cost of goods produced.

All cost accumulation systems accumulate actual cost data, some also record standard costs. Cost determination may be on a historical or a predetermined basis. Under historical systems, costs are accumulated as they occur. On a predetermined, budgeted, or standard system, costs are determined in advance and variations from the standard costs are accumulated in separate accounts so that management is able to make plans and take corrective actions.

Job order costing and Process costing are types of perpetual cost accumulation systems. Costs under job order costing system are accumulated by jobs. This method is suitable when each job or order is unique. Costs under process costing system are accumulated by departments, where production is on a more or less continuous basis.

Depending on the charge of factory overhead to products, costing systems are classified as full costing or absorption costing and direct costing or variable costing. Under absorption costing all factory overhead costs, both variable and fixed, are charged to product costs. Under variable costing, only the variable portion of overhead costs are charged to product costs.

## **B. Variable Costing and Absorption Costing**

Absorption costing assigns direct materials and direct labor costs and a share of both fixed and variable factory

overhead to units of production. Variable costing, assumes that for proper managerial control, only those costs which vary directly with the volume of production should be considered as part of the cost of goods manufactured, because only variable cost elements are related to the product. That is only direct materials, direct labor, and variable factory overhead are included in inventory and hence are considered as product costs. Fixed factory overhead, under variable costing method is not included in inventory and thereby, is considered as period cost.

In matching cost and revenue to determine income of the period, conventional costing methods distinguish between manufacturing and nonmanufacturing costs. In these systems, the product absorbs manufacturing overhead costs. In variable costing, the distinction is made between variable and fixed costs.

Financial reports under two costing systems differ in some ways. Since fixed manufacturing costs are not included in the product cost in variable costing, cost of production, cost of goods sold and cost of inventory are higher in absorption costing.

Gross profit of absorption costing varies considerably from the gross contribution margin of variable costing. The gross contribution margin, difference of sales revenue and variable manufacturing costs, is greater than the gross profit. The margin varies directly with the sales volume if fixed and variable costs are stable within the relevant range. Hence, an increase in sales volume, without a change in sales price, will result in a proportional increase in gross

contribution margin. However, the gross profit of absorption costing does not respond in the same proportion to the changes in sales volume, leading to the criticism of absorption costing that this result appears most unrealistic and confuses management in its attempt to understand and analyze the financial statements, and does not enable management to make use of sensitivity analysis.

The difference between the amount of net income of any accounting period computed by absorption costing and variable costing will be equal to the change in the amount of period costs deferred in inventory. Both methods, actually, will result in identical amounts of total net income over a complete cycle of inventory build-up and liquidation.

If inventory of manufactured goods does not fluctuate from period to period, net income under two costing systems will be identical. When production exceeds sales causing inventories to increase, net income will be higher under absorption costing because inventory includes a portion of the period costs, whereas under variable costing all period costs are written off.

When sales exceed production causing inventories to decrease, net income will be lower in absorption costing. The entire difference of income under two costing methods can be explained by the amount of fixed overhead that is charged to the beginning and ending inventories.

#### C. Application and General Acceptance of Costing Systems

The National Association of Accountants in U.S.A. has long favored the use of variable costing and as far back

as 1936 issued research reports and publications pointing out the advantages of the costing method. The Financial Executives Institute through its Financial Executives Foundation reports that a growing number of companies in U.S.A. are using variable costing method. The rapid expansion of work of many CPA and consultant firms' management services divisions is due in significant part to the installation of variable costing systems. In fact, for many years, companies employing conventional costing systems, have made analysis of variable and fixed costs and have made break-even, contribution margin analysis. However, this data required special studies since the information was not readily available in the accounts as it is in variable costing. The principal disadvantage of variable costing is its lack of acceptance for external reporting. In U.S.A., the system is not accepted by the predecessor of the Financial Accounting Standards Board, the American Institute of Certified Public Accountants, The Internal Revenue Service, and the Securities and Exchange Commission. They have not recognized variable costing as generally acceptable for inventory valuation purposes, for external reports, or for tax purposes.

The Internal Revenue Service in its regulations defines inventory cost to include "raw materials and supplies entering into or consumed in connection with the product, expenditures for direct labor, and indirect expenses incident to and necessary for the production of the particular item." The inclusion of indirect expenses means that period costs are included in inventory valuation which are excluded in variable costing method.

Section 471 of the Internal Revenue Code provides two facts to which "each inventory must conform: (1) it must conform as nearly as possible to the best accounting practice in the trade or business and (2) it must clearly reflect income." The regulations also provide that consistency in inventory practice be given greater weight than is given to any particular method of inventory costing so long as the method used is in accord with the regulations. A 1973 Amendment to Section 471 specifically identifies the variable costing method as "not in accord with the regulations."

The position of the American Institute of Certified Public Accountants toward variable costing for external reporting is unfavorable. The basis for this position is Accounting Research Bulletin No.43, issued by AICPA. Its "Inventory Pricing" chapter starts with the emphasis on "a major objective of accounting for inventories is the proper determination of income through the process of matching appropriate costs and revenues." The Bulletin continues by stating that "the primary basis of accounting for inventories is cost, which has been defined generally as the price paid or consideration given to acquire an asset". As applied to inventories, cost means in principle the sum of the applicable expenditures and charges directly or indirectly incurred in bringing an article to its existing condition and location. It should also be recognized that the exclusion of all overheads from inventory costs does not constitute an accepted accounting procedure. Bulletin also states that "under some circumstances, items such as the facility expense, excessive spoilage, double freight and handling costs may be so abnormal



as to require special treatment as current period changes rather than as a portion of inventory cost."

The Securities and Exchange Commission in U.S.A. refuses to accept variable costing method as a result of its policy to favor consistency among reporting companies as far as possible and its attitude that variable costing is not a generally accepted accounting procedure<sup>(1)</sup>.

The section 275 of Vergi Usul Code in Turkey, defines cost of production as "to include the cost of raw material that go into production, direct labor costs, and factory overhead that will be allocated to the product cost. General administrative and financial expenses, if preferred can be included in costs of production. And, if the product is to be sold in a package, packaging and package expenses are to be included in production costs." The same code specifies factory overhead as "indirect materials, energy and fuel oil, depreciation expenses of plant, equipment, rent, maintenance and repair expenses, laboratory expenses, scrap and spoilage expenses." So, the Code clearly points out that the variable costing method is not accepted for external reporting. However, the last section of the code specifies that as long as the company is in accord with the code, it can employ any kind of technique to find out production costs. That means, companies can classify the costs and assign cost centers as they prefer, and can use any allocation technique to assign costs to cost centers and products.

Capital Marketing Commission in Turkey has revealed the standard financial reports in the Official journal no. 17958, Feb. 2, 1983. The Commission defines cost of goods

sold as the sum of raw material usage, direct labor, general production expenses, work-in-process usage, difference in finished goods, packaging expenses, a portion from general administration expenses, and financial expenses related to production activities. General production expenses cover rent, depreciation, energy, heat, insurance, repair expenses related to production and indirect material. Gross profit or loss is found by deduction of cost of goods sold and selling expenses and taxes from the sales figure.

General administration expenses, financial expenses, other income or loss are deducted from the gross profit figure to come up to net profit before taxes.

This type of standard presentation of reports groups income and expenses according to their functions<sup>(2)</sup>. Those costs which are related to production whether variable or fixed are charged to cost of goods sold. Period costs such as packaging and selling expenses and taxes are considered in analyzing gross profit.

The view is to charge all costs that contribute to production and sales activities which prohibits the user of the report to make analysis that could be done in variable costing reporting system.

The fact that variable costing is not accepted by the code and commission, does not mean that statements and reports prepared under variable costing are not useful. A company may prepare both variable costing and absorption costing income statements according to the user of the reports. The preparation of numerous types of reports is possible at rapid speed and at low cost with computers of today.

The application of variable costing for internal reporting purposes has gained great emphasis in last few years since it is more suitable for management needs for planning, control, and decision making. It is useful in evaluating performance and provides ready information for the important cost, volume, and profit relations.

## II. THE CLASSIFICATION OF COSTS

### A. General Classification

Costs may be classified in many ways. There is no single best classification scheme. Some classifications useful for recording costs as well as for decision making are:

- (a) Responsibility (division, plant, department).
- (b) Job, Process, and Product.
- (c) Direct and Indirect Costs.
- (d) Fixed and Variable Costs.
- (e) Natural and Functional Classification.

The recording of costs by division or by plant is necessary with multidivisional or multiplant organizations. The objective of classification of costs in this manner is to establish the responsibility for the cost, so that costs are to be controlled.

Manufacturing costs may be accumulated by job, manufacturing process, or by type of product. These are usually referred to as systems namely Job order costing or Process costing systems.

Certain costs are incurred for specific purposes and can be identified with specific departments, products, or processes. These are direct costs. Costs that cannot be easily identified with a product or process are called indirect costs.

Costs can also be classified as to their variation with changes in activity level, as variable and fixed.

The classification not usually used for recording purposes but commonly used for decision making are:

- (a) Out-of-pocket Costs and Sunk Costs.
- (b) Relevant Costs.
- (c) Opportunity Costs.
- (d) Marginal Costs.

Out-of-pocket costs require the utilization of current resources. Sunk costs are those costs for which the expenditure of cash or the incurring of a liability has already taken place. A relevant cost is a cost whose magnitude will be affected by a decision being made. Sunk costs are never relevant costs. Out-of-pocket costs may be relevant costs depending on the nature of decision. Opportunity costs are always relevant to decisions.

#### B. Direct and Indirect Costs

Direct Costs which are incurred for specific purposes and can be identified with specific departments, products, or processes are broken down into direct labor and direct material. Costs that cannot be easily identified with a product or process such as heating the factory building are indirect costs.

The borderline between direct costs and indirect costs often depends on the frame of reference. The salary of a foreman may be a direct cost since it can be directly and easily identified with a specific department. But if that department produces several products, the salary will be an indirect cost when determining the cost of each product is of interest. Also, a physical component of the product being made may have a small unit value, negligible amount,

and the cost of treating the item as a direct cost may be excessive when compared with the benefit gained. For decision making purposes, the classification of costs as direct and indirect is not very useful. An indirect cost may be just as relevant as a direct cost in making a decision. The indirect cost may be variable and out-of-pocket, or it may be a fixed cost and sunk such as factory building depreciation. Thus, to describe a cost as being indirect cost enables the information that it cannot be directly and easily identified with the end product. Above all, it is up to management to classify most of the costs as direct or indirect since the borderline is not that much clear cut.

### C. Fixed and Variable Costs

Within a relevant range, costs are broadly categorized as fixed costs and variable costs. Not every cost is either completely variable or completely fixed. Certain costs behave as mixed costs. These mixed costs increase with increases in the activity level, but do not increase in a strictly proportional manner. Some mixed costs increase only when certain activity levels are attained, otherwise it is a fixed cost.

In order for management to evaluate changes in costs in light of changes in activity levels, it becomes necessary for management to determine which costs are variable and which are fixed. Mixed costs and step costs are generally categorized into fixed and variable cost components. Such a division of these mixed and semifixed costs results in an

oversimplification of the behavior of some of these costs. Such cost procedure can entirely obscure such cost behavior patterns that can result from quantity usage discounts or other nonlinear cost behaviors.

The problems involved in incorporating all of the possible cost behavior types into a cost analysis are usually greater than the benefits to be obtained from such a fine distinction and that use of many different cost behavior classifications can be disadvantageous for analysis and control purposes.

Several methods such as the high-low method, the scattergraph or visual inspection, the Least squares regression method are widely used for determining the behavior patterns of various costs. The management must take into account the assumptions of these methods and use these costs as reasonably accurate estimates of cost behavior patterns in cost analysis.

Regardless of the method used to estimate fixed and variable costs, the results provide only estimates of each component. Changes that take place overtime and from one product to another can affect the relationships between fixed and variable cost components. However, to the extent that better management decisions can result from a better estimate of cost behavior patterns, then efforts should be directed towards providing the best estimates possible consistent with the need to obtain such estimates at a reasonable price.

### III. COSTING SYSTEMS AND MANAGEMENT DECISION MAKING

#### A. Management Decision Making Process

One of the management's functions is to determine the present position of the firm and plan its future needs. Financial statements provide data of the company's performance. Financial analysis indicates the firm's strengths and weaknesses. From the present position of the firm, plans can be determined for the future.

Financial statements provide information needed for analysis. They summarize company transactions over a period of time and serve as a report on management's effectiveness. They may reveal shortcomings in control or indicate major areas for changes in corporate policy.

Management must make effective use of the capital at its command. The essence of effective management is good forecasting because decisions depend upon the expectation of the future. The effectiveness of the decision depends upon the accuracy of the prediction. Planning interprets the objectives of the company and describes the means of achieving them. It is advanced decision making. Planning is based upon an appraisal of the external environment and any opportunities or constraints imposed by present corporate strengths or weaknesses.

Without profits, the company could not sustain operation, consequently, it would be unable to meet other goals such as maximum market share or the support of various community efforts, and would cease to exist. Return on investment, ROI, is the prime index of profitability. Initially,



planning revolves around maximizing ROI, since this is the means to improve profitability. Once on ROI has been established, consistent with sound continued growth and competitive conditions, the company chooses the products that will best maximize profits with the help of break even analysis. Demand considerations, competitive factors, and social and government constraints must be considered. Once the products have been chosen, the resources needed to obtain these products are determined. Certain levels and varieties of inventory are required to support sales.

A major task of the management is to plan capital expenditures and determine whether to increase his investment in, or to replace, existing fixed assets. Capital budgeting is the decision making process involved in formally planning the investment of capital. Many opportunities for profitable investments are constantly uncovered and recommended to management. These suggestions must fit within the formulation of long-range goals and in turn there must be a suitable framework within which relevant information can be assembled to achieve these goals. This requires a set of evaluation tools to select from among those alternatives that will meet the firm's objectives and financial strength.

#### B. The Role of Costing Systems in the Process

Management decisions are generally divided into two general groups, short-term and long-term. The great majority of day-to-day decisions are short-term. It is in this area that conventional cost accounting methods have been most

inadequate. This is largely because of including fixed costs which are usually committed for a relatively long time span, in product costs which are used for short-term decisions.

Variable costing separates the long-term costs from the short-term and maintains this separation throughout all accounting records and management reports. It is this very clear cut separation for management reporting that is important. Whether or not the official reporting records are converted to variable costing system for tax or other external reporting is of secondary importance.

Absorption costing obscures the true relationship between prices, costs, and volume. Thus, the variable costing profit and loss statement provides routinely all the data that a break even analysis requires and forever keeps before management the basic interrelationship of prices, costs and volume.

The best or optimum price is that which yields the maximum excess of total revenues over total variable costs, contribution margin. The volume at which the increase in total cost because of the addition of one more unit is just equal to the increase in total revenue is the optimum value. The price at which this volume can be obtained is the optimum price. The contribution margin analysis is readily available for pricing purposes in variable costing systems. Naturally, other facts such as competitor's selling prices, the characteristics of demand and consuming patterns, economic and governmental conditions affect the product pricing decisions.

The evaluation and interpretation of profit is crucial for planning future activities. Profit or loss figures under

different costing methods differ to some extent depending on the sales and production volume of the period. If sales exceed production, variable costing profit is higher than in absorption costing and if production exceeds sales, absorption costing shows higher profit. Under inflationary environment and in contracting or buyers market, sales generally do not exceed production especially in Turkey, in which case the evaluation of profit becomes a crucial factor. The overstated profit figure of absorption costing may mislead management. Moreover, the cost of inventory shows up higher figure in absorption costing leading management to contract production further.

Variable costing provide the key to profit planning in dept, and the profit plan integrates the planning and control for all levels of management. With management accounting data in this form, various sales estimates can be readily converted into projected operating profit. It is therefore practicable for the entire top management group to evaluate alternate plans and proposals in conference and to select the one that is generally agreed to be the best. This participation is in marked contrast with conventional absorption costing profit planning. A material change in the sales estimate under absorption costing usually results in time consuming cumbersome work and the result is that management often accepts an inferior plan rather than incur the delay inherent in testing alternate forecasts of volume and sales mix with the cumbersome technique of absorption costing.

Not only does variable costing facilitate profit planning and pricing decisions, but it provides basic finan-

cial and cost data in the form needed for almost all types of management decisions involving profitability. With routine accounting records maintained in this form, special analysis can be prepared for management with a minimum clerical work and delay. Since expenses are routinely separated into those that vary with volume of production or sales and those that do not, answers to questions where volume is a factor are quickly calculated. The effect of additional units produced or sold on operating profit, the effect of a price increase that resulted in a reduction in volume on operating income, the amount of additional sales needed to offset a price cut of certain amount, and the amount of price increase required to make up for an amount increase in wages can readily be analyzed from the financial statements of variable costing.

There are many long-range and short-term effects of decisions to make-or-buy, including facilities utilization, management and technical skills, and vendors' relations. These decisions must therefore be made in terms of management's basic objectives. In most firms such objectives can be stated simply as maximizing ROI and providing a sound rate of growth. To achieve this basic objective, management cannot base make-or-buy decisions on either out-of-pocket costs or total costs but must weigh the cash savings against the additional capital employed and compare the return with alternate uses of available capital. Variable costing system provides primary tools which facilitate sound make-or-buy decisions. These are separation between fixed and variable expenses, sound method for determining additional specific period costs that would be required to make versus buy a given

item, and logical bases for measuring the additional capital that would be required to make a given item as compared to buying it from outside vendors.

A sound program for expanding capacity is one of the most important ingredients for long-range planning and growth. The first step is to determine whether or not a proposed plant expansion program will improve the return on capital employed. This is relatively simple for a company using variable costing. The present situation is set up in variable cost from along with the incremental change, and then the return is figured including the expanded facilities and sales.

Evaluation of new products and processes, decisions on dropping old products, and advertising and promotion programs are other decision processes which can be handled under variable costing systems with less time and more accurate data.

#### IV. EMPIRICAL APPROACH AND DESIGN

##### A. The Aim of the Empirical Analysis

The idea behind the empirical analysis is that there is a relationship expected between method of cost accounting employed and the performance of the companies. More specifically, the pattern of classification of cost components, the financial reports prepared with these costing data, the presentation of the reports and the interpretation of the reports and the cost data by the management level affect the decision making process. Effective managerial decision making then in turn generates high probabilities of managerial and company success.

The performance of the companies are affected by many variables which are highly dependent on the type of the country and industry the company is operating, the quality and quantity of the management level, the sources of the company and general economic conditions. There are variables which the management has control over them and affect the performance of the company. The management itself can modify the decision making process by controlling and modifying the variables that are in the process.

The costing system employed in the company and the way the system is implemented and interpreted are assumed to affect the decision making process of the management and thereby the performance of the company.

## B. The Methodology of the Empirical Analysis

### 1. The General Method

Textile industry in Turkey is chosen as the sample for the hypothesis testing of the research as a representative of the population, companies in Turkey. The data collection method consists of two groups:

- (1) The questionnaire and the interview.
- (2) Financial data gathered by the Chamber of Industry of Istanbul.

The techniques employed in the statistical analysis of data are one-way frequencies, two-way frequencies, the Pearson correlations and the Discriminant analysis.

### 2. The Sampling

The Chamber of Industry of Istanbul publishes the first biggest 500 industrial companies every year. The chamber segregates the Turkish industry into several groups of industries in its studies<sup>(3)</sup>. For the year 1982, the Chamber has grouped the companies under 11 industries, and for the year 1983, it has grouped under 12 industries. The industrial companies analyzed by the Chamber consists of both private and public sector. Table 1 shows the number of companies out of 500 largest companies according to their industry group and sector, for the year 1982, Table 2 shows the same data for the year 1983.

TABLE 1  
INDUSTRY GROUPS IN 1982

INDUSTRY GROUPS	TOTAL	%	PUBLIC	PRIVATE	%
Mining	16	3.2	12	4	0.9
Food, Beverage, and Tobacco	82	16.4	5	77	17.9
Textile and Ready-Wear	107	21.4	23	84	19.5
Forestry and Furniture	8	1.6	1	7	1.6
Paper and publi- cation	15	3.0	2	13	3.0
Chemistry, Pet- roleum, Plastics	78	15.6	7	71	16.5
Land and Stone dependenc	42	8.4	10	32	7.4
Metal	36	7.2	5	31	7.2
Metallic, elec- trical, mechani- cal Products	88	17.5	4	84	19.5
Automotive	26	5.2	-	26	6.0
Other	2	0.4	-	2	0.5
TOTAL	500	100.0	69	431	100.0

Source: Türkiye'nin 500 BÜYÜK KURULUŞU  
Istanbul Sanayi Odası Journal, Aug. 15, 1983,  
Year 18, No.1210, pp.45-51.



TABLE 2  
INDUSTRY GROUPS IN 1983

INDUSTRY GROUPS	TOTAL	%	PUBLIC	PRIVATE	%
Mining	12	2.4	8	4	0.9
Food, Beverage, and Tobacco	77	15.4	6	71	16.7
Textile and Ready-Wear	109	21.8	23	86	20.2
Forestry and Furniture	5	1.0	-	5	1.2
Chemistry, Pet- roleum, Plastics	83	16.6	6	77	18.1
Land and Stone dependent	45	9.0	12	33	7.7
Metal	35	7.0	5	30	7.0
Metallic, elec- trical, mechani- cal Products	88	17.6	7	81	19.0
Automotive	27	5.4	-	27	6.3
Paper and publi- cation	17	3.4	7	10	2.3
Electricity	1	0.2	-	1	0.2
Other	1	0.2	-	1	0.2
TOTAL	500	100.0	74	426	100.0

Source: Türkiye'nin 500 BÜYÜK KURULUŞU  
Istanbul Sanayi Odası Journal, Oct. 15, 1984, Special  
Issue, Year 19, pp.52-59.

Textile and Ready-wear industry has the highest number of companies in both years. The 19.5 per cent of the 500 largest companies belong to textile industry in the year 1982, and 20.2 per cent in the year 1983. This is the criterion for choosing the textile industry as the sample industry. The companies registered in the Chamber of Industry of Istanbul, that is located near Istanbul is 38 in the year 1982, and 37 in the year 1983. Almost half of the private textile companies are located near Istanbul and this can constitute a representative sample for the Turkish textile companies. One of the data collection methods employed in the research is questionnaires and interviews, which requires direct relationship with the management and face-to-face interviews. This method would be impractical and inefficient if the companies located outside of the Istanbul could have been included. The criterion for selecting Istanbul located textile companies is the degree of reaching the management. The criterion for selecting private sector is that the application of managerial tools and excluding governmental and political influences as much as possible.

Thirty-seven companies are chosen as the sample size for the research, and 30 of them could be reached and 26 of the reached companies have presented valid data for the purpose of the research. In other respect, 30 of the sample accepted to have an interview and fill out the questionnaire, but four of them have revealed invalid questionnaire forms.

TABLE 3  
THE SAMPLE

	Number of Companies (1983)
Largest companies of Turkey	500
Textile and ready-wear Industry	109
Textile and ready-wear Industry-Private	86 <sup>1</sup>
Textile and ready-wear Industry-Istanbul and Private	37
Accepted to interview	30
Valid data	26 <sup>2</sup>

<sup>1</sup> Population

<sup>2</sup> Sample

### 3. The Sample and the Population

The financial data of the sample companies are gathered from the studies of the Chamber. The data cover 1982 and 1983 figures, so that comparisons within the company could be made. The sample, the population and Turkish industry are analyzed for the two year financial data to have general point of view about the position of the sample in the population and in the Turkish industry. As could be seen from the Table 4 that the private sector of textile industry, the population, generates the 16 per cent of the sales of the private sector largest 431 industrial companies in Turkey in 1982, and the 17 per cent of the sales of 426 companies in 1983. Private sector textile industry created 9 per cent of the profit of total private sector in 1982 and 20 per cent in 1983. Textile industry has shown an increase in profit of 33.000 million Turkish Liras, more than 100 per cent, and private sector of the textile industry has increased its profits at the same amount. This points out that population of the research has gained a progress in 1983 more than 100 per cent though the total private industry has increased its profit about 72.000 millions of Turkish Liras, at 60 per cent. Almost half of the increase in profits is generated by the textile industry. The year 1983 has been a successful year for the population. The sample, as seen from Table 4, consists of successful group of the population. The profit of the sample has increased about 8.000 million Turkish Liras, the 24 per cent of total increase in profit in private

textile industry results from the performance of the sample companies.

The financial figures and ratios show that Turkish private sector and the textile private industry have succeeded in the year 1983. The reason why the sales/capital stock ratio decreased is that capital stock figures in 1983 has increased more than five times, whereas the sales has increased about 65-70 per cent. The increase of capital stock is due to the revaluation of fixed assets and including the revalued figure in the capital stock account in 1983.

The sampled companies have generated 37 per cent of the population sales in 1982 and in 1983. The sample has created a profit of 9.000 million in 1982, which is 48 per cent of profit made companies of private textile industry, and 44 per cent in 1983. All the financial ratios of the sample exceed the ratios of the population ratios. The sample is the representative of the successful companies of population.

In 1982, the profit of private sector in Turkey is nine per cent of total assets, 38 per cent of capital stock, and six per cent of sales figure. In the same year the profit of the population is two per cent of its total assets, 13 per cent of its capital stock, and two per cent of its sales figure. In the following year, the profit of private sector in Turkey is again nine per cent of total assets, 31 per cent of capital stock; because of high increases in capital stock, seven per cent of sales figure. In the same year, the profit of the population is eight per cent of its total assets, 28 per cent of its capital stock, and eight per cent

of its sales figure. The population has shown more increase than the Turkish private sector as a whole.

TABLE 4

## FINANCIAL FIGURES OF POPULATION AND THE SAMPLE

	1 9 8 2 (000.000 Turkish Liras)								
	SALES	CAPITAL STOCK	ASSETS	PROFIT	<u>PROFIT</u> <u>ASSETS</u>	<u>PROFIT</u> <u>C.STOCK</u>	<u>PROFIT</u> <u>SALES</u>	<u>SALES</u> <u>ASSETS</u>	<u>SALES</u> <u>C.STOCK</u>
SAMPLE	110.385	34.002	103.419	8.964	0.0867	0.2636	0.0812	1.0674	3.2464
POPULATION	298.227	46.368	286.907	5.941*	0.0207	0.1281	0.0199	1.0395	6.4317
TURKEY-private	1.863.194	321.029	1.285.469	120.558	0.0934	0.3755	0.0647	1.4494	5.8038
TURKEY-total	3.494.891	675.245	3.154.521	210.108	0.0666	0.3112	0.0601	1.1079	5.1757

	1 9 8 3 (000.000 Turkish Liras)								
	SALES	CAPITAL STOCK	ASSETS	PROFIT	<u>PROFIT</u> <u>ASSETS</u>	<u>PROFIT</u> <u>C.STOCK</u>	<u>PROFIT</u> <u>SALES</u>	<u>SALES</u> <u>ASSETS</u>	<u>SALES</u> <u>C.STOCK</u>
SAMPLE	183.065	47.185	152.483	17.220	0.1129	0.3649	0.0941	1.2006	3.8797
POPULATION	494.240	138.874	453.143	38.971	0.0860	0.2806	0.0789	1.0907	3.5589
TURKEY-private	2.801.049	621.980	2.070.456	192.819	0.0931	0.3100	0.0688	1.3529	4.5034
TURKEY-total	5.582.769	1.306.486	5.170.332	315.850	0.0611	0.2418	0.0566	1.0798	4.2731

\* TOTAL PROFIT : 18.708

TOTAL LOSS : (12.767)

NET PROFIT : 5.941

Source: Türkiye'nin 500 Büyük Kuruluşu, İstanbul Sanayi Odası Journal, Oct. 15, 1984 and Aug. 15, 1983.

#### 4. The Questionnaire

The financial data of every company in the sample are available from the studies of the chamber. In order to gather data about the costing systems employed, financial reports prepared, the way they are interpreted, the questionnaire method is used in the research. Along with the questionnaire, personal interview method, naturally, improved the validity of the data collection method. The general manager or the finance manager of the sample companies have been interviewed in their offices and they have filled out the questionnaires.

The questionnaire consists of 21 questions (Appendix E). The first five questions are asked to relate the questionnaire with their financial figures gathered from the chamber. Only four out of 21 questions are open ended, the other questions are multiple choice questions. Five out of 16 multiple choice questions are double choice questions.

The questionnaire is intended to find out the management's pattern of giving decisions. The type of financial reports prepared and the frequency of their preparation are assumed to base a managerial decision making model. Then, to analyze the content of this base, questions are forwarded to how these financial reports are prepared; whether variable costing method has used or not is the main intention of the questionnaire.



## 5. The Performance Rating

The financial ratios are used to quantify and rate the performance of the companies. These financial ratios are profit over assets, profit over capital stock, profit over sales, sales over assets, and sales over capital stock. The ratios are calculated for 1982 and 1983, to be able to compare the performance of the company.

## V. EMPIRICAL FINDINGS

### A. Definition of Variables

The variables that are defined out of the data for the empirical analysis constitute the main part of the research. There are 36 variable that donate the research, 31 of them being gathered through questionnaires, five of them through the studies of chamber of Industry.

#### (1) Sales grouping.

The sales of the companies are grouped in five headings:

- (a) Above 15 billion Turkish Liras.
- (b) Between 14.9 and 10 billion Turkish Liras.
- (c) Between 9.9 and five billion Turkish Liras.
- (d) Between 4.9 and two billion Turkish Liras.
- (e) Below two billion Turkish Liras.

#### (2) Income level grouping.

The income level of the companies are grouped in five headings:

- (a) Above one billion Turkish Liras.
- (b) Between 999 and 500 million Turkish Liras.
- (c) Between 499 and 250 million Turkish Liras.
- (d) Between 249 and 100 million Turkish Liras.
- (e) Below 100 million Turkish Liras.

#### (3) Investment expenditure grouping.

The investment expenditure of the companies are grouped in six headings:

- (a) Above 10 billion Turkish Liras.
- (b) Between 9.9 and five billion Turkish Liras.
- (c) Between 4.9 and one billion Turkish Liras.

- (d) Between 999 and 500 million Turkish Liras.
- (e) Between 499 and 100 million Turkish Liras.
- (f) Below 100 million Turkish Liras.
- (4) Export level grouping

The export sales of the companies are grouped in five headings:

- (a) Above 20 million dollars.
- (b) Between 19.9 and 10 million dollars.
- (c) Between 9.9 and five million dollars.
- (d) Between 4.9 and one million dollars.
- (e) Below one million dollars.
- (5) The usage of computer in the operations of the company.

The companies are grouped in two headings:

- (a) Use computer in the operations of the company.
- (b) Do not use computer in the operations of the company.
- (6) The usage of computer in the general manager level.

The companies that use computer in their operations are grouped in two headings:

- (a) Use computer in the general manager level.
- (b) Do not use computer in the general manager level.
- (7) The usage of computer in the finance and accounting department.

The companies that use computer in their operations are grouped in two headings:

- (a) Use computer in the finance and accounting department:
- (b) Do not use computer in the finance and accounting department.

(8) The usage of computer in the production department. The companies that use computer in their operations are grouped in two headings:

- (a) Use computer in the production department.
- (b) Do not use computer in the production department.

(9) The usage of computer in the planning department. The companies that use computer in their operations are grouped in two headings:

- (a) Use computer in the planning department.
- (b) Do not use computer in the planning department.

(10) The usage of computer in the sales department.

The companies that use computer in their operations are grouped in two headings:

- (a) Use computer in the sales department.
- (b) Do not use computer in the sales department.

(11) The usage of computer in the purchasing department.

The companies that use computer in their operations are grouped in two headings:

- (a) Use computer in the purchasing department.
- (b) Do not use computer in the purchasing department.

A company which uses computer in its operations may be grouped in cases if using the computer in the departments mentioned above.

(12) The point of view in the usage of computer.

The point of views of the companies that use computer in their operations about the usage of computer are grouped in four headings:

- (a) The computer application is totally helpful in all cases.

(b) The computer application is totally helpful in some cases.

(c) The computer application is partly helpful in some cases.

(d) The computer application is not helpful in all cases.

(13) The usefulness of balance sheet and income statement in managerial decision making.

The companies are grouped in two heading:

(a) Balance sheet and income statement are used in managerial decision making.

(b) Balance sheet and income statement are not used in managerial decision making.

(14) The frequency of the preparation of balance sheet and income statement.

The companies which use balance sheet and income statement in managerial decision making are grouped in four headings:

(a) The reports are prepared weekly.

(b) The reports are prepared monthly.

(c) The reports are prepared quarterly.

(d) The reports are prepared in every 4 months.

(15) The usage of sources and uses statement in managerial decision making.

The companies are grouped in two headings:

(a) Use sources and uses statement in managerial decision making.

(b) Do not use sources and uses statement in managerial decision making.

(16) The usage of breakeven analysis in managerial decision making.

The companies are grouped in two headings:

- (a) Use breakeven analysis in managerial decision making.
- (b) Do not use breakeven analysis in managerial decision making.

(17) The usage of ratio analysis in managerial decision making.

The companies are grouped in two headings:

- (a) Use ratio analysis in managerial decision making.
- (b) Do not use ratio analysis in managerial decision making.

(18) The components that are included in the product cost.

The components are grouped in 18 headings:

- (a) Direct labor.
- (b) Raw material.
- (c) Supplies.
- (d) Heating and illumination.
- (e) Energy and water.
- (f) Repair and maintenance.
- (g) Plant depreciation.
- (h) Machine depreciation.
- (i) Plant rent.
- (j) Administrative personnel expenses.
- (k) Office supplies.
- (l) Office building depreciation.
- (m) Office building rent.
- (n) Sales personnel expenses.
- (o) Advertising and promotion expenses.

- (p) Financial expenditures.
- (r) Labor rented.
- (s) Portion from the general expenses.
- (19) The classification of costs as variable and fixed costs in the cost accounting systems.

The companies are grouped in two headings:

- (a) The costs are classified as variable and fixed.
- (b) The costs are not classified as variable and fixed.
- (20) The type of classification of costs as fixed and variable.

The companies which classify costs as fixed and variable are grouped in three headings:

- (a) All costs are classified as fixed and variable.
- (b) Labor cost is assumed as fixed and all other costs are classified as fixed and variable.
- (c) Raw material cost is assumed as variable and all other costs are not classified.
- (21) The application of variable cost accounting method in financial internal reporting.

The companies are grouped in two headings:

- (a) Employ variable costing system in financial reporting.
- (b) Do not employ variable costing system in financial reporting.
- (22) The usefulness of balance sheet and income statement in long term planning.

The companies are grouped in two headings:

- (a) Use balance sheet and income statement in long-term planning.

(b) Do not use balance sheet and income statement in long-term planning.

(23) The usefulness of balance sheet and income statement in short-term planning.

The companies are grouped in two headings:

(a) Use balance sheet and income statement in short-term planning.

(b) Do not use balance sheet and income statement in short-term planning.

(24) The usefulness of balance sheet and income statement in pricing decisions.

The companies are grouped in two headings:

(a) Use balance sheet and income statement in pricing.

(b) Do not use balance sheet and income statement in pricing.

(25) The usefulness of balance sheet and income statement in purchasing decisions.

The companies are grouped in two headings:

(a) Use balance sheet and income statement in purchasing decisions.

(b) Do not use balance sheet and income statement in purchasing decisions.

(26) The usefulness of balance sheet and income statement in investment decisions.

The companies are grouped in two headings:

(a) Use balance sheet and income statement in investment decisions.

(b) Do not use balance sheet and income statement in investment decisions.



(27) The usage of balance sheet in evaluating the operations of the company.

The companies are grouped in two headings:

(a) Use balance sheet in evaluating the operations of the company.

(b) Do not use balance sheet in evaluating the operations of the company.

(28) The usage of income statement in evaluating the operations of the company.

The companies are grouped in two headings:

(a) Use income statement in evaluating the operations of the company.

(b) Do not use income statement in evaluating the operations of the company.

(29) The usage of sources and uses statement in evaluating the operations of the company.

The companies are grouped in two headings:

(a) Use sources and uses statement in evaluating the operations of the company.

(b) Do not use sources and uses statement in evaluating the operations of the company.

(30) The usage of ratio analysis in evaluating the operations of the company.

The companies are grouped in two headings:

(a) Use ratio analysis in evaluating the operations of the company.

(b) Do not use ratio analysis in evaluating the operations of the company.

(31) The usage of monthly budget compared reports in evaluating the operations of the company.

The companies are grouped in two headings:

(a) Use monthly reports in evaluating the operations of the company.

(b) Do not use monthly reports in evaluating the operations of the company.

Naturally, any company can use more than one of the above mentioned reports in evaluation of the company.

(32) The performance in profit over assets ratio.

The companies are grouped in two headings:

(a) Increase in profit over assets ratio.

(b) Decrease in profit over assets ratio.

(33) The performance in profit over capital stock ratio.

The companies are grouped in two headings:

(a) Increase in profit over capital stock ratio.

(b) Decrease in profit over capital stock ratio.

(34) The performance in profit over sales ratio.

The companies are grouped in two headings:

(a) Increase in profit over sales ratio.

(b) Decrease in profit over sales ratio.

(35) The performance in sales over assets ratio.

The companies are grouped in two headings:

(a) Increase in sales over assets ratio.

(b) Decrease in sales over assets ratio.

(36) The performance in sales over capital stock ratio.

The companies are grouped in two headings:

(a) Increase in sales over capital stock ratio.

(b) Decrease in sales over capital stock ratio.

TABLE 5  
THE VARIABLE LIST

VARIABLES DEFINED	RELATED QUESTIONS IN QUESTIONNAIRE	VARIABLE CODE IN THE ANALYSIS
1	1	V1
2	2	V2
3	3	V3
4	5	V4
5	6	V5
6	8	V6
7	8	V7
8	8	V8
9	8	V9
10	8	V10
11	8	V11
12	11	V12
13	12	-
14	13	V13
15	14	V14
16	14	V15
17	14	V16
18	15	-
19	16	V17
20	17	V18
21	19	V19
22	20	V20
23	20	V21
24	20	V22
25	20	V23
26	20	V24
27	21	V25
28	21	V26
29	21	V27
30	21	V28
31	21	V29
32	-	V41
33	-	V61
34	-	V71
35	-	V81
36	-	V91

## B. Statistical Methods Used

Statistical methods employed in the research are one-way frequency distributions, joint frequency distributions, Pearson correlations and Discriminant analysis.

Normally, the first task of data analysis is to determine the basic distributional characteristics of each of the variables to be used in the subsequent statistical analysis. The distributional characteristics available with this statistical method are mean, median, mode, range, minimum, maximum, standard deviation, standard error, variance, skewness, and kurtosis.

The minimum and maximum devote the smallest and largest value of a variable encountered among the cases, while the range is the minimum subtracted from the maximum. The mode is the value of the variable which occurs most often. The median is the numerical value of the middle case or the case lying exactly on the 50th percentile, once all the cases have been rank ordered from highest to lowest. The mean is the most common measure of central tendency for variables measured at the interval level. Often referred to as the average, it is merely the sum of the individual values for each case divided by the number of cases. The variance is a measure of the dispersion of the data about the mean. The standard deviation, very simply, is the square root of the variance.

If an infinite number of equal-sized samples were drawn from a given population, the mean of each sample would be an estimate of the true population mean, but not all of

them would be identical. The pattern of these means would actually constitute a normal distribution and would have a standard deviation. The standard deviation of this distribution is the standard error. Thus, the standard error enables to determine the potential degree of discrepancy between the sample mean and the unknown population mean.

The skewness is a statistic needed to determine the degree to which a distribution of cases approximates a normal curve, since it measures deviations from symmetry. The measure of skewness sometimes called the third moment, takes on a value of zero when the distribution is a completely symmetric bell-shaped curve. A positive value indicates that the cases are clustered more to the left of the mean with most of the extreme values to the right. A negative value indicates the clustering to the right.

The kurtosis is a measure of the relative peakedness or flatness of the curve defined by the distribution of cases. A normal distribution will have a kurtosis of zero. If the kurtosis is positive, the distribution is more peaked than would be true for a normal distribution, while a negative value means that it is flatter. Kurtosis is sometimes called the fourth moment.

After examining the distribution of each of the variables, the research begins to investigate sets of relationships among two or more of these variables. Since the sample size is relatively small, joint frequency distribution analysis is available for the research, enabling the analysis of pairs of variables.

A cross tabulation is a joint frequency distribution of cases according to two or more classificatory variables. The joint frequency distributions can be statistically analyzed by the chi-square statistic, to determine whether or not the variables are statistically independent. Chi-square is a test of statistical significance. It enables to determine whether a systematic relationship exists between two variables. Tests of statistical significance only indicate the likelihood that an observed relationship actually exists in the universe, they do not tell how strong the relationship is. A relationship may be statistically significant without being substantively important.

Since, the actual relationship in the universe is not known, small values of chi-square are interpreted to indicate the absence of a relationship, often referred to as statistical independence. Conversely, a large chi-square implies that a systematic relationship of some sort exists between the variables.

In order to determine whether a systematic relationship does exist, it is necessary to ascertain the probability of obtaining a value of chi-square as large or larger than the one calculated from the sample, when in fact the variables are actually independent. This depends, in part, upon the degrees of freedom. The degrees of freedom vary with the number of rows and columns in the table, and they are important because the probability of obtaining a specific chi-square value depends on the number of cells in the table.

By itself, chi-square enables only to decide whether variables are independent or related. It does not tell how

strongly they are related. Part of the reason is that the sample size and table size have such an influence upon chi-square. Other statistics which adjust for these factors are available.

Pearson's correlation serves a dual purpose. Besides its role as an indicator of the goodness of fit of the linear regression, it is a measure of association indicating the strength of the linear relationship between the two variables. If the value of the correlation is close to zero, it is assumed that there is little or no linear relationship. If the value of the correlation approaches to +1.0 or -1.0, it is assumed that there is a strong linear relationship. Since the correlation coefficient is a measure of association, it does not reveal which variable is considered to be predicting the other. Significance tests are reported for each coefficient and used for two-tailed test of significance. When correlation coefficient cannot be calculated, as will happen if the variable is either missing for all cases or takes the same value for all cases, a value of 99.00 is assigned, which is a sign that the coefficient was not calculable.

In the methodology of the research, Pearson's correlation coefficients of the pair of variables which showed up high values of chi-square are considered.

In discriminant analysis, canonical correlation is used to judge the importance of the discriminant function. It is a measure of association between the function and the variable. In other words, it measures the ability of the function to discriminate among the groups. The higher and closer to 1 the correlation, the more the function is

reliable and variables are correlated with the function. Wilks' Lambda is another significance statistics in discriminant analysis. Lambda can be transformed into a chi-square statistic for an easy test of statistical significance.

The standardized discriminant function coefficients are of great analytic importance in and of themselves. When the sign is ignored, each coefficient represents the relative contribution of its associated variable to that function. The sign merely denotes whether the variable is making a negative or positive contribution.

### C. General Findings

The results of the one-way frequency distribution are presented in Appendix A and of the joint frequency distribution are presented in Appendix B. And the results of Pearson's correlation and Discriminant analysis are presented in Appendix C and D, respectively.

The striking point in the general analysis of the findings is that there is a strong relation between the application of computer in the operations of the company and the classification of costs as variable and fixed and also the application of variable costing in internal reporting. Almost the 54 per cent of the sampled companies use computer and the 71 per cent of them do classify the costs, the 57 per cent of them apply variable costing. The companies which apply variable costing and the companies which classify costs as variable and fixed, fall in the higher levels of sales and income. Their volume and complexity of operations and



activities may have forced these companies to implement computer and the application of computer might have caused available data for the use of variable costing and classification of costs. The management not being able to control and analyze every operation of the company might have decided to use technical methods for rational decision making and evaluating the company. Finding out the problem areas and searching for the solution might have caused management to employ variable costing and/or computer in their companies. Another fact is that application of computer is a sign of modernization for the present time and the application of it in Turkey is increasing. Naturally, financially strong companies are the first ones to adopt themselves to this modernization process. The 93 per cent of the computer using companies have increased their performance in sales over assets. While modernizing these companies might have also been searching for more rational managerial decision making alternatives. By coincidence, there seems a strong relation between the application of computer and the decision making using variable costing as a tool.

There is also an association between the usage of computer and the usage of balance sheet, and income statement in long-term and short-term planning, in pricing decision, and in investment decisions. The employment of computer might have facilitated the preparation of these reports and enabled them to be prepared as detailed as the management required for the purpose of managerial decision making. Inversely, the desire of the management for using the reports in decision making might have ended with a solution of using

computer. Since the computer using firms can be generalized as well-performing companies, they are faced with long-term and short-term planning and pricing and investing decisions and try to be rational and optimal in their decisions to succeed. The balance sheet and the income statement are the primary tools for such managerial decisions. Their financial strength have probably challenged them for the application of the computer and by coincidence the companies might have taken the advantage of it as a managerial tool in their operations.

Another striking relation is analyzed between the usage of computer and the ratio analysis. The 78 per cent of the companies that use ratio analysis also employ computer in their operations. Implementation of computer in their operation enables them to use the analysis in their managerial decisions. Inversely, the demand of the management to take advantage of the ratio analysis leads using computer to facilitate the process of the analysis. Interestingly enough, most of the companies using ratio analysis also use variable costing and classify the costs as variable and fixed. And generally these companies are the succeeding companies. It can be stated as there is a strong relation between using computer, using variable costing, classifying the costs, and using ratio analysis. Modern management tools which help managers to control and evaluate the operations and give decisions are mainly ratio analysis and cost analysis. And modern management also uses computer for these analysis or with the computer available in their companies prefer to employ these analysis.

The companies using breakeven analysis also use variable costing in internal reporting. In fact, to be able to perform a breakeven analysis, the company should have classified its costs as variable and fixed beforehand. It is practical to make a breakeven analysis when the company is already employing variable costing in its reporting system. Once the company implements the variable cost accounting it is very natural to perform breakeven analysis, especially if the application of computer is present.

The companies classifying costs do employ variable costing in internal reporting. Classification of costs enables to employ the variable costing method or to employ variable costing, costs must be classified already.

There seems to be a significant relationship between the classification of costs and the usage of balance sheet and income statement in long-term planning. Also there is an association between the usage of these reports in long term planning and the application of variable costing. The presentation of the reports prepared and analyzed by the variable costing method enlightenes management for the strengths and weaknesses of the company and builds up the base for long-term planning. Alternatively, the management team which desires to have deterministic long-term planning in the company prefer to employ variable costing to analyze and plan more rational and realistic. In fact, the companies which use variable costing are generally from the high income and sales group and the companies which find balance sheet and income statement helpful in long-term planning also are from the high level group. High volumes of sales

and income may have been the result of rational long-term planning or may have enforced the management to attain long-term planning, to set long-term goals and objectives to maintain the level of sales and income.

The companies which apply variable costing also find balance sheet and income statement helpful in investment decisions. Investment decision making requires the evaluation of the strengths and weaknesses of the company, the alternatives and the choice of the best alternative suitable to the financial and cost structure of the company. Hence, variable costing method is one of the primary tools to analyze and evaluate the company's structure.

Finally, the use of the computer, the application of the variable costing method, the classification of costs, the use of balance sheet and income statement, and the sales and income level of the company are all related with each other, and affecting one another.

The application of sources and uses statement and breakeven analysis in managerial decision making have a relation with the performance of the companies in profit over capital stock ratios. The breakeven analysis is an analytical technique for studying the relations among fixed costs, variable costs, and profits. It is a profit-planning approach based on established relations between costs and revenues. It is a device for determining the sales level for desired levels of profit. The sources and uses of fund statement indicates where cash came from and how it was used. The information it provides points out that the company is making progress or that problems are arising. The sources and uses

data may also be analyzed on a proforma basis to show how a firm plans to acquire and employ funds during some future period.

In order to perform in profit over capital stock ratio, the percentage increase in profits must exceed the percentage increase in capital stock. An increase in profit is attained through profit planning. The size and structure of capital stock is decided through the analysis of sources and uses of the funds of the company.

The companies which have increased their sales over assets ratio also use income statement in evaluating the operations of the company. An income statement may be used by management to judge the effectiveness of its past policies and decisions, to detect unfavorable trends and developments, and to provide data upon which to base decisions regarding a wide variety of matters, such as whether to expand production, whether to change advertising policy, whether to introduce a new product, whether to alter selling prices, and whether to merge with another corporation. Such an analysis of income statement may lead to such decisions which may generate an increase in sales more than an increase in assets.

It is observed that 11.5 per cent of the companies which decreased their profit over sales ratio managed and succeeded to increase profit over assets ratio. The inclusion of export sales in the sales figure and the application of low margins on these sales naturally generates a decrease in profit over sales figure especially when exports are increasing in time.

There has not been striking relations found with the performance measurement of the sampled companies and the classification of costs and application of the variable costing method in internal reporting.

The results of discriminant analysis revealed that the most contributing variables to the usage of computer in the operations of the company are the application of variable cost accounting method in financial internal reporting, the classification of costs as variable and fixed costs in the cost accounting systems, the usefulness of balance sheet and income statement in long term planning, the usage of ratio analysis in evaluating the operations of the company, and the performance of sales over capital stock.

The most contributing variables to the classification of costs as variable and fixed costs in the cost accounting systems are the performance of sales over capital stock, the usage of balance sheet and ratio analysis in evaluating the operations of the company.

Finally, the most contributing variables to the application of variable cost accounting method in financial internal reporting are the classification of costs as variable and fixed costs in the cost accounting systems, the usage of balance sheet, sources and uses statement, and ratio analysis in evaluating the operations of the company, and the performance in sales over capital stock.

## VI. CONCLUSION

The research aimed to explore the relationship of application of variable costing, usage of financial reports, employment of computer, and performance of the companies. For this purpose 36 variables have been defined to test the relationships by statistical methods. The results have showed that the employment of computer has direct relationship with the classification of costs as variable and fixed costs, application of variable costing in internal reporting, the usefulness of balance sheet and income statement in long-term planning, short-term planning, in pricing and purchasing decisions and the usage of ratio analysis evaluating the operations of the company. Direct relationships have also been observed between the application of variable costing in internal reporting and sales group, the usage of breakeven analysis in managerial decision making, the classification of costs, the usefulness of balance sheet and income statement in long-term planning, investment decisions and the usage of ratio analysis in evaluation of the company.

The research covers 26 of the companies out of 86 private textile industrial companies that have taken places in the first 500 largest companies of Turkey in 1983. The sample size is quite representative of the textile industry but not enough to make sophisticated statistical analysis. If the sample size had been larger, regression models and factor analysis methods could have been applied to further analyze the strength and cause of the relationship between variables. The research sample size is limited to only Istan-

bul region companies in textile industry totalling up to about 40 in size in the 500 largest companies list of the Chamber of Industry of Istanbul. The environmental factors due to specific Istanbul region might have affected the companies in the sample and these unmeasured affects could not been analyzed in the research, which is a rather important fact. This will most probably discriminate the sampled companies from the textile industrial companies in Turkey-wide. So, for further and stronger analysis the research could be extended to cover up the companies of all regions so that Turkish textile industry could be represented and by this way the sample size would be increased enabling the researcher to analyze and test the hypothesis by more explicit technical methods.

By chance, the income level and sales level of the companies in the sample are relatively in the higher level of the industrial group. In fact, this very same industry has performed quite well in the year 1983. These two facts should not be overestimated in evaluating and implementing the results of the research.

The relationships of the performance rating variables with other variables are found to be vague and so unsystematic that no clear cut propositions could be stated. In further analysis of the subject, new and different variables that best describe the performance measurement of the company should be searched and more meaningful relationships could be assembled. In fact, the research can be improved with introducing more variables into the scene and tested statistically. These new and different variables can be included



to the analysis with the improvement of the questionnaire or adding more questions to it and mainly arranging a panel between the top management of the sampled companies. A discussion among them related to the subject matter would give some highlights about the unmeasured behaviors and trends of the management and enable to analyze and evaluate the answers of the questionnaires.

The research has aimed to search the subject in the textile industry in 1985. The analysis could be extended to other industrial groups of the Turkey so that comparative studies regarding industrial differences can be accomplished. By the very same objective, a comparative research could be employed in the same industry with the same variables and techniques after a certain period of time to analyze the time factor and the changing relationships over time. More advanced studies would be comparing the textile industry of Turkey with United States, world countries, or European Economic Community countries from the same point of view covering the same period of time.

The research is succeeded to analyze and find-out some related variable pairs so that further analysis and studies could be based upon them and improve and develop the implementations as to the purpose of the researches.

## APPENDIX A

### ONE WAY FREQUENCY DISTRIBUTIONS

One-way frequency distributions are analyzed for all the variables of the research.

(1) Sales grouping.

The 42.3 per cent of the companies examined generated sales of between two and five billion Turkish Liras in 1983. The 42.3 per cent of the sample size have a sales figure above five billion Turkish Liras.

(2) Income level grouping.

The 42.3 per cent of the companies have created an income of between 250 and 500 million Turkish Liras in 1983. The 61.5 per cent of the sample have ended in 1983 with a profit of above 250 million Turkish Liras.

(3) Investment expenditure grouping.

The 46.2 per cent of the companies have made an investment expenditure below 100 million Turkish Liras in 1983. It is clear to interpret that the funds created from the profits are not used as investments in general.

(4) Export level grouping.

The 53.8 per cent of the companies have made an export sales below five million dollars in 1983. The 80.8 per cent have been able to export above one million dollars.

(5) The usage of computer in the operations of the company.

The 53.8 per cent of the companies sampled are using computer in their operations. The 14.3 per cent of them are employing the computer in the general manager level, 92.9

per cent of them in the finance and accounting department, 35.7 per cent of them in the production department, 28.6 per cent of them in the planning department, 21.4 per cent of them in the sales department, and 7.1 per cent of them in the purchasing department.

(6) The point of view of in the usage of computer.

The 28.6 per cent of the companies which use computer in their operations find the application of it as totally helpful in all cases. The 57.1 per cent find it as partly helpful in some cases and 14.3 per cent of them imply that the application of computer is not helpful in all cases.

(7) The usefulness of balance sheet and income statement in managerial decision making.

The 96.2 per cent of or 25 out of 26 companies have been using the mentioned financial reports in their managerial decision making.

(8) The frequency of the preparation of balance sheet and income statement.

The 69.2 per cent of the sample prepares the reports monthly, and 19.2 per cent prepares quarterly. Only one company prepares every week and the other prepares every four months.

(9) The usage of sources and uses statement, breakeven analysis, and ratio analysis in managerial decision making.

The 46.2 per cent of the companies use sources and uses statement, 26.9 per cent of them use breakeven analysis, and 57.7 per cent of them use ratio analysis in their managerial decision making. It is interesting to note that even all the companies in the sample are production oriented com-

panies, they give very little emphasis on the breakeven analysis.

(10) The components that are included in the product costs.

All the companies include direct labor, raw material, supplies, heating and illumination, energy and water, repair and maintenance, and machine depreciation in the product cost. The 84.6 per cent include plant depreciation, 15.4 per cent include plant rent, 42.3 per cent include administrative personnel expenses, 38.5 per cent include office supplies, 34.6 per cent include office building depreciation, 23.1 per cent include office building rent, 23.1 per cent include sales personnel expenses, 19.2 per cent include advertizing and promotion expenses, 30.8 per cent include financial expenses, 7.7 per cent include a portion from the general expenses.

(11) The classification of costs as variable and fixed costs in the cost accounting systems.

The 50 per cent of the companies do classify the costs as variable and fixed. The 61.5 per cent of them classify all the costs, 23.1 per cent of them assume labor as a fixed cost and classify all the others, and 15.4 per cent of them assume raw material cost as the only variable cost.

(12) The application of variable costing method in internal reporting.

The 42.3 per cent of the companies employ variable costing method in their internal reporting of which 72.8 per cent classify all the costs as fixed and variable and 27.2

per cent assume labor cost as a fixed cost and classify all other costs.

(13) The usefulness of balance sheet and income statements in long-term planning, in short-term planning, in pricing, in purchasing, and in investing.

The 38.5 per cent of the companies find the mentioned financial reports useful in long-term planning, the 76.9 per cent in short-term planning, the 84.6 per cent in pricing, the 30.8 per cent in purchasing, and the 30.8 per cent in investing decisions. The financial reports are mostly used in pricing decisions and leastly in investing and purchasing decisions.

(14) The evaluation of the operations of the company.

The 96.2 per cent of the companies use balance sheet for the evaluation of operations, the 96.2 per cent use income statement, the 38.5 per cent use sources and uses statement, the 34.6 per cent use ratio analysis, and the 15.4 per cent use monthly budget compared reports.

(15) Performance evaluation.

The 57.7 per cent of the companies have shown an increase in profit over assets, the 69.2 per cent have shown an increase in profit over capital stock, the 50 per cent have shown an increase in profit over sales, the 76.9 per cent have shown an increase in sales over assets, and the 69.2 per cent have shown an increase in sales over capital stock. The 46.2 per cent have shown an increase in profit over assets, profit over capital stock, and profit over sales simultaneously. The 1.1 per cent have shown an increase in all ratios.

100000

## V1: BASIC SUMMARY

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	DUR FREQ (PCT)
15K+	1	3	11.5	11.5	11.5
15-19K	2	4	15.4	15.4	23.0
20-24K	3	4	15.4	15.4	42.0
25-29K	4	11	42.3	42.3	57.0
30-34K	5	4	15.4	15.4	123.0
TOTAL		26	100.0	100.0	

MEAN	3.345	STD ERR	0.246	MEDIAN	3.100
MODE	4.000	STD DEV	1.500	VARIANCE	1.500
MINIMUM	1.000	SKINNESS	-2.000	RANGE	4.000
MAXIMUM	5.000	MAXIMUM	5.000		

VALID CASES 26 MISSING CASES 0

1.0000

VE KAR GRUPLARI

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
100-	1	3	11.5	11.5	11.5
100-20000	2	2	7.7	7.7	19.2
200-30000	3	11	42.3	42.3	61.5
300-40000	4	4	15.4	15.4	76.9
40000+	5	6	23.1	23.1	100.0
	TOTAL	26	100.0	100.0	

MEAN	3.300	STD ERR	2.247	MEDIAN	2.757
MODE	3.000	STD DEV	1.258	VARIANCE	1.582
MINIMUM	-2.250	SKEWNESS	-0.210	RANGE	7.250
MAXIMUM	1.250	MAXIMUM	5.000		

VALID CASES 26 MISSING CASES 0

COPY

V3

VOTARY GRAPHIC

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	OLD FREQ (PCT)
100%	1	1	3.8	3.8	3.
1-3%	3	1	3.8	3.8	7.
10-50%	4	4	15.4	15.4	23.
122-578%	5	7	26.9	26.9	53.
120%	6	12	46.2	46.2	96.
YK	7	1	3.8	3.8	100.
TOTAL		26	100.0	100.0	

MEAN	3.154	STD ERR	0.846	MEDIAN	5.000
MODE	6.000	STD DEV	1.255	VARIANCE	1.575
VARIANCE	2.333	SKEWNESS	-1.448	RANGE	6.000
COEFF	1.000	MAXIMUM	7.000		

VOTE CODE 20 YESING CODE 0



# IMMEDIATE TRIPLARI

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CL FREQ (PCT)
22YN-	1	6	23.1	23.1	23.
12-20YN	2	2	7.7	7.7	32.
5-10YN	3	4	15.4	15.4	46.
1-5YN	4	5	34.5	34.5	50.
0YN-	5	5	15.2	15.2	100.
	TOTAL	22	100.2	100.0	

MEAN	3.102	STD ERR	2.238	MEDIAN	3.111
MODE	4.000	STD DEV	1.472	VARIANCE	2.162
4th QUANT	-1.000	SKEWNESS	-0.202	RANGE	4.000
MEAN	3.102	MAXIMUM	5.000		

WAVELENGTH DATA

-2001V

VS FILED000000 KULLANIXI

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (%)	ADJUSTED FREQ (%)	214 FREQ (%)
V0701LANNON	2	12	48.0	48.0	46.
V0701LANN	1	14	52.0	52.0	123.
TOTAL		26	100.0	100.0	

MEAN	0.533	STD ERR	0.103	MEDIAN	0.071
MODE	1.000	STD DEV	0.500	VARIANCE	0.250
KURTOSIS	-0.000	SKEWNESS	-0.145	RANGE	0.000
MAXIMUM	0.000	MINIMUM	0.000		

MISSING CASES 0

DEPAY

V6      GRADE RILSISBAYR KULLANIKI

DATE/DAY LABEL	CODE	ABSOLUTE FREQ	RELATIVE	ADJUSTED	CL FR
			FREQ (PCT)	FREQ (PCT)	
KULLANILMAYAN	0	18	46.2	88.7	78
KULLANILMAYAN	1	8	7.7	14.3	100
	9	12	46.2	MISSING	
	TOTAL	26	100.0	100.0	

MEAN	2.143	STD ERR	0.097	MEDIAN	-2.500
MODE	7.000	STD DEV	0.552	VARIANCE	3.100
VARIANCE	1.455	SKENESS	1.026	RANGE	1.22
MINIMUM	2.222	MAXIMUM	1.200		

VALID CASES      14      MISSING CASES      12



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FORWARD BY LINDSEY KULL

STORY LINE	CODE	ABSOLUTE FREQ.	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
ILLANILKADATE	0	0	34.6	04.3	34.6
ILLANILKAD P	1	6	19.2	33.7	101.7
	2	12	46.2	81.6	
	TOTAL	26	100.0	100.0	

MEAN	2.157	STD DEV	2.133	MEDIAN	-2.423
MODE	2.000	STD DEV	2.457	VARIANCE	0.847
CURTOSIS	-1.021	SKEWNESS	0.234	RANGE	1.000
KURTOSIS	0.070	MAXIMUM	1.000		

FILED 1980 14 11 1980 12

W000

ALPHABETICALLY BY LABEL

ALPHABETIC LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
ALLANILKAYAKTA	3	13	36.8	71.4	71.4
ALLANILKAYAKTA	4	4	15.4	26.5	107.3
	5	12	46.2	MICROBINE	
TOTAL		25	100.0	103.2	

MEAN	0.257	STD DIA	0.105	MEDIAN	-1.755
STL	0.000	STD DIA	0.400	VARIANCE	0.000
STL	1.000	STANDARD	0.040	SPRUE	1.100
STL	1.000	STANDARD	0.100		

ALD DABIO	4	ALD DABIO	8
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STATS FOR DE HILGEBAYAS KOLU

ENTRY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM- FREQ (PCT)
LAHILGEBAYAS KOLU	0	11	42.3	76.6	76.6
LAHILGEBAYAS KOLU	1	3	11.5	21.4	100.0
	9	12	46.2	MISSING	
	TOTAL	26	100.0	100.0	

MEAN	0.214	STD ERR	0.214	MEDIAN	-1.333
STDEV	0.888	STD DEV	0.426	VARIANCE	0.181
MINIMUM	-2.488	SKWNESS	1.246	RANGE	1.200
MAXIMUM	0.888	MAXIMUM	1.200		

MISSING CASES 14 MISSING CASES 12

COPY

## SATTINGLAH HOLLY LADE BILGIBPYAR KULLANIM1

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	ORIG FREQ (PCT)
KULLANILMAYAKTA	0	13	52.0	52.9	52.0
KULLANILYAKTA	1	1	3.8	7.1	100.0
	9	12	46.2	MISSING	
TOTAL		26	100.0	100.0	

MEAN	0.071	STD ERR	0.071	MEDIAN	-5.000
MODE	0.000	STD DEV	0.267	VARIANCE	0.071
PARTCOIS	7.413	SKEWNESS	2.976	RANGE	1.000
INITIAL	0.000	MAXIMUM	1.000		

VALID CASES	14	MISSING CASES	12
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PARRY

V10 BELETSKAYEDAN YARARLANIK GORUSU

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
HER YASAR	1	4	18.4	26.6	26.6
BAZAR COX	2	8	33.6	57.1	85.7
BAZAR KISYEV	3	2	7.7	14.3	100.0
	9	12	46.2	MISSING	
TOTAL		26	100.0	100.0	

MEAN	1.857	STD ERR	0.177	MEDIAN	1.375
MODE	2.222	STD DEV	0.853	VARIANCE	0.442
KURTOSIS	-0.333	SKEWNESS	0.120	RANGE	2.000
MINIMUM	1.000	MAXIMUM	3.000		

VALID RANGE 1 3 9 12

YES/NO BASED

-00000

014 KARAR VER. FON AKIM TAB. KULLANIMI

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
KULLANILMAYAN	0	12	46.2	50.0	50.0
KULLANILMAKTA	1	12	46.2	50.0	100.0
	9	2	7.7	MISSING	
	TOTAL	26	100.0	100.0	

MEAN	0.500	STD ERR	0.104	MEDIAN	0.000
MODE	0.000	STD DEV	0.511	VARIANCE	0.261
KURTOSIS	-0.200	SKEWNESS	0.000	RANGE	1.000
MINIMUM	0.000	MAXIMUM	1.000		

VALID CASES 24 MISSING CASES 2



COPY

V18 KARAS VER. DRAM ANR. KULLANILYAKTA

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUY. FREQ (PCT)
KULLANILYAKTA	0	9	34.6	37.5	37.5
KULLANILYAKTA	1	15	57.7	68.5	106.0
	5	2	7.7	MISSING	
TOTAL		26	100.0	106.0	

MEAN	0.625	STD ERR	0.101	MEDIAN	0.277
MODE	1.000	STD DEV	0.455	VARIANCE	0.205
KURTOSIS	-1.527	SKEWNESS	-0.484	RANGE	1.000
MINIMUM	0.200	MAXIMUM	1.200		

VALID CASES 24 MISSING CASES 2

HAPPY

V:7 SABİT VE DEĞİŞKEN YASRAK AYIRIMI

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUY FREQ (PCT)
YARILYAKTA	0	13	50.0	50.0	50.0
YARILYAKTA	1	13	50.0	50.0	100.0
TOTAL		26	100.0	100.0	

MEAN	1.000	STD ERR	0.100	MEDIAN	0.000
MODE	0.000	STD DEV	0.512	VARIANCE	0.260
KURTOSIS	-1.070	SKEWNESS	0.000	RANGE	1.000
MINIMUM	0.000	MAXIMUM	1.000		

VALID CASES 26 MISSING CASES 0

COPY

ORBIT VE DERİŞKEN YÖRÜŞ AYRIM DEĞİ

ORBIT VE DERİŞKEN YÖRÜŞ AYRIM DEĞİ	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CLK FREQ (PCT)
ORBIT VE DERİŞKEN YÖRÜŞ AYRIM DEĞİ	1	8	32.0	61.5	61.5
ORBIT VE DERİŞKEN YÖRÜŞ AYRIM DEĞİ	2	3	11.5	23.1	23.1
ORBIT VE DERİŞKEN YÖRÜŞ AYRIM DEĞİ	3	2	7.7	15.4	15.4
ORBIT VE DERİŞKEN YÖRÜŞ AYRIM DEĞİ	4	10	50.0	MISSING	
ORBIT VE DERİŞKEN YÖRÜŞ AYRIM DEĞİ	5	25	100.0	100.0	

MEAN	1.833	STD DEV	0.815	MEDIAN	0.815
MODE	4.167	STD DEV	2.778	VARIANCE	0.663
RANGE	4.000	MINIMUM	0.000	RANGE	2.833
MAXIMUM	4.000	MAXIMUM	2.000		

VALID CASES	15	MISSING CASES	13
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ADDDY

AND APP. SYOTENINDE DM UYBULAPADI

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
UYBULAPADI	0	15	57.7	57.7	57.7
UYBULAPADI	1	11	42.3	42.3	100.0
TOTAL		26	100.0	100.0	

MEAN	3.423	STD ERR	0.335	MEDIAN	-0.102
MODE	0.000	STD DEV	0.504	VARIANCE	0.254
STANDARD	-1.580	SKEWNESS	0.294	RANGE	1.223
COVARIANCE	0.000	MAXIMUM	1.000		

ALL CASES	26	MISSING CASES	2
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2000Y

MALI REP. UZUN DONEY PLANLAMA

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	STD DEV (PCT)
DEGIL	0	15	57.7	60.0	50.0
YARDIMCI	1	10	38.5	40.0	100.0
	9	1	3.8	MISSING	
	TOTAL	26	100.0	100.0	

MEAN	2.120	STD ERR	2.120	MEDIAN	-2.250
MODE	0.300	STD DEV	0.500	VARIANCE	0.250
KURTOSIS	-1.525	SKEWNESS	0.300	RANGE	1.000
MINIMUM	0.000	MAXIMUM	1.000		

VALID CASES 25 MISSING CASES 1



HADDY

VE1 VALI 305. KISA DIVER PLANLAYS

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	DUP FREQ (PCT)
DEBIL	0	5	15.2	20.0	20.0
YARDWAT	1	20	76.8	80.0	120.0
	9	1	3.6	MISSING	
	TOTAL	25	100.0	100.0	

MEAN	0.560	STD. DEV.	0.688	MEDIAN	0.375
MODE	1.000	STD. DEV.	0.400	VARIANCE	0.167
MINIMUM	-2.000	SKEWNESS	-1.400	RANGE	1.000
MAXIMUM	0.000	KURTOSIS	1.000		

VALID CASES 25 MISSING CASES 1

V000

V02 YALI ROB. FIYOTLANDIRYA

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM. FREQ (PCT)
DEBIL	0	3	11.5	12.0	12.0
YARDEBIL	1	22	84.6	88.0	100.0
	5	1	3.9	MISSING	
TOTAL		26	100.0	100.0	

MEAN	0.660	STD ERR	0.255	MEDIAN	0.400
MODE	1.000	STD DEV	0.333	VARIANCE	0.110
MINIMUM	0.000	RANGE	0.000	RANGE	1.000
MAXIMUM	0.000	MAXIMUM	1.000		

VALID CASES 26 MISSING CASES 0

H055Y

VER YALI RSP. SATIN ALMA

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	OWN FREQ (PCT)
DECEL	0	17	65.4	68.0	68.0
YARD/MDI	1	8	26.8	32.2	128.2
	9	1	3.8	MISSING	
TOTAL		26	100.0	100.0	

MEAN	0.322	STD ERR	0.305	MEDIAN	-2.513
MODE	0.322	STD DEV	2.476	VARIANCE	6.127
MINIMUM	-1.522	SKEWNESS	3.725	RANGE	1.753
MAXIMUM	0.000	MAXIMUM	1.000		

VALID CASES 25 MISSING CASES 1

LAPDY

VBA KALI RAPOR YATERIM

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
DESA	2	47	55.4	55.0	50.2
YABERAKOT	4	8	30.6	32.0	100.7
	9	1	3.0	MISSING	
TOTAL		25	100.0	102.0	

MEAN	0.320	STD ERR	0.095	MEDIAN	-0.560
MODE	0.000	STD DEV	0.476	VARIANCE	0.127
KURTOSIS	-1.500	SKEWNESS	0.726	RANGE	1.000
MINIMUM	0.000	MAXIMUM	1.000		

VALID CASES 25 MISSING CASES 1

LAPDV

SER. FREQ. DISTRIBUTION OF DEE 845

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM- FREQ (PCT)
MULLANILYAKTA	0	1	3.8	3.8	3.8
MULLANILYAKTA	1	25	96.2	96.2	100.0
TOTAL		26	100.0	100.0	

MEAN	0.962	STD ERR	0.033	MEDIAN	0.462
MODE	1.000	STD DEV	0.196	VARIANCE	0.039
KURTOSIS	15.226	SKEWNESS	-4.586	RANGE	1.000
MINIMUM	0.000	MAXIMUM	1.000		

VALID CASES	26	MISSING CASES	0
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2000Y

V28 SER. PAAL. DISERLENDIRMEDE K4Z

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	ONLY FREQ (PCT)
KELLANLAKATA	0	1	3.6	3.6	3.6
KELLAVILAKTA	1	25	96.2	96.2	96.2
TOTAL		26	100.0	100.0	

MEAN	0.962	STD ERR	0.228	MEDIAN	0.962
MODE	1.000	STD DEV	2.195	VARIANCE	0.533
KURTOSIS	6.826	SKEWNESS	-4.526	RANGE	1.100
MINIMUM	0.320	MAXIMUM	1.022		

VALID CASES 26 MISSING CASES 0

ADJY

VE7 917. FRAM. DEBERLYNDAIDE FOM AKIV

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	DNV FREQ (PCT)
WELLAND-GRAXTE	1	16	61.5	61.5	61.5
WELLAND-GRAXTE	1	12	35.5	35.5	107.0
TOTAL		28	107.0	107.0	

MEAN	0.305	STD DEV	3.297	MEDIAN	-0.201
MODE	2.023	STD DIV	31450	VARIANCE	2.246
ALFREDOLE	-1.287	SKWANELE	2.447	RANGE	1.271
ADY. LLE	2.023	YEXTYLE	1.012		

WELLAND-GRAXTE 28 MISSING CASES 0

H0000

V08

SIR. PAUL. DEGERLENDIRMEDE ORAN

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
KULLAVELAKTO	0	17	65.4	65.4	65.4
KULLAVELAKTO	1	9	34.6	34.6	100.0
TOTAL		26	100.0	100.0	

MEAN	0.346	STD ERR	0.255	MEDIAN	-0.444
MODE	0.000	STD DEV	1.465	VARIANCE	2.145
KURTOSIS	-1.685	SKEWNESS	0.510	RANGE	1.000
MINIMUM	0.000	MAXIMUM	1.000		

VALID CASES 26 MISSING CASES 0



COPY

020

SER. FAAL. DEERLENDARKEDE PUTDE-AYLIK

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	NEW FREQ (PCT)
ALLANILKAKTA	0	22	84.6	84.6	84.6
ALLANILKAKYA	1	4	15.4	15.4	15.4
	TOTAL	26	100.0	100.0	

MEAN	0.154	STD ERR	0.272	MEDIAN	-0.253
MODE	0.000	STD DEV	0.368	VARIANCE	0.135
ALTBOSID	1.320	SKENNESE	1.000	RANGE	1.272
MINIMUM	0.000	MAXIMUM	1.000		

VALID CASES 26 MISSING CASES 0

17507 BYTES OF MEMORY FREE.

8800V

46 OPT/IN STATISTICS  
47 INDEX

RUN COMPLETED

NUMBER OF CONTROL CARDS READ 47  
NUMBER OF ERRORS DETECTED 0

8801

## APPENDIX B

## JOINT FREQUENCY DISTRIBUTION

Joint frequency distribution is performed for the following pairs of variables.

- (1) Sales groups by income level (V1-V2).
- (2) Sales groups by investment expenditure (V1-V3).
- (3) Sales groups by the usage of sources and uses statement in managerial decision making (V1-V14).
- (4) Sales groups by the usage of breakeven analysis in managerial decision making (V1-V15).
- (5) Sales groups by the usage of ratio analysis in managerial decision making (V1-V16).
- (6) Sales groups by the classification of costs as variable and fixed costs in the cost accounting systems (V1-V17).
- (7) Sales groups by the type of classification of costs as fixed and variable (V1-V18).
- (8) Sales groups by the application of variable cost accounting in financial internal reporting (V1-V19).
- (9) Sales groups by the usefulness of balance sheet and income statement in long-term planning (V1-V20).
- (10) Sales groups by the usefulness of balance sheet and income statement in short-term planning (V1-V21).
- (11) Sales groups by the usefulness of balance sheet and income statement in pricing decisions (V1-V22).
- (12) Sales groups by the usefulness of balance sheet and income statement in purchasing decisions (V2-V23).
- (13) Sales groups by the usefulness of balance sheet and income statement in investment decisions (V1-V24).

- (14) Sales groups by the usage of balance sheet in evaluating the operations of the company (V1-V25).
- (15) Sales groups by the usage of income statement in evaluating the operations of the company (V1-V26).
- (16) Sales groups by the usage of sources and uses statement in evaluating the operations of the company (V1-V27).
- (17) Sales groups by the usage of ratio analysis in evaluating the operations of the company (V1-V28).
- (18) Sales groups by the usage of monthly budget compared reports in evaluating the operations of the company (V1-V29).
- (19) Income level by investment expenditure (V2-V3).
- (20) Income level by the usage of sources and uses statement in managerial decision making (V2-V14).
- (21) Income level by the usage of breakeven analysis in managerial decision making (V2-V15).
- (22) Income level by the usage of ratio analysis in managerial decision making (V2-V16).
- (23) Income level by the classification of costs as variable and fixed costs in the cost accounting systems (V2-V17).
- (24) Income level by the type of classification of costs as fixed and variable (V2-V17).
- (25) Income level by the application of variable cost accounting in financial internal reporting (V2-V19).
- (26) Income level by the usefulness of balance sheet and income statement in long-term planning (V2-V20).
- (27) Income level by the usefulness of balance sheet and income statement in short-term planning (V2-V21).
- (28) Income level by the usefulness of balance sheet and income statement in pricing decisions (V2-V22).

- (29) Income level by the usefulness of balance sheet and income statement in purchasing decisions (V2-V23).
- (30) Income level by the usefulness of balance sheet and income statement in investment decisions (V2-V24).
- (31) Income level by the usage of balance sheet in evaluating the operations of the company (V2-V25).
- (32) Income level by the usage of income statement in evaluating the operations of the company (V2-V26).
- (33) Income level by the usage of sources and uses statement in evaluating the operations of the company (V2-V27).
- (34) Income level by the usage of ratio analysis in evaluating the operations of the company (V2-V28).
- (35) Income level by the usage of monthly budget compared reports in evaluating the operations of the company (V2-V29).
- (36) The usage of computer in the operations of the company by the classification of costs as variable and fixed costs in the cost accounting system (V5-V17).
- (37) The usage of computer in the operations of the company by the application of variable cost accounting in financial internal reporting (V5-V19).
- (38) The usage of computer in the operations of the company by the usefulness of balance sheet and income statement in long-term planning (V5-V20).
- (39) The usage of computer in the operations of the company by the usefulness of balance sheet and income statement in short-term planning (V5-V21).
- (40) The usage of computer in the operations of the company by the usefulness of balance sheet and income statement in pricing decisions (V5-V22).

(41) The usage of computer in the operations of the company by the usefulness of balance sheet and income statement in purchasing decisions (V5-V23).

(42) The usage of computer in the operations of the company by the usefulness of balance sheet and income statement in investment decisions (V5-V24).

(43) The usage of computer in the operations of the company by the usage of balance sheet in evaluating the operations of the company (V5-V25).

(44) The usage of computer in the operations of the company by the usage of income statement in evaluating the operations of the company (V5-V26).

(45) The usage of computer in the operations of the company by the usage of sources and uses statement in evaluating the operations of the company (V5-V27).

(46) The usage of computer in the operations of the company by the usage of ratio analysis in evaluating the operations of the company (V5-V28).

(47) The usage of computer in the operations of the company by the usage of monthly budget compared reports in evaluating the operations of the company (V5-V29).

(48) The frequency of the preparation of balance sheet and income statement by the classification of costs as variable and fixed costs in the cost accounting systems (V13-V17).

(49) The frequency of the preparation of balance sheet and income statement by the application of variable cost accounting in financial internal reporting (V13-V19).

(50) The frequency of the preparation of balance sheet and income statement by the usefulness of balance sheet and

income statement in long-term planning (V13-V20).

(51) The frequency of the preparation of balance sheet and income statement by the usefulness of balance sheet and income statement in short-term planning (V13-V21).

(52) The frequency of the preparation of balance sheet and income statement by the usefulness of balance sheet and income statement in pricing decisions (V13-V22).

(53) The frequency of the preparation of balance sheet and income statement by the usefulness of balance sheet and income statement in purchasing decisions (V13-V23).

(54) The frequency of the preparation of balance sheet and income statement by the usefulness of balance sheet and income statement in investment decisions (V13-V24).

(55) The frequency of the preparation of balance sheet and income statement by the usage of balance sheet in evaluating the operations of the company (V13-V25).

(56) The frequency of the preparation of balance sheet and income statement by the usage of income statement in evaluating the operations of the company (V13-V26).

(57) The frequency of the preparation of balance sheet and income statement by the usage of sources and uses statement in evaluating the operations of the company (V13-V27).

(58) The frequency of the preparation of balance sheet and income statement by the usage of ratio analysis in evaluating the operations of the company (V13-V28).

(59) The frequency of the preparation of balance sheet and income statement by the usage of monthly budget compared reports in evaluating the operations of the company (V13-V29).

(60) The usage of sources and uses statement in managerial decision making by the application of variable cost accounting in financial internal reporting (V14-V19).

(61) The usage of breakeven analysis in managerial decision making by the application of variable cost accounting in financial internal reporting (V15-V19).

(62) The usage of ratio analysis in managerial decision making by the application of variable cost accounting in financial internal reporting (V16-V19).

(63) The classification of costs as variable and fixed costs in the cost accounting systems by the application of variable cost accounting in financial internal reporting (V17-V19).

(64) The classification of costs as variable and fixed costs in the cost accounting systems by the usefulness of balance sheet and income statement in long-term planning (V17-V20).

(65) The classification of costs as variable and fixed costs in the cost accounting systems by the usefulness of balance sheet and income statement in short-term planning (V17-V21).

(66) The classification of costs as variable and fixed costs in the cost accounting systems by the usefulness of balance sheet and income statement in pricing decisions (V17-V22).

(67) The classification of costs as variable and fixed costs in the cost accounting systems by the usefulness of balance sheet and income statement in purchasing decisions (V17-V23).



(68) The classification of costs as variable and fixed costs in the cost accounting systems by the usefulness of balance sheet and income statement in investment decisions (V17-V24).

(69) The classification of costs as variable and fixed costs in the cost accounting systems by the usage of balance sheet in evaluating the operations of the company (V17-V25).

(70) The classification of costs as variable and fixed costs in the cost accounting systems by the usage of income statement in evaluating the operations of the company (V17-V26).

(71) The classification of costs as variable and fixed costs in the cost accounting systems by the usage of sources and uses statement in evaluating the operations of the company (V17-V27).

(72) The classification of costs as variable and fixed costs in the cost accounting systems by the usage of ratio analysis in evaluating the operations of the company (V17-V28).

(73) The classification of costs as variable and fixed costs in the cost accounting systems by the usage of monthly budget compared reports in evaluating the operations of the company (V17-V29).

(74) The type of classification of costs as fixed and variable by the application of variable cost accounting in financial internal reporting (V18-V19).

(75) The application of variable cost accounting in financial internal reporting by the usefulness of balance sheet and income statement in long-term planning (V19-V20).

(76) The application of variable cost accounting in financial internal reporting by the usefulness of balance sheet and income statement in short-term planning (V19-V21).

(77) The application of variable cost accounting in financial internal reporting by the usefulness of balance sheet and income statement in pricing decisions (V19-V22).

(78) The application of variable cost accounting in financial internal reporting by the usefulness of balance sheet and income statement in purchasing decisions (V19-V23).

(79) The application of variable cost accounting in financial internal reporting by the usefulness of balance sheet and income statement in investment decisions (V19-V24).

(80) The application of variable cost accounting in financial internal reporting by the usage of balance sheet in evaluating the operations of the company (V19-V25).

(81) The application of variable cost accounting in financial internal reporting by the usage of income statement in evaluating the operations of the company (V19-V26).

(82) The application of variable cost accounting in financial internal reporting by the usage of sources and uses statement in evaluating the operations of the company (V19-V27).

(83) The application of variable cost accounting in financial internal reporting by the usage of ratio analysis in evaluating the operations of the company (V19-V28).

(84) The application of variable cost accounting in financial internal reporting by the usage of monthly budget compared reports in evaluating the operations of the company (V19-V29).

(85) The performance in profit over assets ratio by the usage of computer in the operations of the company (V41-V5).

(86) The performance in profit over assets ratio by the frequency of the preparation of balance sheet and income statement (V41-V13).

(87) The performance in profit over assets ratio by the usage of sources and uses statement in managerial decision making (V41-V14).

(88) The performance in profit over assets ratio by the usage of breakeven analysis in managerial decision making (V41-V15).

(89) The performance in profit over assets ratio by the usage of ratio analysis in managerial decision making (V41-V16).

(90) The performance in profit over assets ratio by the classification of costs as variable and fixed costs in the cost accounting systems (V41-V17).

(91) The performance in profit over assets ratio by the type of classification of costs as fixed and variable (V41-V18).

(92) The performance in profit over assets ratio by the application of variable cost accounting in financial internal reporting (V41-V19).

(93) The performance in profit over assets ratio by the usefulness of balance sheet and income statement in long-term planning (V41-V20).

(94) The performance in profit over assets ratio by the usefulness of balance sheet and income statement in short term planning (V41-V21).

(95) The performance in profit over assets ratio by the usefulness of balance sheet and income statement in pricing decisions (V41-V22).

(96) The performance in profit over assets ratio by the usefulness of balance sheet and income statement in purchasing decisions (V41-V23).

(97) The performance in profit over assets ratio by the usefulness of balance sheet and income statement in investment decisions (V41-V24).

(98) The performance in profit over assets ratio by the usage of balance sheet in evaluating the operations of the company (V41-V25).

(99) The performance in profit over assets ratio by the usage of income statement in evaluating the operations of the company (V41-V26).

(100) The performance in profit over assets ratio by the usage of sources and uses statement in evaluating the operations of the company (V41-V27).

(101) The performance in profit over assets ratio by the usage of ratio analysis in evaluating the operations of the company (V41-V28).

(102) The performance in profit over assets ratio by the usage of monthly budget compared reports in evaluating the operations of the company (V41-V29).

(103) The performance in profit over capital stock ratio by the usage of computer in the operations of the company (V61-V5).

(104) The performance in profit over capital stock ratio by the frequency of the preparation of balance sheet and in-

come statement (V61-V13).

(105) The performance in profit over capital stock ratio by the usage of sources and uses statement in managerial decision making (V61-V14).

(106) The performance in profit over capital stock ratio by the usage of breakeven analysis in managerial decision making (V61-V15).

(107) The performance in profit over capital stock ratio by the usage of ratio analysis in managerial decision making (V61-V16).

(108) The performance in profit over capital stock ratio by the classification of costs as variable and fixed costs in the cost accounting systems (V61-V17).

(109) The performance in profit over capital stock ratio by the type of classification of costs as fixed and variable (V61-V18).

(110) The performance in profit over capital stock ratio by the application of variable cost accounting in financial internal reporting (V61-V19).

(111) The performance in profit over capital stock ratio by the usefulness of balance sheet and income statement in long-term planning (V61-V20).

(112) The performance in profit over capital stock ratio by the usefulness of balance sheet and income statement in short-term planning (V61-V21).

(113) The performance in profit over capital stock ratio by the usefulness of balance sheet and income statement in pricing decisions (V61-V22).

(114) The performance in profit over capital stock ratio by the usefulness of balance sheet and income statement in purchasing decisions (V61-V23).

(115) The performance in profit over capital stock ratio by the usefulness of balance sheet and income statement in investment decisions (V61-V24).

(116) The performance in profit over capital stock ratio by the usage of balance sheet in evaluating the operations of the company (V61-V25).

(117) The performance in profit over capital stock ratio by the usage of income statement in evaluating the operations of the company (V61-V26).

(118) The performance in profit over capital stock ratio by the usage of sources and uses statement in evaluating the operations of the company (V61-V27).

(119) The performance in profit over capital stock ratio by the usage of ratio analysis in evaluating the operations of the company (V61-V28).

(120) The performance in profit over capital stock ratio by the usage of monthly budget compared reports in evaluating the operations of the company (V61-V29).

(121) The performance in profit over sales ratio by the usage of computer in the operations of the company (V71-V5).

(122) The performance in profit over sales ratio by the frequency of the preparation of balance sheet and income statement (V71-V13).

(123) The performance in profit over sales ratio by the usage of sources and uses statement in managerial decision making (V71-V14).

(124) The performance in profit over sales ratio by the usage of breakeven analysis in managerial decision making (V71-V15).

(125) The performance in profit over sales ratio by the usage of ratio analysis in managerial decision making (V71-V16).

(126) The performance in profit over sales ratio by the classification of costs as variable and fixed costs in the cost accounting systems (V71-V17).

(127) The performance in profit over sales ratio by the type of classification of costs as fixed and variable (V71-V18).

(128) The performance in profit over sales ratio by the application of variable cost accounting in financial internal reporting (V71-V19).

(129) The performance in profit over sales ratio by the usefulness of balance sheet and income statement in long-term planning (V71-V20).

(130) The performance in profit over sales ratio by the usefulness of balance sheet and income statement in short-term planning (V71-V21).

(131) The performance in profit over sales ratio by the usefulness of balance sheet and income statement in pricing decisions (V71-V22).

(132) The performance in profit over sales ratio by the usefulness of balance sheet and income statement in purchasing decisions (V71-V23).

(133) The performance in profit over sales ratio by the usefulness of balance sheet and income statement in invest-

ment decisions (V71-V24).

(134) The performance in profit over sales ratio by the usage of balance sheet in evaluating the operations of the company (V71-V25).

(135) The performance in profit over sales ratio by the usage of income statement in evaluating the operations of the company (V71-V26).

(136) The performance in profit over sales ratio by the usage of sources and uses statement in evaluating the operations of the company (V71-V27).

(137) The performance in profit over sales ratio by the usage of ratio analysis in evaluating the operations of the company (V71-V28).

(138) The performance in profit over sales ratio by the usage of monthly budget compared reports in evaluating the operations of the company (V71-V29).

(139) The performance in sales over assets ratio by the usage of computer in the operations of the company (V81-V5).

(140) The performance in sales over assets ratio by the frequency of the preparation of balance sheet and income statement (V81-V13).

(141) The performance in sales over assets ratio by the usage of sources and uses statement in managerial decision making (V81-V14).

(142) The performance in sales over assets ratio by the usage of breakeven analysis in managerial decision making (V81-V15).

(143) The performance in sales over assets ratio by the usage of ratio analysis in managerial decision making (V81-V16).



(144) The performance in sales over assets ratio by the classification of costs as variable and fixed costs in the cost accounting systems (V81-V17).

(145) The performance in sales over assets ratio by the type of classification of costs as fixed and variable (V81-V18).

(146) The performance in sales over assets ratio by the application of variable cost accounting in financial internal reporting (V81-V19).

(147) The performance in sales over assets ratio by the usefulness of balance sheet and income statement in long-term planning (V81-V20).

(148) The performance in sales over assets ratio by the usefulness of balance sheet and income statement in short-term planning (V81-V21).

(149) The performance in sales over assets ratio by the usefulness of balance sheet and income statement in pricing decisions (V81-V22).

(150) The performance in sales over assets ratio by the usefulness of balance sheet and income statement in purchasing decisions (V81-V23).

(151) The performance in sales over assets ratio by the usefulness of balance sheet and income statement in investment decisions (V81-V24).

(152) The performance in sales over assets ratio by the usage of balance sheet in evaluating the operations of the company (V81-V25).

(153) The performance in sales over assets ratio by the usage of income statement in evaluating the operations of

the company (V81-V26).

(154) The performance in sales over assets ratio by the usage of sources and uses statement in evaluating the operations of the company (V81-V27).

(155) The performance in sales over assets ratio by the usage of ratio analysis in evaluating the operations of the company (V81-V28).

(156) The performance in sales over assets ratio by the usage of monthly budget compared reports in evaluating the operations of the company (V81-V29).

(157) The performance in sales over capital stock ratio by the usage of computer in the operations of the company (V91-V5).

(158) The performance in sales over capital stock ratio by the frequency of the preparation of balance sheet and income statement (V91-V13).

(159) The performance in sales over capital stock ratio by the usage of sources and uses statement in managerial decision making (V91-V14).

(160) The performance in sales over capital stock ratio by the usage of breakeven analysis in managerial decision making (V91-V15).

(161) The performance in sales over capital stock ratio by the usage of ratio analysis in managerial decision making (V91-V16).

(162) The performance in sales over capital stock ratio by the classification of costs as variable and fixed costs in the cost accounting systems (V91-V17).

(163) The performance in sales over capital stock ratio by the type of classification of costs as fixed and variable (V91-V18).

(164) The performance in sales over capital stock ratio by the application of variable cost accounting in financial internal reporting (V91-V19).

(165) The performance in sales over capital stock ratio by the usefulness of balance sheet and income statement in long-term planning (V91-V20).

(166) The performance in sales over capital stock ratio by the usefulness of balance sheet and income statement in short-term planning (V91-V21).

(167) The performance in sales over capital stock ratio by the usefulness of balance sheet and income statement in pricing decisions (V91-V22).

(168) The performance in sales over capital stock ratio by the usefulness of balance sheet and income statement in purchasing decisions (V91-V23).

(169) The performance in sales over capital stock ratio by the usefulness of balance sheet and income statement in investment decisions (V91-V24).

(170) The performance in sales over capital stock ratio by the usage of balance sheet in evaluating the operations of the company (V91-V25).

(170) The performance in sales over capital stock ratio by the usage of income statement in evaluating the operations of the company (V91-V26).

(172) The performance in sales over capital stock ratio by the usage of sources and uses statement in evaluating the

operations of the company (V91-V27).

(173) The performance in sales over capital stock ratio by the usage of ratio analysis in evaluating the operations of the company (V91-V28).

(174) The performance in sales over capital stock ratio by the usage of monthly budget compared reports in evaluating the operations of the company (V91-V29).

TABLE 6  
JOINT FREQUENCY DISTRIBUTIONS

PAIR OF VARIABLES	CHI-SQUARE	DEGREES OF FREEDOM	LEVEL OF CONFIDENCE (%)
V1-V2	39.7789	16	100
V1-V3	32.7321	20	96
V1-V14	2.6667	4	39
V1-V15	5.5261	4	76
V1-V16	4.8711	4	69
V1-V17	8.0909	4	91
V1-V18	3.0153	6	20
V1-V19	5.6703	4	77
V1-V20	7.7083	4	90
V1-V21	3.0208	4	44
V1-V22	5.1136	4	72
V1-V23	4.0135	4	58
V1-V24	3.0944	4	45
V1-V25	1.4182	4	16
V1-V26	1.4182	4	16
V1-V27	5.3231	4	74
V1-V28	4.7788	4	67
V1-V29	2.5472	4	36
V2-V3	25.1230	20	79
V2-V14	3.3333	4	50
V2-V15	5.1765	4	72
V2-V16	0.6519	4	4
V2-V17	5.7576	4	77
V2-V18	4.3333	8	23
V2-V19	4.5840	4	65
V2-V20	10.3030	4	96
V2-V21	2.5095	4	35
V2-V22	2.4019	4	33
V2-V23	5.4548	4	75
V2-V24	0.8175	4	7
V2-V25	12.4800	4	98
V2-V26	1.4182	4	16
V2-V27	4.1068	4	59
V2-V28	1.2642	4	13
V2-V29	3.6529	1	65
V5-V17	5.5714	1	98
V5-V19	2.7351	1	90
V5-V20	1.3258	1	75
V5-V21	3.2873	1	93
V5-V22	4.3388	1	96
V5-V23	1.7236	1	79
V5-V24	0.2017	1	32
V5-V25	0.8914	1	65
V5-V26	1.2133	1	72
V5-V27	0.2476	1	35

(con'd)

PAIR OF VARIABLES	CHI-SQUARE	DEGREES OF FREEDOM	LEVEL OF CONFIDENCE (%)
V5-V28	3.1721	1	92
V5-V29	0.8512	1	61
V13-V17	3.7660	3	70
V13-V19	3.7157	3	69
V13-V20	3.0180	3	59
V13-V21	4.1699	3	75
V13-V22	4.4235	3	77
V13-V23	1.1081	3	22
V13-V24	4.9412	3	81
V13-V25	0.4051	3	6
V13-V26	0.4051	3	6
V13-V27	2.1759	3	27
V13-V28	2.9610	3	68
V13-V29	1.8519	3	39
V14-V19	0.1678	1	30
V15-V19	2.6077	1	89
V16-V19	0.9063	1	63
V17-V19	19.0667	1	100
V17-V20	2.1635	1	84
V17-V21	0.1603	1	29
V17-V22	0.4759	1	51
V17-V23	0.9910	1	65
V17-V24	0.5197	1	52
V17-V25	1.0400	1	67
V17-V26	1.0400	1	67
V17-V27	0.6500	1	56
V17-V28	1.5294	1	77
V17-V29	0.0000	1	0
V18-V19	1.4773	2	52
V19-V20	1.7316	1	79
V19-V21	0.6494	1	56
V19-V22	0.1574	1	29
V19-V23	1.7238	1	79
V19-V24	1.6341	1	78
V19-V25	0.7627	1	59
V19-V26	1.4182	1	76
V19-V27	0.3939	1	46
V19-V28	3.3462	1	93
V19-V29	0.1146	1	26
V41-V5	0.0038	1	6
V41-V13	3.7157	3	69
V41-V14	0.1778	1	30
V41-V15	1.6269	1	78
V41-V16	0.1067	1	25
V41-V17	0.1576	1	29
V41-V18	0.7609	2	31
V41-V19	1.1699	1	71
V41-V20	0.2435	1	35
V41-V21	0.0406	1	14

(con'd)

PAIR OF VARIABLES	CHI-SQUARE	DEGREES OF FREEDOM	LEVEL OF CONFIDENCE (%)
V41-V22	0.1574	1	29
V41-V23	1.6341	1	78
V41-V24	1.6341	1	78
V41-V25	0.7627	1	59
V41-V26	0.7627	1	59
V41-V27	1.0085	1	66
V41-V28	0.0257	1	12
V41-V29	2.0700	1	83
V61-V5	0.3482	1	42
V61-V13	2.9412	3	58
V61-V14	1.8151	1	80
V61-V15	3.7438	1	95
V61-V16	1.6269	1	78
V61-V17	0.0000	1	0
V61-V18	0.4815	2	51
V61-V19	0.2801	1	38
V61-V20	0.4902	1	52
V61-V21	0.4136	1	47
V61-V22	0.0028	1	6
V61-V23	1.7517	1	80
V61-V24	0.2649	1	37
V61-V25	0.4622	1	51
V61-V26	0.4622	1	51
V61-V27	0.8847	1	62
V61-V28	0.4720	1	51
V61-V29	0.8207	1	61
V71-V5	0.6190	1	55
V71-V13	2.3860	3	50
V71-V14	0.0000	1	0
V71-V15	1.8151	1	80
V71-V16	0.1778	1	30
V71-V17	0.1538	1	29
V71-V18	0.2579	2	12
V71-V19	0.4182	1	47
V71-V20	0.4274	1	47
V71-V21	0.1603	1	29
V71-V22	0.2938	1	39
V71-V23	0.5197	1	77
V71-V24	2.4934	1	88
V71-V25	1.0400	1	67
V71-V26	1.0400	1	67
V71-V27	0.0000	1	0
V71-V28	0.1699	1	30
V71-V29	1.1818	1	71
V81-V5	4.3385	1	96
V81-V13	3.0702	3	60
V81-V14	0.0000	1	0
V81-V15	0.6050	1	54
V81-V16	0.0593	1	18

(con'd)

PAIR OF VARIABLES	CHI-SQUARE	DEGREES OF FREEDOM	LEVEL OF CONFIDENCE (%)
V81-V17	0.8667	1	62
V81-V18	0.4815	2	51
V81-V19	1.8962	1	81
V81-V20	0.3289	1	41
V81-V21	0.8772	1	62
V81-V22	0.1628	1	30
V81-V23	0.8530	1	61
V81-V24	4.3602	1	96
V81-V25	0.3120	1	40
V81-V26	3.4667	1	93
V81-V27	0.4388	1	49
V81-V28	0.8157	1	60
V81-V29	0.0098	1	8
V91-V5	1.2424	1	73
V91-V13	3.6155	3	68
V91-V14	0.2017	1	32
V91-V15	0.0017	1	6
V91-V16	2.2723	1	85
V91-V17	0.0000	1	0
V91-V18	2.8287	2	75
V91-V19	0.1094	1	26
V91-V20	0.0306	1	13
V91-V21	2.9412	1	91
V91-V22	0.0028	1	6
V91-V23	0.1635	1	29
V91-V24	0.2649	1	37
V91-V25	0.4622	1	51
V91-V26	0.4622	1	51
V91-V27	0.6500	1	56
V91-V28	1.2084	1	72
V91-V29	0.8207	1	61



The values for the joint distribution of 174 pair of variables are shown in Table 6. The confidence level for each pair of variable is calculated with given the chi-square and degrees of freedom. The chance of having a higher chi-square for the related pair of variable is 100 per cent minus the corresponding level of confidence.

The null hypothesis in this analysis is that there is no relation between the variables in the pair. The confidence level of the pair indicates the level at which the hypothesis be rejected and accept that the variables are dependent. The general accepted level of confidence for statistical analysis purposes is 90 per cent or above.

Depending on the values and results of joint frequency distribution analysis and considering the objective of the research pearson correlation for selected pairs of variables is calculated and shown in Table 7.

The pairs of variables with a confidence level equal or more than 75 per cent are assumed to be systematically related with each other. These pairs are as follows:

- (1) Sales groups and income level (V1-V2).

Companies in the highest sales level also belong to the highest income level. As the sales level decreases, the corresponding income level naturally decreases.

- (2) Sales groups and investment expenditures (V1-V3).

Companies in high sales groups tend to spent more investment expenditures or companies with high investment expenditures tend to have more sales figure.

- (3) Sales groups and the usage of breakeven analysis in managerial decision making (V1-V15).

The 66.6 per cent of the highest sales group companies use breakeven analysis in managerial decision making. As the level of sales decreases, the percentage of using the analysis decreases.

(4) Sales groups and the classification of costs as variable and fixed costs in the cost accounting systems (V1-V17).

All of the companies in the highest sales group and the 75 per cent of the companies in the next highest group classify the costs as fixed and variable. The 66.6 per cent of these companies classify all the costs in the cost accounting system.

(5) Sales groups and the application of variable cost accounting in financial internal reporting (V1-V19).

The 66.6 per cent of the companies in the highest sales group, the 75 per cent of the companies in the next sales group, and the 50 per cent of the companies in the middle sales group apply variable costing in internal reporting system. The 63.6 per cent of the companies in the low sales group and all of the companies in the lowest sales group do not apply the variable costing method.

(6) Sales group and the usefulness of balance sheet and income statement in long-term planning (V1-V20).

All of the companies in the highest sales group find balance sheet and income statement useful in long-term planning. But all of the next highest level companies find the reports unuseful in long-term planning.

- (7) Income level and investment expenditures (V2-V3).

As the income level of the companies increase, the investment expenditures spent increase too.

- (8) Income level and the classification of costs as variable and fixed costs in the cost accounting systems (V2-V17).

All of the companies in the highest income level, the 50 per cent of the companies in the next highest level, and the 54.5 per cent of middle income level classify costs as variable and fixed. The 83.3 per cent of the lowest income level do not classify costs as such.

- (9) Income level and the usefulness of balance sheet and income statement in long-term planning (V2-V20).

All of the companies in the highest income level find these financial reports useful in long-term planning though all of them in the next highest level find unuseful.

- (10) Income level and the usefulness of balance sheet and income statement in purchasing decisions (V2-V23).

The 71 per cent of the companies which do not use balance sheet and income statement in purchasing decisions have an income level of more than 500 million Turkish Liras. Seventy five per cent of the companies using the reports have an income less than 500 million Turkish Liras.

- (11) Income level and the usage of balance sheet in evaluating the operations of the company (V2-V25).

All the sampled companies except one use balance sheet in evaluation of the company.

- (12) The usage of computer in the operations of the company and the classification of costs as variable and fixed

costs in the cost accounting systems (V5-V17).

The 38.4 per cent of the companies use computer and classify costs as variable and fixed, the 34.6 per cent of the companies do not use computer and do not classify costs as variable and fixed. The 71.4 per cent of the computer using companies classify costs as such.

(13) The usage of computer in the operations of the company and the application of variable cost accounting in financial internal reporting (V5-V19).

The 57.1 per cent of the computer using companies apply variable costing and the 75 per cent of the companies that do not use computer do not apply variable costing in internal reporting either. The 72.7 per cent of the companies applying variable costing use computer in their operations.

(14) The usage of the computer in the operations of the company and the usefulness of balance sheet and income statement in long-term planning, in short-term planning, in pricing decisions, and in purchasing decisions (V5-V20/V21/V22/V23).

The 50 per cent of computer using companies find balance sheet and income statement useful in long-term planning, the 92.8 per cent find them useful in short-term planning, the 42.8 per cent find them useful in pricing decisions and the 35.7 per cent find them useful in purchasing decisions. The 70 per cent of the companies finding the reports useful in long-term planning, the 65 per cent of them finding the reports useful in short-term planning, the 63.6 per cent of them finding the reports useful in pricing decisions, and the 75 per cent of them finding the reports useful in purchasing decisions use computer in their operations.

With the usage of computer, the reports prepared become more useful in managerial decision making.

(15) The usage of computer in the operations of the company and the usage of ratio analysis in evaluating the operations of the company (V5-V28).

The 50 per cent of the companies using computer use ratio analysis in their analysis and the 83.3 per cent of the companies not using computer do not use the ratio analysis in the evaluation of the activities of the company. The 77.7 per cent of the companies using the ratio analysis also use computer in their operations.

(16) The frequency of the preparation of balance sheet and income statement and the usefulness of them in short-term and long-term planning (V13-V21/V22).

The 82.3 per cent of the companies preparing the reports monthly use the reports in short-term planning and the 94.1 per cent of the companies preparing the reports monthly use them in long-term planning. The 73.6 per cent of the companies finding the reports useful in short-term planning and the 76.1 per cent of the companies finding the reports useful in long-term planning prepare the reports monthly.

(17) The frequency of the preparation of balance sheet and income statement and the usefulness of them in investment decisions (V13-V24).

The companies using the reports in investment decision prepare them monthly. More than half of the companies which do not use balance sheet and income statement in investment decisions also prepare them monthly.

- (18) The usage of breakeven analysis in managerial decision making and the application of variable cost accounting in financial internal reporting (V15-V19).

The 71.4 per cent of the companies which use breakeven technique in the decision making process apply variable costing in internal reporting. The 45.4 per cent of the companies applying variable costing method use breakeven analysis in their managerial decisions. The 64.7 per cent of the companies not applying variable costing do not use breakeven analysis either.

- (19) The classification of costs as variable and fixed costs in the cost accounting systems and the application of variable costing method in internal reporting (V17-V19).

The 84.6 per cent of the companies that classify costs as variable and fixed apply variable cost accounting system in internal reporting.

- (20) The classification of costs as variable and fixed costs in the cost accounting systems and the usefulness of balance sheet and income statement in long-term planning (V17-V20).

The 70 per cent of the companies finding the financial reports useful in long-term planning classify the costs as variable and fixed. The 53.8 per cent of the companies classifying costs as such find the reports useful in long-term planning. The 36 per cent of the sample size do not classify costs and do not find the reports useful in long-term planning.

- (21) The classification of costs as variable and fixed costs and the usage of ratio analysis in evaluating the opera-

tions of the company (V17-V28).

The 66.6 per cent of the companies using ratio analysis in evaluation classify costs as variable and fixed. The 76.9 per cent of the companies that do not classify costs do not use ratio analysis in the evaluation of the activities of the company either.

(22) The application of variable cost accounting in financial internal reporting and the usefulness of balance sheet and income statement in long-term planning and investment decisions (V19-V20/V24).

The 54.5 per cent of the companies applying variable cost accounting find the reports useful in long-term planning. The 60 per cent of the companies finding the reports useful in long-term planning apply variable costing in internal reporting. The 71.4 per cent of the companies not applying variable costing do not find the reports useful in long-term planning. The 62.5 per cent of the companies finding the reports useful in investment decisions apply variable costing and the 78.5 per cent of the companies finding the reports unuseful in investment decisions do not apply variable costing.

(23) The application of variable cost accounting in financial internal reporting and the usefulness of balance sheet and income statement in purchasing decisions (V19-V23).

The 75 per cent of the companies finding the reports useful in purchasing decisions do not employ variable costing in internal reporting. On the contrary, the 52.9 per cent of companies which do not use the reports in purchasing decisions apply variable cost accounting.

(24) The application of variable cost accounting in internal reporting and the usage of income statement in evaluating the operations of the company (V19-V26).

All the companies which do not apply variable costing, use income statement in evaluation process. Almost all the sampled companies, except one, use income statement as an evaluation technique.

(25) The application of variable cost accounting in financial internal reporting and the usage of ratio analysis in evaluating the operations of the company (V19-V28).

The 66.6 per cent of the companies using ratio analysis apply variable costing and the 54.5 per cent of them applying variable costing use ratio analysis in evaluating the operations of the company.

(26) The performance in profit over assets ratio and the usage of breakeven analysis in managerial decision making (V41-V15).

The 80 per cent of the companies that increased their profit over assets ratio do not take advantage of the breakeven analysis. Moreover, the 70.5 per cent of the companies which do not use breakeven analysis have been able to increase their ratios in 1983.

(27) The performance in profit over assets ratio and the usefulness of balance sheet and income statement in purchasing and investing decisions (V41-V23/V24).

Balance sheet and income statement are not found useful by the 78.5 per cent of the companies which increased their profit over assets ratio in purchasing and investing decisions. Above all, the 62.5 per cent of the companies



finding the reports useful in purchasing and investing decisions decreased their ratios.

(28) The performance in profit over assets ratio and the usage of monthly budget compared reports in evaluating the operations of the company (V41-V29).

Only one out of the 26 sample companies use monthly budget compared report in evaluation and increased its profit over asset ratio. The companies which increased their ratios and do not use the monthly report in evaluation total up to the 53.8 per cent.

(29) The performance in profit over capital stock ratio and the usage of sources and uses statement and breakeven analysis in managerial decision making (V61-V14/V16).

The 83.3 per cent of the companies which use sources and uses statement and the 80 per cent of the companies which use breakeven analysis have increased their profit over capital stock ratios in 1983.

The 58.8 per cent of the companies that have increased their ratios use sources and uses statement in managerial decision making and the 70.5 per cent of them use breakeven analysis.

(30) The performance in profit over capital stock ratio and the usage of breakeven analysis in managerial decision making (V61-V15).

Nearly, the 80 per cent of the companies which increased their ratios do not use breakeven analysis. The companies which prefer to use breakeven analysis and increased their ratio total up to the 12.5 per cent of the sample size.

(31) The performance in profit over capital stock ratio and the usefulness of balance sheet and income statement in purchasing decisions (V61-V23).

Balance sheet and income statement are found useful in purchasing decisions from the 23.5 per cent of companies which increased their ratios. Half of the companies which decreased their ratios do not find the reports useful in purchasing decisions.

(32) The performance in profit over sales ratio and the usage of breakeven analysis in managerial decision making (V71-V15).

Breakeven analysis is used by the 41.6 per cent of the companies which decreased their ratios and on the contrary, the 16.6 per cent of the companies which increased their ratios use breakeven analysis in managerial decisions.

(33) The performance in profit over sales ratio and the usefulness of balance sheet and income statement in purchasing and investment decisions (V71-V23/V24).

Balance sheet and income statement are found useful by the 25 per cent of the companies which increased their ratios and the 38.4 per cent of the companies which decreased their ratios, in purchasing decisions. The reports are also found useful by the 16.6 per cent of the companies which increased their ratios and the 46.1 per cent of the companies which decreased their ratios, in investing decisions.

(34) The performance in sales over assets ratio and the usage of computer in the operations of the company (V81-V5).

The 92.8 per cent of computer using companies have performed in sales over assets ratio and the 50 per cent of

the sample have both increased the ratio and use computer in their operations.

(35) The performance in sales over assets ratio and the application of variable cost accounting in financial internal reporting (V81-V19).

Variable costing method is applied by the 35.0 per cent of the companies that increased their ratios and by the 66.6 per cent of them which decreased their ratios in 1983.

(36) The performance in sales over assets ratio and the usefulness of balance sheet and income statement in investment decisions (V81-V24).

The reports are found useful in investment decisions by the 21.0 per cent of the companies that increased their ratios and by the 66.6 per cent of them that decreased their ratios.

(37) The performance in sales over assets ratio and the usage of income statement in evaluating the operations of the company (V81-V26).

The 76.9 per cent of the sample have increased their performance ratio and use income statement in evaluation of the company's performance. All of the companies which have performed well in sales over assets ratio use income statement in evaluation process.

(38) The performance in sales over capital stock ratio and the usage of ratio analysis in managerial decision making (V91-V16).

Ratio analysis is used by the 52.9 per cent of the companies which increased their ratios and by the 85.7 per cent of them that decreased their ratio.

(39) The performance in sales over capital stock ratio and the type of classification of costs as fixed and variable (V91-V18).

The 75 per cent of the companies which classify all the costs as variable and fixed have increased their sales over capital stock ratios. The 66.6 per cent of the increased companies classify all the costs as such.

(40) The performance in sales over capital stock ratio and the usefulness of balance sheet and income statement in short-term planning (V91-V21).

All the companies which decreased their ratios use balance sheet and income statement in short-term planning. All the companies which do not find the reports useful in short-term planning have increased their ratios.



TABLE 1. *Salmonella* serotypes and phage types isolated from the 1990-1991 and 1991-1992 seasons in the United States

BY 224

45503 159 75A 34

21

[illegible]

GILSON, RILEY  
EDWARD E. GILSON

ACK  
10/10/78

*[Faint, illegible markings]*

05-2	75-0	11-0
6-1	22-0	
1-1	0-0	

75.7	25.3	16.8
25.3	6.1	
6.1		

30.0	30.0	41.6
30.0	30.0	41.6
30.0	30.0	41.6

[illegible]

$\frac{d}{dt} \left( \frac{1}{2} m v^2 \right) = \frac{1}{2} m \frac{d}{dt} (v^2)$   
 $= \frac{1}{2} m \frac{d}{dt} (v_x^2 + v_y^2 + v_z^2)$   
 $= \frac{1}{2} m \left( 2 v_x \frac{d v_x}{dt} + 2 v_y \frac{d v_y}{dt} + 2 v_z \frac{d v_z}{dt} \right)$   
 $= m \left( v_x \frac{d v_x}{dt} + v_y \frac{d v_y}{dt} + v_z \frac{d v_z}{dt} \right)$

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840.

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1. The first step is to identify the problem. In this case, the problem is that the system is not working properly.

TABLE I  
Summary of the results of the experiments

| Experiment | Condition | Mean value of $\Delta T$ | Standard deviation | Significance level |
|------------|-----------|--------------------------|--------------------|--------------------|
| I          | Control   | 0.78                     | 0.15               |                    |
| II         | Control   | 0.65                     | 0.12               |                    |
| III        | Control   | 0.72                     | 0.14               |                    |
| IV         | Control   | 0.68                     | 0.13               |                    |
| V          | Control   | 0.75                     | 0.16               |                    |
| VI         | Control   | 0.70                     | 0.15               |                    |
| VII        | Control   | 0.73                     | 0.14               |                    |
| VIII       | Control   | 0.69                     | 0.13               |                    |
| IX         | Control   | 0.71                     | 0.15               |                    |
| X          | Control   | 0.67                     | 0.12               |                    |
| XI         | Control   | 0.74                     | 0.16               |                    |
| XII        | Control   | 0.66                     | 0.13               |                    |
| XIII       | Control   | 0.72                     | 0.14               |                    |
| XIV        | Control   | 0.68                     | 0.13               |                    |
| XV         | Control   | 0.75                     | 0.16               |                    |
| XVI        | Control   | 0.70                     | 0.15               |                    |
| XVII       | Control   | 0.73                     | 0.14               |                    |
| XVIII      | Control   | 0.69                     | 0.13               |                    |
| XIX        | Control   | 0.71                     | 0.15               |                    |
| XX         | Control   | 0.67                     | 0.12               |                    |
| XXI        | Control   | 0.74                     | 0.16               |                    |
| XXII       | Control   | 0.66                     | 0.13               |                    |
| XXIII      | Control   | 0.72                     | 0.14               |                    |
| XXIV       | Control   | 0.68                     | 0.13               |                    |
| XXV        | Control   | 0.75                     | 0.16               |                    |
| XXVI       | Control   | 0.70                     | 0.15               |                    |
| XXVII      | Control   | 0.73                     | 0.14               |                    |
| XXVIII     | Control   | 0.69                     | 0.13               |                    |
| XXIX       | Control   | 0.71                     | 0.15               |                    |
| XXX        | Control   | 0.67                     | 0.12               |                    |
| XXXI       | Control   | 0.74                     | 0.16               |                    |
| XXXII      | Control   | 0.66                     | 0.13               |                    |
| XXXIII     | Control   | 0.72                     | 0.14               |                    |
| XXXIV      | Control   | 0.68                     | 0.13               |                    |
| XXXV       | Control   | 0.75                     | 0.16               |                    |
| XXXVI      | Control   | 0.70                     | 0.15               |                    |
| XXXVII     | Control   | 0.73                     | 0.14               |                    |
| XXXVIII    | Control   | 0.69                     | 0.13               |                    |
| XXXIX      | Control   | 0.71                     | 0.15               |                    |
| XL         | Control   | 0.67                     | 0.12               |                    |
| XLI        | Control   | 0.74                     | 0.16               |                    |
| XLII       | Control   | 0.66                     | 0.13               |                    |
| XLIII      | Control   | 0.72                     | 0.14               |                    |
| XLIV       | Control   | 0.68                     | 0.13               |                    |
| XLV        | Control   | 0.75                     | 0.16               |                    |
| XLVI       | Control   | 0.70                     | 0.15               |                    |
| XLVII      | Control   | 0.73                     | 0.14               |                    |
| XLVIII     | Control   | 0.69                     | 0.13               |                    |
| XLIX       | Control   | 0.71                     | 0.15               |                    |
| L          | Control   | 0.67                     | 0.12               |                    |
| LI         | Control   | 0.74                     | 0.16               |                    |
| LII        | Control   | 0.66                     | 0.13               |                    |
| LIII       | Control   | 0.72                     | 0.14               |                    |
| LIV        | Control   | 0.68                     | 0.13               |                    |
| LV         | Control   | 0.75                     | 0.16               |                    |
| LVI        | Control   | 0.70                     | 0.15               |                    |
| LVII       | Control   | 0.73                     | 0.14               |                    |
| LVIII      | Control   | 0.69                     | 0.13               |                    |
| LIX        | Control   | 0.71                     | 0.15               |                    |
| LX         | Control   | 0.67                     | 0.12               |                    |
| LXI        | Control   | 0.74                     | 0.16               |                    |
| LXII       | Control   | 0.66                     | 0.13               |                    |
| LXIII      | Control   | 0.72                     | 0.14               |                    |
| LXIV       | Control   | 0.68                     | 0.13               |                    |
| LXV        | Control   | 0.75                     | 0.16               |                    |
| LXVI       | Control   | 0.70                     | 0.15               |                    |
| LXVII      | Control   | 0.73                     | 0.14               |                    |
| LXVIII     | Control   | 0.69                     | 0.13               |                    |
| LXIX       | Control   | 0.71                     | 0.15               |                    |
| LXX        | Control   | 0.67                     | 0.12               |                    |
| LXXI       | Control   | 0.74                     | 0.16               |                    |
| LXXII      | Control   | 0.66                     | 0.13               |                    |
| LXXIII     | Control   | 0.72                     | 0.14               |                    |
| LXXIV      | Control   | 0.68                     | 0.13               |                    |
| LXXV       | Control   | 0.75                     | 0.16               |                    |
| LXXVI      | Control   | 0.70                     | 0.15               |                    |
| LXXVII     | Control   | 0.73                     | 0.14               |                    |
| LXXVIII    | Control   | 0.69                     | 0.13               |                    |
| LXXIX      | Control   | 0.71                     | 0.15               |                    |
| LXXX       | Control   | 0.67                     | 0.12               |                    |
| LXXXI      | Control   | 0.74                     | 0.16               |                    |
| LXXXII     | Control   | 0.66                     | 0.13               |                    |
| LXXXIII    | Control   | 0.72                     | 0.14               |                    |
| LXXXIV     | Control   | 0.68                     | 0.13               |                    |
| LXXXV      | Control   | 0.75                     | 0.16               |                    |
| LXXXVI     | Control   | 0.70                     | 0.15               |                    |
| LXXXVII    | Control   | 0.73                     | 0.14               |                    |
| LXXXVIII   | Control   | 0.69                     | 0.13               |                    |
| LXXXIX     | Control   | 0.71                     | 0.15               |                    |
| LXXXX      | Control   | 0.67                     | 0.12               |                    |
| LXXXXI     | Control   | 0.74                     | 0.16               |                    |
| LXXXXII    | Control   | 0.66                     | 0.13               |                    |
| LXXXXIII   | Control   | 0.72                     | 0.14               |                    |
| LXXXXIV    | Control   | 0.68                     | 0.13               |                    |
| LXXXXV     | Control   | 0.75                     | 0.16               |                    |
| LXXXXVI    | Control   | 0.70                     | 0.15               |                    |
| LXXXXVII   | Control   | 0.73                     | 0.14               |                    |
| LXXXXVIII  | Control   | 0.69                     | 0.13               |                    |
| LXXXXIX    | Control   | 0.71                     | 0.15               |                    |
| LXXXXX     | Control   | 0.67                     | 0.12               |                    |
| LXXXXXI    | Control   | 0.74                     | 0.16               |                    |
| LXXXXXII   | Control   | 0.66                     | 0.13               |                    |
| LXXXXXIII  | Control   | 0.72                     | 0.14               |                    |
|            |           |                          |                    |                    |

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HAPPY

-----  
 V1:                    BATES BRUPLERE                    BY: V15                    KAPPA VER. CROW 91  
 -----

| V1E    |     |        |        |        |     |
|--------|-----|--------|--------|--------|-----|
| COUNT  | ROW | POT    | KULLAN | KULLAN | ROW |
| CELL   | POT | ELMOKT | ELMOKT | TOTAL  |     |
| TOT    | POT | 0      | 1      |        |     |
| V1E    |     | 1      | 0      | 1      |     |
| 1E-124 |     | 23.3   | 66.6   | 12.5   |     |
|        |     | 11.1   | 12.3   |        |     |
|        |     | 4.1    | 8.3    |        |     |
| 1E-124 | 2   | 0      | 4      | 4      |     |
|        |     | 0.0    | 102.0  | 15.6   |     |
|        |     | 0.0    | 66.6   |        |     |
|        |     | 0.0    | 15.6   |        |     |
| 1E-104 | 6   | 1      | 3      | 4      |     |
|        |     | 25.3   | 75.2   | 16.9   |     |
|        |     | 11.1   | 22.2   |        |     |
|        |     | 4.1    | 12.5   |        |     |
| 1E-74  | 4   | 0      | 4      | 4      |     |
|        |     | 60.0   | 40.0   | 41.6   |     |
|        |     | 00.0   | 22.2   |        |     |
|        |     | 25.0   | 12.5   |        |     |
| 1E-54  | 8   | 0      | 2      | 2      |     |
|        |     | 33.3   | 66.6   | 16.5   |     |
|        |     | 11.1   | 12.5   |        |     |
|        |     | 4.1    | 5.3    |        |     |
| COUNT  |     | 9      | 15     | 24     |     |
| TOTAL  |     | 27.7   | 66.5   | 102.6  |     |

1E-80: 2                    4.5712 WITH                    A DEGREE OF FREEDOM.  
 1E-80: 2                    4.5712 WITH                    A DEGREE OF FREEDOM.  
 1E-80: 2                    4.5712 WITH                    A DEGREE OF FREEDOM.

2 CELLS USED OF A MAXIMUM OF 45 CELLS FOR THIS RUN.  
 10263 BYTES OF MEMORY USED.

SPT18 CRUTLARI

BY V17

SARIT VE DESIGKEA WARR

| COUNT   |                 | V17             |                 | ROW TOTAL |
|---------|-----------------|-----------------|-----------------|-----------|
| ROW POT | YABILEK YABILEK | YABILEK YABILEK | YABILEK YABILEK |           |
| COL POT | YABILEK YABILEK | YABILEK YABILEK | YABILEK YABILEK |           |
| TOT POT | 2               | 1               |                 |           |
| 1       | 0               | 0               | 0               | 0         |
|         | 0.0             | 102.0           | 11.0            |           |
|         | 0.0             | 23.0            |                 |           |
|         | 2.0             | 11.0            |                 |           |
| 2       | 1               | 0               | 0               | 1         |
|         | 25.0            | 75.0            | 10.0            |           |
|         | 7.0             | 20.0            |                 |           |
|         | 0.0             | 11.0            |                 |           |
| 3       | 0               | 0               | 0               | 0         |
|         | 57.0            | 50.0            | 10.0            |           |
|         | 13.0            | 10.0            |                 |           |
|         | 7.0             | 7.0             |                 |           |
| 4       | 0               | 0               | 0               | 0         |
|         | 24.0            | 40.0            | 10.0            |           |
|         | 40.0            | 30.0            |                 |           |
|         | 00.0            | 10.0            |                 |           |
| 5       | 4               | 0               | 0               | 4         |
|         | 100.0           | 0.0             | 10.0            |           |
|         | 30.7            | 0.0             |                 |           |
|         | 15.0            | 0.0             |                 |           |
| 6       | 0               | 0               | 0               | 0         |
|         | 00.0            | 0.0             | 10.0            |           |
| TOTAL   | 32.0            | 17.0            | 10.0            |           |

SPT18 CRUTLARI BY V17 SARIT VE DESIGKEA WARR

SPT18 CRUTLARI BY V17 SARIT VE DESIGKEA WARR

5 USED OF 4 MAXIMUM OF 40 COLLE FOR THIS RUN.  
 BYTES OF MEMORY FREE.



COLONY  
 ROW ROW LYELLA LYELLA ROW  
 COL COL LYELLA LYELLA ROW  
 TOT TOT 8 8 TOTAL

|        |      |      |       |
|--------|------|------|-------|
| 1      | 1    | 3    | 4     |
| 33.3   | 33.3 | 11.3 |       |
| 9.3    | 9.3  |      |       |
| 2.3    | 7.6  |      |       |
| 2      | 3    | 4    |       |
| 23.3   | 75.3 | 15.3 |       |
| 6.3    | 27.3 |      |       |
| 3.3    | 11.3 |      |       |
| 3      | 2    | 4    |       |
| 53.3   | 50.3 | 15.3 |       |
| 13.3   | 16.1 |      |       |
| 7.6    | 7.6  |      |       |
| 4      | 7    | 4    |       |
| 63.3   | 63.3 | 48.3 |       |
| 42.3   | 32.3 |      |       |
| 23.3   | 15.1 |      |       |
| 5      | 3    | 4    |       |
| 123.3  | 3.3  | 15.3 |       |
| 23.3   | 3.3  |      |       |
| 13.3   | 2.3  |      |       |
| COLONY | 15   | 11   | 26    |
| TOTAL  | 37.3 | 42.3 | 101.3 |

1.1 SQUARE = 5.8702 KID. 4 DEGREES OF FREEDOM.  
 1.1 DEGREES OF FREEDOM DEGREE OF FREEDOM = 2

1.1 ONLY USED OF A MAXIMUM OF 45 DILLS FOR THIS ROW.  
 1.1 DEGREES OF FREEDOM FREE.

copy

VI 8315 8315101 BY V20 YALI 831. 1211 831

|        |       | V20   |        |       |
|--------|-------|-------|--------|-------|
| COUNT  |       |       |        |       |
| ROW    | PCT   | DEBIL | YARDIN | ROW   |
| COL    | PCT   |       | CI     | TOTAL |
| TOT    | PCT   | 2     | 1      |       |
| V1     |       |       |        |       |
|        | 1     | 0     | 3      | 3     |
| 15M+   |       | 0.0   | 100.0  | 12.0  |
|        |       | 0.0   | 30.0   |       |
|        |       | 2.0   | 12.0   |       |
|        | 2     | 4     | 0      | 4     |
| 15-10M |       | 100.0 | 0.0    | 16.0  |
|        |       | 20.0  | 0.0    |       |
|        |       | 16.0  | 0.0    |       |
|        | 3     | 2     | 2      | 4     |
| 8-10M  |       | 50.0  | 50.0   | 16.0  |
|        |       | 10.0  | 20.0   |       |
|        |       | 0.0   | 0.0    |       |
|        | 4     | 5     | 4      | 10    |
| 2-5M   |       | 50.0  | 40.0   | 40.0  |
|        |       | 40.0  | 40.0   |       |
|        |       | 20.0  | 10.0   |       |
|        | 5     | 3     | 1      | 4     |
| 2M-    |       | 75.0  | 25.0   | 16.0  |
|        |       | 20.0  | 10.0   |       |
|        |       | 10.0  | 0.0    |       |
|        |       | 15    | 12     | 25    |
|        | TOTAL | 60.0  | 40.0   | 100.0 |

DATA SOURCE: 7.7023 WORK / DEGREE OF FREEDOM:  
NUMBER OF FREEDOM OBSERVATIONS = 1

8 CELLS LESS OF A MAXIMUM OF 45 CELLS FOR THIS RUN.  
18073 BYTES OF MEMORY FREE.

BAPBY

01 BOTIS BRUPLARY EY V81 KALI 88P. KISS DCA

| COUNT   |         | V21   |        | ROW<br>TOTAL |
|---------|---------|-------|--------|--------------|
| ROW DOT | COL DOT | DEBIL | YARDIM |              |
| 001 DOT | 002 DOT | 01    | 01     |              |
| 1       | 1       | 1     | 2      | 3            |
| 23.3    | 55.8    | 12.0  |        |              |
| 22.0    | 10.0    |       |        |              |
| 4.0     | 8.0     |       |        |              |
| 2       | 0       | 4     | 4      |              |
| 0.0     | 122.0   | 16.0  |        |              |
| 3.0     | 22.0    |       |        |              |
| 3.0     | 16.0    |       |        |              |
| 3       | 0       | 4     | 4      |              |
| 0.0     | 100.0   | 16.0  |        |              |
| 0.0     | 22.0    |       |        |              |
| 0.0     | 10.0    |       |        |              |
| 4       | 0       | 7     | 10     |              |
| 30.0    | 72.0    | 40.0  |        |              |
| 50.0    | 25.0    |       |        |              |
| 12.0    | 20.0    |       |        |              |
| 5       | 1       | 3     | 4      |              |
| 21.0    | 75.0    | 16.0  |        |              |
| 21.0    | 15.0    |       |        |              |
| 1.0     | 12.0    |       |        |              |
| DELTA   | 0       | 20    | 25     |              |
| TOTAL   | 21.0    | 81.0  | 100.0  |              |

THE FOLLOWING IS A TABLE WITH 4 DEGREES OF FREEDOM.  
 WHICH IS A TABLE OF PROBABILITIES =

THE USE OF A MAXIMUM OF 45 CELLS FOR THIS RUN.  
 FROM 1000 BYTES OF MEMORY FREE.

SOME BRUARY

BY VRE

MALL RAB. REYPTLA

VRE

| COLLY   | ROW POT | DEBIL | YARDIM | POM   |
|---------|---------|-------|--------|-------|
| COL POT |         |       | CI     | TOTAL |
| 107 107 |         | 7     | 1      |       |

|        |      |      |       |      |
|--------|------|------|-------|------|
| 15-18Y | 2    | 2    | 3     | 3    |
|        |      | 0.0  | 100.0 | 10.0 |
|        |      | 0.0  | 10.0  |      |
|        |      | 2.0  | 10.0  |      |
| 15-18Y | 2    | 2    | 4     | 4    |
|        |      | 0.0  | 100.0 | 10.0 |
|        |      | 2.0  | 10.0  |      |
|        |      | 2.0  | 10.0  |      |
| 15-18Y | 2    | 2    | 4     | 4    |
|        |      | 0.0  | 100.0 | 10.0 |
|        |      | 0.0  | 10.0  |      |
|        |      | 0.0  | 10.0  |      |
| 15-18Y | 4    | 3    | 7     | 10   |
|        |      | 0.0  | 70.0  | 40.0 |
|        |      | 10.0 | 20.0  |      |
|        |      | 10.0 | 10.0  |      |
| 15-18Y | 5    | 2    | 4     | 4    |
|        |      | 0.0  | 100.0 | 10.0 |
|        |      | 0.0  | 10.0  |      |
|        |      | 0.0  | 10.0  |      |
| COLLY  | 3    | 22   | 23    |      |
| TOTAL  | 10.0 | 60.0 | 100.0 |      |

DAY BEFORE A E. 1:00 WITH 4 DEGREES OF FREEDOM.  
 LOCATED BY MISSING OBSERVATION

CELLS USED OF A MAXIMUM OF 40 CELLS FOR THIS ROW.  
 1000 BYTES OF MEMORY FREE.

VE 001:5 STUFLARE BY VEG 001:5 REP. 00

| VE     | COUNT<br>PEN POT<br>CEL POT<br>TOT POT | VEG                        |                           | ROW<br>TOTAL |
|--------|--|----------------------------|---------------------------|--------------|
|        |  | DIGAL                      | YARDEN<br>CI              |              |
| 15Y+   | 1                                      | 1<br>33.3<br>0.0<br>4.3    | 2<br>55.6<br>25.0<br>8.0  | 3<br>12.0    |
| 15-10Y | 2                                      | 4<br>128.0<br>23.5<br>15.0 | 0<br>2.0<br>4.0<br>0.0    | 4<br>16.0    |
| 5-10Y  | 3                                      | 3<br>75.1<br>17.0<br>11.7  | 1<br>25.0<br>12.5<br>4.0  | 4<br>16.0    |
| 2-5Y   | 4                                      | 5<br>58.2<br>35.1<br>24.0  | 4<br>40.0<br>33.3<br>16.7 | 10<br>40.0   |
| 2Y-    | 5                                      | 5<br>78.0<br>17.5<br>15.0  | 1<br>25.0<br>10.0<br>4.0  | 4<br>15.0    |
|        |  | 17<br>600.0                | 8<br>100.0                | 26<br>320.0  |

150 100000 100000 WITH 4 DEGREES OF FREEDOM.  
100000 100000 ESTIMATIONS =

1. WILL BE USED OF A MIXTURE OF 40 CELLS FOR THIS RUN.  
100000 100000 100000



-COPY

-----

V1                      ENTER SAMPLES                      BY V241                      NAME RICHARD VINT

-----

V241

COUNT  
 ROW 100    25000    V240.00    000  
 COL 100    00    0000  
 100 100    0

| V1    | 1     | 2    | 3     | 4 |
|-------|-------|------|-------|---|
| 15-1  | 52.3  | 52.3 | 12.2  |   |
|       | 11.7  | 12.5 |       |   |
|       | 0.3   | 4.3  |       |   |
| 15-2  | 52.3  | 52.3 | 12.2  |   |
|       | 11.7  | 12.5 |       |   |
|       | 0.3   | 0.3  |       |   |
| 15-3  | 52.3  | 52.3 | 12.2  |   |
|       | 11.7  | 12.5 |       |   |
|       | 0.3   | 0.3  |       |   |
| 15-4  | 77.0  | 30.0 | 10.2  |   |
|       | 11.1  | 17.3 |       |   |
|       | 10.8  | 12.0 |       |   |
| 15-5  | 100.0 | 2.0  | 15.0  |   |
|       | 11.1  | 0.0  |       |   |
|       | 10.7  | 0.0  |       |   |
| 15-6  | 17    | 8    | 25    |   |
| TOTAL | 65.0  | 32.0 | 100.0 |   |

CHL EQUATE = 3.2974 WITH 4 DEGREES OF FREEDOM.  
 NUMBER OF WORKING OBSERVATIONS =

8 CELLS USED IN A TOTAL OF 45 CELLS FOR THIS RUN.  
 15707 BYTES TO 1-2 BY PAGE

HAPPY

-----

VI                      SATIS GROUPS                      BY                      VRS                      SER. FRAM. DEGENL

-----

| COUNT  |     | VRS    |        | ROW | TOTAL |
|--------|-----|--------|--------|-----|-------|
| ROW    | DOT | KULLAN | KULLAY |     |       |
| COL    | DOT | ILYALA | ILMAKT |     |       |
| 707    | DOT | 2      | 1      |     |       |
| 1      |     | 0      | 2      |     | 2     |
| 15-18  |     | 2.0    | 100.0  |     | 11.0  |
|        |     | 0.2    | 10.2   |     |       |
|        |     | 2.0    | 11.0   |     |       |
| 2      |     | 2      | 4      |     | 4     |
| 15-18  |     | 0.2    | 120.2  |     | 15.2  |
|        |     | 0.2    | 10.2   |     |       |
|        |     | 0.2    | 15.2   |     |       |
| 3      |     | 0      | 4      |     | 4     |
| 5-11X  |     | 0.0    | 120.0  |     | 15.0  |
|        |     | 7.0    | 10.0   |     |       |
|        |     | 0.0    | 15.0   |     |       |
| 4      |     | 1      | 10     |     | 11    |
| 2-5X   |     | 0.2    | 92.0   |     | 12.2  |
|        |     | 100.0  | 40.0   |     |       |
|        |     | 0.0    | 31.0   |     |       |
| 5      |     | 0      | 4      |     | 4     |
|        |     | 0.2    | 100.2  |     | 15.2  |
|        |     | 2.2    | 10.2   |     |       |
|        |     | 1.2    | 15.2   |     |       |
| DELUXE |     | 1      | 25     |     | 26    |
| TOTAL  |     | 7.0    | 55.0   |     | 124.0 |

CHI BELONG = 1,4161 WITH 4 LADDER OF FREEDOM.  
 MYERS OF WAPPING OBSERVATION = ?

5 BELLS USED IF A MAXIMUM OF 45 BELLS FOR THIS RUN.  
 15788 BYTES OF MEMORY FREE.

VC - PARTIS DISPLAY BY VSE 879. 700. 1163

[illegible][illegible]

SECRET

44-38861-10000

V. BASIC PRINCIPLES BY VET. SIR. PAUL. HUBER.

٧٣٧

| COUNT |     |          |         |       |
|-------|-----|----------|---------|-------|
| HOW   | POL | KILLIAN  | KILLIAN | PON   |
| HOW   | POL | KILLIAMS | KILLIKT | TOTAL |
| HOW   | POL | 0        | 0       |       |

|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |        |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 | 2061 | 2062 | 2063 | 2064 | 2065 | 2066 | 2067 | 2068 | 2069 | 2070 | 2071 | 2072 | 2073 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 2080 | 2081 | 2082 | 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 | 2101 | 2102 | 2103 | 2104 | 2105 | 2106 | 2107 | 2108 | 2109 | 2110 | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 2120 | 2121 | 2122 | 2123 | 2124 | 2125 | 2126 | 2127 | 2128 | 2129 | 2130 | 2131 | 2132 | 2133 | 2134 | 2135 | 2136 | 2137 | 2138 | 2139 | 2140 | 2141 | 2142 | 2143 | 2144 | 2145 | 2146 | 2147 | 2148 | 2149 | 2150 | 2151 | 2152 | 2153 | 2154 | 2155 | 2156 | 2157 | 2158 | 2159 | 2160 | 2161 | 2162 | 2163 | 2164 | 2165 | 2166 | 2167 | 2168 | 2169 | 2170 | 2171 | 2172 | 2173 | 2174 | 2175 | 2176 | 2177 | 2178 | 2179 | 2180 | 2181 | 2182 | 2183 | 2184 | 2185 | 2186 | 2187 | 2188 | 2189 | 2190 | 2191 | 2192 | 2193 | 2194 | 2195 | 2196 | 2197 | 2198 | 2199 | 2200 | 2201 | 2202 | 2203 | 2204 | 2205 | 2206 | 2207 | 2208 | 2209 | 2210 | 2211 | 2212 | 2213 | 2214 | 2215 | 2216 | 2217 | 2218 | 2219 | 2220 | 2221 | 2222 | 2223 | 2224 | 2225 | 2226 | 2227 | 2228 | 2229 | 2230 | 2231 | 2232 | 2233 | 2234 | 2235 | 2236 | 2237 | 2238 | 2239 | 2240 | 2241 | 2242 | 2243 | 2244 | 2245 | 2246 | 2247 | 2248 | 2249 | 2250 | 2251 | 2252 | 2253 | 2254 | 2255 | 2256 | 2257 | 2258 | 2259 | 2260 | 2261 | 2262 | 2263 | 2264 | 2265 | 2266 | 2267 | 2268 | 2269 | 2270 | 2271 | 2272 | 2273 | 2274 | 2275 | 2276 | 2277 | 2278 | 2279 | 2280 | 2281 | 2282 | 2283 | 2284 | 2285 | 2286 | 2287 | 2288 | 2289 | 2290 | 2291 | 2292 | 2293 | 2294 | 2295 | 2296 | 2297 | 2298 | 2299 | 2300 | 2301 | 2302 | 2303 | 2304 | 2305 | 2306 | 2307 | 2308 | 2309 | 2310 | 2311 | 2312 | 2313 | 2314 | 2315 | 2316 | 2317 | 2318 | 2319 | 2320 | 2321 | 2322 | 2323 | 2324 | 2325 | 2326 | 2327 | 2328 | 2329 | 2330 | 2331 | 2332 | 2333 | 2334 | 2335 | 2336 | 2337 | 2338 | 2339 | 2340 | 2341 | 2342 | 2343 | 2344 | 2345 | 2346 | 2347 | 2348 | 2349 | 2350 | 2351 | 2352 | 2353 | 2354 | 2355 | 2356 | 2357 | 2358 | 2359 | 2360 | 2361 | 2362 | 2363 | 2364 | 2365 | 2366 | 2367 | 2368 | 2369 | 2370 | 2371 | 2372 | 2373 | 2374 | 2375 | 2376 | 2377 | 2378 | 2379 | 2380 | 2381 | 2382</ |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|

19-00000  
18-00000  
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16-00000  
15-00000

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1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

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DATE 05-20-2010 BY 60322 UCBAW

LARRY

V1                      80775 8707407                      BY V20                      SER. FPAAL. DEGRAL

| V1     | COUNT<br>ROW TOT<br>COL TOT<br>TOT TOT | V20    |        | ROW<br>BLANKS BLANK<br>TOTAL |
|--------|--|--------|--------|------------------------------|
|        |  | YELLOW | YELLOW |                              |
|        |  | 0      | 1      |                              |
|        | 1                                      | 2      | 1      | 2                            |
| 15M+   |  | 22.0   | 22.2   | 11.5                         |
|        |  | 11.7   | 11.1   |                              |
|        |  | 7.6    | 3.8    |                              |
|        | 2                                      | 1      | 2      | 4                            |
| 15-10M |  | 22.2   | 75.2   | 15.3                         |
|        |  | 5.0    | 22.2   |                              |
|        |  | 3.0    | 11.5   |                              |
|        | 3                                      | 2      | 2      | 4                            |
| 5-10M  |  | 22.2   | 22.2   | 15.3                         |
|        |  | 11.7   | 22.2   |                              |
|        |  | 7.6    | 7.6    |                              |
|        | 4                                      | 0      | 2      | 11                           |
| 2-5M   |  | 21.0   | 18.1   | 42.3                         |
|        |  | 22.0   | 22.2   |                              |
|        |  | 27.0   | 7.6    |                              |
|        | 5                                      | 2      | 2      | 4                            |
| 2M-    |  | 75.0   | 25.2   | 15.3                         |
|        |  | 17.0   | 11.1   |                              |
|        |  | 11.5   | 3.8    |                              |
|        | 6                                      | 17     | 0      | 21                           |
|        | TOTAL                                  | 22.2   | 22.2   | 122.0                        |

CHI SQUARE = 4.7782 WITH 4 DEGREES OF FREEDOM.  
NUMBER OF OBSERVATIONS = 3

10 DEGREES OF A MAXIMUM OF 45 CELLS FOR THIS RUN.  
1000 BYTES OF MEMORY FILE.

COPY

DATE: 8/10/62

BY: VES

SIR. PAUL DEGERLEN

|          |          | VES    |       |  |
|----------|----------|--------|-------|--|
| COUNT    |          |        |       |  |
| ROW POT  | COLLAPSE | ALL ON | ROW   |  |
| COL POT  | COLLAPSE | IMPACT | TOTAL |  |
| TOT POT  | 0        | 1      |       |  |
| 1        | 0        | 1      | 3     |  |
|          | 66.6     | 33.3   | 11.8  |  |
|          | 9.2      | 25.0   |       |  |
|          | 7.0      | 0.2    |       |  |
| 2        | 4        | 0      | 4     |  |
|          | 100.0    | 0.0    | 15.0  |  |
|          | 15.1     | 0.0    |       |  |
|          | 15.0     | 0.0    |       |  |
| 3        | 3        | 1      | 4     |  |
|          | 75.0     | 25.0   | 15.0  |  |
|          | 12.0     | 25.0   |       |  |
|          | 11.0     | 0.0    |       |  |
| 4        | 5        | 2      | 7     |  |
|          | 91.0     | 10.0   | 72.0  |  |
|          | 10.0     | 10.0   |       |  |
|          | 01.0     | 0.0    |       |  |
| 5        | 4        | 0      | 4     |  |
|          | 100.0    | 0.0    | 15.0  |  |
|          | 10.1     | 0.0    |       |  |
|          | 15.0     | 0.0    |       |  |
| COLLAPSE | 20       | 4      | 20    |  |
| TOTAL    | 84.0     | 15.0   | 100.0 |  |

2 SQUARE = 0.5471 WITH 4 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 0

CELLS USED OF A MAXIMUM OF 40 CELLS FOR THIS RUN.  
 501 BYTES OF MEMORY USED.

SPRY

-----  
 V2 PRBLARI BY V3 YSTERY BLPLARI  
 -----

|          | COUNT<br>ROW COL<br>COL COL<br>TOTAL TOTAL | V2    |       |              |               |              |       | ROW<br>TOTAL |
|----------|--|-------|-------|--------------|---------------|--------------|-------|--------------|
|          |  | 12Y4  | 1-5Y  | 1Y-522<br>YK | 132-52<br>3MN | 132YV-<br>YK |       |              |
|          |  | 1     | 2     | 4            | 5             | 6            | 7     |              |
|          |  |       |       |              |               |              |       |              |
| V2       |  | 1     | 1     | 5            | 1             | 2            | 0     | 10           |
| Y4       |  | 33.3  | 33.3  | 0.2          | 33.3          | 0.2          | 0.2   | 11.5         |
|          |  | 120.0 | 120.0 | 0.0          | 14.2          | 0.0          | 0.0   |              |
|          |  | 0.0   | 0.0   | 0.2          | 0.2           | 0.0          | 0.0   |              |
| Y-520MN  |  | 0     | 0     | 1            | 0             | 1            | 0     | 2            |
|          |  | 0.0   | 0.0   | 50.0         | 0.0           | 50.0         | 0.0   | 7.5          |
|          |  | 0.0   | 0.0   | 25.0         | 0.0           | 8.3          | 0.0   |              |
|          |  | 0.0   | 0.0   | 0.0          | 0.0           | 3.0          | 0.0   |              |
| 52-520MN |  | 0     | 0     | 2            | 3             | 5            | 1     | 11           |
|          |  | 0.0   | 0.0   | 2.1          | 27.2          | 40.4         | 9.2   | 42.0         |
|          |  | 0.0   | 0.2   | 50.0         | 40.0          | 41.0         | 122.0 |              |
|          |  | 0.0   | 0.0   | 0.0          | 11.0          | 10.0         | 3.0   |              |
| 20-252YK |  | 0     | 0     | 1            | 2             | 1            | 0     | 4            |
|          |  | 0.0   | 0.0   | 10.0         | 50.0          | 25.0         | 0.0   | 10.0         |
|          |  | 0.0   | 0.0   | 25.0         | 25.0          | 9.3          | 0.0   |              |
|          |  | 0.0   | 0.0   | 0.0          | 7.0           | 0.0          | 0.0   |              |
| 30YK     |  | 0     | 0     | 1            | 1             | 3            | 0     | 5            |
|          |  | 0.0   | 0.0   | 0.0          | 10.0          | 50.0         | 0.0   | 20.0         |
|          |  | 1.0   | 0.0   | 0.0          | 14.0          | 41.0         | 0.0   |              |
|          |  | 0.0   | 0.0   | 0.0          | 0.0           | 10.0         | 0.0   |              |
| TOTAL    |  | 1     | 1     | 4            | 7             | 12           | 1     | 26           |
| TOTAL    |  | 0.0   | 0.0   | 15.0         | 26.0          | 40.0         | 0.0   | 120.0        |

SI BLARI = 20.1201 WET 20 DEGREE OF FREEDOM.  
 LAR OF KIDING ORDERED 2 = 0

6 CELLS USED OF A MAXIMUM OF 40 CELLS FOR THIS RUN.  
 1000 BYTES OF MEMORY USED.

HAPPY

----- KAR DRUPLORE BY V14 KARPR VER. FOR AXI -----

| COUNT   |     |        |        | V14  |      |       |
|---------|-----|--------|--------|------|------|-------|
| ROW     | PDT | MULLON | MULLON | ROW  |      | TOTAL |
| DEL     | PDT | ILYONA | ILYONA |      |      |       |
| TOP     | PDT |        |        |      |      |       |
| <hr/>   |     |        |        |      |      |       |
| 1       |     | 58.6   | 58.6   | 10   |      | 117.2 |
|         |     | 0.0    | 0.0    |      |      |       |
|         |     | 0.0    | 0.0    |      |      |       |
| 2       |     | 2.2    | 100.0  | 2    |      | 102.2 |
|         |     | 0.0    | 0.0    |      |      |       |
|         |     | 0.0    | 0.0    |      |      |       |
| 3       |     | 65.6   | 52.4   | 17   |      | 118.0 |
|         |     | 58.6   | 58.6   |      |      |       |
|         |     | 25.4   | 10.0   |      |      |       |
| 4       |     | 52.4   | 52.4   | 16   |      | 104.8 |
|         |     | 18.0   | 18.0   |      |      |       |
|         |     | 0.0    | 0.0    |      |      |       |
| 5       |     | 57.0   | 58.0   | 23   |      | 115.0 |
|         |     | 25.0   | 22.0   |      |      |       |
|         |     | 12.0   | 11.0   |      |      |       |
| COLUMNS |     |        |        | 12   |      | 24    |
| TOTAL   |     |        |        | 55.0 | 59.4 | 114.4 |

IN SQUARE = 3.2835 WITH 4 DEGREES OF FREEDOM.  
NUMBER OF MISSING OBSERVATIONS = 0

1 CELLS USED OF A MAXIMUM OF 48 CELLS FOR THIS ROW.  
3512 BYTES OF MEMORY USED.



-5527

----- KAR VER. 4.1.81 BY V15. KARAR VER. BASAB -----

| COUNT     |     | V15     |        | TOTAL |
|-----------|-----|---------|--------|-------|
| ROW       | COL | ILLUMIN | KILLER |       |
| VE        | 1   | 1       | 2      | 3     |
| 1X-       | 1   | 21.6    | 28.6   | 50.2  |
|           |     | 8.8     | 28.5   |       |
|           |     | 4.1     | 6.2    |       |
| 1X-520YX  | 2   | 1       | 1      | 2     |
|           | 1   | 30.6    | 39.6   | 70.2  |
|           |     | 8.8     | 14.2   |       |
|           |     | 4.1     | 4.1    |       |
| 252-527YX | 3   | 3       | 1      | 4     |
|           | 1   | 28.8    | 11.7   | 40.5  |
|           |     | 17.2    | 14.2   |       |
|           |     | 33.2    | 4.1    |       |
| 100-523YX | 4   | 2       | 2      | 4     |
|           | 1   | 33.6    | 31.6   | 65.2  |
|           |     | 11.7    | 22.5   |       |
|           |     | 1.3     | 6.3    |       |
| 100YX-    | 5   | 3       | 1      | 4     |
|           | 1   | 11.6    | 16.8   | 28.4  |
|           |     | 21.1    | 14.2   |       |
|           |     | 21.2    | 4.1    |       |
| COLUMN    |     | 17      | 7      | 24    |
| TOTAL     |     | 71.6    | 22.1   | 93.7  |

DNI SQUARE = 5. LINES WITH 4 ADDRESS OF FREEDOM.  
 NUMBER OF MISSING IDENTIFYING = 2

10 CELLS USED OF A MAXIMUM OF 40 CELLS FOR THIS RUN.  
 18560 BYTES OF MEMORY FREE.

LARRY

-----  
 V2 KARAR VER. 00000000 BY V16 KARAR VER. 00000000  
 -----

|       |      | V16  |       |       |
|-------|------|------|-------|-------|
| COUNT |      |      |       |       |
| ADK   | POT  | ADK  | POT   | ADK   |
| COL   | POT  | COL  | POT   | TOTAL |
| COL   | POT  | COL  | POT   |       |
| 1     | 1    | 2    | 2     | 2     |
| 32.2  | 66.6 | 18.6 |       |       |
| 11.1  | 13.3 |      |       |       |
| 4.1   | 5.3  |      |       |       |
| 3     | 1    | 4    | 2     | 2     |
| 50.2  | 52.2 | 5.3  |       |       |
| 11.1  | 6.5  |      |       |       |
| 4.1   | 4.1  |      |       |       |
| 3     | 1    | 5    | 2     | 2     |
| 44.4  | 55.5 | 37.3 |       |       |
| 44.4  | 33.3 |      |       |       |
| 13.6  | 20.6 |      |       |       |
| 4     | 1    | 6    | 2     | 2     |
| 25.2  | 75.2 | 15.6 |       |       |
| 11.1  | 22.2 |      |       |       |
| 4.1   | 16.2 |      |       |       |
| 5     | 2    | 7    | 2     | 2     |
| 33.3  | 55.5 | 33.3 |       |       |
| 22.2  | 22.2 |      |       |       |
| 6.3   | 16.6 |      |       |       |
| COL   | 5    | 13   | 24    |       |
| TOTAL | 37.3 | 22.2 | 100.0 |       |

NO SQUARE = 0.0015 WITH 4 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 2

10 CELLS USED IF A MAXIMUM OF 45 CELLS FOR THIS RUN.  
 15555 BYTES OF MEMORY USED.

: 007V

V2 453 031213Z BY 712 00017 VE DESIGNED

| COUNT     |     | TIME |     | LOCALITY |      | NO. OF |      | ROW TOTAL |
|-----------|-----|------|-----|----------|------|--------|------|-----------|
| ROW       | POT | COL  | POT | R        | BASE | R      | BASE |           |
|           |     |      |     | 1        | 2    | 3      |      |           |
| 02        |     |      |     |          |      |        |      |           |
|           | 1   |      |     | 66.0     | 33.0 | 0.0    |      | 99.0      |
| 100-      |     |      |     | 20.0     | 33.0 | 0.0    |      |           |
|           |     |      |     | 10.0     | 7.0  | 0.0    |      |           |
|           | 2   |      |     | 100.0    | 0.0  | 0.0    |      | 7.0       |
| 100-50000 |     |      |     | 10.0     | 0.0  | 0.0    |      |           |
|           |     |      |     | 7.0      | 0.0  | 0.0    |      |           |
|           | 3   |      |     | 50.0     | 0.0  | 10.0   |      | 40.0      |
| 500-52000 |     |      |     | 17.0     | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 10.0 | 7.0    |      |           |
|           | 4   |      |     | 50.0     | 0.0  | 0.0    |      | 10.0      |
| 100-50000 |     |      |     | 10.0     | 0.0  | 0.0    |      |           |
|           |     |      |     | 7.0      | 0.0  | 7.0    |      |           |
|           | 5   |      |     | 100.0    | 0.0  | 0.0    |      | 7.0       |
| 100000-   |     |      |     | 10.0     | 0.0  | 0.0    |      |           |
|           |     |      |     | 7.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |
|           |     |      |     | 0.0      | 0.0  | 0.0    |      |           |

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED  
DATE 08-15-2001 BY 60322 UCBAW/STP

DECLASSIFIED BY 6032 JCS/STC/AD  
ON 07-07-2009

100-44374

VE FOR FIELD OFF BY VIS 400, SISTERHOOD

| COUNT      |     | V15    |        |       |
|------------|-----|--------|--------|-------|
| RAW        | NOV | LYELLA | LYELLA | 35%   |
| DEL        | POT | INXAKA | INXAKA | 57%   |
| REF        | REF | 3      | 1      |       |
| VE         |     |        |        |       |
| 174-       |     | 35.3   | 35.6   | 11.8  |
|            |     | 6.5    | 12.1   |       |
|            |     | 3.8    | 7.6    |       |
| 175-500-40 | 2   | 102.3  | 0.0    | 7.6   |
|            |     | 19.3   | 0.0    |       |
|            |     | 7.6    | 0.2    |       |
| 253-500-40 | 3   | 45.4   | 54.5   | 42.2  |
|            |     | 33.3   | 54.5   |       |
|            |     | 19.2   | 22.3   |       |
| 123-553-40 | 4   | 53.2   | 58.2   | 15.0  |
|            |     | 15.3   | 18.1   |       |
|            |     | 7.2    | 7.2    |       |
| 100-401-   | 5   | 33.5   | 18.1   | 12.2  |
|            |     | 33.3   | 3.3    |       |
|            |     | 19.2   | 3.3    |       |
|            |     | 1.5    | 1.1    | 20    |
|            |     | 57.2   | 42.2   | 123.2 |

[illegible][illegible]

COPY

VE KAR BRUPLARZ EV VBA YALI KAR. UZUN DGI

| COUNT     |      | VEZ   |       | RDY TOTAL |
|-----------|------|-------|-------|-----------|
| RDY       | PDT  | DEPT  | YARDY |           |
| COL       | PDT  | DE    | DE    |           |
| IT        | PDT  | 2     | 1     |           |
| VE        | 1    | 8     | 3     | 3         |
| 17+       |      | 3.2   | 100.0 | 100.0     |
|           |      | 2.2   | 20.2  |           |
|           |      | 2.0   | 12.2  |           |
| 17-50000  | 2    | 2     | 2     | 2         |
|           |      | 100.0 | 2.2   | 0.2       |
|           |      | 13.3  | 0.2   |           |
|           |      | 8.2   | 0.0   |           |
| 237-50000 | 3    | 5     | 8     | 11        |
|           |      | 45.4  | 54.5  | 44.0      |
|           |      | 33.3  | 50.3  |           |
|           |      | 20.0  | 24.0  |           |
| 120-25000 | 4    | 4     | 2     | 4         |
|           |      | 100.0 | 0.2   | 10.2      |
|           |      | 20.0  | 0.2   |           |
|           |      | 0.2   | 0.2   |           |
| 10000-    | 5    | 0     | 0     | 0         |
|           |      | 20.2  | 22.2  | 20.0      |
|           |      | 25.2  | 10.2  |           |
|           |      | 15.2  | 2.2   |           |
| COLLECT   | 15   | 15    | 25    |           |
| TOTAL     | 60.7 | 17.1  | 120.0 |           |

1. STOPS = 10,000,000 / SERIES OF FREEDOM.  
 2. STOPS = 10,000,000 / SERIES OF FREEDOM.

1. BELLS DEED OF A MAX. MAX OF 45 BELLS FOR THIS RUN.  
 2. BELLS DEED OF A MAX. MAX OF 45 BELLS FOR THIS RUN.

READY

-----  
 V2                      FOR 89.91481                      BY    V21                      MULTI ROP. K18A D1  
 -----

| V2        | V21     |       |        |       |
|-----------|---------|-------|--------|-------|
|           | COUNT   | DESEL | YARD77 | ROW   |
|           | ROW PCT | DESEL | CI     | TOTAL |
|           | COL PCT |       |        |       |
|           | TOT PCT | 0     | 1      |       |
| 104       | 1       | 1     | 2      | 3     |
|           |         | 33.3  | 66.6   | 100.0 |
|           |         | 20.0  | 13.3   |       |
|           |         | 4.0   | 8.2    |       |
| 17-50000  | 2       | 0     | 2      | 2     |
|           |         | 0.0   | 100.0  | 100.0 |
|           |         | 2.0   | 10.0   |       |
|           |         | 0.0   | 8.2    |       |
| 250-50000 | 3       | 1     | 2      | 11    |
|           |         | 27.2  | 72.7   | 44.0  |
|           |         | 20.0  | 40.0   |       |
|           |         | 12.0  | 32.2   |       |
| 124-25000 | 4       | 1     | 3      | 4     |
|           |         | 25.0  | 75.1   | 100.0 |
|           |         | 20.0  | 10.0   |       |
|           |         | 4.0   | 10.0   |       |
| 180000    | 5       | 0     | 5      | 5     |
|           |         | 0.0   | 100.0  | 100.0 |
|           |         | 0.0   | 20.0   |       |
|           |         | 0.0   | 20.0   |       |
| COLUMN    |         | 0     | 20     | 20    |
| TOTAL     |         | 30.0  | 87.3   | 100.0 |

CHI SQUARE = 2.0755 WITH 4 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS =

8 CELLS USED OF 2 COLUMNS OF 40 ROWS FOR THIS RUN.  
 10400 BYTES OF MEMORY USED.

COPY

----- KRR BRUPLERL BY VBR PALL RAR, RYRRLA -----

| COUNT     | VED  |       | TOTAL |
|-----------|------|-------|-------|
|           | DEPL | APPL  |       |
| ROW POT   | 0    | 1     |       |
| COL POT   |      |       |       |
| TOT POT   |      |       |       |
| VE        | 0    | 3     | 3     |
| 1K+       | 0.0  | 100.0 | 100.0 |
|           | 0.0  | 10.0  |       |
|           | 0.0  | 10.0  |       |
| 2         | 0    | 2     | 2     |
| 1K-50000  | 0.0  | 100.0 | 100.0 |
|           | 0.0  | 0.0   |       |
|           | 0.0  | 0.0   |       |
| 3         | 0    | 0     | 0     |
| 250-50000 | 10.0 | 0.0   | 10.0  |
|           | 0.0  | 0.0   |       |
|           | 0.0  | 0.0   |       |
| 4         | 0    | 0     | 0     |
| 100-25000 | 0.0  | 0.0   | 0.0   |
|           | 0.0  | 0.0   |       |
|           | 0.0  | 0.0   |       |
| 5         | 0    | 0     | 0     |
| 10000-    | 0.0  | 0.0   | 0.0   |
|           | 0.0  | 0.0   |       |
|           | 0.0  | 0.0   |       |
| DEPL      | 0    | 0     | 0     |
| TOTAL     | 10.0 | 0.0   | 10.0  |

THE COLOR = 0.000000 - 0.000000 - 0.000000 - 0.000000  
 OTHER TO OTHERS INFORMATION

7. THE USE OF A VARIATION OF 10 DOTS FOR THIS ROW.  
 10. THE USE OF A VARIATION OF 10 DOTS FOR THIS ROW.

COPY

-----  
 2 R/R DEL. (L-4) BY VRS SALL 200, 2071N 9L  
 -----

| COUNT             |            | VRS          |        | ROW<br>TOTAL |
|-------------------|------------|--------------|--------|--------------|
| ROW<br>DEL<br>TOT | ROW<br>TOT | YR-DEL<br>BY | YR-TOT |              |
| 1                 | 3          | 3            | 3      | 3            |
|                   | 33.3       | 33.3         | 33.3   | 33.3         |
|                   | 5.0        | 5.0          | 5.0    | 5.0          |
|                   | 4.0        | 4.0          | 4.0    | 4.0          |
| 2                 | 2          | 2            | 2      | 2            |
|                   | 100.0      | 100.0        | 100.0  | 100.0        |
|                   | 11.7       | 11.7         | 11.7   | 11.7         |
|                   | 8.0        | 8.0          | 8.0    | 8.0          |
| 3                 | 3          | 3            | 3      | 3            |
|                   | 81.3       | 81.3         | 81.3   | 81.3         |
|                   | 52.0       | 52.0         | 52.0   | 52.0         |
|                   | 36.0       | 36.0         | 36.0   | 36.0         |
| 4                 | 4          | 4            | 4      | 4            |
|                   | 71.3       | 71.3         | 71.3   | 71.3         |
|                   | 17.5       | 17.5         | 17.5   | 17.5         |
|                   | 10.1       | 10.1         | 10.1   | 10.1         |
| 5                 | 5          | 5            | 5      | 5            |
|                   | 40.0       | 40.0         | 40.0   | 40.0         |
|                   | 11.7       | 11.7         | 11.7   | 11.7         |
|                   | 3.0        | 3.0          | 3.0    | 3.0          |
| DOLLAR            | 17         | 8            | 25     |              |
| TOTAL             | 86.1       | 86.1         | 86.1   | 86.1         |

AT SOURCE = 8.4548 (10) 14 DEGREE OF FREEDOM.  
 TYPE OF VRS AND OBSERVATION = 1

CELLS USED OF A MAXIMUM OF 40 CELLS FOR THIS RUN.  
 1440 BYTES OF MEMORY USED.



2277

VE (47 8800000) IV V24 8800000 8800000

| V24       |      |       |       |
|-----------|------|-------|-------|
| DATE      | TIME | WORLD | ROW   |
| 101       | 101  | 101   | 101   |
| 101       | 101  | 101   | 101   |
| 101       | 101  | 101   | 101   |
| 1         | 2    | 1     | 3     |
| 10-1      | 56.5 | 33.5  | 12.5  |
|           | 11.7 | 13.5  |       |
|           | 5.0  | 4.0   |       |
| 2         | 1    | 1     | 2     |
| 10-10000  | 57.0 | 36.0  | 2.0   |
|           | 5.5  | 10.5  |       |
|           | 4.0  | 4.0   |       |
| 3         | 7    | 4     | 11    |
| 100-10000 | 53.5 | 36.2  | 44.0  |
|           | 41.1 | 30.0  |       |
|           | 22.1 | 15.0  |       |
| 4         | 3    | 1     | 1     |
| 100-10000 | 75.2 | 25.2  | 15.2  |
|           | 7.6  | 12.5  |       |
|           | 1.9  | 1.0   |       |
| 5         | 0    | 1     | 1     |
| 100-10    | 10.0 | 25.2  | 24.2  |
|           | 10.5 | 10.5  |       |
|           | 15.0 | 4.0   |       |
| 10000     | 17   | 6     | 25    |
| 10000     | 69.7 | 31.0  | 172.7 |

THE 8800000 = 8.8175 477- DEVICES OF 8800000.  
 NO 8800000 8800000 8800000 8800000

10 8800000 USED OF 8 8800000 10 8800000 FOR 1-10 8800000.  
 154.5 BY THE 10 8800000 10 8800000

COPY

----- BY VSE -----

|       |     | VSE    |       |       |       |
|-------|-----|--------|-------|-------|-------|
| COUNT |     | NUMBER |       | ROW   |       |
| ROW   | BDT | CELLS  | BYTES | ROW   | TOTAL |
| COL   | BDT | CELLS  | BYTES |       |       |
| TOT   | BDT |        |       |       |       |
| 1     |     | 0      | 0     | 0     |       |
| 2     |     | 0.2    | 102.0 | 11.5  |       |
| 3     |     | 0.2    | 10.0  |       |       |
| 4     |     | 0.2    | 11.0  |       |       |
| 5     |     | 1      | 1     | 0     |       |
| 6     |     | 52.0   | 50.0  | 7.0   |       |
| 7     |     | 100.0  | 4.0   |       |       |
| 8     |     | 0.0    | 0.0   |       |       |
| 9     |     | 0      | 11    | 11    |       |
| 10    |     | 1.0    | 100.0 | 42.0  |       |
| 11    |     | 0.0    | 44.0  |       |       |
| 12    |     | 2.0    | 42.0  |       |       |
| 13    |     | 0      | 4     | 4     |       |
| 14    |     | 0.0    | 100.0 | 10.0  |       |
| 15    |     | 0.0    | 10.0  |       |       |
| 16    |     | 0.0    | 10.0  |       |       |
| 17    |     | 0      | 0     | 0     |       |
| 18    |     | 0.0    | 100.0 | 10.0  |       |
| 19    |     | 0.0    | 00.0  |       |       |
| 20    |     | 0.0    | 23.0  |       |       |
| 21    |     | 0      | 0     | 0     |       |
| 22    |     | 0.0    | 100.0 | 10.0  |       |
| 23    |     | 0.0    | 00.0  |       |       |
| 24    |     | 0.0    | 23.0  |       |       |
| 25    |     | 0      | 0     | 0     |       |
| 26    |     | 0.0    | 100.0 | 10.0  |       |
| 27    |     | 0.0    | 00.0  |       |       |
| 28    |     | 0.0    | 23.0  |       |       |
| 29    |     | 0      | 0     | 0     |       |
| 30    |     | 0.0    | 100.0 | 10.0  |       |
| 31    |     | 0.0    | 00.0  |       |       |
| 32    |     | 0.0    | 23.0  |       |       |
| 33    |     | 0      | 0     | 0     |       |
| 34    |     | 0.0    | 100.0 | 10.0  |       |
| 35    |     | 0.0    | 00.0  |       |       |
| 36    |     | 0.0    | 23.0  |       |       |
| 37    |     | 0      | 0     | 0     |       |
| 38    |     | 0.0    | 100.0 | 10.0  |       |
| 39    |     | 0.0    | 00.0  |       |       |
| 40    |     | 0.0    | 23.0  |       |       |
| 41    |     | 0      | 0     | 0     |       |
| 42    |     | 0.0    | 100.0 | 10.0  |       |
| 43    |     | 0.0    | 00.0  |       |       |
| 44    |     | 0.0    | 23.0  |       |       |
| 45    |     | 0      | 0     | 0     |       |
| 46    |     | 0.0    | 100.0 | 10.0  |       |
| 47    |     | 0.0    | 00.0  |       |       |
| 48    |     | 0.0    | 23.0  |       |       |
| 49    |     | 0      | 0     | 0     |       |
| 50    |     | 0.0    | 100.0 | 10.0  |       |
| 51    |     | 0.0    | 00.0  |       |       |
| 52    |     | 0.0    | 23.0  |       |       |
| 53    |     | 0      | 0     | 0     |       |
| 54    |     | 0.0    | 100.0 | 10.0  |       |
| 55    |     | 0.0    | 00.0  |       |       |
| 56    |     | 0.0    | 23.0  |       |       |
| 57    |     | 0      | 0     | 0     |       |
| 58    |     | 0.0    | 100.0 | 10.0  |       |
| 59    |     | 0.0    | 00.0  |       |       |
| 60    |     | 0.0    | 23.0  |       |       |
| 61    |     | 0      | 0     | 0     |       |
| 62    |     | 0.0    | 100.0 | 10.0  |       |
| 63    |     | 0.0    | 00.0  |       |       |
| 64    |     | 0.0    | 23.0  |       |       |
| 65    |     | 0      | 0     | 0     |       |
| 66    |     | 0.0    | 100.0 | 10.0  |       |
| 67    |     | 0.0    | 00.0  |       |       |
| 68    |     | 0.0    | 23.0  |       |       |
| 69    |     | 0      | 0     | 0     |       |
| 70    |     | 0.0    | 100.0 | 10.0  |       |
| 71    |     | 0.0    | 00.0  |       |       |
| 72    |     | 0.0    | 23.0  |       |       |
| 73    |     | 0      | 0     | 0     |       |
| 74    |     | 0.0    | 100.0 | 10.0  |       |
| 75    |     | 0.0    | 00.0  |       |       |
| 76    |     | 0.0    | 23.0  |       |       |
| 77    |     | 0      | 0     | 0     |       |
| 78    |     | 0.0    | 100.0 | 10.0  |       |
| 79    |     | 0.0    | 00.0  |       |       |
| 80    |     | 0.0    | 23.0  |       |       |
| 81    |     | 0      | 0     | 0     |       |
| 82    |     | 0.0    | 100.0 | 10.0  |       |
| 83    |     | 0.0    | 00.0  |       |       |
| 84    |     | 0.0    | 23.0  |       |       |
| 85    |     | 0      | 0     | 0     |       |
| 86    |     | 0.0    | 100.0 | 10.0  |       |
| 87    |     | 0.0    | 00.0  |       |       |
| 88    |     | 0.0    | 23.0  |       |       |
| 89    |     | 0      | 0     | 0     |       |
| 90    |     | 0.0    | 100.0 | 10.0  |       |
| 91    |     | 0.0    | 00.0  |       |       |
| 92    |     | 0.0    | 23.0  |       |       |
| 93    |     | 0      | 0     | 0     |       |
| 94    |     | 0.0    | 100.0 | 10.0  |       |
| 95    |     | 0.0    | 00.0  |       |       |
| 96    |     | 0.0    | 23.0  |       |       |
| 97    |     | 0      | 0     | 0     |       |
| 98    |     | 0.0    | 100.0 | 10.0  |       |
| 99    |     | 0.0    | 00.0  |       |       |
| 100   |     | 0.0    | 23.0  |       |       |
| TOTAL |     | 2.0    | 51.0  | 100.0 |       |

41 SQUARE = 12,400 WITH / DEGREE OF FREEDOM.  
 OVER 10 MISSING OBSERVATIONS = 2

CELLS USED OF A MAXIMUM OF 48 CELLS FOR THIS RUN.  
 610 BYTES OF MEMORY FREE.

APPY

KAR STPLARI

BY VEE

SER. PAUL. DESERLE

VSC

DEBIT

| ROW | DET | KILLAN | KILLAN | ROW   |
|-----|-----|--------|--------|-------|
| COL | DET | KILLAN | KILLAN | TOTAL |
| ROW | DET | 0      | 1      |       |

|          |     |       |       |      |
|----------|-----|-------|-------|------|
|          | 1   | 0     | 3     | 3    |
|          |     | 0.0   | 170.0 | 11.5 |
|          |     | 0.0   | 10.0  |      |
|          |     | 0.0   | 11.5  |      |
|          | 2   | 0     | 2     | 2    |
| 4-5000V  |     | 2.2   | 100.0 | 7.5  |
|          |     | 0.0   | 0.0   |      |
|          |     | 0.0   | 7.5   |      |
|          | 3   | 1     | 12    | 13   |
| 50-5000V |     | 0.0   | 53.0  | 42.3 |
|          |     | 102.0 | 47.0  |      |
|          |     | 3.5   | 38.4  |      |
|          | 4   | 2     | 4     | 6    |
| 10-5000V |     | 2.2   | 127.0 | 13.3 |
|          |     | 2.0   | 10.0  |      |
|          |     | 0.0   | 15.3  |      |
|          | 5   | 0     | 5     | 5    |
| 30-5000V |     | 0.0   | 133.0 | 22.0 |
|          |     | 0.0   | 0.0   |      |
|          |     | 0.0   | 22.0  |      |
| COL-UNY  | 1   | 05    | 05    |      |
| TOTAL    | 3.5 | 51.1  | 100.0 |      |

AT 50000 = 0.4100 WITH 4 DEGREE OF FREEDOM.  
 LYSIS OF VADIS 7 OBSERVATIONS = 0

CELLS USED OF A MAXIMUM OF 45 CELLS FOR THIS RUN.  
 5287 BYTES OF MEMORY FREE.

up 000V

VE KAR BRILLIANT EV V27 SIR. PAUL. DEGERLE

| V27        |     |        |        |       |
|------------|-----|--------|--------|-------|
| DEPT       |     |        |        |       |
| ROW        | COL | KILLER | KILLER | ROW   |
| COL        | ROW | KILLER | KILLER | TOTAL |
| ROW        | COL | 2      | 1      |       |
| 1          | 1   | 2      | 2      | 2     |
|            |     | 66.6   | 33.3   | 11.5  |
|            |     | 12.1   | 10.1   |       |
|            |     | 7.1    | 2.6    |       |
| 2          | 2   | 2      | 2      | 2     |
| 1P-323-1X  |     | 2.2    | 172.6  | 7.6   |
|            |     | 2.2    | 21.1   |       |
|            |     | 2.2    | 7.5    |       |
| 3          | 3   | 3      | 3      | 11    |
| 253-513-1X |     | 72.7   | 27.2   | 12.2  |
|            |     | 52.6   | 32.1   |       |
|            |     | 32.7   | 11.2   |       |
| 4          | 4   | 2      | 2      | 4     |
| 100-250-1X |     | 22.0   | 21.0   | 15.3  |
|            |     | 12.5   | 22.2   |       |
|            |     | 7.5    | 7.6    |       |
| 5          | 5   | 2      | 2      | 5     |
| 100-6X     |     | 26.1   | 27.1   | 21.1  |
|            |     | 22.0   | 27.0   |       |
|            |     | 15.3   | 7.1    |       |
| COLLON     |     | 15     | 13     | 31    |
| TOTAL      |     | 21.5   | 25.4   | 121.4 |

THE COLON = 4.1222 WITH A DEGREE OF FREEDOM.  
NUMBER OF MISSING OBSERVATIONS = 2

8 BILLS LOAN OF A MAXIMUM OF 45 DOLLARS FOR THREE HRS.  
15340 DATES OF MEXICO FREE.

HAPPY

-----

VE                    KAP GRUPLANT                    BY VES                    SIX. FAPL. DEBERLE

-----

|           |     | VES    |        |       |
|-----------|-----|--------|--------|-------|
| POINT     |     |        |        |       |
| ROW       | DOT | KULLAN | KULLAN | ROW   |
| COL       | ROW | ILKAYG | ILKAYG | TOTAL |
| TOT       | DOT | 2      | 1      |       |
| VE        |     |        |        |       |
|           |     | 2      | 1      | 3     |
| 104       |     | 22.6   | 33.3   | 11.5  |
|           |     | 11.7   | 11.1   |       |
|           |     | 7.6    | 3.6    |       |
|           | 2   | 1      | 1      | 2     |
| 10-50000  |     | 50.6   | 50.2   | 7.5   |
|           |     | 5.2    | 11.1   |       |
|           |     | 3.6    | 3.6    |       |
|           | 3   | 8      | 3      | 11    |
| 250-50000 |     | 72.7   | 27.2   | 42.3  |
|           |     | 47.6   | 33.3   |       |
|           |     | 33.7   | 11.5   |       |
|           | 4   | 3      | 1      | 4     |
| 104-25000 |     | 75.8   | 25.2   | 15.3  |
|           |     | 17.6   | 11.1   |       |
|           |     | 11.5   | 3.6    |       |
|           | 5   | 3      | 1      | 6     |
| 10000--   |     | 50.6   | 50.2   | 22.3  |
|           |     | 17.6   | 33.3   |       |
|           |     | 11.5   | 11.5   |       |
| TOTAL     |     | 17     | 2      | 26    |
| TOTAL     |     | 22.6   | 33.3   | 104.2 |

THE SCALING = 1.2042 WITH 4 INDEXES OF FREEDOM.  
 NUMBER OF SIGHTING OBSERVATIONS = 2

12 CELLS USED OF A MAXIMUM OF 48 CELLS FOR THIS RUN.  
 15000 BYTES OF MEMORY USED.

HAPPY

----- KAR BRID LARK ----- BY VES ----- SIR. EARL DEBERLE -----

|           |        | VES    |       |  |
|-----------|--------|--------|-------|--|
| COUNT     |        |        |       |  |
| ROW POT   | KULLAN | KULLAN | ROW   |  |
| DEL POT   | ILYANE | ILYAKT | TOTAL |  |
| TOT POT   | 0      | 0      |       |  |
| 1         | 2      | 1      | 3     |  |
|           | 65.6   | 33.3   | 11.5  |  |
|           | 9.2    | 23.2   |       |  |
|           | 7.5    | 3.2    |       |  |
| 2         | 2      | 2      | 2     |  |
| 1Y-520YN  | 102.0  | 8.0    | 7.0   |  |
|           | 9.2    | 8.2    |       |  |
|           | 7.5    | 2.0    |       |  |
| 3         | 10     | 1      | 11    |  |
| 253-500MN | 53.6   | 9.2    | 42.3  |  |
|           | 45.4   | 23.2   |       |  |
|           | 38.4   | 3.2    |       |  |
| 4         | 4      | 6      | 4     |  |
| 100-250YN | 100.0  | 3.2    | 15.3  |  |
|           | 16.2   | 4.0    |       |  |
|           | 15.3   | 3.0    |       |  |
| 5         | 6      | 2      | 8     |  |
| 100YN-    | 25.2   | 33.3   | 23.3  |  |
|           | 11.1   | 52.2   |       |  |
|           | 15.2   | 7.6    |       |  |
| COUNT     | 22     | 4      | 26    |  |
| TOTAL     | 64.6   | 15.3   | 122.2 |  |

CHI SQUARE = 3.6886 WITH 4 DEGREES OF FREEDOM.  
NUMBER OF MISSING OBSERVATIONS = 0

6 CELLS USED OR A MAXIMUM OF 42 CELLS FOR THIS RUN.  
10886 BYTES OF MEMORY FREE.

BILSTERYAR KULLAYI

BY V17

SABIT VE DESISEN

|            |        | V17    |       |       |
|------------|--------|--------|-------|-------|
| COUNT      |        |        |       |       |
| ROW POT    | YAPILM | YAPILM | ROW   |       |
| DEL POT    | AMAKTA | OKTA   | TOTAL |       |
| TOT POT    | 2      | 1      |       |       |
| 0          |        | 0      | 0     | 12    |
| BARLANAYAN |        | 75.0   | 25.0  | 46.1  |
|            |        | 55.2   | 21.2  |       |
|            |        | 34.6   | 11.6  |       |
| 1          |        | 4      | 10    | 14    |
| BARLANAN   |        | 28.5   | 71.4  | 53.5  |
|            |        | 22.7   | 78.6  |       |
|            |        | 15.3   | 23.7  |       |
| COLUMN     |        | 12     | 12    | 24    |
| TOTAL      |        | 56.0   | 52.0  | 107.2 |

1 SOURCE = 5.5714 WITH 1 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 0

CELLS USED IF A MAXIMUM OF 60 CELLS FOR THIS RUN.  
 1967 BYTES OF MEMORY FREE.

MADRAY

VS BELGİSAYAR KULLANIMI PY VLS RAP. BİSTREYİNDE DİY

|               |         | VLS    |       |
|---------------|---------|--------|-------|
| COUNT         |         |        |       |
| ROW POT       | UYGULA  | UYGULA | ROW   |
| COL POT       | NABERAK | AYAKTA | TOTAL |
| TOT POT       | 0       | 1      |       |
| VS            |         |        |       |
| 4             | 5       | 3      | 10    |
| YERARLANMAYAN | 75.0    | 25.0   | 45.1  |
|               | 50.0    | 27.2   |       |
|               | 34.6    | 11.5   |       |
| 1             | 5       | 9      | 14    |
| YERARLANAN    | 42.8    | 57.1   | 52.0  |
|               | 40.0    | 72.7   |       |
|               | 22.0    | 30.7   |       |
| COLUMN        | 15      | 11     | 25    |
| TOTAL         | 57.5    | 42.3   | 100.2 |

CHI SQUARE = 2.7251 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 0

4 CELLS USED OF A MAXIMUM OF 60 CELLS FOR THIS RUN.  
 16503 BYTES OF MEMORY FREE.



HAPPY

VS ----- PILGERSHAYAR KULLANIMI BY V80 1 KALI RAP. UZUN DON -----

|               |   | V80  |        |       |
|---------------|---|------|--------|-------|
| COUNT         |   | DESL | WORDIM | ROW   |
| ROW POT       |   |      | CI     | TOTAL |
| COL POT       |   |      |        |       |
| TOT POT       |   | 2    | 1      |       |
| VS            |   |      |        |       |
|               | 3 | 3    | 3      | 11    |
| VARARLANMAYAN |   | 72.7 | 27.3   | 44.0  |
|               |   | 53.3 | 38.2   |       |
|               |   | 32.0 | 12.0   |       |
|               | 1 | 7    | 7      | 14    |
| VARARLANAN    |   | 53.0 | 53.0   | 55.0  |
|               |   | 46.6 | 70.0   |       |
|               |   | 28.0 | 28.0   |       |
| COLUMN        |   | 15   | 12     | 25    |
| TOTAL         |   | 60.0 | 40.0   | 100.0 |

CHI SQUARE = 1.3255 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 1

4 CELLS USED OF A MAXIMUM OF 50 CELLS FOR THIS RUN.  
 10045 BYTES OF MEMORY FREE.

COPY

BILGIBAYAR KULLANIMI

BY VEL

KALI RAP. KISA DON

5

|         |      | VEL    |       |
|---------|------|--------|-------|
| COUNT   |      |        |       |
| R24 POT | DECI | YARDIM | 304   |
| POL POT | BY   |        | TOTAL |
| TOT POT | 2    | 1      |       |
| 2       |      | 4      | 7     |
| 38.3    |      | 52.5   | 44.3  |
| 52.2    |      | 52.2   |       |
| 16.0    |      | 16.0   |       |
| 1       |      | 1      | 14    |
| 7.1     |      | 52.5   | 56.2  |
| 20.9    |      | 52.5   |       |
| 4.2     |      | 52.5   |       |
| COLUMN  |      | 5      | 22    |
| TOTAL   |      | 26.2   | 82.7  |

PI SQUARE = 3.9873 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 1

CELLS USED OF A MAXIMUM OF 50 CELLS FOR THIS RUN.  
 5514 BYTES OF MEMORY FREE.

COPY

VS BILGIDANAR KULLANIMI BY VOB NOLİ RAD. FİYATL

| VSB       |     |       |        |       |
|-----------|-----|-------|--------|-------|
| COUNT     |     |       |        |       |
| ROW       | COL | DEERL | YARDIM | ROW   |
| NO        | NO  |       | CI     | TOTAL |
| TOT       | NO  |       |        |       |
| VS        |     |       |        |       |
|           | 2   | 2     | 0      | 11    |
| YARATILAN |     | 27.2  | 72.7   | 44.0  |
|           |     | 102.2 | 20.3   |       |
|           |     | 18.0  | 32.0   |       |
|           | 1   | 3     | 14     | 14    |
| YARATILAN |     | 2.3   | 102.0  | 58.0  |
|           |     | 0.2   | 02.0   |       |
|           |     | 0.0   | 55.0   |       |
|           |     |       |        |       |
|           |     | 3     | 22     | 25    |
|           |     | 12.0  | 88.0   | 100.0 |

CHI SQUARE = 4.3228 WITH 1 DEGREE OF FREEDOM.

NUMBER OF MISSING OBSERVATIONS = 1

3 CELLS USED OF A MAXIMUM OF 60 CELLS FOR THIS RUN.  
10000 BYTES OF MEMORY FREE.

COPY

VS SYLBIOMYAT ALLIOMYAT BY VRS KALL RAD. GATEWAY

| VRS            |       |        |       |
|----------------|-------|--------|-------|
| COUNT          | DEBTL | YARDEN | SEX   |
| ROW POT        | OT    | OT     | TOTAL |
| COL POT        |       |        |       |
| TOT POT        | 0     | 1      |       |
| VS             |       |        |       |
| 9              | 8     | 0      | 11    |
| VARARLAN KAYAN | 81.8  | 16.1   | 44.0  |
|                | 58.8  | 25.8   |       |
|                | 36.8  | 6.7    |       |
| 1              | 8     | 6      | 14    |
| VARARLANA      | 57.1  | 42.8   | 56.0  |
|                | 17.8  | 75.8   |       |
|                | 38.8  | 24.8   |       |
| COLUMN         | 17    | 8      | 25    |
| TOTAL          | 58.8  | 38.2   | 120.7 |

CHI SQUARE = 1.7236 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF OBSERVATIONS = 1

1 CELL USED OF A MAXIMUM OF 60 CELLS FOR THIS RUN.  
 18818 BYTES OF MEMORY FREE.

২০০৮

VE HILSBAYAR ALLAH DUT 204 024 HALLI 20003 YATIR

[illegible][illegible]

AUGUST 1968  
JULY 1968

VE EVLEGEYOR KULLANIKI BY V25 SIR. FAKL. DEDET

|               |     | V25    |        |       |
|---------------|-----|--------|--------|-------|
| COUNT         |     |        |        |       |
| ROW           | POT | KULLAN | KULLAN | ROW   |
| COL           | POT | ILKAYA | ILYAKT | TOTAL |
| TOT           | POT | 0      | 1      |       |
| VE            |     |        |        |       |
|               | 0   | 0      | 12     | 12    |
| YARARLANMAYAN |     | 0.0    | 100.0  | 46.1  |
|               |     | 0.0    | 40.2   |       |
|               |     | 0.0    | 46.1   |       |
| 1             |     |        |        |       |
| YARARLANAN    |     | 1      | 13     | 14    |
|               |     | 7.1    | 52.6   | 53.8  |
|               |     | 100.0  | 52.2   |       |
|               |     | 3.8    | 53.4   |       |
| COLUMN        |     |        |        |       |
|               |     | 1      | 25     | 26    |
| TOTAL         |     | 3.8    | 55.1   | 100.0 |

CHI SQUARE = 0.8914 WITH 1 DEGREES OF FREEDOM.  
NUMBER OF MISSING OBSERVATIONS = 0

2 CELLS USED OF A MAXIMUM OF 60 CELLS FOR THIS RUN.  
16800 BYTES OF MEMORY FREE.

HAPPY.

| VS | BILGISEYAR KULLANIYI | BY | VSE | SIR. PAAL. DEFEN |
|----|----------------------|----|-----|------------------|
|----|----------------------|----|-----|------------------|

|             |        | VSE    |       |  |
|-------------|--------|--------|-------|--|
| COUNT       |        |        |       |  |
| ROW POT     | KULLON | KULLON | ROW   |  |
| COL POT     | ILYAMA | ILYAMA | TOTAL |  |
| TOT POT     | 2      | 1      |       |  |
| VS          |        |        |       |  |
| 2           | 1      | 11     | 12    |  |
| YARALANBYAN | 8.3    | 91.5   | 45.1  |  |
|             | 102.2  | 44.2   |       |  |
|             | 3.8    | 42.3   |       |  |
| 1           | 0      | 14     | 14    |  |
| YARALANBYAN | 0.0    | 123.2  | 53.6  |  |
|             | 2.3    | 56.6   |       |  |
|             | 0.0    | 53.6   |       |  |
| COLUMN      | 1      | 25     | 26    |  |
| TOTAL       | 3.8    | 56.6   | 123.2 |  |

CHI SQUARE = 1.2133 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 3

3 CELLS USED OF A MAXIMUM OF 62 CELLS FOR THIS RUN.  
 16636 BYTES OF MEMORY FREE.

PARRY

VE BY V27 SIR. PAUL. DEGER

|              |   | V27    |        |       |
|--------------|---|--------|--------|-------|
| COUNT        |   |        |        |       |
| ROW POT      |   | KULLON | KULLON | ROW   |
| COL POT      |   | ELAYON | ELAYON | TOTAL |
| 10 POT       |   | 3      | 1      |       |
| VE           |   |        |        |       |
|              | 2 | 5      | 4      | 12    |
| VARCELAYAYON |   | 66.5   | 33.3   | 45.1  |
|              |   | 32.0   | 43.0   |       |
|              |   | 32.7   | 15.3   |       |
|              | 1 | 3      | 6      | 24    |
| VARCELONAN   |   | 57.1   | 12.8   | 32.6  |
|              |   | 52.8   | 60.2   |       |
|              |   | 32.7   | 22.8   |       |
| COLUMN       |   | 16     | 10     | 25    |
| TOTAL        |   | 61.5   | 38.4   | 100.0 |

ONE SQUARE = 0.2470 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 0

4 CELLS USED OF A MAXIMUM OF 60 CELLS FOR THIS RUN.  
 16868 BYTES OF MEMORY FREE.



-PPPY

V5 BYLEISRYPR KULLANIMI FY V28 STR. FOAL. DESER

|               |   | V28    |        |       |
|---------------|---|--------|--------|-------|
| COUNT         |   |        |        |       |
| ROW POT       |   | KULLAN | KULLAN | ROW   |
| COL POT       |   | ILYAKA | ILYAKT | TOTAL |
| TOT POT       |   | 0      | 1      |       |
| V5            |   |        |        |       |
|               | 0 | 12     | 2      | 12    |
| VERASLANYAYAN |   | 83.3   | 16.6   | 46.1  |
|               |   | 58.0   | 22.2   |       |
|               |   | 36.4   | 7.6    |       |
|               | 1 | 7      | 7      | 14    |
| YARORLONAY    |   | 52.0   | 52.0   | 53.2  |
|               |   | 41.1   | 77.7   |       |
|               |   | 26.9   | 26.6   |       |
| COLLUMN       |   | 17     | 9      | 26    |
| TOTAL         |   | 65.2   | 34.8   | 100.0 |

CHI SQUARE = 2.1721 WITH 1 DEGREES OF FREEDOM,  
NUMBER OF MISSING OBSERVATIONS = 0

4 CELLS USED OF A MAXIMUM OF 50 CELLS FOR THIS RUN.  
USED BYTES OF MEMORY FREE.

HAPPY

-----

VE BYLESBAYOR MULLOBYE BY VES CIR. FROM DES

-----

|              |     | VES    |        |       |
|--------------|-----|--------|--------|-------|
| OPLAN        |     |        |        |       |
| ROW          | SET | KULLPA | AVILCA | ROW   |
| COL          | SET | ILYANA | ELYPAT | TOTAL |
| TOT          | TOT | 3      | 1      |       |
| VE           |     |        |        |       |
|              | 3   | 11     | 1      | 12    |
| YDEPRLONVYPA |     | 81.6   | 8.8    | 43.1  |
|              |     | 52.8   | 25.0   |       |
|              |     | 48.3   | 3.8    |       |
|              |     |        |        |       |
|              | 1   | 11     | 2      | 14    |
| VARRLONVN    |     | 78.5   | 21.4   | 53.6  |
|              |     | 58.8   | 75.6   |       |
|              |     | 48.3   | 11.5   |       |
|              |     |        |        |       |
| COLLYN       |     | 22     | 4      | 26    |
| TOTAL        |     | 84.5   | 15.3   | 173.2 |

ONE SQUARE = 2.2512 WITH 1 SQUARE OF FREDDY.  
 NUMBER OF KISSING OBSERVATIONS = 2

A BELLS USED OF A MAXIMUM OF 22 BELLS FOR THIS RUN.  
 10850 BYRS OF SEVERY FREE.

COPY

V12 S+8 VE K+Z HAYATLAMA DİML BY V17 SADI VE DİSİKEN

| V17        |     |               |       |       |
|------------|-----|---------------|-------|-------|
| CEMİT      |     | VAPILY VAPILY |       | ROW   |
| YIL        | YIL | AKTER         | AKTER | TOTAL |
| YIL        | YIL | 2             | 1     |       |
| V12        | 1   | 0             | 1     | 1     |
| YAPILIK    |     | 0.0           | 100.0 | 4.2   |
|            |     | 0.0           | 0.0   |       |
|            |     | 0.0           | 0.0   |       |
|            | 2   | 5             | 0     | 10    |
| AYLIK      |     | 50.0          | 50.0  | 72.0  |
|            |     | 60.0          | 75.0  |       |
|            |     | 35.0          | 35.0  |       |
|            | 3   | 4             | 1     | 5     |
| 10 AYLIK   |     | 00.0          | 00.0  | 22.0  |
|            |     | 00.7          | 0.0   |       |
|            |     | 15.0          | 4.0   |       |
|            | 4   | 0             | 1     | 1     |
| 1000 AYLIK |     | 0.0           | 100.0 | 4.2   |
|            |     | 0.0           | 0.0   |       |
|            |     | 0.0           | 0.0   |       |
| TOTAL      |     | 10            | 10    | 20    |
| TOTAL      |     | 01.0          | 40.0  | 100.0 |

THE ABOVE = 3.7500 HWT. 3 DECIDE OF FREEDOM.  
 LOWER OF MARGINE ESTIMATIONS =

\* SHOULD BE USED IF 4.100000 OF 0.7 BELL FOR THIS PLAN.  
 \* 0.700000 OF 0.700000 TALK.

LAPPY

V13 E+8 VE K+Z KAZIRLAYA SIKL 3Y V18 RAP. GISTEKINDE D

| V15       |        |        |       |       |
|-----------|--------|--------|-------|-------|
| COUNT     |        |        |       |       |
| ROW POT   | UYGULA | UYGULA | ADH   | TOTAL |
| CUL POT   | AMANOK | KMAKTA |       |       |
| TOT POT   | 0      | 1      |       |       |
| V13       |        |        |       |       |
| HAFTALIK  | 1      | 0      | 1     | 1     |
|           |        | 0.0    | 100.0 | 4.0   |
|           |        | 0.0    | 0.0   |       |
|           |        | 0.0    | 4.0   |       |
| AYLIK     | 2      | 10     | 6     | 16    |
|           |        | 55.0   | 44.4  | 72.0  |
|           |        | 71.4   | 72.7  |       |
|           |        | 42.0   | 22.0  |       |
| 30 AYLIK  | 3      | 4      | 1     | 5     |
|           |        | 20.0   | 20.0  | 20.0  |
|           |        | 20.0   | 0.0   |       |
|           |        | 10.0   | 4.0   |       |
| 300 AYLIK | 4      | 7      | 1     | 1     |
|           |        | 0.0    | 100.0 | 4.0   |
|           |        | 0.0    | 0.0   |       |
|           |        | 0.0    | 4.0   |       |
| COLUMN    |        |        |       |       |
|           | 14     | 11     | 25    |       |
| TOTAL     | 55.0   | 44.0   | 100.0 |       |

CHI SQUARE = 2.7157 WITH 3 DEGREES OF FREEDOM.  
NUMBER OF MISSING OBSERVATIONS =

8 CELLS USED OF A MAXIMUM OF 60 CELLS FOR THIS RUN.  
16768 BYTES OF MEMORY USED.

HARRY

VIC B-S VE M-2 HAZIRLAMA GIK BY V20 KALI 902. UZUN DO

|           |   | V20     |       |        |
|-----------|---|---------|-------|--------|
|           |   | DELIN   |       |        |
|           |   | FOR ROT | DEBIL | YARDIM |
|           |   | COL ROT | DI    | ROW    |
|           |   | TOT ROT | 2     | 1      |
|           |   |         |       | TOTAL  |
| V13       | 1 |         | 8     | 1      |
| HAFTELİK  |   |         | 0.8   | 100.8  |
|           |   |         | 0.9   | 11.1   |
|           |   |         | 0.3   | 4.1    |
|           | 2 |         | 13    | 7      |
| AYLIK     |   |         | 50.8  | 41.1   |
|           |   |         | 65.6  | 77.7   |
|           |   |         | 41.3  | 25.1   |
|           | 3 |         | 4     | 1      |
| 30 AYLIK  |   |         | 20.3  | 20.8   |
|           |   |         | 22.6  | 11.1   |
|           |   |         | 15.3  | 4.1    |
|           | 4 |         | 2     | 2      |
| ORT AYLIK |   |         | 120.2 | 0.2    |
|           |   |         | 1.2   | 0.2    |
|           |   |         | 7.1   | 3.2    |
| SOLUK     |   | 15      | 5     | 24     |
| TOTAL     |   | 31.5    | 37.5  | 102.0  |

THE SCORE = 2.102 WITH 3 DEGREES OF FREEDOM.  
 NUMBER OF WINDING OBSERVATIONS = 2

1. BEARS USED IN A NUMBER OF 67 CELLS FOR THIS RUN.  
 10757 BYTES OF MEMORY USED.

1070

U.S. AIR FORCE 846 WE 342 797131400 8101 BY 0261 0011 800. 0100 001

| COUNT |    | VOLUME |        | WEIGHT |    |
|-------|----|--------|--------|--------|----|
| FROM  | TO | DEBIT  | CREDIT | FROM   | TO |
| 1     | 2  | 3      | 4      | 5      | 6  |
| 0     | 1  | 0      | 0      | 0      | 0  |
| 1     | 2  | 100.0  | 0.0    | 4.0    | 0  |
| 2     | 3  | 20.0   | 0.0    | 0.0    | 0  |
| 3     | 4  | 4.0    | 0.0    | 0.0    | 0  |
| 4     | 5  | 0      | 0      | 0      | 0  |
| 5     | 6  | 0      | 0      | 0      | 0  |
| 6     | 7  | 0      | 0      | 0      | 0  |
| 7     | 8  | 0      | 0      | 0      | 0  |
| 8     | 9  | 0      | 0      | 0      | 0  |
| 9     | 10 | 0      | 0      | 0      | 0  |
| 10    | 11 | 0      | 0      | 0      | 0  |
| 11    | 12 | 0      | 0      | 0      | 0  |
| 12    | 13 | 0      | 0      | 0      | 0  |
| 13    | 14 | 0      | 0      | 0      | 0  |
| 14    | 15 | 0      | 0      | 0      | 0  |
| 15    | 16 | 0      | 0      | 0      | 0  |
| 16    | 17 | 0      | 0      | 0      | 0  |
| 17    | 18 | 0      | 0      | 0      | 0  |
| 18    | 19 | 0      | 0      | 0      | 0  |
| 19    | 20 | 0      | 0      | 0      | 0  |
| 20    | 21 | 0      | 0      | 0      | 0  |
| 21    | 22 | 0      | 0      | 0      | 0  |
| 22    | 23 | 0      | 0      | 0      | 0  |
| 23    | 24 | 0      | 0      | 0      | 0  |
| 24    | 25 | 0      | 0      | 0      | 0  |
| 25    | 26 | 0      | 0      | 0      | 0  |
| 26    | 27 | 0      | 0      | 0      | 0  |
| 27    | 28 | 0      | 0      | 0      | 0  |
| 28    | 29 | 0      | 0      | 0      | 0  |
| 29    | 30 | 0      | 0      | 0      | 0  |
| 30    | 31 | 0      | 0      | 0      | 0  |
| 31    | 32 | 0      | 0      | 0      | 0  |
| 32    | 33 | 0      | 0      | 0      | 0  |
| 33    | 34 | 0      | 0      | 0      | 0  |
| 34    | 35 | 0      | 0      | 0      | 0  |
| 35    | 36 | 0      | 0      | 0      | 0  |
| 36    | 37 | 0      | 0      | 0      | 0  |
| 37    | 38 | 0      | 0      | 0      | 0  |
| 38    | 39 | 0      | 0      | 0      | 0  |
| 39    | 40 | 0      | 0      | 0      | 0  |
| 40    | 41 | 0      | 0      | 0      | 0  |
| 41    | 42 | 0      | 0      | 0      | 0  |
| 42    | 43 | 0      | 0      | 0      | 0  |
| 43    | 44 | 0      | 0      | 0      | 0  |
| 44    | 45 | 0      | 0      | 0      | 0  |
| 45    | 46 | 0      | 0      | 0      | 0  |
| 46    | 47 | 0      | 0      | 0      | 0  |
| 47    | 48 | 0      | 0      | 0      | 0  |
| 48    | 49 | 0      | 0      | 0      | 0  |
| 49    | 50 | 0      | 0      | 0      | 0  |
| 50    | 51 | 0      | 0      | 0      | 0  |
| 51    | 52 | 0      | 0      | 0      | 0  |
| 52    | 53 | 0      | 0      | 0      | 0  |
| 53    | 54 | 0      | 0      | 0      | 0  |
| 54    | 55 | 0      | 0      | 0      | 0  |
| 55    | 56 | 0      | 0      | 0      | 0  |
| 56    | 57 | 0      | 0      | 0      | 0  |
| 57    | 58 | 0      | 0      | 0      | 0  |
| 58    | 59 | 0      | 0      | 0      | 0  |
| 59    | 60 | 0      | 0      | 0      | 0  |
| 60    | 61 | 0      | 0      | 0      | 0  |
| 61    | 62 | 0      | 0      | 0      | 0  |
| 62    | 63 | 0      | 0      | 0      | 0  |
| 63    | 64 | 0      | 0      | 0      | 0  |
| 64    | 65 | 0      | 0      | 0      | 0  |
| 65    | 66 | 0      | 0      | 0      | 0  |
| 66    | 67 | 0      | 0      | 0      | 0  |
| 67    | 68 | 0      | 0      | 0      | 0  |
| 68    | 69 | 0      | 0      | 0      | 0  |
| 69    | 70 | 0      | 0      | 0      | 0  |
| 70    | 71 | 0      | 0      | 0      | 0  |
| 71    | 72 | 0      | 0      | 0      | 0  |
| 72    | 73 | 0      | 0      | 0      | 0  |
| 73    | 74 | 0      | 0      | 0      | 0  |
| 74    | 75 | 0      | 0      | 0      | 0  |
| 75    | 76 | 0      | 0      | 0      | 0  |
| 76    | 77 | 0      | 0      | 0      | 0  |
| 77    |    |        |        |        |    |

[illegible][illegible]



HA27V

REF ID: A66041

| COUNT |     | VIB   |        | YEPDYN |       | TOTAL  |       |
|-------|-----|-------|--------|--------|-------|--------|-------|
| ROW   | COL | DESL  | YEPDYN | COL    | DESL  | YEPDYN | TOTAL |
| 1     | 1   | 128.8 | 3.8    | 1      | 128.8 | 3.8    | 128.8 |
| 2     | 2   | 78.8  | 23.4   | 2      | 78.8  | 23.4   | 78.8  |
| 3     | 3   | 63.8  | 43.8   | 3      | 63.8  | 43.8   | 63.8  |
| 4     | 4   | 101.8 | 8.2    | 4      | 101.8 | 8.2    | 101.8 |
| TOTAL |     | 372.2 | 76.2   |        |       | 372.2  | 76.2  |



0000

13 F-8 VE R-7 F-212128 B-12 BY V84 KALI RAPER YATIRIK

|       |       | V84   |        |       |
|-------|-------|-------|--------|-------|
| COUNT |       | DEBIT | CREDIT | ROW   |
| ROW   | POY   | DEBIT | CREDIT | TOTAL |
| COL   | POY   | DEBIT | CREDIT |       |
| COL   | POY   | DEBIT | CREDIT |       |
| 1     | 1     | 1     | 2      | 1     |
| 100.0 | 0.0   | 4.1   |        |       |
| 6.0   | 2.2   |       |        |       |
| 4.1   | 0.0   |       |        |       |
| 2     | 5     | 2     | 17     |       |
| 32.0  | 47.0  | 73.6  |        |       |
| 55.2  | 100.0 |       |        |       |
| 37.2  | 33.0  |       |        |       |
| 3     | 7     | 3     | 5      |       |
| 100.0 | 3.0   | 20.0  |        |       |
| 31.2  | 0.0   |       |        |       |
| 20.0  | 0.0   |       |        |       |
| 4     | 1     | 2     | 1      |       |
| 100.0 | 0.0   | 4.1   |        |       |
| 6.0   | 2.2   |       |        |       |
| 4.1   | 0.0   |       |        |       |
| COUNT | 16    | 6     | 24     |       |
| TOTAL | 10.0  | 32.0  | 100.0  |       |

100 SQUARE A 4.5412 KTI 2 DEGREE OF FREEDOM  
 1000 BYTES OF MEMORY USED

1000 BYTES OF MEMORY USED  
 1000 BYTES OF MEMORY USED

-COPY

V13 P-4E VE 4-7 HAZELAND SCAL BY V25 GPR. PAUL. DEBER.

| V13        | V25   |       |       |       |
|------------|-------|-------|-------|-------|
|            | RELAT |       | FOR   |       |
|            | REL   | REL   | REL   | TOTAL |
|            | REL   | REL   | REL   | TOTAL |
| 1          | 1     | 1     | 1     | 1     |
| HAZELAND   | 2.2   | 131.0 | 4.2   |       |
|            | 2.0   | 4.1   |       |       |
|            | 2.0   | 4.8   |       |       |
| 2          | 1     | 17    | 18    |       |
| AYLIK      | 5.5   | 54.4  | 72.0  |       |
|            | 131.0 | 70.0  |       |       |
|            | 4.2   | 55.2  |       |       |
| 3          | 3     | 5     | 5     |       |
| NO AYLIK   | 9.0   | 100.0 | 22.0  |       |
|            | 3.0   | 20.0  |       |       |
|            | 6.0   | 20.0  |       |       |
| 4          | 3     | 1     | 1     |       |
| PORT AYLIK | 2.0   | 100.0 | 4.0   |       |
|            | 3.0   | 4.1   |       |       |
|            | 2.0   | 4.0   |       |       |
| COLLINS    | 1     | 24    | 25    |       |
| TOTAL      | 4.2   | 55.2  | 122.0 |       |

1st degree = 1.0000 with 3 degrees of freedom.  
 number of missing observations = 1

2nd degree = 1.0000 with 2 degrees of freedom.  
 number of missing observations = 1

-COPY



APPY

----- S+G VE K+Z HAZIRLANA SIKL BY V27 GIR. FAAL. DEGERLE -----

| V27       |     |        |        |       |
|-----------|-----|--------|--------|-------|
| COUNT     |     |        |        |       |
| ROW       | POT | KULLAN | KULLAN | ROW   |
| COL       | POT | ILMAMA | ILMAKT | TOTAL |
| POT       | POT | 2      | 1      |       |
| 13        | 1   | .0     | .1     | .1    |
| AFTALIK   |     | 2.2    | 100.0  | 4.2   |
|           |     | 8.2    | 10.2   |       |
|           |     | 2.0    | 4.2    |       |
| 2         |     | 11     | 7      | 18    |
| YLIK      |     | 61.1   | 38.8   | 72.0  |
|           |     | 73.3   | 70.2   |       |
|           |     | 44.2   | 20.2   |       |
| 3         |     | 3      | 2      | 5     |
| E AYLIK   |     | 50.0   | 40.2   | 20.2  |
|           |     | 20.0   | 20.2   |       |
|           |     | 12.0   | 8.2    |       |
| 4         |     | 1      | 0      | 1     |
| ORT AYLIK |     | 100.0  | 0.2    | 4.0   |
|           |     | 6.6    | 0.0    |       |
|           |     | 4.0    | 0.0    |       |
| COLUMN    |     | 15     | 10     | 25    |
| TOTAL     |     | 60.2   | 40.2   | 100.2 |

CHI SQUARE = 2.1759 WITH 3 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 1

CELLS USED OF A MAXIMUM OF 80 CELLS FOR THIS RUN.  
 6654 BYTES OF MEMORY FREE.

APPY

V13 B+S VE K+Z HAZIRLAMA SIKL BY V28 SIR. FAAL. DESER.

| V13      | COUNT |     | V28    |        | ROW<br>TOTAL |
|----------|-------|-----|--------|--------|--------------|
|          | REV   | PCT | KILLAN | HILLAN |              |
|          | DEL   | PCT | ILYANA | ILYAKT |              |
|          | TOT   | PCT | 0      | 1      |              |
| HAFTALIK | 1     |     | 1      | 0      | 1            |
|          |       |     | 100.0  | 0.0    | 4.0          |
|          |       |     | 0.0    | 0.0    |              |
| AYLIK    | 2     |     | 11     | 7      | 15           |
|          |       |     | 55.0   | 38.0   | 72.0         |
|          |       |     | 22.7   | 77.7   |              |
| 3 AYLIK  | 3     |     | 4      | 1      | 5            |
|          |       |     | 22.0   | 22.0   | 20.0         |
|          |       |     | 25.0   | 11.1   |              |
| 3 AYLIK  | 4     |     | 2      | 1      | 1            |
|          |       |     | 3.0    | 100.0  | 4.0          |
|          |       |     | 3.0    | 11.1   |              |
| TOTAL    |       |     | 10     | 5      | 25           |
| TOTAL    |       |     | 24.0   | 35.0   | 100.0        |

1ST COLUMN = MISSING WITH 2 DEGREE OF FREEDOM.  
 2ND COLUMN = MISSING WITH 2 DEGREE OF FREEDOM.

1 CELL USED OF A MAXIMUM OF 10 CELLS FOR THIS RUN.  
 1942 SYND OF MIXED DATA.

COPY

-----  
 13 248 VE M42 HOLLANDS BOWL BY V85 SIR. PAUL. DEERLEA  
 -----

|       |       | V85   |       |       |
|-------|-------|-------|-------|-------|
| COLL  |       | AVLON | AVLON | RDW   |
| COL   | COL   | AVLON | AVLON | TOTAL |
| TOT   | TOT   | 2     | 2     |       |
| 1     | 1     | 0     | 0     | 0     |
| AVLON | 100.0 | 0.0   | 4.0   |       |
|       | 4.7   | 0.0   |       |       |
|       | 4.0   | 0.2   |       |       |
| 2     | 14    | 4     | 18    |       |
| AVLON | 77.7  | 22.2  | 72.0  |       |
|       | 68.6  | 100.0 |       |       |
|       | 55.0  | 15.0  |       |       |
| 3     | 5     | 3     | 5     |       |
| AVLON | 100.0 | 0.0   | 20.7  |       |
|       | 22.0  | 0.2   |       |       |
|       | 20.7  | 0.0   |       |       |
| 4     | 1     | 0     | 1     |       |
| AVLON | 100.0 | 0.0   | 0.0   |       |
|       | 4.7   | 0.0   |       |       |
|       | 4.0   | 0.0   |       |       |
| AVLON | 20    | 2     | 20    |       |
| TOTAL | 84.0  | 25.2  | 129.7 |       |

1 SOURCE = 1.610 117 1 DEGREE OF FREEDOM.  
 248 IF CLOSING OBSERVATION = 1

WILL BEED OF A SYMBOLE OF 20 BILLS FOR THIS AND  
 200 BYTES OF MEMORY FREE.

copy

-----  
 011      RANKS VER. FOR RANK FOR.      BY      VIB      REP. SYSTEMS D  
 -----

| VIB          |               |       |       |
|--------------|---------------|-------|-------|
| COUNT        |               |       |       |
| NO. IN       | LYELLA LYELLA | ROW   |       |
| NO. OUT      | LYELLA LYELLA | TOTAL |       |
| NO. OUT      | 6             | 6     |       |
| -----        |               |       |       |
| VIB          | 6             | 7     | 5     |
| COLLAPSE/TO  | 58.3          | 41.1  | 58.3  |
|              | 58.3          | 45.4  |       |
|              | 25.1          | 20.8  |       |
| -----        |               |       |       |
|              | 6             | 6     | 12    |
| FULLANILAKTA | 52.0          | 52.0  | 52.0  |
|              | 45.1          | 54.5  |       |
|              | 25.2          | 25.2  |       |
| -----        |               |       |       |
| COLUMN       | 13            | 11    | 24    |
| TOTAL        | 54.1          | 45.2  | 103.3 |

THE SCHOOL = 2.1875 KIT-      A DEERIES OF FREEDOM.  
 NUMBER OF YOUNG OBSERVATIONS =      2

A BELL USED OF A YOUNG OF 60 BELL FOR THIS RAY.  
 1983: BYTES OF MEYDAY FREE.

COPY

----- KARAR VER. 2000000 PWA. K BY V10 REP. S1070000 D1

|               |               | V10   |       |
|---------------|---------------|-------|-------|
| DELNT         |               |       |       |
| ROW TOT       | LYGULA LYSULA | ROW   |       |
| COL TOT       | NYKTER NYKTER | TOTAL |       |
| TOT TOT       | .2            | 1     |       |
| 3             | 1             | 6     | 17    |
| LYGULA NYKTER | 64.7          | 25.0  | 70.0  |
|               | 64.6          | 24.6  |       |
|               | 45.8          | 25.0  |       |
| 1             | 3             | 5     | 7     |
| LYGULA NYKTER | 26.6          | 71.4  | 25.1  |
|               | 15.3          | 45.4  |       |
|               | 8.3           | 20.6  |       |
| DELNT         | 12            | 11    | 24    |
| TOTAL         | 54.1          | 45.8  | 100.0 |

CHI SQUARE = 8.6377 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 2

CELLS USED OF A MAXIMUM OF 60 CELLS FOR THIS RUN.  
 5519 BYTES OF MEMORY FREE.



KARRY

-----  
 VIS KARRER VER. ORAC. AND. KULL BY VIS RAP. SISTEMINDE D  
 -----

|                 |     | VIS     |        |       |
|-----------------|-----|---------|--------|-------|
| COUNT           |     |         |        |       |
| ROW             | POV | UVBULA  | UYBULA | ROW   |
| COL             | POV | INXAKAK | WAKTA  | TOTAL |
| TOT POV         |     | 2       | 1      |       |
| VIS             |     |         |        |       |
| 0               |     | 6       | 3      | 9     |
| KULLANILYAKAKTA |     | 68.6    | 32.2   | 37.5  |
|                 |     | 46.1    | 27.2   |       |
|                 |     | 25.0    | 10.5   |       |
| 1               |     | 7       | 8      | 15    |
| KULLANILYAKAKTA |     | 46.6    | 53.3   | 52.5  |
|                 |     | 53.9    | 72.7   |       |
|                 |     | 29.1    | 33.3   |       |
| COLUMN          |     | 13      | 11     | 24    |
| TOTAL           |     | 84.1    | 45.2   | 130.2 |

CHI SQUARE = 0.8225 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 3

4 CELLS USED OF A MAXIMUM OF 34 CELLS FOR THIS RUN.  
 16896 BYTES OF MEMORY FREE.

017 SPIN VI FREQUENCY REPORT BY VLS REP. STATE INDI

VLS  
COUNT  
ROW RPT AVERAGE LEVELS REP  
REP REP AVERAGE AVERAGE TOTAL  
REP REP 2 1

017  
2 12 1 12  
VLS\_AVERAGE 121.7 3.2 124.9  
35.6 3.2  
34.7 3.2  
1 2 1 12  
VLS\_AVERAGE 12.3 34.6 46.9  
12.3 122.0  
7.6 42.2  
COLUMN 12 1 12  
TOTAL 121.7 42.2 163.9

ONE COLUMN = 12.3557 WITH 1 DEGREE OF FREEDOM.  
NUMBER OF MISSING OBSERVATIONS = 0

0 CELLS USED OF A MAXIMUM OF 27 CELLS FOR THIS RUN.  
(5566 BYTES OF MEMORY FREE.)

HARRY

V17      SMDIT VE DISSEMIN NOSTAT      BY      V02      Y011 REP. L211 DE

|             |       | V20    |        |
|-------------|-------|--------|--------|
| COUNT       |       | DEBIT  | YPRDIN |
| ROW POT     | DEBIT | YPRDIN | ROW    |
| COL POT     | DEBIT | YPRDIN | TOTAL  |
| TOT POT     | 0     | 1      |        |
| 0           | 5     | 5      | 10     |
| Y011N0X0KTA | 75.0  | 25.0   | 40.0   |
|             | 60.0  | 30.0   |        |
|             | 30.0  | 10.0   |        |
| 1           | 6     | 7      | 13     |
| Y011N0X0KTA | 45.0  | 52.0   | 52.0   |
|             | 42.0  | 70.0   |        |
|             | 24.0  | 20.0   |        |
| COLUMN      | 15    | 10     | 25     |
| TOTAL       | 60.0  | 42.0   | 100.0  |

CHI SQUARE = 2.1625 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 1

4 CELLS USED OF A MAXIMUM OF 27 CELLS FOR THIS RUN.  
 10000 BYTES OF MEMORY FREE.

20-10-1954

017 DABIF VE DEIKEN ATERAF DY VES KAL: RAS. KISA DI

[illegible]

U.S. DEPARTMENT OF AGRICULTURE      U.S. GOVERNMENT PRINTING OFFICE      1967 O - 352-000

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DATE 05-18-2011 BY 60322 UCBAW/BJS

HAPPY

V17 GARIT VE DEBISKIN KASRAFI BY VEE MALI RAP. FIYATLA

|            |   | VEE   |        |       |
|------------|---|-------|--------|-------|
| COUNT      |   | DEBIL | YARDIM | ROW   |
| ROW POT    |   |       | DI     | TOTAL |
| COL POT    |   |       |        |       |
| TOT POT    |   | 0     | 1      |       |
| V17        |   |       |        |       |
|            | 2 | 2     | 10     | 12    |
| VARILYAKTA |   | 18.5  | 82.2   | 48.0  |
|            |   | 52.6  | 45.4   |       |
|            |   | 5.0   | 43.0   |       |
|            | 1 | 1     | 12     | 13    |
| VARILYAKTA |   | 7.5   | 52.2   | 59.2  |
|            |   | 32.2  | 54.5   |       |
|            |   | 4.0   | 48.2   |       |
| COLUMN     |   | 3     | 28     | 25    |
| TOTAL      |   | 12.0  | 88.2   | 100.0 |

CHI SQUARE = 0.4756 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 1

4 CELLS USED OF A MAXIMUM OF 27 CELLS FOR THIS RUN.  
 15535 BYTES OF MEMORY FREE.

APTY

17 GABRIEL VI DEBITION YAGGAT BY VEE VALT RAP. BATHIN AL

|             |  | VEE   |        |       |
|-------------|--|-------|--------|-------|
| DEBIV       |  | DEBIV | YAGGAT | ROW   |
| ACH POT     |  | DEBIV | DE     | TOTAL |
| DEB POT     |  |       |        |       |
| TOT POT     |  | 3     | 1      |       |
| 17          |  |       |        |       |
| 2           |  | 7     | 5      | 12    |
| DEBIVANAKTA |  | 58.3  | 41.6   | 48.8  |
|             |  | 41.1  | 62.5   |       |
|             |  | 28.2  | 28.2   |       |
| 1           |  | 12    | 5      | 12    |
| DEBIVANAKTA |  | 75.6  | 23.3   | 52.2  |
|             |  | 35.8  | 37.5   |       |
|             |  | 42.2  | 12.2   |       |
| DEBIVAN     |  | 17    | 5      | 22    |
| TOTAL       |  | 58.8  | 82.8   | 120.2 |

ONE SQUARE = 3.6610 KITS. 1 DEGREE OF FREEDOM.  
 UNIT OF YAGGAT OBSERVATIONS = 1

CELLS USED AT A MAXIMUM OF 27 CELLS FOR THIS RUN.  
 5000 BYTES OF MEMORY FREE.

COPY

T CREDIT VI DESISKEN YACROF BY V24 MALI RAPOR YATERIM

| V24   |       |        |       |
|-------|-------|--------|-------|
| DEBIT | DEBIT | YACROF | ROW   |
| DEBIT | DEBIT | DEBIT  | TOTAL |
| DEBIT | DEBIT | DEBIT  | DEBIT |
| 7     | 8     | 9      | 10    |
| DEBIT | 75.0  | 25.0   | 100.0 |
|       | 50.0  | 37.5   |       |
|       | 35.0  | 18.0   |       |
| 1     | 5     | 5      | 10    |
| DEBIT | 61.0  | 38.4   | 99.4  |
|       | 47.0  | 62.5   |       |
|       | 32.2  | 20.3   |       |
| DEBIT | 17    | 8      | 25    |
| TOTAL | 66.0  | 32.0   | 100.0 |

2. SOLARIS = 0.5107 WITH 1 DEGREE OF FREEDOM.  
 AREA OF MISSING OBSERVATIONS = 1

DEBIT 100 OF 2 YACROF OF 57 DEBIT FOR THIS ROW.  
 500 BYTES OF ADVISORY FILE.

199Y

17 BASIC VE DELETED FROM BY VEE SIR. FANL. DEGREE

| COUNT     | VEE     |         | FOR TOTAL |
|-----------|---------|---------|-----------|
|           | WILLIAM | WILLIAM |           |
| FOR TOTAL | WILLIAM | WILLIAM | WILLIAM   |
| FOR TOTAL | WILLIAM | WILLIAM | WILLIAM   |
| 0         | 0       | 12      | 12        |
| WILLIAM   | 0.0     | 100.0   | 24.0      |
|           | 0.0     | 52.0    |           |
|           | 0.0     | 52.0    |           |
| 1         | 1       | 12      | 12        |
| WILLIAM   | 7.5     | 22.3    | 52.0      |
|           | 100.0   | 45.0    |           |
|           | 5.0     | 45.0    |           |
| WILLIAM   | 1       | 20      | 21        |
| TOTAL     | 3.5     | 95.1    | 100.0     |

1 SQUARE = 1.0400 WITH 1 DEGREE OF FREEDOM.  
 LAMPER IF MISSING OBSERVATIONS = 0

THIS USED OF A MAXIMUM OF 27 DILLS FOR THIS RUN.  
 5327 BYTED IF VERYBY FREE.



APPROV

177      ORBIT VE DEDICATED VACUUM BY VBS      SIR. PAUL. DEBERLO

| VBS     |        |        |       |
|---------|--------|--------|-------|
| DEBENT  |        |        |       |
| ROW POT | KULLAN | KULLAN | NEW   |
| DEL POT | ILMONG | ILMONG | TOTAL |
| TOT POT | 0      | 1      |       |
| 0       | 0      | 10     | 10    |
| 0.2     | 100.0  | 50.0   |       |
| 0.0     | 50.0   |        |       |
| 0.2     | 50.0   |        |       |
| 1       | 1      | 10     | 10    |
| 7.6     | 50.0   | 50.0   |       |
| 100.0   | 40.0   |        |       |
| 3.0     | 40.0   |        |       |
| DEBENT  | 1      | 20     | 21    |
| TOTAL   | 3.0    | 50.0   | 100.0 |

DEBENT 1.2000 NIT.      1 DEBENT IF FREELY  
 COVER OF MISTAND OBSERVATIONS = 2

1 CELLS USED OF A \*ONLY\* OF 27 CELLS FOR THIS RUN.  
 10000 BUREAU OF MISTAND FACT.

10000

V.7 SDRIT VE 1 / ALERAN YOSBY BY V27 AIR, FOOL, DEBER.

V27

SDRIT  
 ROW SD INCLAY ALERAN SDR  
 SD SD INCLAY ALERAN SDR  
 SD SD 0 0

|             |      |      |      |    |
|-------------|------|------|------|----|
| V.7         | 0    | 0    | 0    | 10 |
| VECTILYNDYD | 50.2 | 50.7 | 50.2 |    |
|             | 50.2 | 50.7 | 50.2 |    |
|             | 50.2 | 50.7 | 50.2 |    |
| V.7         | 0    | 0    | 0    | 10 |
| VECTILYNDYD | 50.2 | 50.7 | 50.2 |    |
|             | 50.2 | 50.7 | 50.2 |    |
|             | 50.2 | 50.7 | 50.2 |    |
| SDRIT       | 15   | 12   | 12   |    |
| TOTAL       | 50.2 | 50.7 | 50.2 |    |

0.1 SQUARE = 0.0011 M/M 1 SQUARE OF FREQUENCY  
 NUMBER OF BASELINE OBSERVATIONS = 0

1. DETERMINE OF A VARIETY OF 00000 PER THIS R/L  
 10000 BY THE OF VARIETY 0000.

POV

7 SART VE DESTREK MABRAF SY V28 SIR. PAAL. DEERLEY

| V28       |        |        |       |
|-----------|--------|--------|-------|
| COUNT     |        |        |       |
| ROW TOT   | MULLAN | MULLAN | ROW   |
| COL TOT   | ILNAYS | ILNAYS | TOTAL |
| TOT TOT   | ?      | ?      |       |
| 2         | 10     | 3      | 13    |
| ARILYAKTO | 76.9   | 23.0   | 53.9  |
|           | 58.0   | 33.3   |       |
|           | 38.4   | 11.5   |       |
| 1         | 7      | 6      | 13    |
| ARILYAKTO | 53.0   | 46.1   | 53.0  |
|           | 41.1   | 35.0   |       |
|           | 25.9   | 23.0   |       |
| COLLTY    | 17     | 9      | 26    |
| TOTAL     | 65.3   | 34.6   | 100.0 |

2 SLOPE = 1.5854 WTA DEGREE OF FREEDOM.  
 AREA OF MISSING OBSERVATIONS = 0

CELLS LEFT OF A MAXIMUM OF 27 CELLS FOR THIS RUN.  
 475 BYTES OF MEMORY FREE.

PAPAY

V17 SUBST VE DESIGNED W/2007 BY V20 SIA. PAOL. DUBOT

| V20        |          |          |          |
|------------|----------|----------|----------|
| COUNT      |          |          |          |
| REL. ROW   | REL. ROW | REL. ROW | REL. ROW |
| REL. ROW   | REL. ROW | REL. ROW | REL. ROW |
| REL. ROW   | REL. ROW | REL. ROW | REL. ROW |
| 0          | 11       | 2        | 13       |
| VARILYAKTA | 54.5     | 15.3     | 52.3     |
|            | 52.2     | 52.0     |          |
|            | 40.3     | 7.6      |          |
| 1          | 11       | 2        | 13       |
| VARILYAKTA | 54.5     | 15.3     | 52.3     |
|            | 52.0     | 52.0     |          |
|            | 42.3     | 7.6      |          |
| COLUMN     | 22       | 4        | 26       |
| TOTAL      | 54.5     | 15.3     | 132.3    |

ONE SOURCE = 3.0000 WITH : DEGREE OF FREEDOM  
 NUMBER OF MISSING OBSERVATIONS = 0

\* BEING USED BY A YAKILP OF 27 BELL FOR THIS RUN.  
 19187 BYED OF NINETY FIVE.

COPY

ORIGIN VE DESIGNIN MAGRAF BY V19 RAP. SISTEMENDE DM

|              |     | V19     |        |       |
|--------------|-----|---------|--------|-------|
| COUNT        |     | UYELLA  | UYELLA | FOR   |
| ROW          | POT | INXAMAK | NYAKTA | TOTAL |
| 111          | POT | 0       | 0      |       |
| URU          | 1   | 0       | 0      | 0     |
|              |     | 25.3    | 75.6   | 91.9  |
|              |     | 102.0   | 54.3   |       |
|              |     | 15.3    | 46.1   |       |
| EDILIN GASTY | 2   | 0       | 0      | 0     |
|              |     | 2.0     | 102.3  | 104.3 |
|              |     | 2.0     | 37.2   |       |
|              |     | 0.3     | 23.3   |       |
| DM. DESIGNIN | 3   | 0       | 0      | 0     |
|              |     | 0.3     | 102.2  | 102.5 |
|              |     | 0.3     | 10.1   |       |
|              |     | 0.3     | 10.3   |       |
| TOTAL        |     | 2       | 11     | 13    |
| TOTAL        |     | 15.3    | 210.2  | 225.5 |

1.4778 WITH 2 DIRECTIONS OF FREEDOM.  
 NUMBER OF DIRECTIONS OF FREEDOM = 10

11.5 USED AT A MAXIMUM OF 27 DALLS FOR THIS RUN.  
 11.25 DATES OF MEMORY TAPED.

2500

19

RAP. BISTERIADI DE CYGULP BY V20

MALL RAP. LYEN DD

2.5

LYELLANYKAKTA

LYELLANYKAKTA

|         |         | V20   |       |       |
|---------|---------|-------|-------|-------|
| COUNT   |         | DECEL | VARIO | SBR   |
| ROW SET | COL SET |       |       |       |
| SET ROW |         | 0     | 1     | TOTAL |
| 0       |         | 12    | 4     | 16    |
|         |         | 71.4  | 28.6  | 100.0 |
|         |         | 68.6  | 31.4  | 100.0 |
|         |         | 42.9  | 57.1  | 100.0 |
| 1       |         | 5     | 5     | 10    |
|         |         | 45.5  | 54.5  | 100.0 |
|         |         | 33.3  | 66.7  | 100.0 |
|         |         | 22.2  | 77.8  | 100.0 |
| COLUMN  |         | 15    | 15    | 30    |
| TOTAL   |         | 60.2  | 49.8  | 110.0 |

1.73.6 WITH 1 DEGREE OF FREEDOM.

NUMBER OF MISSING OBSERVATIONS = 1

1 CELLS USED OF A MAXIMUM OF 27 CELLS FOR THIS RAP. 1  
 10000 BYTES OF MEMORY USED.

- 1

HAPPY

-----

V19                      RAP. SYSTEMINDE BY LYBULA BY V21                      NALI RAP. K192 D1

-----

|              |         | V21   |        |       |
|--------------|---------|-------|--------|-------|
| COUNT        |         | DECEL | YAKK17 | ROW   |
| ROW POT      | COL POT |       | OT     | TOTAL |
| TOT POT      |         | 0     | 1      |       |
| V19          |         |       |        |       |
| 0            |         | 2     | 12     | 14    |
| LYBULANXAKTA |         | 14.2  | 85.7   | 99.9  |
|              |         | 42.0  | 62.0   |       |
|              |         | 8.0   | 48.8   |       |
| 1            |         | 3     | 8      | 11    |
| LYBULANXAKTA |         | 27.2  | 72.7   | 99.9  |
|              |         | 52.0  | 42.0   |       |
|              |         | 18.0  | 38.8   |       |
| COLUYN       |         | 5     | 20     | 25    |
| TOTAL        |         | 22.0  | 62.0   | 84.0  |

CHI SQUARE = 0.6484 WITH 1 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 1

4 CELLS USED OF A MAX. OF 27 CELLS FOR THIS ROW.  
 15412 BYTES OF MEMORY USED.

20000

V18 RAP. SUBSTANCION DA UYELLA BV V28 MALI RAP. FIVATLA

|              |   | V28   |        |       |
|--------------|---|-------|--------|-------|
| COUNT        |   | DEBYL | YARDIM | ROW   |
| ADW POT      |   |       | DI     | TOTAL |
| DEL POT      |   |       |        |       |
| TOT POT      |   |       |        |       |
| V19          | 3 | 2     | 12     | 14    |
| UYELLANXAKTA |   | 14.2  | 85.7   | 55.2  |
|              |   | 55.6  | 34.5   |       |
|              |   | 8.2   | 48.0   |       |
|              | 1 | 1     | 10     | 11    |
| UYELLANXAKTA |   | 9.2   | 50.9   | 44.2  |
|              |   | 33.3  | 45.4   |       |
|              |   | 4.0   | 48.8   |       |
| DEL POT      | 3 | 3     | 22     | 25    |
| TOTAL        |   | 12.2  | 88.6   | 100.8 |

177 SLIPDS = 7.1874 V170 1 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 1

4 CELLS USED OF A MAXIMUM OF 87 CELLS FOR THIS RUN.  
 15400 BYTES OF MEMORY USED.



2094

U19 APP. SYSTEM NAME DN UVELLA BY VEG XALI 300. SATIN P

| COLONY       |     | VLS  |        | REK  |       |
|--------------|-----|------|--------|------|-------|
| ROW          | COL | DISC | VARDET | DISC | TOTAL |
| COL          | ROW | 2    | 1      |      |       |
| VLS          |     |      |        |      |       |
| 3            |     | 1.8  | 6      |      | 14    |
| HYDULANWARTO |     | 37.2 | 42.2   |      | 55.2  |
|              |     | 47.2 | 73.2   |      |       |
|              |     | 32.2 | 24.2   |      |       |
| 1            |     | 5    | 2      |      | 11    |
| HYDULANWARTO |     | 81.2 | 16.1   |      | 44.2  |
|              |     | 32.2 | 25.2   |      |       |
|              |     | 32.2 | 2.2    |      |       |
| COLONY       |     | 17   | 0      |      | 25    |
| TOTAL        |     | 68.2 | 32.2   |      | 100.2 |

0000V

V19 RAR, DISTANCE BY VOLUME BY V24 NAME RAROR YATIRIN

| V24            |       |       |       |
|----------------|-------|-------|-------|
| CC INT         |       |       |       |
| ROW POT        | DEBIL | YARDI | VDA   |
| COL POT        |       | DI    | TOTAL |
| TOT POT        | 1.2   | 1     |       |
| <hr/>          |       |       |       |
| 0              | 11    | 3     | 14    |
| JYBULANNANAKTA | 78.5  | 21.4  | 56.8  |
|                | 64.7  | 37.5  |       |
|                | 44.0  | 12.0  |       |
| <hr/>          |       |       |       |
| 1              | 6     | 5     | 11    |
| JYBULANNANAKTA | 54.5  | 42.4  | 44.6  |
|                | 35.2  | 52.5  |       |
|                | 24.6  | 21.2  |       |
| <hr/>          |       |       |       |
| COLUMNS        | 17    | 8     | 25    |
| TOTAL          | 88.2  | 32.8  | 121.0 |

CHI SQUARE = 1.8241 WITH 1 DEGREE OF FREEDOM,  
NUMBER OF MISSING OBSERVATIONS = 1

1 CELLS CONTAIN A VALUE OF 17 BEING THE MAXIMUM  
10000 BYTES OF MEMORY USED.

COPY

V15      HALL, STEPHEN DE JYLLA      BY      V25      SIR. PAUL DEBERG

|              |     | V25    |        |       |
|--------------|-----|--------|--------|-------|
| COUNT        |     |        |        |       |
| ROW          | COL | YELLOW | YELLOW | RED   |
| COL          | ROW | ILYANA | ILYANA | TOTAL |
| 1            | 1   | 3      | 1      |       |
| V15          |     |        |        |       |
|              | 2   | 1      | 1      | 2     |
| YELLOW:YKATP |     | 18.8   | 52.3   | 57.6  |
|              |     | 102.0  | 25.8   |       |
|              |     | 2.8    | 53.5   |       |
| YELLOW:AKIA  |     | 3      | 11     | 14    |
|              |     | 2.8    | 113.8  | 116.3 |
|              |     | 0.8    | 24.8   |       |
|              |     | 0.7    | 12.3   |       |
| YELLOW:      |     | 1      | 28     | 29    |
| TOTAL        |     | 3.5    | 55.7   | 102.7 |

DE JYLLA = 0.7117 WITH 1 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 8

2 DEGREE JACK OF 4 WINDING BY CALL FOR THIS ROW.  
 10076 BYTES OF MEMORY FREE

P000V

P000 P1

09 001. DISTRICT OF COLUMBIA BY VCE DIR. PAUL. DEBORIE

|              |               | VCE   |       |  |
|--------------|---------------|-------|-------|--|
| COUNT        |               |       |       |  |
| ROW POT      | KULLON KULLAN | ROW   |       |  |
| COL POT      | ILYAYA ILYAKT | TOTAL |       |  |
| TOT POT      | 2             | 1     |       |  |
| 2            | 2             | 10    | 10    |  |
| YBULONVAKKTH | 0.0           | 101.0 | 57.0  |  |
|              | 0.0           | 57.0  |       |  |
|              | 0.0           | 57.0  |       |  |
| 1            | 1             | 10    | 10    |  |
| YBULONVAKKTH | 0.0           | 57.0  | 42.0  |  |
|              | 100.0         | 17.0  |       |  |
|              | 0.0           | 30.0  |       |  |
| COLLON       | 1             | 20    | 20    |  |
| TOTAL        | 0.0           | 62.0  | 101.0 |  |

01 SOURCE = 1.4100 WITH 1 DEGREE OF FREEDOM.  
NUMBER OF YIELDING OBSERVATIONS = 1

1 CELL USED OF 1 MINIMUM OF 07 CELLS FOR THIS RUN.  
BBS: BYTES OF MEMORY FREE.

00757

V19 SOL. BISTENKADE BY UYDOLP BY V27 G1R. FAAL. DEBERLI

| V27          |     |        |        |       |
|--------------|-----|--------|--------|-------|
| COUNT        |     |        |        |       |
| ROW          | DET | MULLAN | MULLAN | ROW   |
| COL          | DET | ILKONA | ILKONA | TOTAL |
| DET          | DET | 2      | 2      |       |
| V19          |     |        |        |       |
|              | 2   | 16     | 8      | 24    |
| UYELANXAKMTA |     | 66.6   | 33.3   | 57.6  |
|              |     | 62.5   | 32.3   |       |
|              |     | 36.4   | 19.2   |       |
|              | 1   | 6      | 5      | 11    |
| UYELANXAKTA  |     | 54.5   | 48.4   | 42.3  |
|              |     | 37.5   | 50.2   |       |
|              |     | 23.0   | 19.2   |       |
| COLLON       |     | 16     | 12     | 28    |
| TOTAL        |     | 61.5   | 32.4   | 102.2 |

CHI SQUARE = 0.3859 WITH 1 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 2

4 CELLS USED OF A MAXIMUM OF 97 CELLS FOR THIS ROW.  
 18347 BYTES OF MEMORY FREE.

PERFORM

-----  
 VLE 997. BYTES MADE OF DVBOLA BY VSB CIR. PAUL. DIDERL  
 -----

|                |       | VSB   |       |       |
|----------------|-------|-------|-------|-------|
| COUNT          |       |       |       |       |
| DELTA          | DELTA | DELTA | DELTA | TOTAL |
| DELTA          | DELTA | DELTA | DELTA |       |
| VLE            | 3     | 10    | 3     | 15    |
| DVBOLANMAREKTO | 22.3  | 28.7  | 57.5  |       |
|                | 72.3  | 33.3  |       |       |
|                | 48.1  | 11.5  |       |       |
| DVBOLANMAREKTO | 5     | 6     | 11    |       |
|                | 45.4  | 54.6  | 100.0 |       |
|                | 28.4  | 66.6  |       |       |
|                | 19.2  | 23.8  |       |       |
| DELTA          | 17    | 5     | 22    |       |
| TOTAL          | 45.3  | 34.6  | 120.2 |       |

CHI SQUARE = 2.3462 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 0

A CELL IS USED OF A NUMBER OF 27 CELLS FOR THIS RUN.  
 1997 BYTES OF DVBOLA PAUL.

COPY

15

RAP. SIETEMINDE DM UNBULA PY V29

SIR. FAAL. DEGERLE

15

WELLANNAKTA

WELLANNAKTA

|        |     | V29    |        |       |
|--------|-----|--------|--------|-------|
| COUNT  |     | KULLAN | KULLAN | ROW   |
| FOR    | POT | ILMAMA | ILMAMA | TOTAL |
| CEL    | POT |        |        |       |
| TOT    | POT | 2      | 1      |       |
| 2      |     | 13     | 2      | 15    |
|        |     | 26.5   | 13.2   | 57.2  |
|        |     | 55.2   | 55.2   |       |
|        |     | 52.0   | 7.2    |       |
| 1      |     | 2      | 2      | 11    |
|        |     | 51.6   | 12.1   | 42.3  |
|        |     | 42.9   | 53.2   |       |
|        |     | 34.6   | 7.6    |       |
| COLUNA |     | 22     | 4      | 26    |
| TOTAL  |     | 94.6   | 15.2   | 109.2 |

DI SQUARE = 0.1146 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 2

CELLS USED OF A MAXIMUM OF 27 CELLS FOR THIS RUN.  
 3331 BYTES OF MEMORY FREE.

COPY

V41 B. KARLINA. ANTI-FLER BY V5 BILBIBAYAR KULLANIN

|         |   | V5     |        |       |
|---------|---|--------|--------|-------|
| COUNT   |   |        |        |       |
| ROW POT |   | YARARL | YARARL | ROW   |
| COL POT |   | ANXAYA | ANAY   | TOTAL |
| TOT POT |   | 0      | 1      |       |
| V41     | 0 | 5      | 5      | 10    |
| AZALIS  |   | 45.4   | 54.5   | 45.3  |
|         |   | 41.5   | 48.5   |       |
|         |   | 19.2   | 23.3   |       |
|         | 1 | 7      | 1      | 15    |
| PRYIS   |   | 45.6   | 53.3   | 57.5  |
|         |   | 58.3   | 57.1   |       |
|         |   | 26.9   | 32.7   |       |
| COLUMN  |   | 12     | 14     | 25    |
| TOTAL   |   | 45.1   | 53.0   | 124.2 |

CHI SQUARE = 0.6433 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 0

4 CELLS USED OF 8 MAXIMUM OF 27 CELLS FOR THIS ROW.  
 18341 BYTES OF MEMORY FREE.



BAPDY

1981

V-1 B. KORI: N. AKTIPLER FY V12 P-5 VE K-2 HAZIRLA

|         |    | V13           |      |               |       |           |
|---------|----|---------------|------|---------------|-------|-----------|
| COUNT   |    | KAPITAL AYLIK |      | LD AY. DDAY A |       | RDY TOTAL |
| RDY POT | IK | 1             | 2    | 3             | 4     |           |
| COL POT | IK |               |      |               |       |           |
| TOT POT |    |               |      |               |       |           |
| V-1     | 2  | 0             | 10   | 1             | 0     | 11        |
| AZALIS  |    | 0.0           | 90.0 | 0.0           | 0.0   | 44.0      |
|         |    | 0.0           | 55.0 | 20.0          | 0.0   |           |
|         |    | 0.0           | 40.0 | 4.0           | 0.0   |           |
| ARTIS   |    | 1             | 8    | 4             | 1     | 14        |
|         |    | 7.1           | 57.1 | 20.0          | 7.1   | 55.0      |
|         |    | 100.0         | 44.4 | 20.0          | 100.0 |           |
|         |    | 4.0           | 32.0 | 16.0          | 4.0   |           |
| TOTAL   |    | 1             | 18   | 5             | 1     | 25        |
| TOTAL   |    | 4.0           | 72.0 | 20.0          | 4.0   | 100.0     |

213 SQUARE = 0.7107 WITH 2 DEGREES OF FREEDOM.  
 NUMBER OF KUBINE OBSERVATIONS =

2 CELLS USED OF A MAXIMUM OF 27 CELLS FOR THIS RUN.  
 FIELD BYTES IF MEMORY FREE.

JEP7V

V41 B. KATINA AKTIFLER BY V14 WAPOR VER. FOR AK10

| V14    |       |         |         |       |
|--------|-------|---------|---------|-------|
| COUNT  |       |         |         |       |
| ROW    | COL   | KULLAN  | KULLAN  | REV.  |
| COL    | ROW   | ILYAYIA | ILYAYIA | TOTAL |
| TOT    | ROW   | 0       | 1       |       |
| V41    | 0     | 3       | 4       | 0     |
| P14L18 |       | 55.5    | 44.4    | 37.0  |
|        |       | 41.5    | 33.3    |       |
|        |       | 20.5    | 16.6    |       |
|        | 1     | 7       | 3       | 15    |
| P14L18 |       | 42.5    | 33.3    | 62.5  |
|        |       | 55.2    | 61.6    |       |
|        |       | 29.1    | 23.3    |       |
|        |       | 12      | 12      | 24    |
|        | TOTAL | 50.0    | 50.0    | 100.0 |

CHI SQUARE = 0.1775 WITH 1 DEGREE OF FREEDOM.  
NUMBER OF MISSING OBSERVATIONS = 0

4 CELLS USED OR A MAXIMUM OF 27 CELLS FOR THIS RUN.  
18000 BYTES OF MEMORY FREE.

RPOBY

V41 E. KARIYN. AKTIFLER BY V15 KARAR VER. BAGABAY

|       |       | V12    |        |       |
|-------|-------|--------|--------|-------|
| EOLYR |       | KULLAN | KULLAN | ROW   |
| ROW   | POT   | ILKAYR | ILKAYR | TOTAL |
| COL   | POT   |        |        |       |
| ROW   | POT   | 0      | 1      |       |
| V41   | 6     | 5      | 2      | 3     |
| 22415 |       | 53.5   | 44.4   | 37.5  |
|       |       | 29.4   | 57.1   |       |
|       |       | 22.8   | 16.5   |       |
|       | 1     | 12     | 3      | 15    |
| 22415 |       | 60.6   | 26.2   | 68.3  |
|       |       | 70.5   | 48.6   |       |
|       |       | 52.2   | 12.5   |       |
|       |       | 17     | 7      | 24    |
|       | TOTAL | 70.6   | 26.1   | 120.3 |

CPI SQUARE = 1.6265 WITH 1 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 2

A TOTAL USED OF A MAXIMUM OF 27 CELLS FOR THIS RUN.  
 LEADER BYTES OF MEMORY FREE.

0000

41

2. KILLER, KILLER

BY V16

ACRPT VER. DPA ON

41

TRIALS

V16

| V16     |      |        |        |       |
|---------|------|--------|--------|-------|
| ROW     | COL  | KILLER | KILLER | ROW   |
| COL     | COL  | KILLER | KILLER | TOTAL |
| COL     | COL  | 1      | 1      |       |
| 0       | 0    | 0      | 0      | 0     |
|         | 00.0 | 00.0   | 00.0   | 00.0  |
|         | 00.0 | 00.0   | 00.0   | 00.0  |
|         | 00.0 | 00.0   | 00.0   | 00.0  |
| 1       | 0    | 0      | 0      | 0     |
|         | 00.0 | 00.0   | 00.0   | 00.0  |
|         | 00.0 | 00.0   | 00.0   | 00.0  |
|         | 00.0 | 00.0   | 00.0   | 00.0  |
| COLUMNS | 0    | 10     | 04     |       |
| TOTAL   | 00.0 | 00.0   | 00.0   | 00.0  |

2. KILLER = 7.1257 WITH 1 DEGREE OF FREEDOM.  
 1. PER OF KILLER DEVIATION = 1

1. KILLER USED IF 1. KILLER IF BY BOLD FOR THIS RUN.  
 1. KILLER USED IF 1. KILLER IF BY BOLD FOR THIS RUN.

224Y

V41      S. KARIY. A. WISLER      BY V17      GABIN VE DECEMBER X

| V17     |         |         |       |
|---------|---------|---------|-------|
| COUNT   |         |         |       |
| ROW POT | YABEILY | YABEILY | ROW   |
| COL POT | YABEILY | YABEILY | TOTAL |
| NO POT  | 0       | 1       |       |
| V41     | 0       | 5       | 6     |
| 720.12  | 45.4    | 34.5    | 41.3  |
|         | 30.4    | 45.1    |       |
|         | 19.2    | 33.0    |       |
|         | 5       | 7       | 12    |
| ARTIS   | 53.3    | 45.6    | 57.5  |
|         | 51.5    | 53.2    |       |
|         | 32.7    | 35.5    |       |
| COLUMN  | 12      | 12      | 24    |
| TOTAL   | 50.2    | 52.3    | 102.5 |

3.71 SQUARE = 0.1575 WITH 1 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 7

4 CELLS USED OF A MAXIMUM OF 27 CELLS FOR THIS RUN.  
 1353 BYTES OF MEMORY FREE.

-00000

V41      B. RARE: V10 CATTLE      BY V12      SPENT VE DESIGN IN

|         |   | V12  |         |         |       |
|---------|---|------|---------|---------|-------|
| COUNT   |   | TIME | 1951:11 | 1951:12 | ROW   |
| ROW POT |   |      | 1951:11 | 1951:12 | TOTAL |
| COL POT |   |      |         |         |       |
| TOT 90  |   |      | 2       | 3       |       |
| V41     |   |      |         |         |       |
|         | 0 | 3    | 2       | 1       | 6     |
| B14:16  |   | 50.0 | 32.3    | 10.0    | 46.1  |
|         |   | 37.3 | 55.1    | 52.7    |       |
|         |   | 32.3 | 15.3    | 7.3     |       |
| B15:16  |   | 5    | 1       | 1       | 7     |
|         |   | 71.4 | 14.2    | 14.2    | 53.0  |
|         |   | 62.5 | 33.3    | 53.0    |       |
|         |   | 33.4 | 7.5     | 7.5     |       |
| C15:16  |   | 5    | 3       | 0       | 13    |
| TOTAL   |   | 61.5 | 33.9    | 15.3    | 120.3 |

B.15 CATTLE = 2.7500 WITH 2 CATTLE OF FREEDOM.  
 NUMBER OF YIELDING CATTLE = 12

6 CATTLE LIVED ON A MAXIMUM OF 27 CATTLE FOR THIS RUN.  
 15% PARTS OF YIELDING CATTLE.

WAPRY

-----  
 VAA B. KASIN. ANTIFLET BY V19 REP. DISTINGUISH D  
 -----

|       |       | V19    |        |       |
|-------|-------|--------|--------|-------|
| COUNT |       |        |        |       |
| ROW   | POT   | BYECLA | MYECLA | ROW   |
| COL   | POT   | MYECLA | MYECLA | TOTAL |
| POT   | POT   | 2      | 1      |       |
| VAA   |       |        |        |       |
|       | 2     | 5      | 5      | 11    |
| ATLAS |       | 45.4   | 54.5   | 42.3  |
|       |       | 32.3   | 54.5   |       |
|       |       | 19.2   | 25.2   |       |
|       | 1     | 10     | 5      | 15    |
| ATLAS |       | 66.6   | 23.3   | 57.6  |
|       |       | 66.6   | 45.4   |       |
|       |       | 35.7   | 19.2   |       |
|       |       |        |        |       |
|       |       | 15     | 11     | 26    |
|       | TOTAL | 57.6   | 42.3   | 100.0 |

CHI SQUARE = 1.1666 WITH 1 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 2

\* CELLS USED IF A MAXIMUM OF 27 CELLS FOR THIS RUN.  
 1683 BYTES OF MEMORY USED.

COPY

VAL B. MARTIN. SKTAPLES BY VBE MOLI RAP. UZUN DON

|        |     | VBE   |        |          |       |
|--------|-----|-------|--------|----------|-------|
| COUNT  |     | DEBTS |        | RECEIPTS |       |
| FOR    | FOR | DEBTS | YARDEN | RECEIPTS | TOTAL |
| DEL    | DEL |       | DI     |          |       |
| TOT    | TOT | %     | %      |          |       |
| VAL    | 2   | 6     | 5      | 11       |       |
| AZALTS |     | 54.5  | 45.4   | 44.3     |       |
|        |     | 40.7  | 32.3   |          |       |
|        |     | 24.8  | 20.7   |          |       |
|        | 1   | 9     | 5      | 14       |       |
| ARTIS  |     | 64.2  | 35.7   | 56.8     |       |
|        |     | 52.0  | 50.2   |          |       |
|        |     | 36.0  | 20.0   |          |       |
| COLUMN |     | 15    | 10     | 25       |       |
| TOTAL  |     | 60.7  | 40.3   | 100.0    |       |

CHI SQUARE = 0.2433 WITH 1 DEGREES OF FREEDOM.  
NUMBER OF MISSING OBSERVATIONS = 1

4 CELLS USED OF A MAXIMUM OF 17 CELLS FOR THIS RUN.  
15.0% BYTES OF MEMORY FREE.



HAPPY

V41 B. KARIAN, ARTIFLER BY V21 MOLI RAP. KISA DON

|        | COUNT | V21   |        | ROW TOTAL |
|--------|-------|-------|--------|-----------|
|        |       | DEBIL | YARDIM |           |
|        |       | OT    | CI     |           |
|        |       | 0     | 1      |           |
| V41    | 0     | 2     | 9      | 11        |
| AZALIS |       | 18.2  | 81.8   | 100.0     |
|        |       | 42.0  | 48.0   | 90.0      |
|        |       | 8.0   | 36.7   | 44.7      |
| ARTIS  | 1     | 2     | 11     | 13        |
|        |       | 21.4  | 78.6   | 100.0     |
|        |       | 68.2  | 55.2   | 123.4     |
|        |       | 12.2  | 44.8   | 57.0      |
| COLUMN |       | 2     | 20     | 22        |
| TOTAL  |       | 20.0  | 82.0   | 102.0     |

CHI SQUARE = 2.8485 WITH 1 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 1

4 CELLS USED OF A MAXIMUM OF 27 CELLS FOR THIS RUN.  
 15177 BYTES OF MEMORY FREE.

2025

B. KASIM AKTIFLER BY V22 19-1 329, 51957-6A013

| BOLLYN |      | VERBLYN |       | TOTAL |      |
|--------|------|---------|-------|-------|------|
| BOX    | PCT  | BOX     | PCT   | BOX   | PCT  |
| 44     | 2    | 1       | 10    | 1     | 10   |
| 24118  | 5.3  | 50.5    | 44.2  | 51.8  | 44.2 |
|        | 34.6 | 45.4    |       |       |      |
|        | 4.3  | 40.7    |       |       |      |
| RT18   | 2    | 10      | 14    | 12    | 14   |
|        | 14.6 | 50.7    | 55.2  |       |      |
|        | 50.6 | 54.8    |       |       |      |
|        | 6.0  | 46.0    |       |       |      |
| BOLLYN | 2    | 22      | 15    |       |      |
| TOTAL  | 18.0 | 66.8    | 104.0 |       |      |

1. The following information was obtained from the records of the Federal Bureau of Investigation, Bureau of Prisons, and the United States Department of Justice, Office of the Inspector General, regarding the activities of the following individuals:

[illegible]

V002Y

V041 B. KATZIN. ANTIPLER BY V023 XALD BAR. BATHIN AL

|         |  | V023  |        |       |
|---------|--|-------|--------|-------|
| COUNT   |  | DEBIL | YARDIA | ROW   |
| ROW TOT |  |       | DE     | TOTAL |
| COL TOT |  |       |        |       |
| TOT TOT |  | 0     | 1      |       |
| 0       |  | 0     | 5      | 11    |
| ATLAS   |  | 54.5  | 45.4   | 44.2  |
|         |  | 35.2  | 32.3   |       |
|         |  | 24.2  | 23.9   |       |
| 1       |  | 11    | 3      | 14    |
| ARTIS   |  | 78.3  | 21.4   | 55.2  |
|         |  | 64.7  | 37.5   |       |
|         |  | 44.2  | 12.6   |       |
| CELLS   |  | 17    | 2      | 25    |
| TOTAL   |  | 66.0  | 32.2   | 100.0 |

CHI SQUARE = 1.0341 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 1

4 CELLS USED OF A MAXIMUM OF 67 CELLS FOR THIS RUN.  
 15171 BYTES OF MEMORY FREE.

COPY

-----  
 1 B. KPRINA. EXTEFLER BY V24 MALI RAPOR YATIRIM  
 -----

V24  
 PRINT  
 ROW TOT IDEAL VARDLX SEX  
 COL TOT OF TOTAL  
 TOT TOT 2 1

|        |      |      |       |
|--------|------|------|-------|
| 7      | 6    | 5    | 11    |
| 24.2   | 45.4 | 44.2 |       |
| 28.2   | 22.5 |      |       |
| 24.2   | 22.2 |      |       |
| 1      | 11   | 2    | 14    |
| 78.5   | 21.4 | 52.2 |       |
| 24.7   | 27.5 |      |       |
| 44.2   | 12.2 |      |       |
| COLLUM | 17   | 2    | 25    |
| TOTAL  | 55.2 | 23.2 | 100.2 |

1 SOURCE = 1.0341 WITH 1 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 1

CELLS USED BY A MAXIMUM OF 27 CELLS FOR THIS RUN.  
 1128 BYTES OF MEMORY USED.

WERTY

V41 B. KARTIN. ANTIFLER BY V23 SER. PAAL. DEET

|        |        | V23    |        |       |
|--------|--------|--------|--------|-------|
| COUNT  |        | KULLAN | KULLAN | ROW   |
| ROW    | POY    | ALMAYD | ALYAT  | TOTAL |
| COL    | POY    |        |        |       |
| TRY    | POY    |        |        |       |
| V41    |        | 0      | 1      |       |
|        | 0      | 0      | 11     | 11    |
| 022110 |        | 2.0    | 100.3  | 42.3  |
|        |        | 2.0    | 44.7   |       |
|        |        | 2.0    | 42.3   |       |
|        | 1      | 1      | 14     | 15    |
| 022110 |        | 5.0    | 53.2   | 57.6  |
|        |        | 100.0  | 52.0   |       |
|        |        | 3.0    | 22.0   |       |
|        | COLUMN | 1      | 25     | 26    |
|        | TOTAL  | 2.2    | 55.1   | 102.0 |

THE COLORT = 2.7007 WITH 1 DEGREE OF FREEDOM.  
 NUMBER OF NEGATIVE OBSERVATIONS = 0

3 BELLS USED IN A SAMPLE OF 27 BELLS FOR THIS RUN.  
 10147 BYTES OF MEMORY USED.

COPY

1

B. KARTON, ARTIFLER

IV VES

SIR. FAGL. DEBERLEND

1

VALID

RTIO

| COUNT  |     | VES    |        |       |
|--------|-----|--------|--------|-------|
| ROX    | ROT | KULLAY | KULLAY | REN   |
| DDL    | ROT | ELYAYO | ELBAYO | TOTAL |
| TOT    | ROT |        |        |       |
| 2      |     | 2      | 11     | 13    |
|        |     | 0.0    | 100.0  | 40.0  |
|        |     | 0.0    | 44.0   |       |
|        |     | 0.0    | 40.0   |       |
| 1      |     | 1      | 14     | 15    |
|        |     | 6.6    | 50.0   | 56.6  |
|        |     | 100.0  | 56.0   |       |
|        |     | 0.0    | 50.0   |       |
| DELUXA |     | 1      | 25     | 26    |
| TOTAL  |     | 3.0    | 50.0   | 100.0 |

1. DELUXE = 3.7547 1/10 1 DELUXE OF FREEDOM.  
 NUMBER OF VESSEL'S DELUXE = 0

DELUXE LEAD OF 4 VESSEL'S OF 27 TONS AT 1/10 1/10  
 1000 BYTES OF VESSEL'S FREE.

COPY

M4

B. VORIAN. ANTIFLER

BY V27

SIR. FRANK. DEERLEIN

M4

ZALIS

ARTIS

| V27    |      |               |       |
|--------|------|---------------|-------|
| COUNT  |      |               |       |
| RDW    | BDT  | KULLAY KULLAX | RDW   |
| CEL    | BDT  | ILYAYG ILYKAT | TOTAL |
| OT     | BDT  | 6             | 1     |
| <hr/>  |      |               |       |
| 2      | 6    | 3             | 11    |
|        | 72.7 | 27.2          | 42.3  |
|        | 52.3 | 33.8          |       |
|        | 32.7 | 11.5          |       |
| <hr/>  |      |               |       |
| 1      | 6    | 7             | 15    |
|        | 52.3 | 46.0          | 57.6  |
|        | 52.3 | 72.8          |       |
|        | 32.7 | 21.9          |       |
| <hr/>  |      |               |       |
| DOLLYN | 15   | 13            | 25    |
| TOTAL  | 61.8 | 38.4          | 122.7 |

THE COURSE = 1.2222 WITH 1 DEGREE OF FREEDOM.

NUMBER OF MISSING OBSERVATIONS = 0

CELLS USED OF A MAXIMUM OF 87 CELLS FOR THIS RUN.  
 511 BYTES OF MEMORY FREE.

100000

U44 E. KARRIN, KATZELER EV V88 SER. TAPL. DEBIRLE

|        |        | V88    |        |       |
|--------|--------|--------|--------|-------|
| COUNT  |        |        |        |       |
| ROW    | COL    | ADLLEN | ADLLEN | ROW   |
| COL    | COL    | ADLLEN | ADLLEN | TOTAL |
| ADLLEN | ADLLEN | ADLLEN | ADLLEN |       |
| U44    |        |        |        |       |
|        | 2      | 7      | 4      | 11    |
| AZALIS |        | 32.2   | 32.2   | 42.8  |
|        |        | 41.1   | 44.1   |       |
|        |        | 26.5   | 18.1   |       |
|        |        |        |        |       |
|        |        | 12     | 5      | 15    |
| ORVIS  |        | 35.3   | 33.3   | 37.3  |
|        |        | 33.2   | 33.2   |       |
|        |        | 33.4   | 15.2   |       |
|        |        |        |        |       |
|        |        | 17     | 5      | 22    |
|        |        | 35.2   | 34.2   | 43.2  |

ONE SQUARE = 3.2257 LTH : DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 0

A CELL IS USED IF A MOVING OF 50 CELLS FOR THIS ROW.  
 10125 BYTES OF MEMORY USED.



BIPY

41 E. KORTIN, KATIFLER BY V29 SIR. PAUL. DEBERLE

| V29     |        |        |       |
|---------|--------|--------|-------|
| COUNT   |        |        |       |
| FEW POT | KULLAN | KULLAN | ROW   |
| COL POT | ALMOP  | ALMOP  | TOTAL |
| TOT POT | 0      | 1      |       |
| 2       | 8      | 3      | 11    |
| 22.15   | 71.7   | 27.2   | 48.2  |
|         | 26.2   | 75.2   |       |
|         | 27.7   | 11.5   |       |
| 1       | 14     | 1      | 15    |
| 27.19   | 50.2   | 6.5    | 57.2  |
|         | 52.6   | 27.2   |       |
|         | 52.6   | 3.2    |       |
| DELIVY  | 22     | 4      | 26    |
| TOTAL   | 64.6   | 10.2   | 102.7 |

AND SQUARE = 2.2731 NOT - A DEGREE OF FREEDOM.  
 VALUE OF V29:1 INTERVATION = 0

DELLS USED IF A MAXIMUM OF 27 CILLS FOR THIS ROW.  
 SOME TYPE OF MIXED FIRM.

000000

VS4 B. HARTINBERGONE BY VS EILDISPVAR KJLLAN

|        |     | VS   |      |       |
|--------|-----|------|------|-------|
| COST   |     | VS4  | VS5  |       |
| ROW    | PTT | VS4  | VS5  | TOTAL |
| ROW    | PTT | VS4  | VS5  | TOTAL |
| ROW    | PTT | VS4  | VS5  | TOTAL |
| VS4    |     |      |      |       |
| 0      |     | 0    | 0    | 0     |
| 120.00 |     | 37.5 | 53.5 | 91.0  |
|        |     | 23.0 | 35.7 | 58.7  |
|        |     | 11.5 | 15.2 | 26.7  |
| 0      |     | 0    | 0    | 0     |
| 000000 |     | 52.0 | 52.0 | 104.0 |
|        |     | 75.0 | 64.8 | 139.8 |
|        |     | 34.5 | 24.3 | 58.8  |
| 000000 |     | 12   | 14   | 26    |
| TOTAL  |     | 46.1 | 53.8 | 99.9  |

ONE SQUARE = 0.0450 WITH 1 DIGIT OF FREEDOM.  
NUMBER OF MISSING OPERATIONS = 0

A CELL USED IF A MAXIMUM OF 27 CELLS FOR THIS RUN.  
15000 BYTES OF MEMORY FREE.





4905V

VE4 R. KATH: CZSERHAYE BV U45 X9392 V73. 20041

V:15

| COUNT |     |        |        |       |
|-------|-----|--------|--------|-------|
| ADJ   | DDT | KULLON | KULLON | REN   |
| DDT   | DDT | ELSON  | ELSON  | TOTAL |
| DDT   | DDT | 0      | 0      |       |

|         |   |      |      |       |
|---------|---|------|------|-------|
| VE1     | 2 | 2    | 4    | 7     |
| PERL 62 |   | 42.8 | 57.1 | 20.1  |
|         |   | 17.8 | 57.1 |       |
|         |   | 12.8 | 16.6 |       |
|         | 1 | 14   | 3    | 17    |
| ARTIE   |   | 62.8 | 17.6 | 72.6  |
|         |   | 62.6 | 42.8 |       |
|         |   | 15.6 | 12.8 |       |
| CELINA  |   | 17   | 7    | 24    |
| 778     |   | 71.8 | 23.1 | 102.9 |

0-7629-8773-0 U.S. \$19.95

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE

-0000

VE1 B.KARI.CZSERWAYE BY V16 KARRA VEP. DRYA 2

VE1  
 COL V  
 ROK TOT KULLAY KULLAY ROK  
 COL TOT KULLAY KULLAY TOTAL  
 TOT TOT 2 1

| VE1    | 2    | 4    | 5     | 7 |
|--------|------|------|-------|---|
| AKKLEB | 57.1 | 48.8 | 28.1  |   |
|        | 44.1 | 28.8 |       |   |
|        | 16.6 | 12.5 |       |   |
| AKKLEB | 28.1 | 72.5 | 72.5  |   |
|        | 20.6 | 20.6 |       |   |
|        | 20.6 | 20.0 |       |   |
| COL V  | 0    | 15   | 24    |   |
| TOTAL  | 37.8 | 51.8 | 101.9 |   |

AKKLEB = 1.6808 WITH 1 INCREASE OF FREEDOM.  
 TOTAL OF KULLAY KULLAY = 2

4 DILLS USED OF 5 YOKININ OF 27 DILLS FOR THIS RUN.  
 100% DILLS OF KULLAY KULLAY.

HAPPY

VE4

B. KARL: CZBERMAYE

BY V17

BAPT VE DEETEN Y

VE4

VE4-12

VE4-12

|       |     | V17      |          |       |
|-------|-----|----------|----------|-------|
| ROW   | POT | VARIABLE | VARIABLE | ROW   |
| COL   | POT | ANALYSE  | ANALYSE  | TOTAL |
| TOT   | POT | 0        | 1        |       |
|       | 0   | 4        | 4        | 8     |
|       |     | 52.2     | 52.2     | 22.7  |
|       |     | 32.7     | 32.7     |       |
|       |     | 15.3     | 15.3     |       |
|       | 1   | 5        | 5        | 10    |
|       |     | 52.2     | 52.2     | 69.2  |
|       |     | 32.7     | 32.7     |       |
|       |     | 34.6     | 34.6     |       |
| DELTA |     | 13       | 13       | 26    |
| TOTAL |     | 52.2     | 52.2     | 122.8 |

THE SQUARE = 0.0222 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 3

DELTA USED OF A MAXIMUM OF 27 DELTA FOR THIS ROW.  
 DATA ENTER OF MEYER FRED.





0000

-----

4                      B. HOLLANDER                      BY    VLS                      FOR. DISTANCE DP 4

-----

| VLS   |      |       |      |
|-------|------|-------|------|
| POINT |      |       |      |
| ADN   | PTN  | LEVEL | WVLS |
| DEL   | PTN  | WVLS  | WVLS |
| DEL   | PTN  | WVLS  | WVLS |
| 0     | 4    | 4     | 8    |
| 30.0  | 30.0 | 30.0  | 30.7 |
| 30.0  | 30.0 | 30.0  |      |
| 30.0  | 30.0 | 30.0  |      |
| 0     | 11   | 7     | 18   |
| 30.0  | 30.0 | 30.0  | 69.2 |
| 30.0  | 30.0 | 30.0  |      |
| 30.0  | 30.0 | 30.0  |      |
| 30.0  | 30.0 | 30.0  | 26   |
| 30.0  | 30.0 | 30.0  | 33.2 |

W. HOLLANDER = 0.0000 WITH 1 DEGREE OF FREQUENCY,  
 W. HOLLANDER = 0.0000 WITH 1 DEGREE OF FREQUENCY,

W. HOLLANDER = 0.0000 WITH 1 DEGREE OF FREQUENCY,  
 W. HOLLANDER = 0.0000 WITH 1 DEGREE OF FREQUENCY,



KERRY

-----  
 VBI 3. KARI:OZBERGVE BY VBI PALE PAP. KISS DOM  
 -----

|         |         | VBI   |        |              |
|---------|---------|-------|--------|--------------|
| COUNT   |         | DEBIL | VARDLY | ROW<br>TOTAL |
| ROW POT | COL POT |       |        |              |
| NOT POT | NOT POT | 0     | 1      |              |
| VBI     |         |       |        |              |
|         | 0       | 1     | 7      | 8            |
| PIRLED  |         | 12.5  | 27.5   | 38.0         |
|         |         | 20.2  | 25.2   |              |
|         |         | 4.0   | 28.0   |              |
| ARTIC   |         |       |        |              |
|         | 2       | 4     | 13     | 17           |
|         |         | 23.3  | 75.4   | 58.0         |
|         |         | 23.0  | 65.2   |              |
|         |         | 16.2  | 52.0   |              |
| COLUMN  |         | 5     | 22     | 25           |
| TOTAL   |         | 26.2  | 80.0   | 106.2        |

THE SQUARE = 2.4125 WITH 1 DEGREES OF FREEDOM.  
 NUMBER OF VIOLENCE DESTRUCTORS = 1

4 CELLS USED AS A MAXIMUM OF 87 CELLS FOR THIS RUN.  
 1000 BYTES OF MEMORY PAID.

EATRY

V61

A. KARLOVZBRYBY

BY VEB

FALL PAR. STYPYLAN

V61

AYOLO

AYYIS

|        |     | VEB  |      |      |       |
|--------|-----|------|------|------|-------|
| COUNT  |     | DATE |      | TIME |       |
| FOR    | FOR | DATE | TIME | FOR  | TOTAL |
| FOR    | FOR |      |      |      |       |
| FOR    | FOR |      |      |      |       |
|        | 2   |      | 7    |      | 3     |
|        |     | 12.3 | 27.3 |      | 22.1  |
|        |     | 22.3 | 31.3 |      |       |
|        |     | 4.3  | 25.3 |      |       |
|        | 2   |      | 15   |      | 17    |
|        |     | 11.7 | 33.3 |      | 32.3  |
|        |     | 10.0 | 22.1 |      |       |
|        |     | 3.3  | 22.3 |      |       |
| COLLYV | 2   |      | 22   |      | 23    |
| TOTAL  |     | 12.3 | 33.3 |      | 122.3 |

THE FOLLOWING = 6.00000 WITH : DEGREE OF FREQUENCY,  
 NUMBER OF STRENGTH DEVIATIONS =

4 BILLS USED OF 5.00000 OF 17 BILLS FOR THIS ALA.  
 1000 BYTES OF 1.00000 FREE.

L000V

-----

VM 2 PARTICLES/SEC/AVE BY V23 TALL RSP. BATTN ALD

-----

|         |       | V23    |       |   |
|---------|-------|--------|-------|---|
| COUNT   |       |        |       |   |
| ADN POT | IDEAL | VARDIA | RDA   |   |
| CEL POT | DE    | DE     | TOTAL |   |
| TOT POT | 2     | 1      |       |   |
| VM      | 2     | 4      | 4     | 8 |
| ADN     | 52.8  | 52.8   | 52.8  |   |
| CEL     | 23.6  | 52.8   |       |   |
| TOT     | 16.0  | 16.0   |       |   |
| ADN     | 13    | 4      | 17    |   |
| CEL     | 75.4  | 23.6   | 52.8  |   |
| TOT     | 75.4  | 52.8   |       |   |
|         | 32.0  | 16.0   |       |   |
| DOLLYN  | 17    | 2      | 25    |   |
| TOTAL   | 66.0  | 22.0   | 120.7 |   |

THE SQUARE = 1.7317 WITH 1 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS =

CELLS USED OF A MAXIMUM OF 27 CELLS FOR THIS RUN.  
 LABEL BYTES OF MEMORY FREE

COPY

VEA - - - - B. KARIKIZSSP4045 - - - - - BY - VEA - - - - - MBL: RAROR YAFIRJ

|        |     | VEA  |        |       |
|--------|-----|------|--------|-------|
| DELY   |     | DEEL | YARDIN | ROY   |
| REW    | RET |      |        | TOTAL |
| COL    | PUT |      | CH     |       |
| RET    | RET | 2    | 1      |       |
| VEA    |     |      |        |       |
|        | 2   | 5    | 2      | 5     |
| RTALRO |     | 75.8 | 25.2   | 55.2  |
|        |     | 25.2 | 25.2   |       |
|        |     | 24.2 | 6.2    |       |
|        | 1   | 11   | 5      | 17    |
| RTED   |     | 64.7 | 25.2   | 68.2  |
|        |     | 64.7 | 75.6   |       |
|        |     | 44.2 | 24.2   |       |
| DELYS  |     | 17   | 5      | 25    |
| TOTL   |     | 61.2 | 25.2   | 122.7 |

END SQUARE = 2.2045 WITH 1 DEGREE OF FREEDOM.  
 VALUES OF SIGMA 2 OBSERVATIONS = 1

A BELL LEAD OF 2 SAMPLES AT 27 HILLS FOR THIS RUN.  
 14551 BYTES OF 4-BIT FILE.

LARRY

VE4 B. KATZBERG: PYE PY VDS SIR. PAUL. DEBERL

|         |        | V13    |       |   |
|---------|--------|--------|-------|---|
| DELAY   |        |        |       |   |
| ROW POT | KILLP  | KILLR  | 30    |   |
| COL POT | 1.4000 | 1.4000 | TOTAL |   |
| ROW POT | 0      | 1      |       |   |
| VE4     | 0      | 0      | 0     | 0 |
| 0.0000  | 1.2    | 100.0  | 30.7  |   |
|         | 1.2    | 30.7   |       |   |
|         | 0.0    | 30.7   |       |   |
|         | 1      | 1      | 10    |   |
| 0.0000  | 0.0    | 0.0    | 00.0  |   |
|         | 100.0  | 00.0   |       |   |
|         | 0.0    | 00.0   |       |   |
| COLUMN  | 0      | 20     | 20    |   |
| TOTAL   | 1.0    | 00.0   | 100.0 |   |

THE SCORE = 0.0000 WITH 1 DEGREE OF FREEDOM.  
NUMBER OF CHANGES ESTIMATED = 1

3 BELLS USED BY A MAXIMUM OF 27 BELLS FOR THIS RUN.  
LATEST LIST OF MEMORY FILE.

11/17/77

-----

V61                      B.KR11:02SERVAVE                      BY V86                      SER. PAAL. DEGERL

-----

|        |     | V86    |        |       |
|--------|-----|--------|--------|-------|
| COUNT  |     |        |        |       |
| ROW    | POT | KULLAN | KULLAN | ROW   |
| COL    | POT | ILMANA | ILMANA | TOTAL |
| TOT    | POT |        |        |       |
|        |     | 0      | 1      |       |
| V61    |     |        |        |       |
|        | 0   | 0      | 0      | 0     |
| ANALYS |     | 0.2    | 100.0  | 30.7  |
|        |     | 0.0    | 30.0   |       |
|        |     | 0.0    | 30.7   |       |
|        |     |        |        |       |
|        | 1   | 1      | 17     | 18    |
| ARTIS  |     | 5.5    | 94.4   | 60.2  |
|        |     | 100.0  | 50.0   |       |
|        |     | 3.0    | 55.3   |       |
|        |     |        |        |       |
| COLUMN |     | 1      | 25     | 26    |
| TOTAL  |     | 3.0    | 60.1   | 120.0 |

CHI SQUARE = 0.4622 WITH 1 DEGREE OF FREEDOM.  
 NUMBER OF MISSING OBSERVATIONS = 0

3 CELLS USED OF A MAXIMUM OF 37 CELLS FOR THIS RUN.  
 14650 BYTES OF MEMORY USED.



APRY

SA

E. KARDICZBERGWE

BY V27

SIR. PAOL. DEBERLE

V27

| COUNT  |     |        |         |       |
|--------|-----|--------|---------|-------|
| ROW    | COL | MULLAY | KILLIAN | ROW   |
| COL    | ROW | MULLAY | KILLIAN | TOTAL |
| 1      | 1   | 2      | 6       |       |
| 2      | 1   | 2      | 2       | 4     |
|        | 2   | 75.0   | 25.0    | 30.7  |
|        | 3   | 27.0   | 23.0    |       |
|        | 4   | 23.0   | 7.0     |       |
| 1      | 1   | 10     | 5       | 15    |
|        | 2   | 22.0   | 44.4    | 60.2  |
|        | 3   | 22.0   | 22.2    |       |
|        | 4   | 23.4   | 20.7    |       |
| MULLAY |     | 10     | 10      | 20    |
| TOTAL  |     | 61.0   | 20.4    | 104.2 |

WE COLLECTED 2.2247 X 10<sup>10</sup> 2 DEGREES OF FREQUENCY.  
 USED OF HIGHER OBSERVATIONS = 0

CELLS USED OF 2 VARIANTS OF 27 CELLS FOR THIS RUN.  
 (204 BATES OF MEMORY FREE).



0000

51 B. KARPOZISENAYE BY V89 BIR. PAAL. DIGITALE

| V89    |      |      |        |        |
|--------|------|------|--------|--------|
| COLONY | SEN  | BDT  | KOL-PA | KOL-PA |
| COL    | SEN  | BDT  | ILKAYE | ILKAYE |
| TOT    | BDT  | SEN  | ILKAYE | ILKAYE |
| 01     | 0    | 5    | 0      | 5      |
| 2417E  |      | 75.7 | 25.2   | 32.7   |
|        |      | 27.2 | 32.2   |        |
|        |      | 28.2 | 7.0    |        |
|        |      | 16   | 2      | 18     |
| 4715   |      | 68.6 | 15.1   | 65.2   |
|        |      | 72.7 | 32.2   |        |
|        |      | 51.5 | 7.0    |        |
| DELUXE | 28   | 4    | 06     |        |
| TOTAL  | 64.0 | 15.2 | 102.0  |        |

BY SENATE = 0.0127 CITY : DEGREE OF FREEDOM.  
 DEGREE OF FREEDOM UNDERSTANDING = 2

WILL BE LOST IN 2 HOURS TO 27 HOURS FOR THIS RIV.  
 0.017 BYTES OF MEMORY FREE.



40000

071 1. KORNBERG 1967 BY V12 3-0 VE 4+Z H021

| COUNT |     | V12     |       |        |        | ROW<br>TOTAL |       |
|-------|-----|---------|-------|--------|--------|--------------|-------|
| ROW   | ROW | INITIAL | RYL14 | 10 RYL | DER1 5 |              |       |
| COL   | ROW | CHK     |       | CHK    | YEL14  |              |       |
| 101   | ROW |         | 1     | 2      | 3      |              |       |
|       |     |         |       |        | 4      |              |       |
| 071   | 2   | 1       | 12    | 2      | 0      | 15           |       |
|       |     | 7.6     | 70.5  | 15.3   | 0.0    | 0.0          | 103.4 |
|       |     | 123.0   | 50.0  | 40.0   | 0.0    | 0.0          |       |
|       |     | 4.0     | 42.0  | 8.0    | 0.0    | 0.0          |       |
| 072   | 2   | 2       | 5     | 3      | 1      | 11           |       |
|       |     | 1.1     | 15.0  | 10.1   | 0.2    | 0.0          | 26.4  |
|       |     | 2.0     | 44.4  | 51.1   | 120.0  | 0.0          |       |
|       |     | 0.0     | 20.0  | 10.0   | 4.0    | 0.0          |       |
| TOTAL |     | 1       | 20    | 5      | 1      | 27           |       |
| TOTAL |     | 0.0     | 72.0  | 22.0   | 4.0    | 101.0        |       |

THE GELING \* GELING WITH 3 DEGREE OF FREEDOM.  
NUMBER OF MISSING OBSERVATIONS = 1

A GELING USED AT A GELING OF 20 DEGREE FOR THIS GELING.  
GELING 2/00 OF GELING 2001.









00000

V74 D. KORT: KORTICLAR BY V18 GABIT VE DIBYOKEN

| V18    |      |      |        |        |       |
|--------|------|------|--------|--------|-------|
| DOYUN  | ROW  | COL  | TIME   | EDIBLE | ROW   |
| ROW    | COL  | TIME | K BASE | EDIBLE | TOTAL |
| 1      | 2    | 3    | 4      | 5      | 6     |
| 0      | 4    | 2    | 1      | 7      |       |
| 070-10 | 17.1 | 22.8 | 14.8   | 52.8   |       |
|        | 50.4 | 22.8 | 52.8   |        |       |
|        | 32.7 | 15.3 | 7.6    |        |       |
| 1      | 4    | 1    | 1      | 8      |       |
| 070-10 | 17.1 | 15.3 | 15.3   | 46.1   |       |
|        | 50.4 | 22.8 | 52.8   |        |       |
|        | 32.7 | 7.6  | 7.6    |        |       |
| DOYUN  | 2    | 2    | 2      | 12     |       |
| TOTAL  | 21.7 | 22.8 | 15.3   | 100.8  |       |

070-10 = 0.0775 LIT - 2 LITERS OF FREEDOM.  
 NUMBER OF VIOLENCE INCIDENTS = 12

070-10 LIT IF 0.0775 LIT OF 20 LITERS FOR THIS ROW.  
 15000 LITERS OF VIOLENCE FREE.

COPY

74 D. MARK. ORTOLAT BY V18 GERTON VS DEBLOVIN

| V18   |      |      |      |       |
|-------|------|------|------|-------|
| ROW   | TIME | EDU  | ADU  | ADU   |
| EDU   | EDU  | EDU  | EDU  | EDU   |
| EDU   | EDU  | EDU  | EDU  | EDU   |
| 0     | 4    | 2    | 1    | 7     |
| 7A-13 | 57.1 | 28.8 | 14.8 | 100.8 |
|       | 53.1 | 22.1 | 51.2 |       |
|       | 54.7 | 15.2 | 7.1  |       |
| 7B-13 | 4    | 1    | 1    | 6     |
|       | 51.6 | 12.8 | 11.1 | 10.1  |
|       | 52.2 | 22.0 | 52.2 |       |
|       | 53.7 | 17.1 | 7.1  |       |
| EDU   | 2    | 1    | 2    | 13    |
| TOTAL | 61.8 | 23.3 | 15.1 | 110.2 |

EDU = 0.0578 100% 100% 100% 100%  
 EDU = 0.0578 100% 100% 100% 100%

EDU = 0.0578 100% 100% 100% 100%  
 EDU = 0.0578 100% 100% 100% 100%

00000

74

P. K. 11:55:10.00

BY V22

WALD REP. WFL: 100

74

ZOLIS

THIS

|         |   | V22   |        |       |
|---------|---|-------|--------|-------|
| COUNT   |   | DEBIL | WARDIV | ROM   |
| ROW PCT |   |       | DE     | TOTAL |
| DEL PCT |   |       |        |       |
| DEL PCT |   |       |        |       |
|         | 2 | 7     | 6      | 13    |
|         |   | 53.8  | 40.1   | 52.0  |
|         |   | 48.6  | 50.3   |       |
|         |   | 20.0  | 24.3   |       |
|         | 1 | 6     | 4      | 12    |
|         |   | 55.5  | 33.3   | 40.2  |
|         |   | 51.3  | 43.2   |       |
|         |   | 32.0  | 15.0   |       |
|         |   |       |        |       |
|         |   | 15    | 17     | 25    |
| TOTAL   |   | 51.3  | 43.2   | 103.2 |

W. K. 11:55:10.00 P. K. 11:55:10.00 : DEBILIT IN FREEDOM.  
 WFL: 100 WFL: 100 WFL: 100

PLEASE USED OF A FOLDER OF 20 BILLS FOR THIS 100.  
 BILLS IN THE OF 100-100. BILLS.



DRY

.....  
E. KARLSTEDT 21 BY VED VALL 300. FLYOTLAND  
.....

|           |         | VLR  |       |              |
|-----------|---------|------|-------|--------------|
| POINT     |         | DEEL | VRADN | ROK<br>TOTAL |
| ACW FET   | DEL FOT |      |       |              |
| - 11 100  |         | 2    | 1     |              |
| 1<br>CLID | 2       | 0    | 11    | 12           |
|           |         | 12.3 | 30.3  | 42.6         |
|           |         | 10.1 | 10.3  |              |
|           |         | 3.3  | 74.3  |              |
| TIG       | 1       | 1    | 11    | 12           |
|           |         | 5.3  | 31.3  | 42.6         |
|           |         | 33.3 | 31.3  |              |
|           |         | 7.1  | 74.3  |              |
| TOTAL     |         | 2    | 22    | 24           |
| TOTAL     |         | 12.3 | 31.3  | 42.7         |

.....  
SLORE = 1.2503 WIT 1 DISKED OF PRIMER  
OER OF RESERVE OBSERVATION = 1

.....  
THIS LIST OF 2 POINTS IS BE HELD FOR THIS DAY  
AL DATED OF MARCH 1941.

ADBY

71 E. KORDISON TOWER SY V23 100.0 100.0 100.0 100.0

|       | V23     |       |        |
|-------|---------|-------|--------|
|       | COUNT   |       |        |
|       | ROW POT | DEBIT | WORDLY |
|       | COL POT |       | TOTAL  |
|       | ROW POT |       |        |
| 71    | 0       | 0     | 0      |
| VALID |         | 61.5  | 36.4   |
|       |         | 47.7  | 32.5   |
|       |         | 32.0  | 32.0   |
|       | 5       | 5     | 5      |
| RTT   |         | 78.2  | 28.7   |
|       |         | 32.5  | 37.5   |
|       |         | 36.0  | 32.0   |
| DEBIT | 17      | 5     | 25     |
| TOTAL | 68.3    | 32.7  | 101.0  |

0 60.000 = 2.3197 100.0 100.0 100.0 100.0  
 100.0 100.0 100.0 100.0

DEBIT 100.0 100.0 100.0 100.0  
 100.0 100.0 100.0 100.0

D. WARDENFILLER

BY VBA

NO. 1 ROBOE VENTURE

12/1

DEBIT

| ROW | DATE | AMOUNT | TOTAL  |
|-----|------|--------|--------|
| 1   | 12/1 | 10.0   | 10.0   |
| 2   | 12/1 | 10.0   | 20.0   |
| 3   | 12/1 | 10.0   | 30.0   |
| 4   | 12/1 | 10.0   | 40.0   |
| 5   | 12/1 | 10.0   | 50.0   |
| 6   | 12/1 | 10.0   | 60.0   |
| 7   | 12/1 | 10.0   | 70.0   |
| 8   | 12/1 | 10.0   | 80.0   |
| 9   | 12/1 | 10.0   | 90.0   |
| 10  | 12/1 | 10.0   | 100.0  |
| 11  | 12/1 | 10.0   | 110.0  |
| 12  | 12/1 | 10.0   | 120.0  |
| 13  | 12/1 | 10.0   | 130.0  |
| 14  | 12/1 | 10.0   | 140.0  |
| 15  | 12/1 | 10.0   | 150.0  |
| 16  | 12/1 | 10.0   | 160.0  |
| 17  | 12/1 | 10.0   | 170.0  |
| 18  | 12/1 | 10.0   | 180.0  |
| 19  | 12/1 | 10.0   | 190.0  |
| 20  | 12/1 | 10.0   | 200.0  |
| 21  | 12/1 | 10.0   | 210.0  |
| 22  | 12/1 | 10.0   | 220.0  |
| 23  | 12/1 | 10.0   | 230.0  |
| 24  | 12/1 | 10.0   | 240.0  |
| 25  | 12/1 | 10.0   | 250.0  |
| 26  | 12/1 | 10.0   | 260.0  |
| 27  | 12/1 | 10.0   | 270.0  |
| 28  | 12/1 | 10.0   | 280.0  |
| 29  | 12/1 | 10.0   | 290.0  |
| 30  | 12/1 | 10.0   | 300.0  |
| 31  | 12/1 | 10.0   | 310.0  |
| 32  | 12/1 | 10.0   | 320.0  |
| 33  | 12/1 | 10.0   | 330.0  |
| 34  | 12/1 | 10.0   | 340.0  |
| 35  | 12/1 | 10.0   | 350.0  |
| 36  | 12/1 | 10.0   | 360.0  |
| 37  | 12/1 | 10.0   | 370.0  |
| 38  | 12/1 | 10.0   | 380.0  |
| 39  | 12/1 | 10.0   | 390.0  |
| 40  | 12/1 | 10.0   | 400.0  |
| 41  | 12/1 | 10.0   | 410.0  |
| 42  | 12/1 | 10.0   | 420.0  |
| 43  | 12/1 | 10.0   | 430.0  |
| 44  | 12/1 | 10.0   | 440.0  |
| 45  | 12/1 | 10.0   | 450.0  |
| 46  | 12/1 | 10.0   | 460.0  |
| 47  | 12/1 | 10.0   | 470.0  |
| 48  | 12/1 | 10.0   | 480.0  |
| 49  | 12/1 | 10.0   | 490.0  |
| 50  | 12/1 | 10.0   | 500.0  |
| 51  | 12/1 | 10.0   | 510.0  |
| 52  | 12/1 | 10.0   | 520.0  |
| 53  | 12/1 | 10.0   | 530.0  |
| 54  | 12/1 | 10.0   | 540.0  |
| 55  | 12/1 | 10.0   | 550.0  |
| 56  | 12/1 | 10.0   | 560.0  |
| 57  | 12/1 | 10.0   | 570.0  |
| 58  | 12/1 | 10.0   | 580.0  |
| 59  | 12/1 | 10.0   | 590.0  |
| 60  | 12/1 | 10.0   | 600.0  |
| 61  | 12/1 | 10.0   | 610.0  |
| 62  | 12/1 | 10.0   | 620.0  |
| 63  | 12/1 | 10.0   | 630.0  |
| 64  | 12/1 | 10.0   | 640.0  |
| 65  | 12/1 | 10.0   | 650.0  |
| 66  | 12/1 | 10.0   | 660.0  |
| 67  | 12/1 | 10.0   | 670.0  |
| 68  | 12/1 | 10.0   | 680.0  |
| 69  | 12/1 | 10.0   | 690.0  |
| 70  | 12/1 | 10.0   | 700.0  |
| 71  | 12/1 | 10.0   | 710.0  |
| 72  | 12/1 | 10.0   | 720.0  |
| 73  | 12/1 | 10.0   | 730.0  |
| 74  | 12/1 | 10.0   | 740.0  |
| 75  | 12/1 | 10.0   | 750.0  |
| 76  | 12/1 | 10.0   | 760.0  |
| 77  | 12/1 | 10.0   | 770.0  |
| 78  | 12/1 | 10.0   | 780.0  |
| 79  | 12/1 | 10.0   | 790.0  |
| 80  | 12/1 | 10.0   | 800.0  |
| 81  | 12/1 | 10.0   | 810.0  |
| 82  | 12/1 | 10.0   | 820.0  |
| 83  | 12/1 | 10.0   | 830.0  |
| 84  | 12/1 | 10.0   | 840.0  |
| 85  | 12/1 | 10.0   | 850.0  |
| 86  | 12/1 | 10.0   | 860.0  |
| 87  | 12/1 | 10.0   | 870.0  |
| 88  | 12/1 | 10.0   | 880.0  |
| 89  | 12/1 | 10.0   | 890.0  |
| 90  | 12/1 | 10.0   | 900.0  |
| 91  | 12/1 | 10.0   | 910.0  |
| 92  | 12/1 | 10.0   | 920.0  |
| 93  | 12/1 | 10.0   | 930.0  |
| 94  | 12/1 | 10.0   | 940.0  |
| 95  | 12/1 | 10.0   | 950.0  |
| 96  | 12/1 | 10.0   | 960.0  |
| 97  | 12/1 | 10.0   | 970.0  |
| 98  | 12/1 | 10.0   | 980.0  |
| 99  | 12/1 | 10.0   | 990.0  |
| 100 | 12/1 | 10.0   | 1000.0 |

|         |      |      |      |
|---------|------|------|------|
| COLLECT | 17   | 0    | 17   |
| TOTAL   | 11.7 | 10.0 | 21.7 |

1. COLLECT - 17/01/1971 - 1. DEBIT - 10.00/1971  
 2. TOTAL - 21.70/1971 - 1. DEBIT - 10.00/1971

1. DEBIT - 10.00/1971 - 1. DEBIT - 10.00/1971  
 2. TOTAL - 21.70/1971 - 1. DEBIT - 10.00/1971

000000

V74 3.42015011214 BY VAS 214. 2201. 12121.

V75  
 20127  
 20127 20127 20127 20127  
 20127 20127 20127 20127  
 20127 20127 20127 20127

V74  
 2 7 3 2  
 2201.5 2.2 102.2 50.2  
 2.2 50.2  
 2.2 50.2

2 7 3 2  
 2201.5 2.2 102.2 50.2  
 2.2 50.2  
 2.2 50.2

20127 20127 20127  
 20127 20127 20127

20127 20127 20127 20127 20127 20127  
 20127 20127 20127 20127 20127 20127

20127 20127 20127 20127 20127 20127  
 20127 20127 20127 20127 20127 20127



COPY

COPY

V74 E. K. R. I. S. T. I. E. L. S. BY VES SIO. SPAL. DIBER.

|       |     | VES     |         |       |
|-------|-----|---------|---------|-------|
| COUNT |     | KILLIAN | KILLIAN | REV   |
| ROW   | POI | ALWAYS  | ALWAYS  | TOTAL |
| COL   | POI |         |         |       |
| TOT   | POI | 7       | 1       |       |
| V74   | 3   | 2       | 10      | 12    |
| AVG   |     | 0.2     | 102.0   | 50.0  |
|       |     | 0.2     | 50.0    |       |
|       |     | 0.3     | 51.0    |       |
|       | 1   | 1       | 12      | 12    |
| AVG   |     | 7.0     | 50.0    | 50.0  |
|       |     | 100.0   | 40.0    |       |
|       |     | 3.5     | 40.0    |       |
|       |     | 1       | 25      | 26    |
| TOTAL |     | 3.0     | 90.0    | 102.0 |

ONE SQUARE = 1.0401 KMP 1 SQUARE OF SPEED/4.  
 NUMBER OF MISSING DISCREPANCIES = 2

3 CILLS USED OF A VOLTAGE OF 20 FIELDS FOR THIS CL.  
 15000 BYTES OF MEMORY FILE.

3. WORKSHEET

BY VET

SUB. CASH. DEDUCTIONS

VET

DEBIT

| DEBIT | DEBIT | DEBIT | DEBIT |
|-------|-------|-------|-------|
| DEBIT | DEBIT | DEBIT | DEBIT |
| DEBIT | DEBIT | DEBIT | DEBIT |

10

6

|       |       |      |       |
|-------|-------|------|-------|
| DEBIT | 1.15  | 1    | 15    |
| TOTAL | 151.5 | 38.4 | 172.7 |

PLEASE PRINT NAME OF PARTY TO WHOM THIS CHECK IS ISSUED  
 NO. OF CHECKS ISSUED IN THE YEAR

THIS CHECK IS PAYABLE TO THE ORDER OF THE  
 PAYEE OF THE PAYEE

1. 2. 3.

... (1997) ...

22 6-25

62-7594-22

|          | DOLE | COLLINS | WILLIAMS | STANLEY |
|----------|------|---------|----------|---------|
| 0.175    | 8    | 5       | 13       |         |
|          | 5.5  | 38.4    | 59.3     |         |
|          | 47.6 | 55.5    |          |         |
|          | 30.7 | 15.3    |          |         |
| 0.175    | 8    | 4       | 13       |         |
|          | 35.8 | 31.7    | 59.3     |         |
|          | 32.3 | 44.2    |          |         |
|          | 34.4 | 18.3    |          |         |
| DOLE     | 7    | 5       | 31       |         |
| WILLIAMS | 35.3 | 34.5    | 130.7    |         |

0400Y

| 74 | 3. 400Y187181.49 | BY | V25 | STP. | PAO. | DEBUTS |
|----|------------------|----|-----|------|------|--------|
|----|------------------|----|-----|------|------|--------|

74

TALKE

TALKE

| V25     |        |        |      |
|---------|--------|--------|------|
| DEBUT   |        |        |      |
| FOR IT  | KILLER | KILLER | 21.4 |
| CEL. 20 | 21.400 | 21.400 | 21.4 |
| CEL. 20 | 0      | 0      | 0    |
| TALKE   |        |        |      |
| 1       | 18     | 3      | 13   |
| 73.6    | 17.6   | 59.6   |      |
| 45.4    | 73.4   |        |      |
| 32.4    | 11.6   |        |      |
| TALKE   |        |        |      |
| 1       | 18     | 1      | 17   |
| 92.3    | 7.6    | 81.3   |      |
| 61.5    | 25.3   |        |      |
| 11.7    | 3.6    |        |      |
| DEBUT   |        |        |      |
| 22      | 4      | 36     |      |
| 21.6    | 13.2   | 103.2  |      |

1. BELOW = 1.1118 V25 - 1.1118 DEBUTS OF PROBABLY  
 LAYER OF MISSING OBSERVATIONS = 2

1.1118 DEBUT OF 0.1118 V25 OF 0.1118 DEBUT FOR 1.1118  
 1.1118 DEBUT OF 0.1118 V25.



01000

VE1      SCHEDULED BY 1477      BY VIZ      E-8 VE A-1      0217

| VIZ     |       |          |      |       |       |
|---------|-------|----------|------|-------|-------|
| COUNT   |       |          |      |       |       |
| ROW     | BY    | OFFICIAL | BY   | DEPT  | BY    |
| NO.     | BY    | NO.      | BY   | NO.   | BY    |
| 1       | 2     | 3        | 4    | 5     | 6     |
| VE1     | 0     | 0        | 0    | 0     | 0     |
| STALKE  | 0.0   | 100.0    | 0.0  | 0.0   | 04.0  |
|         | 0.0   | 10.0     | 0.0  | 0.0   |       |
|         | 0.0   | 14.0     | 0.0  | 0.0   |       |
| ARTIS   | 0     | 10       | 0    | 1     | 10    |
|         | 0.0   | 10.0     | 0.0  | 0.0   | 70.0  |
|         | 100.0 | 10.0     | 10.0 | 100.0 |       |
|         | 4.0   | 10.0     | 10.0 | 4.0   |       |
| DELIVER | 1     | 10       | 0    | 1     | 10    |
| TOTAL   | 4.0   | 10.0     | 10.0 | 4.0   | 100.0 |

1-1 COLUMN = 0.0712 IN. 0 BULBES OF PRESSURE.  
 1-1 COLUMN OF 0.0712 IN. 0 BULBES OF PRESSURE.

1-1 COLUMN OF 0.0712 IN. 0 BULBES OF PRESSURE.  
 1-1 COLUMN OF 0.0712 IN. 0 BULBES OF PRESSURE.

BATTLESTAR IN AKTIFLO7

BY V14

KAPOR V14. FOR PKD

V14  
 COUNT  
 TOP 100 111104 111104 751  
 DEL 100 111104 111104 751  
 TOP 100 0 1

|      | 0    | 3    | 5    | 6 |
|------|------|------|------|---|
| 0.75 | 52.2 | 50.2 | 52.2 |   |
|      | 55.2 | 55.2 |      |   |
|      | 12.5 | 12.5 |      |   |

|      | 5    | 5    | 18   |
|------|------|------|------|
| 0.75 | 52.2 | 50.2 | 75.2 |
|      | 75.2 | 75.2 |      |
|      | 37.5 | 37.5 |      |

|       | 18   | 18   | 24    |
|-------|------|------|-------|
| TOTAL | 52.2 | 50.2 | 102.2 |

600000 = 1.11104 111104 111104 751  
 1000000 = 1.11104 111104 111104 751

THE A LOT OF 1.11104 111104 111104 751  
 1000000 = 1.11104 111104 111104 751

ENDING PERIOD: 12/31/77

BY: VLE

APPROVED: [Signature]

DATE: 12/31/77  
 TIME: 11:00 AM  
 PAGE: 1

|   |       |       |       |
|---|-------|-------|-------|
| 1 | 100.0 | 100.0 | 100.0 |
| 2 | 100.0 | 100.0 | 100.0 |
| 3 | 100.0 | 100.0 | 100.0 |

|   |       |       |       |
|---|-------|-------|-------|
| 4 | 100.0 | 100.0 | 100.0 |
| 5 | 100.0 | 100.0 | 100.0 |
| 6 | 100.0 | 100.0 | 100.0 |

DATE: 12/31/77  
 TIME: 11:00 AM  
 PAGE: 2

ENDING PERIOD: 12/31/77  
 BY: VLE  
 APPROVED: [Signature]

ENDING PERIOD: 12/31/77  
 BY: VLE  
 APPROVED: [Signature]



81 DOWNEY, KATHLEEN BY VIA KERR, WILSON, IRON, ON

31  
 3 2 4 3  
 32.3 35.5 33.2  
 22.3 33.1  
 8.2 33.1  
 3 7 11 12  
 33.2 31.1 73.3  
 77.7 73.2  
 45.1 33.5  
 3 13 34  
 37.5 32.5 34.1

31 EDWARD E. WILSON, JR. 123456789  
 123456789 123456789 123456789

31 123456789 123456789 123456789  
 123456789 123456789 123456789

B1

SATELLE: A. EXTENDER

BY V17

SATELLE VI DTD: 04/17/87

B1

ZS178

FILE

|         |      | V17    |        |       |
|---------|------|--------|--------|-------|
| COLINT  |      | VAR17  | VAR17D | FE    |
| ROW 507 |      | VAR17P | VAR17D | TOTAL |
| ROW 507 |      | VAR17P | VAR17D |       |
| ROW 507 |      | VAR17P | VAR17D |       |
| 0       | 0    | 0      | 0      | 0     |
|         | 33.3 | 33.3   | 33.3   | 33.3  |
|         | 33.3 | 33.3   | 33.3   | 33.3  |
|         | 7.2  | 7.2    | 7.2    | 7.2   |
| 1       | 11   | 11     | 11     | 11    |
|         | 33.3 | 33.3   | 33.3   | 33.3  |
|         | 33.3 | 33.3   | 33.3   | 33.3  |
|         | 7.2  | 7.2    | 7.2    | 7.2   |
| COLINT  | 10   | 10     | 10     | 10    |
| TOTAL   | 33.3 | 33.3   | 33.3   | 33.3  |

AS ORDERED BY C. 10177 LINES 1 DEPENDS OF FREEDOM.  
 POINT OF VIEW: 0 DEPENDS OF FREEDOM

DEVELOPMENT OF A MAXIMUM OF 25 LINES FOR THIS ROW.  
 MAY BEYOND OF MEMORY FREE.



ADP

1

SATTELRARY, COTIFLET

BY VLS

POP. SIXTEENDE JY

1

ADP

ADP

DELAY  
 ROW POT 1000.00 1000.00  
 DEL POT 1000.00 1000.00  
 TOT POT 2

| 0    | 2    | 2    | 2    |
|------|------|------|------|
| 20.0 | 20.0 | 20.0 | 20.0 |
| 15.0 | 15.0 | 15.0 | 15.0 |
| 7.0  | 7.0  | 7.0  | 7.0  |

| 1    | 12   | 7    | 93   |
|------|------|------|------|
| 20.0 | 20.0 | 20.0 | 20.0 |
| 15.0 | 15.0 | 15.0 | 15.0 |
| 7.0  | 7.0  | 7.0  | 7.0  |

| ADP   | 15   | 11   | 12    |
|-------|------|------|-------|
| TOTAL | 27.1 | 42.0 | 104.7 |

SOURCE = 1.0000 1.0000 1.0000 1.0000  
 AREA OF CIRCULAR INTERSECTION

CELLS USED OF 1.0000 1.0000 1.0000 1.0000  
 100 BYTES OF MEMORY FREE

SECRET 075353

25 252

1. The first group of authors (e.g., Berman, 1984; Berman & O'Leary, 1985; Berman & O'Leary, 1986; Berman & O'Leary, 1987; Berman & O'Leary, 1988; Berman & O'Leary, 1989; Berman & O'Leary, 1990; Berman & O'Leary, 1991; Berman & O'Leary, 1992; Berman & O'Leary, 1993; Berman & O'Leary, 1994; Berman & O'Leary, 1995; Berman & O'Leary, 1996; Berman & O'Leary, 1997; Berman & O'Leary, 1998; Berman & O'Leary, 1999; Berman & O'Leary, 2000; Berman & O'Leary, 2001; Berman & O'Leary, 2002; Berman & O'Leary, 2003; Berman & O'Leary, 2004; Berman & O'Leary, 2005; Berman & O'Leary, 2006; Berman & O'Leary, 2007; Berman & O'Leary, 2008; Berman & O'Leary, 2009; Berman & O'Leary, 2010; Berman & O'Leary, 2011; Berman & O'Leary, 2012; Berman & O'Leary, 2013; Berman & O'Leary, 2014; Berman & O'Leary, 2015; Berman & O'Leary, 2016; Berman & O'Leary, 2017; Berman & O'Leary, 2018; Berman & O'Leary, 2019; Berman & O'Leary, 2020; Berman & O'Leary, 2021; Berman & O'Leary, 2022; Berman & O'Leary, 2023; Berman & O'Leary, 2024; Berman & O'Leary, 2025) have shown that the use of humor in the workplace can lead to increased productivity and job satisfaction. This is because humor can help to reduce stress and create a more positive work environment. Additionally, humor can be used as a tool for conflict resolution and team building.

V23

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

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Figure 1. Schematic representation of the experimental design. The subjects were divided into two groups: the control group and the experimental group. The control group received a standard diet and water, while the experimental group received a diet supplemented with 0.5% of the active ingredient. The subjects were then subjected to a 10-day period of physical training. The results of the experiment are shown in the bar graphs.

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THESE RESULTS ARE IN ACCORD WITH THE FINDINGS OF OTHER STUDIES THAT HAVE SHOWN THAT THE USE OF A SINGLE-STEP PROCESS CAN BE EFFECTIVE IN IMPROVING THE QUALITY OF THE WORKING ENVIRONMENT AND THE WELL-BEING OF THE WORKERS.

1. (a)  $\frac{1}{2}$  (b)  $\frac{1}{2}$  (c)  $\frac{1}{2}$  (d)  $\frac{1}{2}$  (e)  $\frac{1}{2}$  (f)  $\frac{1}{2}$  (g)  $\frac{1}{2}$  (h)  $\frac{1}{2}$  (i)  $\frac{1}{2}$  (j)  $\frac{1}{2}$  (k)  $\frac{1}{2}$  (l)  $\frac{1}{2}$  (m)  $\frac{1}{2}$  (n)  $\frac{1}{2}$  (o)  $\frac{1}{2}$  (p)  $\frac{1}{2}$  (q)  $\frac{1}{2}$  (r)  $\frac{1}{2}$  (s)  $\frac{1}{2}$  (t)  $\frac{1}{2}$  (u)  $\frac{1}{2}$  (v)  $\frac{1}{2}$  (w)  $\frac{1}{2}$  (x)  $\frac{1}{2}$  (y)  $\frac{1}{2}$  (z)  $\frac{1}{2}$

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Source: *U.S. Census Bureau, Bureau of Economic Analysis, "Gross Domestic Product by State, 1997-2000,"* <http://www.bea.gov/states/gdp>.

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WILLIAM W. WALKER

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1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

7-16-80

NO DELAY = 2.10E+07 : DELIVERED BY TRAINING,  
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1. *Phragmites australis* (Cav.) Trin. ex Steud. 2. *Scirpus americanus* L. 3. *Scirpus setaceus* L. 4. *Scirpus robustus* (L.) Kunze 5. *Scirpus polyphyllus* (L.) Kunze 6. *Scirpus subterminalis* (L.) Kunze 7. *Scirpus subulatus* (L.) Kunze 8. *Scirpus subulatus* (L.) Kunze 9. *Scirpus subulatus* (L.) Kunze 10. *Scirpus subulatus* (L.) Kunze 11. *Scirpus subulatus* (L.) Kunze 12. *Scirpus subulatus* (L.) Kunze 13. *Scirpus subulatus* (L.) Kunze 14. *Scirpus subulatus* (L.) Kunze 15. *Scirpus subulatus* (L.) Kunze 16. *Scirpus subulatus* (L.) Kunze 17. *Scirpus subulatus* (L.) Kunze 18. *Scirpus subulatus* (L.) Kunze 19. *Scirpus subulatus* (L.) Kunze 20. *Scirpus subulatus* (L.) Kunze 21. *Scirpus subulatus* (L.) Kunze 22. *Scirpus subulatus* (L.) Kunze 23. *Scirpus subulatus* (L.) Kunze 24. *Scirpus subulatus* (L.) Kunze 25. *Scirpus subulatus* (L.) Kunze 26. *Scirpus subulatus* (L.) Kunze 27. *Scirpus subulatus* (L.) Kunze 28. *Scirpus subulatus* (L.) Kunze 29. *Scirpus subulatus* (L.) Kunze 30. *Scirpus subulatus* (L.) Kunze 31. *Scirpus subulatus* (L.) Kunze 32. *Scirpus subulatus* (L.) Kunze 33. *Scirpus subulatus* (L.) Kunze 34. *Scirpus subulatus* (L.) Kunze 35. *Scirpus subulatus* (L.) Kunze 36. *Scirpus subulatus* (L.) Kunze 37. *Scirpus subulatus* (L.) Kunze 38. *Scirpus subulatus* (L.) Kunze 39. *Scirpus subulatus* (L.) Kunze 40. *Scirpus subulatus* (L.) Kunze 41. *Scirpus subulatus* (L.) Kunze 42. *Scirpus subulatus* (L.) Kunze 43. *Scirpus subulatus* (L.) Kunze 44. *Scirpus subulatus* (L.) Kunze 45. *Scirpus subulatus* (L.) Kunze 46. *Scirpus subulatus* (L.) Kunze 47. *Scirpus subulatus* (L.) Kunze 48. *Scirpus subulatus* (L.) Kunze 49. *Scirpus subulatus* (L.) Kunze 50. *Scirpus subulatus* (L.) Kunze 51. *Scirpus subulatus* (L.) Kunze 52. *Scirpus subulatus* (L.) Kunze 53. *Scirpus subulatus* (L.) Kunze 54. *Scirpus subulatus* (L.) Kunze 55. *Scirpus subulatus* (L.) Kunze 56. *Scirpus subulatus* (L.) Kunze 57. *Scirpus subulatus* (L.) Kunze 58. *Scirpus subulatus* (L.) Kunze 59. *Scirpus subulatus* (L.) Kunze 60. *Scirpus subulatus* (L.) Kunze 61. *Scirpus subulatus* (L.) Kunze 62. *Scirpus subulatus* (L.) Kunze 63. *Scirpus subulatus* (L.) Kunze 64. *Scirpus subulatus* (L.) Kunze 65. *Scirpus subulatus* (L.) Kunze 66. *Scirpus subulatus* (L.) Kunze 67. *Scirpus subulatus* (L.) Kunze 68. *Scirpus subulatus* (L.) Kunze 69. *Scirpus subulatus* (L.) Kunze 70. *Scirpus subulatus* (L.) Kunze 71. *Scirpus subulatus* (L.) Kunze 72. *Scirpus subulatus* (L.) Kunze 73. *Scirpus subulatus* (L.) Kunze 74. *Scirpus subulatus* (L.) Kunze 75. *Scirpus subulatus* (L.) Kunze 76. *Scirpus subulatus* (L.) Kunze 77. *Scirpus subulatus* (L.) Kunze 78. *Scirpus subulatus* (L.) Kunze 79. *Scirpus subulatus* (L.) Kunze 80. *Scirpus subulatus* (L.) Kunze 81. *Scirpus subulatus* (L.) Kunze 82. *Scirpus subulatus* (L.) Kunze 83. *Scirpus subulatus* (L.) Kunze 84. *Scirpus subulatus* (L.) Kunze 85. *Scirpus subulatus* (L.) Kunze 86. *Scirpus subulatus* (L.) Kunze 87. *Scirpus subulatus* (L.) Kunze 88. *Scirpus subulatus* (L.) Kunze 89. *Scirpus subulatus* (L.) Kunze 90. *Scirpus subulatus* (L.) Kunze 91. *Scirpus subulatus* (L.) Kunze 92. *Scirpus subulatus* (L.) Kunze 93. *Scirpus subulatus* (L.) Kunze 94. *Scirpus subulatus* (L.) Kunze 95. *Scirpus subulatus* (L.) Kunze 96. *Scirpus subulatus* (L.) Kunze 97. *Scirpus subulatus* (L.) Kunze 98. *Scirpus subulatus* (L.) Kunze 99. *Scirpus subulatus* (L.) Kunze 100. *Scirpus subulatus* (L.) Kunze

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Figure 1 illustrates the experimental setup. A participant is seated at a table, looking at a video screen. A camera is positioned above the screen. A target is visible on the screen. A horizontal bar is positioned between the participant and the screen. A vertical bar is positioned between the camera and the screen. A horizontal bar is positioned between the participant and the camera. A vertical bar is positioned between the camera and the target. A horizontal bar is positioned between the participant and the target. A vertical bar is positioned between the camera and the target. A horizontal bar is positioned between the participant and the target. A vertical bar is positioned between the camera and the target.

1. 1990年12月1日以前，在北京市区范围内，凡从事过本职业的人员，均可申报。

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE

THE 1980-81 FISCAL YEAR OF THE DISTRICT OF COLUMBIA  
WAS THE FIRST YEAR IN WHICH THE DISTRICT HAS A BUDGET SURPLUS.







PBY

1 SATURDAY, APRIL 7 BY VEE AIR. TOTAL DISTANCE

VEE  
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 L                      SPOTSLER, CONTINUED                      BY VAC                      DIA. PAOL. DINTALEN  
 -----

| VAC    |           |           |        |
|--------|-----------|-----------|--------|
| REPORT | ROLL A    | ROLL B    | ROLL C |
| PERIOD | 1940-1941 | 1941-1942 | TOTAL  |
| PERIOD | 1         | 2         | 3      |
| 0      | 3         | 2         | 5      |
| 00.0   | 50.0      | 50.1      | 100.1  |
| 17.0   | 17.0      | 17.0      |        |
| 11.0   | 11.0      | 11.0      |        |
| 1      | 11        | 2         | 13     |
| 72.0   | 72.0      | 11.0      | 83.0   |
| 00.0   | 00.0      | 00.0      |        |
| 00.0   | 00.0      | 00.0      |        |
| ROLL A | 17        | 2         | 19     |
| TOTAL  | 11.1      | 20.0      | 31.1   |

1. SPOTSLER 1 0007 1111 DETAIL OF FASBIT  
 YEAR OF VESTING 1941-1942 1 1 2

DELE LOID OF A 10000 OF 20 DALLS FOR 1110 1111  
 300 DATED OF VESTING 1941

BAYVIEW, N. ANTIPOLES

BY VEC

AIR. MAG. 2788.100

VIB

COUNT

| ROW | BIT | KULLAN | KULLAN | ADN  |
|-----|-----|--------|--------|------|
| COL | BIT | ILPANA | ILPANA | TIME |
| TOT | BIT | 0      | 1      |      |

|      |      |      |   |
|------|------|------|---|
| 7    | 5    | 1    | 1 |
| 88.5 | 16.2 | 22.2 |   |
| 22.7 | 25.0 |      |   |
| 19.2 | 3.6  |      |   |

|      |      |      |
|------|------|------|
| 17   | 3    | 22   |
| 85.3 | 13.0 | 75.1 |
| 77.2 | 72.6 |      |
| 55.2 | 11.5 |      |

|         |      |     |       |
|---------|------|-----|-------|
| COLLINA | 20   | 4   | 22    |
| TOTAL   | 21.2 | 1.2 | 122.7 |

ISLAND - 2. LINE 107 - 2. DETERMINED BY THERMID.  
IN OF CLOSING CIRCUMSTANCES =

AS LEAD OF A MOVINGLY OF 22 DILLI NEW T110 210.  
DAYS OF 21.14 21.12.



EXPERIMENTAL DATA

IN USE

3-3-61 K-2

EXPERIMENTAL

USE

NO. 1

| NO. 1 | NO. 2 | NO. 3 | NO. 4 | NO. 5 | NO. 6 | NO. 7 | NO. 8 | NO. 9 | NO. 10 | NO. 11 | NO. 12 | NO. 13 | NO. 14 | NO. 15 | NO. 16 | NO. 17 | NO. 18 | NO. 19 | NO. 20 | NO. 21 | NO. 22 | NO. 23 | NO. 24 | NO. 25 | NO. 26 | NO. 27 | NO. 28 | NO. 29 | NO. 30 | NO. 31 | NO. 32 | NO. 33 | NO. 34 | NO. 35 | NO. 36 | NO. 37 | NO. 38 | NO. 39 | NO. 40 | NO. 41 | NO. 42 | NO. 43 | NO. 44 | NO. 45 | NO. 46 | NO. 47 | NO. 48 | NO. 49 | NO. 50 | NO. 51 | NO. 52 | NO. 53 | NO. 54 | NO. 55 | NO. 56 | NO. 57 | NO. 58 | NO. 59 | NO. 60 | NO. 61 | NO. 62 | NO. 63 | NO. 64 | NO. 65 | NO. 66 | NO. 67 | NO. 68 | NO. 69 | NO. 70 | NO. 71 | NO. 72 | NO. 73 | NO. 74 | NO. 75 | NO. 76 | NO. 77 | NO. 78 | NO. 79 | NO. 80 | NO. 81 | NO. 82 | NO. 83 | NO. 84 | NO. 85 | NO. 86 | NO. 87 | NO. 88 | NO. 89 | NO. 90 | NO. 91 | NO. 92 | NO. 93 | NO. 94 | NO. 95 | NO. 96 | NO. 97 | NO. 98 | NO. 99 | NO. 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
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NO. 1

NO. 2

| NO. 1 | NO. 2 | NO. 3 | NO. 4 | NO. 5 | NO. 6 | NO. 7 | NO. 8 | NO. 9 | NO. 10 | NO. 11 | NO. 12 | NO. 13 | NO. 14 | NO. 15 | NO. 16 | NO. 17 | NO. 18 | NO. 19 | NO. 20 | NO. 21 | NO. 22 | NO. 23 | NO. 24 | NO. 25 | NO. 26 | NO. 27 | NO. 28 | NO. 29 | NO. 30 | NO. 31 | NO. 32 | NO. 33 | NO. 34 | NO. 35 | NO. 36 | NO. 37 | NO. 38 | NO. 39 | NO. 40 | NO. 41 | NO. 42 | NO. 43 | NO. 44 | NO. 45 | NO. 46 | NO. 47 | NO. 48 | NO. 49 | NO. 50 | NO. 51 | NO. 52 | NO. 53 | NO. 54 | NO. 55 | NO. 56 | NO. 57 | NO. 58 | NO. 59 | NO. 60 | NO. 61 | NO. 62 | NO. 63 | NO. 64 | NO. 65 | NO. 66 | NO. 67 | NO. 68 | NO. 69 | NO. 70 | NO. 71 | NO. 72 | NO. 73 | NO. 74 | NO. 75 | NO. 76 | NO. 77 | NO. 78 | NO. 79 | NO. 80 | NO. 81 | NO. 82 | NO. 83 | NO. 84 | NO. 85 | NO. 86 | NO. 87 | NO. 88 | NO. 89 | NO. 90 | NO. 91 | NO. 92 | NO. 93 | NO. 94 | NO. 95 | NO. 96 | NO. 97 | NO. 98 | NO. 99 | NO. 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|

EXPERIMENTAL DATA IN USE 3-3-61 K-2 EXPERIMENTAL

EXPERIMENTAL DATA IN USE 3-3-61 K-2 EXPERIMENTAL



5472048-02 02-00-00

BY VIA

WATER WTR. 02/04/02

VIA

| ITEM       | QUANTITY | UNIT PRICE | TOTAL |
|------------|----------|------------|-------|
| 5472048-02 | 1        | 0.00       | 0.00  |
| 5472048-02 | 1        | 0.00       | 0.00  |
| 5472048-02 | 1        | 0.00       | 0.00  |

|      |      |      |   |
|------|------|------|---|
| 0    | 2    | 0    | 7 |
| 42.0 | 57.0 | 28.0 |   |
| 28.0 | 57.0 | 28.0 |   |
| 12.0 | 12.0 |      |   |

|      |      |      |    |
|------|------|------|----|
| 0    | 5    | 5    | 17 |
| 32.0 | 47.2 | 72.0 |    |
| 73.0 | 66.0 |      |    |
| 67.0 | 12.0 |      |    |

|          |      |      |       |
|----------|------|------|-------|
| 02/04/02 | 12   | 12   | 24    |
| TOTAL    | 50.0 | 50.0 | 100.0 |

5472048-02 02-00-00 1 RELEASED IF FREEDOM  
 5472048-02 02-00-00 1 = 5

ILLUSTRATION OF A VEHICLE IF IS WILE FOR THIS RIV.  
 72 RIVTS OF 10-04-02.

373Y

1 OPTIC/VIDEO SERVICE BY VIE HARRIS VER. BACCHIO

| VIE  |      |          |     |
|------|------|----------|-----|
| DATE | TIME | LOCATION | PER |
| DATE | TIME | LOCATION | PER |
| DATE | TIME | LOCATION | PER |
| 2    | 8    | 2        | 7   |
| 71.1 | 23.0 | 23.1     |     |
| 10.0 | 23.3 |          |     |
| 23.5 | 1.7  |          |     |
| 2    | 8    | 2        | 7   |
| 71.8 | 23.1 | 71.0     |     |
| 70.5 | 7.4  |          |     |
| 51.1 | 21.3 |          |     |
| 17   | 7    | 51       |     |
| 70.8 | 25.1 | 132.0    |     |

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FDY

4

SPOT/PERIODZ SERVICE

BY VSE

DATE: VER. 0804 001

4

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VIS

| POINT   | REX  | REV  | WILLON | WILLON | BOX |
|---------|------|------|--------|--------|-----|
| DEL     | DEL  | DEL  | DEL    | DEL    | DEL |
| W       | W    | W    | W      | W      | W   |
| 1       | 1    | 1    | 5      | 7      |     |
| 14.2    | 15.7 | 25.1 |        |        |     |
| 17.1    | 42.2 |      |        |        |     |
| 4.1     | 22.0 |      |        |        |     |
| 1       | 1    | 1    | 17     |        |     |
| 17.2    | 22.2 | 72.0 |        |        |     |
| 25.2    | 22.2 |      |        |        |     |
| 32.2    | 27.2 |      |        |        |     |
| DELIVER | 9    | 12   | 24     |        |     |
| TOTAL   | 27.2 | 62.2 | 120.2  |        |     |

1 SOURCE = 0.2722 LIT - 1 DIBBEN IF FISHED.  
 WEEK IF MISSING ESTIMATE = 2

WILLON USED IF 1 - ONLY IF 24 WILLON FOR THIS DEL.  
 ITS DATED IF NO DRY FILE

01 CALCULATED DEFENSE BY 0.7 BODILY VE DEFENSE

| V17     |        |        |       |
|---------|--------|--------|-------|
| DEFENSE | Y00114 | Y00114 | DEF   |
| DEF POT | Y00114 | Y00114 | TOTAL |
| DEF POT | 0      | 1      |       |
| 01      | 1      | 1      | 2     |
| 70.10   | 53.0   | 51.0   | 104.0 |
|         | 51.7   | 51.7   |       |
|         | 11.3   | 19.1   |       |
| 01      | 5      | 5      | 10    |
| 70.10   | 53.0   | 51.1   | 104.1 |
|         | 55.2   | 55.2   |       |
|         | 74.2   | 51.0   |       |
| DEFENSE | 12     | 12     | 24    |
| TOTAL   | 57.1   | 51.7   | 108.8 |

DEFENSE = 0.2222 DEFENSE DEFENSE OF DEFENSE  
DEFENSE OF DEFENSE DEFENSE = 0

DEFENSE OF DEFENSE OF DEFENSE OF DEFENSE  
DEFENSE OF DEFENSE OF DEFENSE





COPY

PAGE 17

54 SATISLARIU BIRMANE 37 VE2 741 307 LILN DEN

|         |   | VE2  |        |       |
|---------|---|------|--------|-------|
| CO. 001 |   | DEED | YARDIN | 120   |
| KIN POT |   | DE   |        | TIME  |
| DOL POT |   |      |        |       |
| TET POT |   |      |        |       |
| 54      | 0 | 5    | 5      | 5     |
| 70118   |   | 65.5 | 37.5   | 32.0  |
|         |   | 32.0 | 20.0   |       |
|         |   | 20.0 | 12.0   |       |
| ARTIE   | 1 | 10   | 7      | 12    |
|         |   | 55.3 | 41.1   | 50.3  |
|         |   | 65.6 | 72.0   |       |
|         |   | 40.0 | 20.0   |       |
|         |   |      |        |       |
| TOTAL   |   | 15   | 17     | 18    |
| TOTAL   |   | 60.0 | 40.0   | 120.0 |

THE ABOVE = 3.0000 MET. : DISTANCE OF FREEDOM  
 NUMBER OF VESSELS OBSERVED = 1

WILLER USED OF 2 VESSELS IN IT CALLS FOR THE 100  
 5014 BY 10 IF VESSEL FREE

0000

-----

VEI

| DATE | TIME | VEI | VEI | VEI |
|------|------|-----|-----|-----|
| 01   | 01   | 01  | 01  | 01  |
| 02   | 02   | 02  | 02  | 02  |
| 03   | 03   | 03  | 03  | 03  |
| 04   | 04   | 04  | 04  | 04  |
| 05   | 05   | 05  | 05  | 05  |
| 06   | 06   | 06  | 06  | 06  |
| 07   | 07   | 07  | 07  | 07  |
| 08   | 08   | 08  | 08  | 08  |
| 09   | 09   | 09  | 09  | 09  |
| 10   | 10   | 10  | 10  | 10  |
| 11   | 11   | 11  | 11  | 11  |
| 12   | 12   | 12  | 12  | 12  |
| 13   | 13   | 13  | 13  | 13  |
| 14   | 14   | 14  | 14  | 14  |
| 15   | 15   | 15  | 15  | 15  |
| 16   | 16   | 16  | 16  | 16  |
| 17   | 17   | 17  | 17  | 17  |
| 18   | 18   | 18  | 18  | 18  |
| 19   | 19   | 19  | 19  | 19  |
| 20   | 20   | 20  | 20  | 20  |
| 21   | 21   | 21  | 21  | 21  |
| 22   | 22   | 22  | 22  | 22  |
| 23   | 23   | 23  | 23  | 23  |
| 24   | 24   | 24  | 24  | 24  |
| 25   | 25   | 25  | 25  | 25  |
| 26   | 26   | 26  | 26  | 26  |
| 27   | 27   | 27  | 27  | 27  |
| 28   | 28   | 28  | 28  | 28  |
| 29   | 29   | 29  | 29  | 29  |
| 30   | 30   | 30  | 30  | 30  |
| 31   | 31   | 31  | 31  | 31  |
| 32   | 32   | 32  | 32  | 32  |
| 33   | 33   | 33  | 33  | 33  |
| 34   | 34   | 34  | 34  | 34  |
| 35   | 35   | 35  | 35  | 35  |
| 36   | 36   | 36  | 36  | 36  |
| 37   | 37   | 37  | 37  | 37  |
| 38   | 38   | 38  | 38  | 38  |
| 39   | 39   | 39  | 39  | 39  |
| 40   | 40   | 40  | 40  | 40  |
| 41   | 41   | 41  | 41  | 41  |
| 42   | 42   | 42  | 42  | 42  |
| 43   | 43   | 43  | 43  | 43  |
| 44   | 44   | 44  | 44  | 44  |
| 45   | 45   | 45  | 45  | 45  |
| 46   | 46   | 46  | 46  | 46  |
| 47   | 47   | 47  | 47  | 47  |
| 48   | 48   | 48  | 48  | 48  |
| 49   | 49   | 49  | 49  | 49  |
| 50   | 50   | 50  | 50  | 50  |
| 51   | 51   | 51  | 51  | 51  |
| 52   | 52   | 52  | 52  | 52  |
| 53   | 53   | 53  | 53  | 53  |
| 54   | 54   | 54  | 54  | 54  |
| 55   | 55   | 55  | 55  | 55  |
| 56   | 56   | 56  | 56  | 56  |
| 57   | 57   | 57  | 57  | 57  |
| 58   | 58   | 58  | 58  | 58  |
| 59   | 59   | 59  | 59  | 59  |
| 60   | 60   | 60  | 60  | 60  |
| 61   | 61   | 61  | 61  | 61  |
| 62   | 62   | 62  | 62  | 62  |
| 63   | 63   | 63  | 63  | 63  |
| 64   | 64   | 64  | 64  | 64  |
| 65   | 65   | 65  | 65  | 65  |
| 66   | 66   | 66  | 66  | 66  |
| 67   | 67   | 67  | 67  | 67  |
| 68   | 68   | 68  | 68  | 68  |
| 69   | 69   | 69  | 69  | 69  |
| 70   | 70   | 70  | 70  | 70  |
| 71   | 71   | 71  | 71  | 71  |
| 72   | 72   | 72  | 72  | 72  |
| 73   | 73   | 73  | 73  | 73  |
| 74   | 74   | 74  | 74  | 74  |
| 75   | 75   | 75  | 75  | 75  |
| 76   | 76   | 76  | 76  | 76  |
| 77   | 77   | 77  | 77  | 77  |
| 78   | 78   | 78  | 78  | 78  |
| 79   | 79   | 79  | 79  | 79  |
| 80   | 80   | 80  | 80  | 80  |
| 81   | 81   | 81  | 81  | 81  |
| 82   | 82   | 82  | 82  | 82  |
| 83   | 83   | 83  | 83  | 83  |
| 84   | 84   | 84  | 84  | 84  |
| 85   | 85   | 85  | 85  | 85  |
| 86   | 86   | 86  | 86  | 86  |
| 87   | 87   | 87  | 87  | 87  |
| 88   | 88   | 88  | 88  | 88  |
| 89   | 89   | 89  | 89  | 89  |
| 90   | 90   | 90  | 90  | 90  |
| 91   | 91   | 91  | 91  | 91  |
| 92   | 92   | 92  | 92  | 92  |
| 93   | 93   | 93  | 93  | 93  |
| 94   | 94   | 94  | 94  | 94  |
| 95   | 95   | 95  | 95  | 95  |
| 96   | 96   | 96  | 96  | 96  |
| 97   | 97   | 97  | 97  | 97  |
| 98   | 98   | 98  | 98  | 98  |
| 99   | 99   | 99  | 99  | 99  |
| 100  | 100  | 100 | 100 | 100 |

VEI

VEI



001

-----  
 1                    BATTLE-PRICE SURVIVE                    BY VLO                    VTL RPT. FIVE-1000  
 -----

| VDS    |     |       |         |       |
|--------|-----|-------|---------|-------|
| FROM   |     |       |         |       |
| REL    | REL | FIELD | VARIOUS | NEW   |
| REL    | REL |       |         | TOTAL |
| 1      | 1   | 2     | 1       |       |
|        | 2   | 1     | 7       | 6     |
| 5-22   |     | 11.6  | 57.1    | 32.1  |
|        |     | 23.3  | 31.6    |       |
|        |     | 4.2   | 28.3    |       |
|        | 3   | 6     | 15      | 17    |
|        |     | 11.7  | 35.8    | 32.8  |
|        |     | 33.3  | 11.7    |       |
|        |     | 6.8   | 20.2    |       |
| RELAYS | 3   | 60    | 16      |       |
| TOTAL  |     | 11.7  | 11.7    | 11.7  |

1. BEFORE - 5.0000 WITH 1.0000 OF FIVE-1000.  
 FROM OF 10000 10000.0000 0.0000

FIELD USED OF 0.0000 OF 25 CELLS PER 1000. 11.7  
 11.7 11.7 11.7 11.7 11.7

1. 1. 1.

[illegible]

24 423

1000 320 3000 2000

453

1. DATE \_\_\_\_\_

2. NAME \_\_\_\_\_

3. ADDRESS \_\_\_\_\_

4. CITY \_\_\_\_\_

5. STATE \_\_\_\_\_

6. ZIP \_\_\_\_\_

7. PHONE \_\_\_\_\_

8. TELETYPE \_\_\_\_\_

9. FAX \_\_\_\_\_

10. E-MAIL \_\_\_\_\_

11. WEB \_\_\_\_\_

12. OTHER \_\_\_\_\_

13. REMARKS \_\_\_\_\_

14. SIGNATURE \_\_\_\_\_

15. DATE \_\_\_\_\_

16. NAME \_\_\_\_\_

17. ADDRESS \_\_\_\_\_

18. CITY \_\_\_\_\_

19. STATE \_\_\_\_\_

20. ZIP \_\_\_\_\_

21. PHONE \_\_\_\_\_

22. TELETYPE \_\_\_\_\_

23. FAX \_\_\_\_\_

24. E-MAIL \_\_\_\_\_

25. WEB \_\_\_\_\_

26. OTHER \_\_\_\_\_

27. REMARKS \_\_\_\_\_

28. SIGNATURE \_\_\_\_\_

29. DATE \_\_\_\_\_

30. NAME \_\_\_\_\_

31. ADDRESS \_\_\_\_\_

32. CITY \_\_\_\_\_

33. STATE \_\_\_\_\_

34. ZIP \_\_\_\_\_

35. PHONE \_\_\_\_\_

36. TELETYPE \_\_\_\_\_

37. FAX \_\_\_\_\_

38. E-MAIL \_\_\_\_\_

39. WEB \_\_\_\_\_

40. OTHER \_\_\_\_\_

41. REMARKS \_\_\_\_\_

42. SIGNATURE \_\_\_\_\_

43. DATE \_\_\_\_\_

44. NAME \_\_\_\_\_

45. ADDRESS \_\_\_\_\_

46. CITY \_\_\_\_\_

47. STATE \_\_\_\_\_

48. ZIP \_\_\_\_\_

49. PHONE \_\_\_\_\_

50. TELETYPE \_\_\_\_\_

51. FAX \_\_\_\_\_

52. E-MAIL \_\_\_\_\_

53. WEB \_\_\_\_\_

54. OTHER \_\_\_\_\_

55. REMARKS \_\_\_\_\_

56. SIGNATURE \_\_\_\_\_

57. DATE \_\_\_\_\_

58. NAME \_\_\_\_\_

59. ADDRESS \_\_\_\_\_

60. CITY \_\_\_\_\_

61. STATE \_\_\_\_\_

62. ZIP \_\_\_\_\_

63. PHONE \_\_\_\_\_

64. TELETYPE \_\_\_\_\_

65. FAX \_\_\_\_\_

66. E-MAIL \_\_\_\_\_

67. WEB \_\_\_\_\_

68. OTHER \_\_\_\_\_

69. REMARKS \_\_\_\_\_

70. SIGNATURE \_\_\_\_\_

71. DATE \_\_\_\_\_

72. NAME \_\_\_\_\_

73. ADDRESS \_\_\_\_\_

74. CITY \_\_\_\_\_

75. STATE \_\_\_\_\_

76. ZIP \_\_\_\_\_

77. PHONE \_\_\_\_\_

78. TELETYPE \_\_\_\_\_

79. FAX \_\_\_\_\_

80. E-MAIL \_\_\_\_\_

81. WEB \_\_\_\_\_

82. OTHER \_\_\_\_\_

83. REMARKS \_\_\_\_\_

84. SIGNATURE \_\_\_\_\_

85. DATE \_\_\_\_\_

86. NAME \_\_\_\_\_

87. ADDRESS \_\_\_\_\_

88. CITY \_\_\_\_\_

89. STATE \_\_\_\_\_

90. ZIP \_\_\_\_\_

91. PHONE \_\_\_\_\_

92. TELETYPE \_\_\_\_\_

93. FAX \_\_\_\_\_

94. E-MAIL \_\_\_\_\_

95. WEB \_\_\_\_\_

96. OTHER \_\_\_\_\_

97. REMARKS \_\_\_\_\_

98. SIGNATURE \_\_\_\_\_

99. DATE \_\_\_\_\_

100. NAME \_\_\_\_\_

101. ADDRESS \_\_\_\_\_

102. CITY \_\_\_\_\_

103. STATE \_\_\_\_\_

104. ZIP \_\_\_\_\_

105. PHONE \_\_\_\_\_

106. TELETYPE \_\_\_\_\_

107. FAX \_\_\_\_\_

108. E-MAIL \_\_\_\_\_

109. WEB \_\_\_\_\_

110. OTHER \_\_\_\_\_

111. REMARKS \_\_\_\_\_

112. SIGNATURE \_\_\_\_\_

113. DATE \_\_\_\_\_

114. NAME \_\_\_\_\_

115. ADDRESS \_\_\_\_\_

116. CITY \_\_\_\_\_

117. STATE \_\_\_\_\_

118. ZIP \_\_\_\_\_

119. PHONE \_\_\_\_\_

120. TELETYPE \_\_\_\_\_

121. FAX \_\_\_\_\_

122. E-MAIL \_\_\_\_\_

123. WEB \_\_\_\_\_

124. OTHER \_\_\_\_\_

125. REMARKS \_\_\_\_\_

126. SIGNATURE \_\_\_\_\_

127. DATE \_\_\_\_\_

128. NAME \_\_\_\_\_

129. ADDRESS \_\_\_\_\_

130. CITY \_\_\_\_\_

131. STATE \_\_\_\_\_

132. ZIP \_\_\_\_\_

133. PHONE \_\_\_\_\_

134. TELETYPE \_\_\_\_\_

135. FAX \_\_\_\_\_

136. E-MAIL \_\_\_\_\_

137. WEB \_\_\_\_\_

138. OTHER \_\_\_\_\_

139. REMARKS \_\_\_\_\_

140. SIGNATURE \_\_\_\_\_

141. DATE \_\_\_\_\_

142. NAME \_\_\_\_\_

143. ADDRESS \_\_\_\_\_

144. CITY \_\_\_\_\_

145. STATE \_\_\_\_\_

146. ZIP \_\_\_\_\_

147. PHONE \_\_\_\_\_

148. TELETYPE \_\_\_\_\_

149. FAX \_\_\_\_\_

150. E-MAIL \_\_\_\_\_

151. WEB \_\_\_\_\_

152. OTHER \_\_\_\_\_

153. REMARKS \_\_\_\_\_

154. SIGNATURE \_\_\_\_\_

155. DATE \_\_\_\_\_

156. NAME \_\_\_\_\_

157. ADDRESS \_\_\_\_\_

158. CITY \_\_\_\_\_

159. STATE \_\_\_\_\_

160. ZIP \_\_\_\_\_

161. PHONE \_\_\_\_\_

162. TELETYPE \_\_\_\_\_

163. FAX \_\_\_\_\_

164. E-MAIL \_\_\_\_\_

165. WEB \_\_\_\_\_

166. OTHER \_\_\_\_\_

167. REMARKS \_\_\_\_\_

168. SIGNATURE \_\_\_\_\_

169. DATE \_\_\_\_\_

170. NAME \_\_\_\_\_

171. ADDRESS \_\_\_\_\_

172. CITY \_\_\_\_\_

173. STATE \_\_\_\_\_

174. ZIP \_\_\_\_\_

175. PHONE \_\_\_\_\_

176. TELETYPE \_\_\_\_\_

177. FAX \_\_\_\_\_

178. E-MAIL \_\_\_\_\_

179. WEB \_\_\_\_\_

180. OTHER \_\_\_\_\_

181. REMARKS \_\_\_\_\_

182. SIGNATURE \_\_\_\_\_

183. DATE \_\_\_\_\_

184. NAME \_\_\_\_\_

185. ADDRESS \_\_\_\_\_

186. CITY \_\_\_\_\_

187. STATE \_\_\_\_\_

188. ZIP \_\_\_\_\_

189. PHONE \_\_\_\_\_

190. TELETYPE \_\_\_\_\_

191. FAX \_\_\_\_\_

192. E-MAIL \_\_\_\_\_

193. WEB \_\_\_\_\_

194. OTHER \_\_\_\_\_

195. REMARKS \_\_\_\_\_

196. SIGNATURE \_\_\_\_\_

197. DATE \_\_\_\_\_

198. NAME \_\_\_\_\_

199. ADDRESS \_\_\_\_\_

200. CITY \_\_\_\_\_

201. STATE \_\_\_\_\_

202. ZIP \_\_\_\_\_

203. PHONE \_\_\_\_\_

204. TELETYPE \_\_\_\_\_

205. FAX \_\_\_\_\_

206. E-MAIL \_\_\_\_\_

207. WEB \_\_\_\_\_

208. OTHER \_\_\_\_\_

209. REMARKS \_\_\_\_\_

210. SIGNATURE \_\_\_\_\_

211. DATE \_\_\_\_\_

212. NAME \_\_\_\_\_

213. ADDRESS \_\_\_\_\_

214. CITY \_\_\_\_\_

215. STATE \_\_\_\_\_

216. ZIP \_\_\_\_\_

217. PHONE \_\_\_\_\_

218. TELETYPE \_\_\_\_\_

219. FAX \_\_\_\_\_

220. E-MAIL \_\_\_\_\_

221. WEB \_\_\_\_\_

222. OTHER \_\_\_\_\_

223. REMARKS \_\_\_\_\_

224. SIGNATURE \_\_\_\_\_

225. DATE \_\_\_\_\_

226. NAME \_\_\_\_\_

227. ADDRESS \_\_\_\_\_

228. CITY \_\_\_\_\_

229. STATE \_\_\_\_\_

230. ZIP \_\_\_\_\_

231. PHONE \_\_\_\_\_

232. TELETYPE \_\_\_\_\_

233. FAX \_\_\_\_\_

234. E-MAIL \_\_\_\_\_

235. WEB \_\_\_\_\_

236. OTHER \_\_\_\_\_

237. REMARKS \_\_\_\_\_

238. SIGNATURE \_\_\_\_\_

239. DATE \_\_\_\_\_

240. NAME \_\_\_\_\_

241. ADDRESS \_\_\_\_\_

242

1. *Chlorophyll a* (Chl *a*)

١٠٠

07-10 07 0 11  
07-10 07 0 11

[illegible]

ALL LEAD OF A POLICE OFFICER IS PAID AT THE RATE  
OF \$100 PER MONTH.







D7V

4 80718-40117 512741 IV V18 80718-40117 512741

| V18  |      |      |      |
|------|------|------|------|
| DATE | TIME | WIND | WAVE |
| 1    | 1    | 1    | 1    |
| 2    | 2    | 2    | 2    |
| 3    | 3    | 3    | 3    |
| 4    | 4    | 4    | 4    |
| 5    | 5    | 5    | 5    |
| 6    | 6    | 6    | 6    |
| 7    | 7    | 7    | 7    |
| 8    | 8    | 8    | 8    |
| 9    | 9    | 9    | 9    |
| 10   | 10   | 10   | 10   |
| 11   | 11   | 11   | 11   |
| 12   | 12   | 12   | 12   |
| 13   | 13   | 13   | 13   |
| 14   | 14   | 14   | 14   |
| 15   | 15   | 15   | 15   |
| 16   | 16   | 16   | 16   |
| 17   | 17   | 17   | 17   |
| 18   | 18   | 18   | 18   |
| 19   | 19   | 19   | 19   |
| 20   | 20   | 20   | 20   |
| 21   | 21   | 21   | 21   |
| 22   | 22   | 22   | 22   |
| 23   | 23   | 23   | 23   |
| 24   | 24   | 24   | 24   |
| 25   | 25   | 25   | 25   |
| 26   | 26   | 26   | 26   |
| 27   | 27   | 27   | 27   |
| 28   | 28   | 28   | 28   |
| 29   | 29   | 29   | 29   |
| 30   | 30   | 30   | 30   |

1 80718-40117 512741 80718-40117 512741

1 80718-40117 512741 80718-40117 512741

54 BATTERED:02 SERVICE BY VBS SOL. FID. DELETED

VBS

CONV  
 1000 POT 100000 100000 1000  
 1000 POT 100000 100000 1000  
 1000 POT 100000 100000 1000

54  
 0 0 0 0  
 75.0 20.0 12.7  
 27.0 27.0  
 23.0 7.0  
 1 10 0 10  
 88.0 11.1 88.0  
 72.7 50.0  
 61.5 7.0  
 1000 20 0 10  
 TOTAL 84.0 18.3 100.0

1000000 0.0007 1000000 1000000  
 1000000 1000000 1000000 1000000

1000000 1000000 1000000 1000000  
 1000000 1000000 1000000 1000000

## APPENDIX C

[illegible]



|    |         |         |         |         |         |         |
|----|---------|---------|---------|---------|---------|---------|
| 10 | -0.0007 | 0.0000  | 0.0000  | 0.0000  | 0.0000  | 0.0000  |
|    | 00      | 00      | 00      | 00      | 00      | 00      |
|    | -0.0000 | 0.0000  | 0.0000  | -0.0000 | -0.0000 | 0.0000  |
| 11 | -0.0007 | -0.0000 | -0.0000 | -0.0000 | -0.0000 | -0.0000 |
|    | 00      | 00      | 00      | 00      | 00      | 00      |
|    | -0.0000 | -0.0000 | -0.0000 | -0.0000 | -0.0000 | -0.0000 |
| 12 | -0.0007 | 0.0000  | -0.0000 | -0.0000 | 0.0000  | -0.0000 |
|    | 00      | 00      | 00      | 00      | 00      | 00      |
|    | -0.0000 | 0.0000  | -0.0000 | -0.0000 | 0.0000  | -0.0000 |
| 13 | 0.0000  | 0.0000  | 0.0000  | 0.0000  | -0.0000 | -0.0000 |
|    | 00      | 00      | 00      | 00      | 00      | 00      |
|    | 0.0000  | 0.0000  | 0.0000  | 0.0000  | -0.0000 | -0.0000 |
| 14 | -0.0007 | 0.0000  | 0.0000  | -0.0000 | -0.0000 | -0.0000 |
|    | 00      | 00      | 00      | 00      | 00      | 00      |
|    | -0.0000 | 0.0000  | 0.0000  | -0.0000 | -0.0000 | -0.0000 |
| 15 | -0.0007 | 0.0000  | -0.0000 | -0.0000 | -0.0000 | -0.0000 |
|    | 00      | 00      | 00      | 00      | 00      | 00      |
|    | -0.0000 | 0.0000  | -0.0000 | -0.0000 | -0.0000 | -0.0000 |

COPY

DATA DATA  
 VALUE  
 UNIDENTIFIED

|     | VAL                     | VAL                     | VAL                     | VAL                     | VAL                     | VAL                     |
|-----|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| VAL | 0.1785<br>14<br>0.182   | -0.3827<br>25<br>-0.475 | -0.2857<br>25<br>-0.282 | -0.2857<br>25<br>-0.282 | -0.1712<br>26<br>-0.172 | -0.1712<br>26<br>-0.172 |
| VE  | 59.8173<br>14<br>*****  | 7.8107<br>25<br>1.125   | 0.2841<br>25<br>1.203   | 1.2002<br>25<br>1.437   | -0.1189<br>26<br>-2.571 | 1.2162<br>25<br>1.124   |
| VAL | 0.2855<br>14<br>0.287   | -0.1422<br>25<br>-0.675 | -0.2847<br>25<br>-1.315 | 0.1035<br>25<br>1.155   | -0.1032<br>26<br>-0.535 | -0.1032<br>26<br>-0.535 |
| VAL | -0.1115<br>14<br>-0.182 | -0.1217<br>25<br>-2.582 | -0.1473<br>25<br>-0.289 | -0.1155<br>25<br>-1.258 | -0.2127<br>26<br>-0.173 | -0.2127<br>26<br>-0.173 |
| VAL | -0.5311<br>14<br>-0.171 | -0.1147<br>25<br>-0.334 | 0.1047<br>25<br>0.521   | -0.1175<br>25<br>-1.277 | -0.1797<br>25<br>-0.541 | 0.2122<br>25<br>1.512   |
| VAL | -0.1111<br>14<br>-0.111 | 7.1039<br>25<br>0.135   | -0.1179<br>25<br>-0.287 | 1.1185<br>25<br>0.152   | -0.1131<br>26<br>-1.257 | -0.1117<br>26<br>-0.111 |
| VAL | 0.0376<br>14<br>*****   | -0.1741<br>25<br>-1.919 | -0.1832<br>25<br>-1.757 | -0.1741<br>25<br>-1.352 | 1.1141<br>25<br>0.517   | 0.1117<br>25<br>0.111   |
| VAL | -0.1111<br>14<br>-0.111 | 1.0207<br>25<br>-0.144  | 0.1111<br>25<br>0.111   | -0.1111<br>25<br>1.111  | 1.1111<br>25<br>1.111   | -0.1111<br>25<br>-0.111 |
| VAL | -0.1111<br>14<br>-0.111 | 0.1111<br>25<br>1.111   | 0.1111<br>25<br>1.111   | 0.1111<br>25<br>1.111   | 0.1111<br>25<br>1.111   | 0.1111<br>25<br>1.111   |



1000

|      |        |        |        |
|------|--------|--------|--------|
| 1000 | 1.0000 | 1.0000 | 1.0000 |
|      | 1.0000 | 1.0000 | 1.0000 |
|      | 1.0000 | 1.0000 | 1.0000 |

|      |        |        |        |
|------|--------|--------|--------|
| 1000 | 1.0000 | 1.0000 | 1.0000 |
|      | 1.0000 | 1.0000 | 1.0000 |
|      | 1.0000 | 1.0000 | 1.0000 |

|      |        |        |        |
|------|--------|--------|--------|
| 1000 | 1.0000 | 1.0000 | 1.0000 |
|      | 1.0000 | 1.0000 | 1.0000 |
|      | 1.0000 | 1.0000 | 1.0000 |

|      |        |        |        |
|------|--------|--------|--------|
| 1000 | 1.0000 | 1.0000 | 1.0000 |
|      | 1.0000 | 1.0000 | 1.0000 |
|      | 1.0000 | 1.0000 | 1.0000 |

|      |        |        |        |
|------|--------|--------|--------|
| 1000 | 1.0000 | 1.0000 | 1.0000 |
|      | 1.0000 | 1.0000 | 1.0000 |
|      | 1.0000 | 1.0000 | 1.0000 |

|      |        |        |        |
|------|--------|--------|--------|
| 1000 | 1.0000 | 1.0000 | 1.0000 |
|      | 1.0000 | 1.0000 | 1.0000 |
|      | 1.0000 | 1.0000 | 1.0000 |

1000 1000 1000 1000

45777

DATA CORR  
 V1110  
 7-27-1977

|     | V11                      | V12                    | V13                      | V14                      | V15                    | V16                    |
|-----|--------------------------|------------------------|--------------------------|--------------------------|------------------------|------------------------|
| V11 | 1.2283<br>1<br>-1.2283   | 2.2777<br>17<br>2.2777 | 3.2720<br>17<br>3.2720   | -1.2720<br>11<br>-1.2720 | 2.2734<br>17<br>2.2734 | 1.2282<br>14<br>1.2282 |
| V12 | 2.2777<br>17<br>2.2777   | 1.2283<br>2<br>1.2283  | 3.2720<br>24<br>3.2720   | 3.2720<br>24<br>3.2720   | 2.2734<br>24<br>2.2734 | 1.2282<br>24<br>1.2282 |
| V13 | 3.2720<br>17<br>3.2720   | 2.2777<br>17<br>2.2777 | 1.2283<br>2<br>1.2283    | -1.2720<br>11<br>-1.2720 | 2.2734<br>17<br>2.2734 | 1.2282<br>14<br>1.2282 |
| V14 | 2.2777<br>17<br>2.2777   | 1.2283<br>2<br>1.2283  | 3.2720<br>24<br>3.2720   | 3.2720<br>24<br>3.2720   | 2.2734<br>24<br>2.2734 | 1.2282<br>24<br>1.2282 |
| V15 | 3.2720<br>17<br>3.2720   | 2.2777<br>17<br>2.2777 | 1.2283<br>2<br>1.2283    | -1.2720<br>11<br>-1.2720 | 2.2734<br>17<br>2.2734 | 1.2282<br>14<br>1.2282 |
| V16 | -1.2720<br>11<br>-1.2720 | 2.2734<br>24<br>2.2734 | -1.2720<br>11<br>-1.2720 | 1.2283<br>2<br>1.2283    | 2.2734<br>24<br>2.2734 | 1.2282<br>14<br>1.2282 |
| V17 | 2.2734<br>24<br>2.2734   | 1.2283<br>2<br>1.2283  | 3.2720<br>24<br>3.2720   | 3.2720<br>24<br>3.2720   | 2.2734<br>24<br>2.2734 | 1.2282<br>24<br>1.2282 |
| V18 | 2.2734<br>24<br>2.2734   | 1.2283<br>2<br>1.2283  | 3.2720<br>24<br>3.2720   | 3.2720<br>24<br>3.2720   | 2.2734<br>24<br>2.2734 | 1.2282<br>24<br>1.2282 |
| V19 | -1.2720<br>11<br>-1.2720 | 2.2734<br>24<br>2.2734 | -1.2720<br>11<br>-1.2720 | 1.2283<br>2<br>1.2283    | 2.2734<br>24<br>2.2734 | 1.2282<br>14<br>1.2282 |
| V20 | 2.2734<br>24<br>2.2734   | 1.2283<br>2<br>1.2283  | 3.2720<br>24<br>3.2720   | 3.2720<br>24<br>3.2720   | 2.2734<br>24<br>2.2734 | 1.2282<br>24<br>1.2282 |
| V21 | 2.2734<br>24<br>2.2734   | 1.2283<br>2<br>1.2283  | 3.2720<br>24<br>3.2720   | 3.2720<br>24<br>3.2720   | 2.2734<br>24<br>2.2734 | 1.2282<br>24<br>1.2282 |
| V22 | -1.2720<br>11<br>-1.2720 | 2.2734<br>24<br>2.2734 | -1.2720<br>11<br>-1.2720 | 1.2283<br>2<br>1.2283    | 2.2734<br>24<br>2.2734 | 1.2282<br>14<br>1.2282 |
| V23 | 2.2734<br>24<br>2.2734   | 1.2283<br>2<br>1.2283  | 3.2720<br>24<br>3.2720   | 3.2720<br>24<br>3.2720   | 2.2734<br>24<br>2.2734 | 1.2282<br>24<br>1.2282 |
| V24 | -1.2720<br>11<br>-1.2720 | 2.2734<br>24<br>2.2734 | -1.2720<br>11<br>-1.2720 | 1.2283<br>2<br>1.2283    | 2.2734<br>24<br>2.2734 | 1.2282<br>14<br>1.2282 |
| V25 | 2.2734<br>24<br>2.2734   | 1.2283<br>2<br>1.2283  | 3.2720<br>24<br>3.2720   | 3.2720<br>24<br>3.2720   | 2.2734<br>24<br>2.2734 | 1.2282<br>24<br>1.2282 |

END OF DATA

DEAD END  
VALVE  
- 0.00000

|     | VEB     | VEB     |
|-----|---------|---------|
| V10 | 0.00000 | 0.00000 |
|     | 1.00000 | 1.00000 |
| V11 | 0.00000 | 0.00000 |
|     | 1.00000 | 1.00000 |
| V12 | 0.00000 | 0.00000 |
|     | 1.00000 | 1.00000 |
| V13 | 0.00000 | 0.00000 |
|     | 1.00000 | 1.00000 |
| V14 | 0.00000 | 0.00000 |
|     | 1.00000 | 1.00000 |
| V15 | 0.00000 | 0.00000 |
|     | 1.00000 | 1.00000 |
| V16 | 0.00000 | 0.00000 |
|     | 1.00000 | 1.00000 |
| V17 | 0.00000 | 0.00000 |
|     | 1.00000 | 1.00000 |
| V18 | 0.00000 | 0.00000 |
|     | 1.00000 | 1.00000 |
| V19 | 0.00000 | 0.00000 |
|     | 1.00000 | 1.00000 |
| V20 | 0.00000 | 0.00000 |
|     | 1.00000 | 1.00000 |
| V21 | 0.00000 | 0.00000 |
|     | 1.00000 | 1.00000 |

DEAD END VALVE



1947

1948

1949

|            |            |            |            |            |            |
|------------|------------|------------|------------|------------|------------|
| 1. 1. 1947 | 1. 1. 1948 | 1. 1. 1949 | 1. 1. 1950 | 1. 1. 1951 | 1. 1. 1952 |
| 1. 1. 1947 | 1. 1. 1948 | 1. 1. 1949 | 1. 1. 1950 | 1. 1. 1951 | 1. 1. 1952 |
| 1. 1. 1947 | 1. 1. 1948 | 1. 1. 1949 | 1. 1. 1950 | 1. 1. 1951 | 1. 1. 1952 |



2000 0000  
0000 0000  
0000 0000

|     | V24     | V25     | V26    | V27    |
|-----|---------|---------|--------|--------|
| V24 | -0.2107 | 0.7744  | 0.7000 | 0.3023 |
|     | 24      | 24      | 24     | 24     |
|     | -2.720  | 0.217   | 0.0000 | 1.171  |
| V25 | 0.3073  | -0.1000 | 0.0000 | 0.0400 |
|     | 25      | 25      | 25     | 25     |
|     | 1.000   | -1.700  | 0.700  | 7.410  |
| V26 | -0.0000 | 0.0000  | 0.0000 | 0.0000 |
|     | 26      | 26      | 26     | 26     |
|     | -1.000  | -1.000  | 0.000  | 0.000  |
| V27 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 27      | 27      | 27     | 27     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |
| V28 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 28      | 28      | 28     | 28     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |
| V29 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 29      | 29      | 29     | 29     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |
| V30 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 30      | 30      | 30     | 30     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |
| V31 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 31      | 31      | 31     | 31     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |
| V32 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 32      | 32      | 32     | 32     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |
| V33 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 33      | 33      | 33     | 33     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |
| V34 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 34      | 34      | 34     | 34     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |
| V35 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 35      | 35      | 35     | 35     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |
| V36 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 36      | 36      | 36     | 36     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |
| V37 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 37      | 37      | 37     | 37     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |
| V38 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 38      | 38      | 38     | 38     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |
| V39 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 39      | 39      | 39     | 39     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |
| V40 | 0.0000  | 0.0000  | 0.0000 | 0.0000 |
|     | 40      | 40      | 40     | 40     |
|     | 0.000   | 0.000   | 0.000  | 0.000  |

IT IS THE WORD OF THE







DEPT. OF DEFENSE  
OFFICE OF THE SECRETARY  
WASHINGTON, D.C.

MEMO

TO: SECRETARY

FROM: [illegible]

SUBJECT: [illegible]

|         |        |         |         |         |         |
|---------|--------|---------|---------|---------|---------|
| -8.4034 | 3.1731 | -4.2459 | -7.8787 | 2.1594  | 3.2444  |
| 24      | 24     | 24      | 24      | 24      | 24      |
| -1.4015 | 2.4015 | -4.4015 | -1.3049 | 2.7049  | 0.8049  |
| 24      | 24     | 24      | 24      | 24      | 24      |
| -4.1011 | 1.2074 | -1.2074 | 2.7449  | -0.4047 | -1.3077 |
| 24      | 24     | 24      | 24      | 24      | 24      |
| -7.1011 | 1.4011 | 1.0047  | 0.4047  | -0.1011 | -1.4011 |
| 24      | 24     | 24      | 24      | 24      | 24      |
| -7.1078 | 2.4033 | 0.0078  | -0.8737 | -0.1584 | 2.0078  |
| 24      | 24     | 24      | 24      | 24      | 24      |
| -3.533  | 1.533  | 0.200   | -2.370  | -0.515  | 0.515   |
| 24      | 24     | 24      | 24      | 24      | 24      |
| -7.1011 | 1.3011 | -1.1011 | -0.3517 | -0.1781 | 0.1115  |
| 24      | 24     | 24      | 24      | 24      | 24      |
| -1.7013 | 1.1013 | -0.5011 | -1.1077 | -0.37   | 0.111   |
| 24      | 24     | 24      | 24      | 24      | 24      |

CONTINUED:







1973 DEEP  
1973 DEEP  
1973 DEEP

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P. 418

|     |               |              |              |              |              |              |
|-----|---------------|--------------|--------------|--------------|--------------|--------------|
| 028 | -1.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
|     | -0.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
| 029 | -1.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
|     | -0.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
| 030 | -1.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
|     | -0.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
| 031 | -1.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
|     | -0.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
| 032 | -1.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
|     | -0.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
| 033 | -1.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
|     | -0.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
| 034 | -1.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
|     | -0.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
| 035 | -1.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
|     | -0.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
| 036 | -1.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
|     | -0.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
| 037 | -1.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |
|     | -0.0000<br>22 | 2.4.21<br>22 | 0.0100<br>22 | 0.0100<br>22 | 0.0000<br>22 | 0.0100<br>22 |

(CONTINUED)

EXP CODE  
1110  
STATISTICAL

|    | V21     | V22     | V23     | V24     | V25     | V26     |
|----|---------|---------|---------|---------|---------|---------|
| 11 | 0.1222  | -7.3537 | -3.2403 | -3.2794 | -3.2537 | -3.2557 |
|    | 25      | 25      | 25      | 25      | 25      | 25      |
|    | 0.3573  | -2.476  | -0.193  | -0.382  | -1.268  | -1.268  |
| 12 | 59.0002 | 0.2323  | 0.2022  | 0.4126  | 0.2526  | 0.0658  |
|    | 25      | 25      | 25      | 25      | 25      | 25      |
|    | 0.0000  | 1.135   | 1.003   | 2.103   | 1.275   | 0.433   |
| 13 | 2.0233  | -2.1433 | -3.1233 | 0.2103  | -2.2647 | 0.1026  |
|    | 25      | 25      | 25      | 25      | 25      | 25      |
|    | 2.033   | -2.371  | -4.023  | 2.031   | -1.315  | 0.406   |
| 14 | -0.1223 | -7.1237 | 0.2021  | 0.1034  | -0.1443 | -0.2153 |
|    | 25      | 25      | 25      | 25      | 25      | 25      |
|    | -0.333  | -2.133  | 0.203   | 2.523   | -1.293  | -1.551  |
| 15 | -2.511  | -0.1137 | 0.1072  | 2.2037  | 2.1017  | -0.1173 |
|    | 25      | 25      | 25      | 25      | 25      | 25      |
|    | -2.171  | -0.334  | 1.013   | 2.033   | 0.331   | -2.031  |
| 16 | -1.1235 | -0.1133 | -2.1732 | 0.4123  | -0.1337 | 1.1335  |
|    | 25      | 25      | 25      | 25      | 25      | 25      |
|    | -0.133  | 1.133   | -1.133  | 2.133   | -1.133  | 2.133   |
| 17 | 1.1235  | -1.1331 | -0.1331 | 2.1331  | 1.1331  | -1.1331 |
|    | 25      | 25      | 25      | 25      | 25      | 25      |
|    | 0.133   | -0.133  | -0.133  | 2.133   | 1.133   | -1.133  |
| 18 | -0.1235 | -1.1331 | -0.1331 | 2.1331  | 1.1331  | -1.1331 |
|    | 25      | 25      | 25      | 25      | 25      | 25      |
|    | 0.133   | -0.133  | -0.133  | 2.133   | 1.133   | -1.133  |
| 19 | -0.1235 | -1.1331 | -0.1331 | 2.1331  | 1.1331  | -1.1331 |
|    | 25      | 25      | 25      | 25      | 25      | 25      |
|    | 0.133   | -0.133  | -0.133  | 2.133   | 1.133   | -1.133  |

|    |                          |                         |                         |                         |                         |                         |
|----|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| 01 | 02.1114<br>11<br>00000   | 2.1114<br>11<br>1.111   | 1.1114<br>11<br>1.111   | 1.1114<br>11<br>1.111   | 1.1114<br>11<br>1.111   | 1.1114<br>11<br>1.111   |
| 17 | -2.1114<br>11<br>-1.727  | 1.1114<br>11<br>1.111   | 1.1114<br>11<br>1.111   | 0.1114<br>11<br>1.111   | 1.1114<br>11<br>1.111   | 1.1114<br>11<br>1.111   |
| 04 | -1.1114<br>11<br>-2.1114 | 1.1114<br>11<br>1.111   | -1.1114<br>11<br>-1.111 | -1.1114<br>11<br>-1.111 | 1.1114<br>11<br>1.111   | 1.1114<br>11<br>1.111   |
| 22 | 1.1114<br>11<br>1.111    | 1.1114<br>11<br>1.111   | -0.1114<br>11<br>-1.111 | -1.1114<br>11<br>-1.111 | 1.1114<br>11<br>1.111   | 1.1114<br>11<br>1.111   |
| 00 | 01.1114<br>11<br>00000   | -1.1114<br>11<br>-1.111 | 1.1114<br>11<br>1.111   | 0.1114<br>11<br>1.111   | 1.1114<br>11<br>1.111   | -1.1114<br>11<br>-1.111 |
| 17 | 2.1114<br>11<br>1.111    | -1.1114<br>11<br>-1.111 | -0.1114<br>11<br>-1.111 | 0.1114<br>11<br>1.111   | -1.1114<br>11<br>-1.111 | 1.1114<br>11<br>1.111   |

(01-1114)



1177

|     |         |         |         |
|-----|---------|---------|---------|
| 002 | -0.2777 | 0.1000  | 0.1777  |
|     | 22      | 28      | 22      |
|     | -0.733  | 0.100   | 0.133   |
| 003 | 0.1422  | 0.1000  | 0.1422  |
|     | 25      | 28      | 25      |
|     | 0.275   | 0.275   | -0.750  |
| 004 | 0.1404  | -0.1371 | 0.2787  |
|     | 22      | 22      | 22      |
|     | 0.577   | -0.137  | 0.588   |
| 005 | 0.10000 | -0.1410 | -0.1333 |
|     | 0       | 01      | 28      |
|     | +++++   | -0.55   | -1.251  |
| 006 | -0.0100 | 0.0100  | 0.1331  |
|     | 28      | 0       | 28      |
|     | -0.155  | +++++   | 0.754   |
| 007 | -0.1333 | 0.1331  | 0.1331  |
|     | 0 51    | 00      | 0       |
|     | -1.350  | 0.784   | +++++   |

1178-1181 DATA OF BP.

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TABLE 7  
PEARSON CORRELATIONS

| PAIR OF VARIABLES | PEARSON CORRELATIONS | T-STATISTICS | DEGREES OF FREEDOM | LEVEL OF SIGNIFICANCE (%) |
|-------------------|----------------------|--------------|--------------------|---------------------------|
| V5-V17            | 0.4629               | 2.558        | 25                 | 1                         |
| V5-V19            | 0.3243               | 1.680        | 25                 | 10                        |
| V5-V20            | 0.2303               | 1.135        | 24                 | 20                        |
| V5-V21            | 0.3626               | 1.817        | 24                 | 5                         |
| V5-V22            | 0.4166               | 2.019        | 24                 | 5                         |
| V5-V23            | 0.2626               | 1.305        | 24                 | 20                        |
| V5-V24            | 0.0898               | 0.433        | 24                 | 50                        |
| V5-V25            | -0.1852              | -0.923       | 25                 | 30                        |
| V5-V26            | 0.2160               | 1.084        | 25                 | 20                        |
| V5-V27            | 0.0976               | 0.480        | 25                 | 50                        |
| V5-V28            | 0.3493               | 1.826        | 25                 | 5                         |
| V5-V29            | 0.1809               | 0.901        | 25                 | 30                        |
| V14-V19           | 0.0836               | 0.394        | 23                 | 50                        |
| V15-V19           | 0.3296               | 1.638        | 23                 | 10                        |
| V16-V19           | 0.1943               | 0.929        | 23                 | 30                        |
| V17-V19           | 0.8563               | 8.124        | 25                 | 0.1                       |
| V17-V20           | 0.2942               | 1.476        | 24                 | 10                        |
| V17-V21           | 0.0830               | 0.387        | 24                 | 50                        |
| V17-V22           | 0.1334               | 0.557        | 24                 | 50                        |
| V17-V23           | -0.1991              | -0.974       | 24                 | 30                        |
| V17-V24           | 0.1442               | 0.699        | 24                 | 40                        |
| V17-V25           | -0.2000              | -1.000       | 25                 | 30                        |
| V17-V26           | -0.2000              | -1.000       | 25                 | 30                        |
| V17-V27           | 0.1581               | 0.784        | 25                 | 40                        |
| V17-V28           | 0.2425               | 1.225        | 25                 | 20                        |
| V19-V20           | 0.2632               | 1.308        | 24                 | 20                        |
| V19-V21           | 0.1581               | 0.784        | 24                 | 40                        |
| V19-V22           | 0.0760               | 0.380        | 24                 | 50                        |
| V19-V23           | -0.2626              | -1.305       | 24                 | 20                        |
| V19-V24           | 0.2557               | 1.268        | 24                 | 20                        |
| V19-V25           | 0.1713               | 0.852        | 25                 | 40                        |
| V19-V26           | -0.2335              | -1.177       | 25                 | 20                        |
| V19-V27           | 0.1231               | 0.608        | 25                 | 50                        |
| V19-V28           | 0.3587               | 1.883        | 25                 | 5                         |
| V19-V29           | 0.0664               | 0.326        | 25                 | 50                        |
| V41-V5            | -0.0120              | -0.059       | 25                 | 50                        |
| V41-V14           | 0.0861               | 0.405        | 23                 | 50                        |
| V41-V15           | -0.2604              | -1.265       | 23                 | 20                        |
| V41-V16           | -0.0667              | -0.313       | 23                 | 50                        |
| V41-V17           | -0.0778              | -0.383       | 25                 | 50                        |
| V41-V19           | -0.2121              | -1.063       | 25                 | 20                        |
| V41-V20           | -0.0987              | -0.476       | 24                 | 50                        |
| V41-V21           | -0.0403              | -0.193       | 24                 | 50                        |
| V41-V22           | -0.0794              | -0.382       | 24                 | 50                        |
| V41-V23           | -0.2557              | -1.083       | 24                 | 20                        |

| PAIR OF VARIABLES | PEARSON CORRELATIONS | T-STATISTICS | DEGREES OF FREEDOM | LEVEL OF SIGNIFICANCE (%) |
|-------------------|----------------------|--------------|--------------------|---------------------------|
| V41-V24           | -0.2557              | -1.268       | 24                 | 20                        |
| V41-V25           | -0.1713              | -0.852       | 25                 | 40                        |
| V41-V26           | -0.1713              | -0.857       | 25                 | 40                        |
| V41-V27           | 0.1969               | 0.984        | 25                 | 30                        |
| V41-V28           | -0.0315              | -0.154       | 25                 | 50                        |
| V41-V29           | -0.2822              | -1.441       | 25                 | 10                        |
| V61-V5            | -0.1157              | -0.571       | 25                 | 50                        |
| V61-V14           | 0.2750               | 1.342        | 23                 | 20                        |
| V61-V15           | -0.3950              | -2.016       | 23                 | 5                         |
| V61-V16           | 0.2604               | 1.265        | 23                 | 20                        |
| V61-V19           | -0.1038              | -0.511       | 25                 | 50                        |
| V61-V20           | -0.1400              | -0.678       | 24                 | 50                        |
| V61-V21           | -0.1280              | -0.622       | 24                 | 50                        |
| V61-V22           | 0.0106               | 0.051        | 24                 | 50                        |
| V61-V23           | -0.2647              | -1.316       | 24                 | 20                        |
| V61-V24           | 0.1029               | 0.496        | 24                 | 50                        |
| V61-V25           | -0.1333              | -0.659       | 25                 | 50                        |
| V61-V26           | -0.1333              | -0.659       | 25                 | 50                        |
| V61-V27           | 0.1845               | 0.919        | 25                 | 30                        |
| V61-V28           | 0.1347               | 0.666        | 25                 | 50                        |
| V61-V29           | -0.1777              | -0.884       | 25                 | 30                        |
| V71-V5            | -0.1543              | -0.765       | 25                 | 40                        |
| V71-V15           | -0.2750              | -1.342       | 23                 | 10                        |
| V71-V16           | 0.0861               | 0.405        | 23                 | 50                        |
| V71-V17           | -0.0769              | -0.378       | 25                 | 50                        |
| V71-V19           | -0.2335              | -1.177       | 25                 | 20                        |
| V71-V20           | -0.1307              | -0.632       | 24                 | 50                        |
| V71-V21           | 0.0801               | 0.385        | 24                 | 50                        |
| V71-V22           | 0.1084               | 0.523        | 24                 | 50                        |
| V71-V23           | -0.1442              | -0.699       | 24                 | 40                        |
| V71-V24           | -0.3158              | -1.596       | 24                 | 10                        |
| V71-V25           | -0.2000              | -1.000       | 25                 | 30                        |
| V71-V26           | -0.2000              | -1.000       | 25                 | 30                        |
| V71-V28           | -0.0808              | -0.397       | 25                 | 50                        |
| V71-V29           | -0.2132              | -1.069       | 25                 | 20                        |
| V81-V5            | 0.4085               | 2.192        | 25                 | 2                         |
| V81-V15           | 0.1588               | 0.754        | 23                 | 40                        |
| V81-V16           | -0.0497              | -0.233       | 23                 | 50                        |
| V81-V17           | -0.1826              | -0.910       | 25                 | 30                        |
| V81-V19           | -0.2701              | -1.374       | 25                 | 10                        |
| V81-V20           | -0.1147              | -0.554       | 24                 | 50                        |
| V81-V21           | 0.1873               | 0.915        | 24                 | 30                        |
| V81-V22           | 0.0807               | 0.383        | 24                 | 50                        |
| V81-V23           | 0.1847               | 0.915        | 24                 | 30                        |
| V81-V24           | -0.4176              | -2.192       | 24                 | 2                         |
| V81-V25           | 0.1588               | 0.754        | 25                 | 50                        |
| V81-V26           | 0.3651               | 1.925        | 25                 | 5                         |
| V81-V27           | -0.1299              | -0.622       | 25                 | 50                        |
| V81-V28           | -0.1771              | -0.884       | 25                 | 30                        |

| PAIR OF<br>VARIABLES | PEARSON<br>CORRELATIONS | T-STATISTICS | DEGREES<br>OF FREEDOM | LEVEL OF<br>SIGNIFICANCE<br>(%) |
|----------------------|-------------------------|--------------|-----------------------|---------------------------------|
| V81-V29              | -0.0195                 | -0.095       | 25                    | 50                              |
| V91-V5               | 0.2186                  | 1.097        | 25                    | 30                              |
| V91-V14              | -0.0917                 | -0.432       | 23                    | 50                              |
| V91-V15              | 0.0084                  | 0.039        | 23                    | 50                              |
| V91-V16              | -0.3077                 | -1.517       | 23                    | 10                              |
| V91-V19              | 0.0649                  | 0.318        | 25                    | 50                              |
| V91-V20              | 0.0350                  | 0.168        | 24                    | 50                              |
| V91-V21              | -0.3430                 | -1.751       | 24                    | 5                               |
| V91-V22              | 0.0106                  | 0.051        | 24                    | 50                              |
| V91-V23              | -0.0809                 | -0.389       | 24                    | 50                              |
| V91-V24              | 0.1029                  | 0.496        | 24                    | 50                              |
| V91-V25              | -0.1333                 | -0.659       | 25                    | 50                              |
| V91-V26              | -0.1333                 | -0.659       | 25                    | 50                              |
| V91-V27              | -0.1581                 | -0.784       | 25                    | 40                              |
| V91-V28              | -0.2156                 | -1.082       | 25                    | 20                              |
| V91-V29              | -0.1777                 | -0.884       | 25                    | 30                              |

## APPENDIX D

### DISCRIMINANT ANALYSIS

Discriminant analysis has been performed to statistically distinguish between the following groups.

- (1) Group of companies which use computer in the operations of the company with the group of companies which do not use.
- (2) Group of companies which classify costs as variable and fixed costs in the cost accounting systems with the group of companies which do not classify.
- (3) Group of companies which apply variable cost accounting method in financial internal reporting with the group of companies which do not apply.

For the purpose of the research, the following variables are selected as discriminating variables.

- (1) The usage of computer in the operations of the company (V5).
- (2) The classification of costs as variable and fixed costs in the cost accounting systems (V17).
- (3) The application of variable cost accounting method in financial internal reporting (V19).
- (4) The usefulness of balance sheet and income statement in long term planning (V20).
- (5) The usefulness of balance sheet and income statement in short term planning (V21).
- (6) The usefulness of balance sheet and income statement in pricing decisions (V22).

- (7) The usefulness of balance sheet and income statement in purchasing decisions (V23).
- (8) The usefulness of balance sheet and income statement in investment decisions (V24).
- (9) The usage of balance sheet in evaluating the operations of the company (V25).
- (10) The usage of income statement in evaluating the operations of the company (V26).
- (11) The usage of sources and uses statement in evaluating the operations of the company (V27).
- (12) The usage of ratio analysis in evaluating the operations of the company (V28).
- (13) The usage of monthly budget compared reports in evaluating the operations of the company (V29).
- (14) The performance in profit over assets ratio (V41).
- (15) The performance in profit over capital stock ratio (V61).
- (16) The performance in profit over sales ratio (V71).
- (17) The performance in sales over assets ratio (V81).
- (18) The performance in sales over capital stock ratio (V91).

Through the interpretation of discriminant analysis, the discriminant functions have been statistically significant and the selected discriminating variables have been reliable.

The first group of analysis, where groups of those companies which use computer in the operation of the company versus those which do not use, has a one per cent probability

of occurring due to chances of sampling. Clearly the discriminant function of this analysis is statistically significant. The second group of analysis, where groups of those companies which classify costs of variable and fixed versus which do not classify, and the third analysis, where groups of those companies which apply variable costing in internal reporting versus which do not apply, have nearly 0 probability of occurring due to chances of sampling.

The results of discriminant analysis are shown in Table 8 and Table 9.

TABLE 8  
DISCRIMINANT ANALYSIS

|            | CANONICAL<br>CORRELATIONS | WILKS'<br>LAMBDA | CHI-SQUARE | SIGNIFICANCE |
|------------|---------------------------|------------------|------------|--------------|
| Analysis 1 | 0,95                      | 0,10             | 33.266     | 0,0104       |
| Analysis 2 | 0,97                      | 0,05             | 43.158     | 0,0005       |
| Analysis 3 | 0,98                      | 0,04             | 45.427     | 0,0002       |

TABLE 9

## STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

| ANALYSIS   | VARIABLE | COEFFICIENTS | CONTRIBUTION<br>RANK |
|------------|----------|--------------|----------------------|
| ANALYSIS 1 | V17      | 2,57         | 2                    |
|            | V19      | -2,71        | 1                    |
|            | V20      | 2,20         | 4                    |
|            | V21      | 1,37         | 7                    |
|            | V22      | -0,54        | 14                   |
|            | V23      | -0,31        | 16                   |
|            | V24      | -1,09        | 9                    |
|            | V25      | 0,84         | 10                   |
|            | V26      | -0,22        | 17                   |
|            | V27      | 1,74         | 6                    |
|            | V28      | 2,35         | 3                    |
|            | V29      | -0,64        | 13                   |
|            | V41      | -0,80        | 12                   |
|            | V61      | -0,81        | 11                   |
|            | V71      | 0,51         | 15                   |
|            | V81      | 1,24         | 8                    |
|            | V91      | 2,10         | 5                    |
| ANALYSIS 2 | V5       | -1,78        | 4                    |
|            | V19      | -2,35        | 1                    |
|            | V20      | 1,17         | 7                    |
|            | V21      | 1,12         | 8                    |
|            | V22      | -0,94        | 11                   |
|            | V23      | -0,48        | 14                   |
|            | V24      | -0,73        | 12                   |
|            | V25      | 1,83         | 3                    |
|            | V26      | 0,21         | 16                   |
|            | V27      | 1,55         | 6                    |
|            | V28      | 1,58         | 5                    |
|            | V29      | -0,07        | 17                   |
|            | V41      | -0,69        | 13                   |
|            | V61      | -1,09        | 9                    |
|            | V71      | 1,05         | 10                   |
|            | V81      | 0,46         | 15                   |
|            | V91      | 2,23         | 2                    |
| ANALYSIS 3 | V5       | -1,73        | 6                    |
|            | V17      | 2,17         | 1                    |
|            | V20      | 1,65         | 7                    |
|            | V21      | 1,10         | 10                   |
|            | V22      | 0,76         | 14                   |
|            | V23      | -0,81        | 12                   |
|            | V24      | 1,20         | 8                    |
|            | V25      | 1,79         | 5                    |
|            | V26      | 1,33         | 16                   |



| ANALYSIS | VARIABLE | COEFFICIENTS | CONTRIBUTION<br>RANK |
|----------|----------|--------------|----------------------|
|          | V27      | 1,80         | 4                    |
|          | V28      | 1,97         | 3                    |
|          | V29      | -0,23        | 17                   |
|          | V41      | -1,12        | 9                    |
|          | V61      | -0,85        | 11                   |
|          | V71      | 0,77         | 13                   |
|          | V81      | 0,58         | 15                   |
|          | V91      | 2,12         | 2                    |

## DISCRIMINANT ANALYSIS

### FIRST ANALYSIS

```
UJN      = ADOI      FAMILY    = UNIST      JOB ORIGIN  = INTERACTIVE.
CREATING JSN = ACNP    USER NAME = AYDINL   SERVICE CLASS = INTERACTIVE.
```

[illegible][illegible]

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# NEW FEATURES IN SPSS-X RELEASE 2

FOR MORE DETAILS, USE THE COMMAND: INFO OVERVIEW FACILITIES.

- PLOT - SCATTER PLOTS, OVERLAY PLOTS, CONTOUR PLOTS ON THE PRINTER.
- HILOGLINEAR - FAST LOGLINEAR ANALYSIS FOR HIERARCHICAL MODELS.
- CLUSTER - HIERARCHICAL CLUSTER ANALYSIS.
- QUICK CLUSTER - FAST CLUSTER ANALYSIS FOR A FIXED NUMBER OF CLUSTERS.
- IMPORT/EXPORT - PORTABLE SYSTEM FILES FOR TRANSFER TO OTHER KINDS OF COMPUTERS.
- PROBIT - DICHOTOMOUS PROBIT AND LOGISTIC REGRESSION ANALYSIS.
- SET WIDTH - WIDTH CONTROL FOR PRINTED OUTPUT.
- XSAVE - ALLOWS NEW FLEXIBILITY IN SAVING SYSTEM FILES.
- END SUBCOMMAND - WITH DATA LIST, YOU CAN DETECT END OF FILE.

```
1 1      SUBTITLE *** DR IREM NUMOGLU PROGRAM 61 ***
2 1      DATA LIST RECORDS =1 FIXED
3 3          /CODE,V17,V19,V20,V21,V22,V23,V24,
4 3          V25,V26,V27,V28,V29,V41,V61,V71,
5 3          V81,V91(F2.0,17F1.0)
```

THE ABOVE DATA LIST STATEMENT WILL READ 1 RECORDS FROM FILE INLINE .

| VARIABLE | REC | START | END | FORMAT | WIDTH | DEC |
|----------|-----|-------|-----|--------|-------|-----|
| CODE     | 1   | 1     | 2   | F      | 2     | 0   |
| V17      | 1   | 3     | 3   | F      | 1     | 0   |
| V19      | 1   | 4     | 4   | F      | 1     | 0   |
| V20      | 1   | 5     | 5   | F      | 1     | 0   |
| V21      | 1   | 6     | 6   | F      | 1     | 0   |
| V22      | 1   | 7     | 7   | F      | 1     | 0   |
| V23      | 1   | 8     | 8   | F      | 1     | 0   |
| V24      | 1   | 9     | 9   | F      | 1     | 0   |
| V25      | 1   | 10    | 10  | F      | 1     | 0   |
| V26      | 1   | 11    | 11  | F      | 1     | 0   |
| V27      | 1   | 12    | 12  | F      | 1     | 0   |
| V28      | 1   | 13    | 13  | F      | 1     | 0   |
| V29      | 1   | 14    | 14  | F      | 1     | 0   |
| V41      | 1   | 15    | 15  | F      | 1     | 0   |
| V61      | 1   | 16    | 16  | F      | 1     | 0   |
| V71      | 1   | 17    | 17  | F      | 1     | 0   |
| V81      | 1   | 18    | 18  | F      | 1     | 0   |
| V91      | 1   | 19    | 19  | F      | 1     | 0   |

END OF DATALIST TABLE.

| CODE  | V71    |
|-------|--------|
| 1     | .73571 |
| 2     | .54545 |
| TOTAL | .66000 |

STANDARD DEVIATIONS

| CODE  | V17    | V19    | V20    | V21    | V22     | V23    | V24    | V25    |
|-------|--------|--------|--------|--------|---------|--------|--------|--------|
| 1     | .46631 | .51355 | .51357 | .26725 | 0.00000 | .51355 | .49725 | .26725 |
| 2     | .46710 | .46710 | .46710 | .50452 | .46710  | .40452 | .46710 | .46710 |
| TOTAL | .50990 | .50662 | .50900 | .40025 | .35166  | .47610 | .47610 | .27000 |

| CODE  | V26     | V27    | V28    | V29    | V41    | V51    | V71    | V21    |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|
| 1     | 0.00000 | .51355 | .51357 | .42582 | .51355 | .49725 | .51355 | .26725 |
| 2     | .30151  | .46710 | .40452 | .30151 | .52223 | .46710 | .52223 | .52223 |
| TOTAL | .20000  | .43900 | .46990 | .37417 | .50662 | .47610 | .50990 | .43550 |

| CODE  | V71    |
|-------|--------|
| 1     | .42582 |
| 2     | .52223 |
| TOTAL | .47610 |

## WITHIN-GROUPS COVARIANCE MATRIX WITH

23 DEGREES OF FREEDOM

|     | V17           | V19           | V20           | V21           | V22           | V23           | V24           | V25           |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| V17 | .2195853      |               |               |               |               |               |               |               |
| V19 | .1942405      | .2439307      |               |               |               |               |               |               |
| V20 | .5138340E-01  | .5138340E-01  | .2470356      |               |               |               |               |               |
| V21 | -.5194805E-01 | -.5815923E-01 | -.6126432E-01 | .1510446      |               |               |               |               |
| V22 | -.7905138E-02 | -.7905138E-02 | -.7905138E-02 | .3952569E-01  | .9486160E-01  |               |               |               |
| V23 | -.7951604E-01 | -.8532722E-01 | .6324111E-01  | .5025409E-01  | .2371542E-01  | .2202146      |               |               |
| V24 | .2653868E-01  | .5759458E-01  | .7312253E-01  | -.2397774E-01 | -.7905138E-02 | .1355167E-01  | .2346132      |               |
| V25 | -.1242236E-01 | .2434472E-01  | .2173913E-01  | -.3105590E-02 | 0.            | .1863354E-01  | .1552795E-01  | .4077267E-01  |
| V26 | -.3152055E-01 | -.3162055E-01 | -.3162055E-01 | .2765798E-01  | .3162055E-01  | .7905138E-02  | -.3162055E-01 | 0.            |
| V27 | .3396104E-01  | -.3274966E-01 | -.3557312E-01 | -.2039215E-01 | .3557312E-01  | -.4856014E-01 | .8865448E-01  | -.2434472E-01 |

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|     | V17           | V19           | V20           | V21           | V22           | V23           | V24           | V25           |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| V26 | .1776285E-01  | .6324111E-01  | -.3893231E-01 | .5335968E-01  | .2371542E-01  | -.1531028E-01 | .8498024E-01  | .2175913E-01  |
| V29 | -.1806289E-01 | .5646527E-03  | .5335968E-01  | .2512705E-01  | .1185771E-01  | .5062902E-01  | .7199522E-01  | .9516770E-02  |
| V41 | -.524562E-01  | -.5251270E-01 | -.2766798E-01 | -.1072340E-01 | -.1581028E-01 | -.6090437E-01 | -.0493506E-01 | -.1060304E-01 |
| V61 | .1683958E-01  | -.1411632E-01 | -.2964427E-01 | -.1743052E-01 | .7905138E-02  | -.5702993E-01 | .2625635E-01  | -.1552795E-01 |
| V71 | .3317915E-02  | -.4030152E-01 | -.2766798E-01 | .2653368E-01  | .2766798E-01  | -.2679729E-01 | -.7755745E-01 | -.2434472E-01 |
|     | -.3358861E-01 | -.3977979E-01 | -.4940711E-01 | .4759548E-02  | -.1581028E-01 | .1466097E-01  | -.9909050E-01 | -.3105590E-02 |
|     | -.2145680E-01 | .3387916E-02  | -.5923654E-02 | -.5336315E-01 | -.1581028E-01 | -.3500847E-01 | .1891587E-01  | -.9516770E-02 |

|     | V26           | V27           | V28           | V29           | V41           | V61          | V71           | V81          |
|-----|---------------|---------------|---------------|---------------|---------------|--------------|---------------|--------------|
| V26 | .3952569E-01  |               |               |               |               |              |               |              |
| V27 | .1135771E-01  | .2439307      |               |               |               |              |               |              |
| V28 | .7905138E-02  | .6324111E-01  | .2233272      |               |               |              |               |              |
| V29 | .3952569E-02  | .1919819E-01  | .5731225E-01  | .1420102      |               |              |               |              |
| V41 | -.1975285E-01 | .4065508E-01  | -.3952569E-02 | -.5477132E-01 | .2676454      |              |               |              |
| V61 | -.1135771E-01 | .4178430E-01  | .4545455E-01  | -.2351496E-01 | .1518910      | .2346132     |               |              |
| V71 | -.1975285E-01 | -.9034444E-02 | -.3952569E-02 | -.3513778E-01 | .1869001      | .1643139     | .2676454      |              |
| V81 | .2371542E-01  | -.5251270E-01 | -.6916996E-01 | -.1439364E-01 | .5646527E-01  | .1214003E-01 | .5025409E-01  | .1589497     |
| V91 | -.1975285E-01 | -.5372388E-01 | -.6916996E-01 | -.1724337E-01 | -.2428007E-01 | .2450239E-01 | -.4291561E-01 | .2236378E-01 |

V91

V91 .2210615

POOLED WITHIN-GROUPS CORRELATION MATRIX

|     | V17     | V19     | V20     | V21     | V22     | V23     | V24     | V25     | V26     | V27     | V28     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| V17 | 1.00000 |         |         |         |         |         |         |         |         |         |         |
| V19 | .34023  | 1.00000 |         |         |         |         |         |         |         |         |         |
| V20 | .22037  | .20932  | 1.00000 |         |         |         |         |         |         |         |         |
| V21 | -.26557 | -.30299 | -.31710 | 1.00000 |         |         |         |         |         |         |         |
| V22 | -.05433 | -.05197 | -.05164 | .33020  | 1.00000 |         |         |         |         |         |         |
| V23 | -.30247 | -.37031 | .27114  | .27555  | .16493  | 1.00000 |         |         |         |         |         |
| V24 | .11736  | .24075  | .30374  | -.12743 | -.05299 | .05962  | 1.00000 |         |         |         |         |
| V25 | -.13209 | .25936  | .21768  | -.03977 | 0.00000 | .19762  | .15955  | 1.00000 |         |         |         |
| V26 | -.33930 | -.32203 | -.32000 | .35308  | .51640  | .06473  | -.32830 | 0.00000 | 1.00000 |         |         |
| V27 | .16354  | .13426  | -.14491 | -.10384 | .23335  | -.20952 | .37057  | -.25036 | .12070  | 1.00000 |         |
| V28 | .03935  | .27096  | -.37865 | .29053  | .16294  | -.07129 | .37120  | .22895  | .05414  | .27776  | 1.00000 |
| V29 | -.10244 | .00303  | .23439  | .17157  | .10216  | .37677  | .39442  | .12304  | .05270  | .10315  | .02130  |
| V41 | -.06296 | -.20552 | -.10760 | -.05336 | -.09922 | -.27212 | -.25913 | -.17926 | -.19215 | .15911  | -.01017 |
| V61 | .07472  | -.05901 | -.12314 | -.10343 | .05299  | -.25090 | .11191  | -.13955 | -.12314 | .17406  | .19050  |
| V71 | .01399  | -.13121 | -.13760 | .13199  | .17364  | -.11862 | -.30371 | -.23901 | -.17215 | -.03506 | -.01017 |
| V81 | -.44732 | -.45595 | -.24933 | .03093  | -.12370 | .07347  | -.51310 | -.03377 | .29920  | -.20609 | -.03710 |
| V91 | -.09750 | .01459  | -.02537 | -.42369 | -.10910 | -.15807 | .03500  | -.09362 | -.21142 | -.20209 | -.01130 |

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\*\*\* DR IREM YUHOGLU PROGRAM 31 \*\*\*

|     | V29     | V41     | V61     | V71     | V81     | V91     |
|-----|---------|---------|---------|---------|---------|---------|
| V29 | 1.00000 |         |         |         |         |         |
| V41 | -.26394 | 1.00000 |         |         |         |         |
| V61 | -.15622 | .60615  | 1.00000 |         |         |         |
| V71 | -.13536 | .69831  | .65572  | 1.00000 |         |         |
| V81 | -.09584 | .27376  | .05237  | .24365  | 1.00000 |         |
| V91 | -.22149 | -.09982 | .10735  | -.17642 | .11390  | 1.00000 |

CORRELATIONS WHICH CANNOT BE COMPUTED ARE PRINTED AS 99.0.

WILKS' LAMBDA (U-STATISTIC) AND UNIVARIATE F-RATIO  
WITH 1 AND 23 DEGREES OF FREEDOM

| VARIABLE | WILKS' LAMBDA | F         | SIGNIFICANCE |
|----------|---------------|-----------|--------------|
| V17      | .80753        | 5.482     | .0232        |
| V19      | .71878        | 2.253     | .1459        |
| V20      | .94897        | 1.283     | .2681        |
| V21      | .36351        | 3.432     | .0748        |
| V22      | .32645        | 4.830     | .0333        |
| V23      | .93185        | 1.703     | .2048        |
| V24      | .92193        | .1871     | .6694        |
| V25      | .96726        | .7735     | .3867        |
| V26      | .94697        | 1.283     | .2681        |
| V27      | .97403        | .6133     | .4415        |
| V28      | .39173        | 2.793     | .1033        |
| V29      | .97209        | .6003     | .4243        |
| V41      | .99933        | .1553E-01 | .9017        |
| V61      | .92193        | .1871     | .6694        |
| V71      | .96351        | .3144     | .5804        |
| V81      | .80172        | 5.088     | .0257        |
| V91      | .93464        | 1.609     | .2174        |

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\*\*\* OR IREX NUHOGU PROGRAM 61 \*\*\*

PAGE



## COVARIANCE MATRIX FOR GROUP

1.

|     | V17           | V19           | V20           | V21           | V22           | V23           | V24           | V25           |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| V17 | .2197802      |               |               |               |               |               |               |               |
| V19 | .1753242      | .2637363      |               |               |               |               |               |               |
| V20 | -.7692308E-01 | -.7692308E-01 | .2692308      |               |               |               |               |               |
| V21 | -.2197802E-01 | -.3296703E-01 | -.3846154E-01 | .7142857E-01  |               |               |               |               |
| V22 | 0.            | 0.            | 0.            | 0.            | 0.            |               |               |               |
| V23 | -.9390110E-01 | -.1096901     | .1538462      | .3296703E-01  | 0.            | .2637363      |               |               |
| V24 | -.4395604E-01 | .1093901E-01  | .3846154E-01  | .2747253E-01  | 0.            | -.1096901E-01 | .2472527      |               |
| V25 | -.2197802E-01 | .4395604E-01  | .3846154E-01  | -.5494505E-02 | 0.            | .3296703E-01  | .2747253E-01  | .7142857E-01  |
| V26 | 0.            | 0.            | 0.            | 0.            | 0.            | 0.            | 0.            | 0.            |
| V27 | .5494505E-01  | .4395604E-01  | -.7692308E-01 | -.4395604E-01 | 0.            | -.1978022     | .6593407E-01  | -.4395604E-01 |
| V28 | .7692308E-01  | .1538462      | -.1153846     | .3846154E-01  | 0.            | -.7692308E-01 | .1153846      | .3846154E-01  |
| V29 | -.1093901E-01 | .2197802E-01  | .1153846      | .1648352E-01  | 0.            | .5494505E-01  | .7142857E-01  | .1648352E-01  |
| V30 | .2197802E-01  | -.4395604E-01 | 0.            | -.3296703E-01 | 0.            | -.1096901     | -.6593407E-01 | -.3296703E-01 |
| V31 | .4395604E-01  | -.1093901E-01 | -.3846154E-01 | .4945055E-01  | 0.            | -.6593407E-01 | .6043956E-01  | -.2747253E-01 |
| V32 | .5494505E-01  | -.3296703E-01 | 0.            | .3296703E-01  | 0.            | -.4395604E-01 | -.8791209E-01 | -.4395604E-01 |
| V33 | -.2197802E-01 | -.3296703E-01 | .3846154E-01  | -.5494505E-02 | 0.            | .3296703E-01  | -.4945055E-01 | -.5494505E-02 |
| V34 | -.6593407E-01 | -.2197802E-01 | -.3846154E-01 | -.1648352E-01 | 0.            | .2197802E-01  | .5494505E-02  | -.1648352E-01 |
|     | V26           | V27           | V28           | V29           | V30           | V31           | V32           | V33           |
| V26 | 0.            |               |               |               |               |               |               |               |
| V27 | 0.            | .2637363      |               |               |               |               |               |               |
| V28 | 0.            | .7692308E-01  | .2692308      |               |               |               |               |               |
| V29 | 0.            | -.2197802E-01 | .3846154E-01  | .1813187      |               |               |               |               |
| V30 | 0.            | .1233791      | 0.            | -.5494505E-01 | .2637363      |               |               |               |
| V31 | 0.            | .8791209E-01  | .1153846      | .5494505E-02  | .1428571      | .2472527      |               |               |
| V32 | 0.            | .3296703E-01  | 0.            | -.2197802E-01 | .1978022      | .1648352      | .2637363      |               |
| V33 | 0.            | -.4395604E-01 | -.3846154E-01 | .1648352E-01  | .4395604E-01  | -.2747253E-01 | .3296703E-01  | .7142857E-01  |
| V34 | 0.            | -.5494505E-01 | -.3846154E-01 | -.2747253E-01 | -.4395604E-01 | -.2472527E-01 | -.1978022E-01 | -.5494505E-02 |

V34

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 \*\*\* DR IREM NJACGLU PROGRAM 01 \*\*\*

PAGE

## MATRIX FOR GROUP

2.

|     | V17           | V19           | V20           | V21           | V22           | V23           | V24           | V25          |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|
| V17 | .2151813      |               |               |               |               |               |               |              |
| V19 | .2151813      | .2131313      |               |               |               |               |               |              |
| V20 | .2151813      | .2131313      | .2151813      |               |               |               |               |              |
| V21 | -.9090909E-01 | -.9090909E-01 | -.9090909E-01 | .2545455      |               |               |               |              |
| V22 | -.1313182E-01 | -.1313182E-01 | -.1313182E-01 | .9390909E-01  | .2151813      |               |               |              |
| V23 | -.5454545E-01 | -.5454545E-01 | -.5454545E-01 | .7272727E-01  | -.5454545E-01 | .1536364      |               |              |
| V24 | .1151813      | .1131313      | .1151813      | -.9090909E-01 | -.1818132E-01 | .4545455E-01  | .2151813      |              |
| V25 | 0.            | 0.            | 0.            | 0.            | 0.            | 0.            | 0.            | 0.           |
| V26 | -.7272727E-01 | -.7272727E-01 | -.7272727E-01 | .6363636E-01  | .7272727E-01  | .1536364E-01  | -.7272727E-01 | 0.           |
| V27 | .1313182E-01  | .1313182E-01  | .1818132E-01  | .9390909E-02  | .8181818E-01  | .1454545      | .1151813      | 0.           |
| V28 | -.5454545E-01 | -.5454545E-01 | -.5454545E-01 | .7272727E-01  | .5454545E-01  | .6363636E-01  | .4545455E-01  | 0.           |
| V29 | -.2727273E-01 | -.2727273E-01 | -.2727273E-01 | .3636364E-01  | .2727273E-01  | .8181818E-01  | .7272727E-01  | 0.           |
| V41 | -.6363636E-01 | -.6363636E-01 | -.6363636E-01 | .1318182E-01  | -.3636364E-01 | -.9090909E-02 | -.6363636E-01 | 0.           |
| V61 | -.1313182E-01 | -.1313182E-01 | -.1818132E-01 | -.1090909     | .1818182E-01  | -.4545455E-01 | -.1818132E-01 | 0.           |
| V71 | -.6363636E-01 | -.6363636E-01 | -.6363636E-01 | .1818182E-01  | .6363636E-01  | -.9090909E-02 | -.6363636E-01 | 0.           |
| V81 | -.1636364     | -.1636364     | -.1636364     | .1318182E-01  | -.3636364E-01 | -.9090909E-02 | -.1636364     | 0.           |
| V91 | .3636364E-01  | .3636364E-01  | .3636364E-01  | -.1818182     | -.3636364E-01 | -.1090909     | .3636364E-01  | 0.           |
|     | V26           | V27           | V28           | V29           | V41           | V61           | V71           | V81          |
| V26 | .9390909E-01  |               |               |               |               |               |               |              |
| V27 | .2727273E-01  | .2131313      |               |               |               |               |               |              |
| V28 | .1313182E-01  | .4545455E-01  | .1536364      |               |               |               |               |              |
| V29 | .9770909E-02  | .7272727E-01  | .8181818E-01  | .9090909E-01  |               |               |               |              |
| V41 | -.4545455E-01 | -.6363636E-01 | -.9090909E-02 | -.5454545E-01 | .2727273      |               |               |              |
| V61 | -.2727273E-01 | -.1818132E-01 | -.4545455E-01 | -.7272727E-01 | .1636364      | .2151813      |               |              |
| V71 | -.4545455E-01 | -.6363636E-01 | -.9090909E-02 | -.5454545E-01 | .1727273      | .1636364      | .2727273      |              |
| V81 | .5454545E-01  | -.6363636E-01 | -.1090909     | -.5454545E-01 | .7272727E-01  | .6363636E-01  | .7272727E-01  | .2727273     |
| V91 | -.4545455E-01 | -.6363636E-01 | -.1090909     | -.5454545E-01 | .7272727E-01  | .1636364      | .7272727E-01  | .7272727E-01 |

V71

TOTAL COVARIANCE MATRIX WITH 24 DEGREES OF FREEDOM

|     | V17           | V19           | V20           | V21           | V22           | V23           | V24           | V25           |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| V17 | .2600000      |               |               |               |               |               |               |               |
| V19 | .2200000      | .2566667      |               |               |               |               |               |               |
| V20 | .7500000E-01  | .6666667E-01  | .2500000      |               |               |               |               |               |
| V21 | -.1666667E-01 | -.3333333E-01 | -.4166667E-01 | .1666667      |               |               |               |               |
| V22 | -.2333333E-01 | .1333333E-01  | .8333333E-02  | .5333333E-01  | .1100000      |               |               |               |
| V23 | -.4833333E-01 | .6333333E-01  | .7500000E-01  | .6666667E-01  | .4000000E-01  | .2266667      |               |               |
| V24 | -.3300000E-01 | .0166667E-01  | .7500000E-01  | -.8333333E-02 | -.1666667E-02 | .1333333E-01  | .2266667      |               |
| V25 | -.2000000E-01 | .1833333E-01  | .1666667E-01  | .3333333E-01  | .5000000E-01  | .1333333E-01  | .1333333E-01  | .4000000E-01  |
| V26 | -.2000000E-01 | -.2333333E-01 | -.2500000E-01 | .3333333E-01  | .3666667E-01  | .1333333E-01  | .7166667E-01  | .6666667E-01  |
| V27 | .5500000E-01  | .4333333E-01  | -.2500000E-01 | -.2333333E-02 | .4500000E-01  | .6833333E-01  | .6833333E-01  | .1333333E-01  |
| V28 | .5500000E-01  | .3500000E-01  | -.6666667E-01 | .7500000E-01  | .4500000E-01  | .6833333E-01  | .6833333E-01  | .1333333E-01  |
| V29 | -.3333333E-02 | .1600000E-01  | .5333333E-01  | .3333333E-01  | -.1333333E-01 | -.6166667E-01 | -.6166667E-01 | .1333333E-01  |
| V30 | -.1166667E-01 | -.4833333E-01 | -.2500000E-01 | -.3333333E-02 | .1666667E-02  | .4333333E-01  | .4333333E-01  | .1333333E-01  |
| V31 | .6666667E-02  | .2000000E-01  | .3333333E-01  | -.2500000E-01 | .1666667E-02  | -.3333333E-01 | .7666667E-01  | .2166667E-01  |
| V32 | -.1000000E-01 | -.5333333E-01 | -.3333333E-01 | .1566667E-01  | .1933333E-01  | -.3333333E-01 | -.6666667E-01 | -.1000000E-01 |
| V33 | -.3666667E-01 | -.5666667E-01 | -.2500000E-01 | .3333333E-01  | .1166667E-01  | .3633333E-01  | -.6666667E-01 | -.1333333E-01 |
| V34 | .6666667E-02  | .2166667E-01  | .5333333E-02  | -.6666667E-01 | .1666667E-02  | -.1333333E-01 | .2333333E-01  | -.1333333E-01 |
| V35 |               |               |               |               |               |               |               |               |
| V36 | .4000000E-01  |               |               |               |               |               |               |               |
| V37 | .1500000E-01  | .2400000      |               |               |               |               |               |               |
| V38 | .1500000E-01  | .7333333E-01  | .2400000      |               |               |               |               |               |
| V39 | .6666667E-02  | .2333333E-01  | .6500000E-01  | .1400000      |               |               |               |               |
| V40 | -.1333333E-01 | .4000000E-01  | .1666667E-02  | -.3300000E-01 | .2566667      |               |               |               |
| V41 | -.1333333E-01 | .3666667E-01  | .3666667E-01  | -.3633333E-01 | .1783333      |               |               |               |
| V42 | -.2166667E-01 | .1533333E-01  | .1333333E-01  | -.3633333E-01 | .1783333      | .2666667      |               |               |
| V43 | .3166667E-01  | -.3500000E-01 | -.3500000E-01 | -.1566667E-02 | .5666667E-01  | .3333333E-02  | .2666667E-01  | .1900000      |
| V44 | -.1333333E-01 | -.4666667E-01 | -.4666667E-01 | -.3000000E-01 | -.2166667E-01 | .1633333E-01  | .4833333E-01  | .4500000E-01  |

V41

.2266667

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\*\*\* DR IREN NUHOSLU PROGRAM 31 \*\*\*

PAGE 1

----- DISCRIMINANT ANALYSIS -----

ON GROUPS DEFINED BY CODE

ANALYSIS NUMBER 1

DIRECT METHOD: ALL VARIABLES PASSING THE TOLERANCE TEST ARE ENTERED.

MINIMUM TOLERANCE LEVEL..... .00100

CALL THE DISCRIMINANT FUNCTIONS

MAXIMUM NUMBER OF FUNCTIONS..... 1  
MINIMUM CUMULATIVE PERCENT OF VARIANCE... 100.00  
MAXIMUM SIGNIFICANCE OF WILKS' LAMBDA.... 1.0000

PRIOR PROBABILITY FOR EACH GROUP IS .50000

CLASSIFICATION FUNCTION COEFFICIENTS  
(FISHER'S LINEAR DISCRIMINANT FUNCTIONS)

CODE = 1 2

|            |           |           |
|------------|-----------|-----------|
| V17        | 143.1244  | 133.5002  |
| V19        | -123.5330 | -91.94053 |
| V20        | 57.59330  | 34.00332  |
| V21        | 73.21578  | 52.01239  |
| V22        | -103.0414 | -39.89070 |
| V23        | -5.733065 | -2.949223 |
| V24        | -16.03635 | -3.342335 |
| V25        | 136.6124  | 102.6039  |
| V26        | 137.3271  | 143.6320  |
| V27        | 74.74162  | 34.47118  |
| V28        | 57.57816  | 33.34061  |
| V29        | -11.09161 | -1.349561 |
|            | -17.43371 | -5.603431 |
|            | -61.52751 | -31.66612 |
| V71        | 72.20310  | 73.53933  |
| V51        | 3.429907  | -2.529480 |
| V91        | 118.9330  | 72.13677  |
| (CONSTANT) | -237.7429 | -109.3352 |

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\*\*\* DR IREM NUMOGLU PROGRAM 51 \*\*\*

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# STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

|     | FUNC 1   |
|-----|----------|
| V17 | 2.56544  |
| V19 | -2.70852 |
| V20 | 2.20438  |
| V21 | 1.37429  |
| V22 | -.54153  |
| V23 | -.30571  |
| V24 | -1.09032 |
| V25 | .34286   |
| V26 | -.21727  |
| V27 | 1.73512  |
| V28 | 2.35369  |
| V29 | -.63623  |
| V41 | -.79523  |
| V51 | -.31136  |
| V71 | .50301   |
| V51 | 1.24096  |
| V91 | 2.09947  |

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\*\*\* DR IRE NUHOSLU PROGRAM 81 \*\*\*

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## STRUCTURE MATRIX:

POOLED WITHIN-GROUPS CORRELATIONS BETWEEN CANONICAL DISCRIMINANT FUNCTIONS AND DISCRIMINATING VARIABLES  
VARIABLES ARE ORDERED BY THE FUNCTION WITH LARGEST CORRELATION AND THE MAGNITUDE OF THAT CORRELATION.

|     | FUNC 1  |
|-----|---------|
| V51 | .16655  |
| V17 | .16350  |
| V22 | .15347  |
| V21 | .13031  |
| V26 | .11609  |
| V19 | .10432  |
| V23 | .07113  |
| V91 | .03856  |
| V25 | .07925  |
| V20 | .07925  |
| V25 | -.05161 |
| V22 | .03674  |
| V27 | .05469  |
| V71 | -.03916 |
| V24 | .03021  |
| V51 | -.03021 |
| V41 | .00870  |

# UNSTANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

## FUNC 1

|            |           |
|------------|-----------|
| V17        | 5.485935  |
| V19        | -5.434027 |
| V20        | 4.435127  |
| V21        | 3.536118  |
| V22        | -1.756222 |
| V23        | -.6514619 |
| V24        | -2.252044 |
| V25        | 4.194619  |
| V26        | -1.092835 |
| V27        | 3.513162  |
| V28        | 4.980636  |
| V29        | -1.688440 |
| V41        | -1.539073 |
| V51        | -1.674459 |
| V71        | .9319615  |
| V31        | 3.112623  |
| V91        | 4.465323  |
| (CONSTANT) | -12.20207 |

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 \*\*\* DR IREM NUHOGLU PROGRAM 31 \*\*\*

PAGE 1

## CANONICAL DISCRIMINANT FUNCTIONS EVALUATED AT GROUP MEANS (GROUP CENTROIDS)

| GROUP | FUNC 1   |
|-------|----------|
| 1     | 2.53874  |
| 2     | -3.23112 |

## TEST OF EQUALITY OF GROUP COVARIANCE MATRICES USING BOX'S M

THE RANKS AND NATURAL LOGARITHMS OF DETERMINANTS PRINTED ARE THOSE OF THE GROUP COVARIANCE MATRICES.

| GROUP LABEL                               | RANK | LOG DETERMINANT                    |
|---|------|------------------------------------|
| 1   | < 14 | (TOO FEW CASES TO BE NON-SINGULAR) |
| 2   | < 11 | (TOO FEW CASES TO BE NON-SINGULAR) |
| POOLED WITHIN-GROUPS<br>COVARIANCE MATRIX | 17   | -43.129212                         |

NO TEST CAN BE PERFORMED WITHOUT AT LEAST TWO NON-SINGULAR GROUP COVARIANCE MATRICES.

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 \*\*\* DR IREM NUHOGLU PROGRAM 31 \*\*\*

PAGE 1

| CASE<br>SEQUENCE | VIS<br>VAL | SEL | ACTUAL<br>GROUP | HIGHEST PROBABILITY<br>GROUP P(G/G) P(G/D) | 2ND HIGHEST<br>GROUP P(G/D) | DISCRIMINANT SCORES |
|------------------|------------|-----|-----------------|--|-----------------------------|---------------------|
| 1                |            |     | 1               | 1 .4524 1.0000                             | 2 .0000                     | 1.7874              |
| 2                |            |     | 1               | 1 .8511 1.0000                             | 2 .0000                     | 2.3510              |
| 3                |            |     | 1               | 1 .7759 1.0000                             | 2 .0000                     | 2.8235              |
| 4                |            |     | 1               | 1 .5572 1.0000                             | 2 .0000                     | 3.1256              |
| 5                |            |     | 1               | 1 .7759 1.0000                             | 2 .0000                     | 2.8235              |
| 6                |            |     | 1               | 1 .5330 1.0000                             | 2 .0000                     | 3.4020              |
| 7                |            |     | 1               | 1 .4649 1.0000                             | 2 .0000                     | 1.8379              |
| 8                |            |     | 1               | 1 .4561 1.0000                             | 2 .0000                     | 3.2840              |
| 9                |            |     | 1               | 1 .9956 1.0000                             | 2 .0000                     | 2.5442              |
| 10               |            |     | 1               | 1 .8247 1.0000                             | 2 .0000                     | 2.0496              |
| 11               |            |     | 1               | 1 .8434 1.0000                             | 2 .0000                     | 3.0017              |
| 12               |            |     | 1               | 1 .4053 1.0000                             | 2 .0000                     | 1.7073              |
| 13               |            |     | 1               | 1 .0223 .9694                              | 2 .0306                     | .2527               |
| 14               |            |     | 1               | 1 .0410 1.0000                             | 2 .0000                     | 4.5218              |
| 15               |            |     | 2               | 2 .8499 1.0000                             | 1 .0000                     | -3.4203             |
| 16               |            |     | 2               | 2 .1324 1.0000                             | 1 .0000                     | -4.7357             |
| 17               |            |     | 2               | 2 .7276 1.0000                             | 1 .0000                     | -3.5794             |
| 18               |            |     | 2               | 2 .5715 1.0000                             | 1 .0000                     | -2.3743             |
| 19               |            |     | 2               | 2 .7171 1.0000                             | 1 .0000                     | -3.5935             |
| 20               |            |     | 2               | 2 .2094 .9999                              | 1 .0001                     | -1.9756             |
| 21               |            |     | 2               | 2 .7331 1.0000                             | 1 .0000                     | -2.8901             |
| 22               |            |     | 2               | 2 .4355 1.0000                             | 1 .0000                     | -2.4513             |
| 23               |            |     | 2               | 2 .2094 .9999                              | 1 .0001                     | -1.9756             |
| 24               |            |     | 2               | 2 .4532 1.0000                             | 1 .0000                     | -3.9729             |
| 25               |            |     | 2               | 2 .1796 1.0000                             | 1 .0000                     | -4.5731             |

SYMBOLS USED IN PLOTS

| SYMBOL | GROUP | LABEL |
|--------|-------|-------|
| 1      | 1     |       |
| 2      | 2     |       |

124 JUN 63 SPSS-X RELEASE 2.0 FROM NORTHWESTERN UNIVERSITY  
 \*\*\* OR IREX NUMOGLU PROGRAM 51 \*\*\*

PAGE 1





CLASSIFICATION RESULTS -

| ACTUAL GROUP |   | NO. OF<br>CASES | PREDICTED GROUP MEMBERSHIP |              |
|--------------|---|-----------------|----------------------------|--------------|
|              |   |                 | 1                          | 2            |
| GROUP        | 1 | 14              | 14<br>100.0P               | 0<br>0.0P    |
| GROUP        | 2 | 11              | 0<br>0.0P                  | 11<br>100.0P |

PERCENT F "GROUPED" CASES CORRECTLY CLASSIFIED: 100.0P

CLASSIFICATION PROCESSING SUMMARY

25 CASES WERE PROCESSED.  
 0 CASES WERE EXCLUDED FOR MISSING OR OUT-OF-RANGE GROUP CODES.  
 1 CASES HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.  
 25 CASES WERE USED FOR PRINTED OUTPUT.  
 124 JUN 66 SPSS-X RELEASE 2.0 FROM NORTHWESTERN UNIVERSITY  
 \*\*\* DR IREY NUHOGU PROGRAM 31 \*\*\*

PAGE 1

PRECEDING TASK REQUIRED 3.59 SECONDS CPU TIME; 37 SECONDS ELAPSED.

11 0 FINISH

11 COMMAND LINES READ.  
 0 ERRORS DETECTED.  
 0 WARNINGS ISSUED.  
 5 SECONDS CPU TIME.  
 53 SECONDS ELAPSED TIME.  
 END OF JOB.

11.57.22.0CLP, 317 P33 , 0.733KLS.

**DISCRIMINANT ANALYSIS**  
**SECOND ANALYSIS**



124 JUN 86 SPSS-X RELEASE 2.3 FROM NORTHWESTERN UNIVERSITY  
 BOGAZICI UNIV COMP CENTER CYBER 170/S15 NDS 2.1

PAGE

SPSS INC LICENSE NUMBER: 19228

# NEW FEATURES IN SPSS-X RELEASE 2

FOR MORE DETAILS, USE THE COMMAND: INFO OVERVIEW FACILITIES.

- 3 PLOT - SCATTER PLOTS, OVERLAY PLOTS, CONTOUR PLOTS ON THE PRINTER.
- HILOGLINEAR - FAST LOGLINEAR ANALYSIS FOR HIERARCHICAL MODELS.
- CLUSTER - HIERARCHICAL CLUSTER ANALYSIS.
- QUICK CLUSTER - FAST CLUSTER ANALYSIS FOR A FIXED NUMBER OF CLUSTERS.
- IMPORT/EXPORT - PORTABLE SYSTEM FILES FOR TRANSFER TO OTHER KINDS OF COMPUTERS.
- PROBIT - BICHOTOMOUS PROBIT AND LOGISTIC REGRESSION ANALYSIS.
- SET WIDTH - WIDTH CONTROL FOR PRINTED OUTPUT.
- XSAVE - ALLOWS NEW FLEXIBILITY IN SAVING SYSTEM FILES.
- END SUBCOMMAND - WITH DATA LIST, YOU CAN DETECT END OF FILE.

```

1 0      SUBTITLE *** DR IREY NUHUGLU PROGRAM 62 ***
2 0      DATA LIST RECORDS =1 FIXED
3 0
      /CODE,V35,V19 TO V29,V41,V61,V71,V31,V91(F2.0,17F1.3)
  
```

THE ABOVE DATA LIST STATEMENT WILL READ 1 RECORDS FROM FILE INLINE

| VARIABLE | REC | START | END | FORMAT | WIDTH | DEC |
|----------|-----|-------|-----|--------|-------|-----|
| CODE     | 1   | 1     | 2   | F      | 2     | 0   |
| V35      | 1   | 3     | 3   | F      | 1     | 0   |
| V19      | 1   | 4     | 4   | F      | 1     | 0   |
| V20      | 1   | 5     | 5   | F      | 1     | 0   |
| V21      | 1   | 6     | 6   | F      | 1     | 0   |
| V22      | 1   | 7     | 7   | F      | 1     | 0   |
| V23      | 1   | 8     | 8   | F      | 1     | 0   |
| V24      | 1   | 9     | 9   | F      | 1     | 0   |
| V25      | 1   | 10    | 10  | F      | 1     | 0   |
| V26      | 1   | 11    | 11  | F      | 1     | 0   |
| V27      | 1   | 12    | 12  | F      | 1     | 0   |
| V28      | 1   | 13    | 13  | F      | 1     | 0   |
| V29      | 1   | 14    | 14  | F      | 1     | 0   |
| V41      | 1   | 15    | 15  | F      | 1     | 0   |
| V61      | 1   | 16    | 16  | F      | 1     | 0   |
| V71      | 1   | 17    | 17  | F      | 1     | 0   |
| V31      | 1   | 18    | 18  | F      | 1     | 0   |
| V91      | 1   | 19    | 19  | F      | 1     | 0   |

END OF DATA LIST TABLE.

PAGE

124 JUN 15 12:00 PM 1968 FROM NORTHWESTERN UNIVERSITY  
... DR 15000 PROGRAM 12 ...  
PRECEDING TASK REQUIRED 23 SECONDS CPU TIME 4 SECONDS ELAPSED.  
DISCREPANCY OF 1.0% IN THE RESULTS OF THE ANALYSIS  
/31/001/ANALYSIS=005.V19 TO V29.V41.V61.V71.V81  
/V01/METHOD=DIRECT/  
STATISTICS ALL

12102 WORDS OF WORKSPACE AVAILABLE.  
5000 WORDS ARE USED TO SATISFY MAXIMUM WORKSPACE REQUESTS.

PAGE

THIS DISCREPANCY ANALYSIS REQUIRES 1350 WORDS OF WORKSPACE.  
124 JUN 15 12:00 PM 1968 FROM NORTHWESTERN UNIVERSITY  
... DR 15000 PROGRAM 12 ...

----- DISCRIMINANT ANALYSIS -----

04 GROUPS DEFINED BY CODE

25 (UNWEIGHTED) CASES WERE PROCESSED.  
 1 OF 14000 WERE EXCLUDED FROM THE ANALYSIS.  
 1 HAD MISSING OR OUT-OF-RANGE GROUP CODES.  
 1 HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.  
 25 (UNWEIGHTED) CASES WILL BE USED IN THE ANALYSIS.

NUMBER OF CASES BY GROUP

| CODE  | UNWEIGHTED | WEIGHTED | LABEL |
|-------|------------|----------|-------|
| 1     | 12         | 12.0     |       |
| 2     | 12         | 12.0     |       |
| TOTAL | 25         | 25.0     |       |

GROUP MEANS

| CODE  | V05    | V19    | V20    | V21    | V22    | V23    | V24    | V25     |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|
| 1     | .75000 | .34515 | .53546 | .76923 | .92308 | .23577 | .33452 | .92373  |
| 2     | .33333 | .30000 | .25000 | .53333 | .33333 | .41667 | .25000 | 1.00000 |
| TOTAL | .55000 | .44000 | .40000 | .65000 | .63000 | .32500 | .32000 | .96000  |

| CODE  | V26     | V27    | V28    | V29    | V41    | V61    | V71    | V81    |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|
| 1     | .92308  | .46154 | .46154 | .15385 | .53846 | .59231 | .46154 | .59231 |
| 2     | 1.00000 | .25000 | .25000 | .16667 | .58333 | .66667 | .50000 | .53333 |
| TOTAL | .95000  | .36000 | .36000 | .16000 | .56000 | .66000 | .48000 | .76000 |

124 JUN 86 SPSS-X RELEASE 2.0 FROM NORTHWESTERN UNIVERSITY  
 \*\*\* OR OPEN NJOGLU PROGRAM 32 \*\*\*

PAGE

----- DISCRIMINANT ANALYSIS -----

ON GROUPS DEFINED BY CODE

25 (UNWEIGHTED) CASES WERE PROCESSED.  
 1 OF THESE WERE EXCLUDED FROM THE ANALYSIS.  
 1 HAD MISSING OR OUT-OF-RANGE GROUP CODES.  
 1 HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.  
 25 (UNWEIGHTED) CASES WILL BE USED IN THE ANALYSIS.

NUMBER OF CASES BY GROUP

| CODE  | NUMBER OF CASES<br>UNWEIGHTED | WEIGHTED | LABEL |
|-------|-------------------------------|----------|-------|
| 1     | 12                            | 12.0     |       |
| 2     | 12                            | 12.0     |       |
| TOTAL | 25                            | 25.0     |       |

GROUP MEANS

| CODE  | V20    | V19     | V20    | V21    | V22    | V23    | V24    | V25     |
|-------|--------|---------|--------|--------|--------|--------|--------|---------|
| 1     | .76221 | .34515  | .53546 | .76923 | .92338 | .23577 | .33452 | .92375  |
| 2     | .53333 | 1.00000 | .25000 | .53333 | .33333 | .41667 | .25000 | 1.00000 |
| TOTAL | .55700 | .44000  | .40000 | .50000 | .53000 | .32000 | .32000 | .96000  |

| CODE  | V26     | V27    | V28    | V29    | V41    | V61    | V71    | V31    |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|
| 1     | .92338  | .46154 | .46154 | .15385 | .53846 | .59231 | .46154 | .59231 |
| 2     | 1.00000 | .25000 | .25000 | .16667 | .53333 | .66667 | .50000 | .53333 |
| TOTAL | .95000  | .36000 | .36000 | .16000 | .55000 | .68000 | .48000 | .75000 |

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 \*\*\* DR IREN NJHDGLU PROGRAM 32 \*\*\*

| CODE  | V1     |
|-------|--------|
| 1     | .59221 |
| 2     | .66667 |
| TOTAL | .65700 |

GROUP STANDARD DEVIATIONS

| CODE  | V20    | V19    | V20    | V21    | V22    | V23    | V24    | V25    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1     | .43353 | .37553 | .51627 | .43853 | .27735 | .45853 | .50637 | .27735 |
| 2     | .49237 | .50000 | .52227 | .38925 | .35925 | .51493 | .45227 | .50000 |
| TOTAL | .39652 | .50562 | .53900 | .40325 | .33156 | .47510 | .47610 | .40000 |

| CODE  | V26    | V27    | V28    | V29    | V30    | V31    | V32    | V33    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1     | .27735 | .31337 | .51837 | .37353 | .51627 | .45338 | .51337 | .45338 |
| 2     | .50000 | .49237 | .52227 | .38925 | .51493 | .49237 | .52223 | .38925 |
| TOTAL | .20000 | .48990 | .48990 | .37417 | .50652 | .47510 | .50790 | .43339 |

| CODE  | V34    |
|-------|--------|
| 1     | .48936 |
| 2     | .49237 |
| TOTAL | .47610 |



POOLED WITHIN-GROUPS COVARIANCE MATRIX WITH 23 DEGREES OF FREEDOM

|     | V05           | V19           | V20           | V21           | V22           | V23           | V24           | V25           |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| V05 | .2152752      |               |               |               |               |               |               |               |
| V19 | -.2004037E-01 | .7357360E-01  |               |               |               |               |               |               |
| V20 | .2675535E-01  | .3344482E-02  | .2352943      |               |               |               |               |               |
| V21 | .5094169E-01  | -.2006089E-01 | -.3346154E-01 | .1727752      |               |               |               |               |
| V22 | .6243032E-01  | -.6586963E-02 | .1672241E-02  | .6243032E-01  | .1125975      |               |               |               |
| V23 | .5327151E-01  | -.2341137E-01 | .7230935E-01  | .6533222E-01  | .4626533E-01  | .2271450      |               |               |
| V24 | .5686963E-02  | .3344482E-01  | .5772575E-01  | -.1505017E-01 | -.5015722E-02 | .2501773E-01  | .2316354      |               |
| V25 | -.1003344E-01 | .2675535E-01  | .2341137E-01  | -.1003344E-01 | -.3344482E-02 | .1003344E-01  | .1672241E-01  | .4013378E-01  |
| V26 | .3344482E-01  | -.6586963E-02 | -.2006089E-01 | .3344482E-01  | .4013378E-01  | .1003344E-01  | -.2675535E-01 | -.3344482E-02 |
| V27 | .1157224E-01  | -.3344482E-02 | -.4254214E-01 | -.5015722E-02 | .4150502E-01  | -.2759197E-01 | .3444515E-01  | -.2341137E-01 |

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 \*\*\* OR IRM NIMHOLU PROGRAM 32 \*\*\*

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|     | V05           | V19           | V20           | V21           | V22           | V23           | V24           | V25           |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| V23 | .5020507E-01  | .4013378E-01  | -.3512040E-01 | .2193750E-01  | .4180502E-01  | .1538629E-01  | .3444515E-01  | .1003344E-01  |
| V27 | .3455754E-01  | .1337793E-01  | .5157291E-01  | .3455754E-01  | .2118172E-01  | .7413501E-01  | .7525384E-01  | .6683953E-02  |
| V41 | .1226310E-01  | -.4013378E-01 | -.2257525E-01 | -.9475031E-02 | -.1282051E-01 | -.6561093E-01 | -.6270903E-01 | -.2006089E-01 |
| V61 | -.1054107E-01 | -.2675535E-01 | -.1675930E-01 | -.2564103E-01 | .1114527E-02  | -.6131598E-01 | .2341137E-01  | -.1337793E-01 |
| V71 | -.2675535E-01 | -.4682274E-01 | -.3177258E-01 | .1572241E-01  | .2006089E-01  | -.3246154E-01 | -.7859532E-01 | -.2341137E-01 |
| V81 | .1192355      | -.2675535E-01 | -.1505017E-01 | .3232799E-01  | .1550758E-01  | .3285740E-01  | -.5523425E-01 | -.1337793E-01 |
| V91 | .5157224E-01  | .1672241E-01  | .5658963E-02  | -.6911729E-01 | .1114327E-02  | -.1723724E-01 | .2341137E-01  | -.1337793E-01 |

|     | V26           | V27           | V28           | V29           | V41           | V61          | V71           | V81          |
|-----|---------------|---------------|---------------|---------------|---------------|--------------|---------------|--------------|
| V26 | .4013378E-01  |               |               |               |               |              |               |              |
| V27 | .2006089E-01  | .2352943      |               |               |               |              |               |              |
| V28 | .2006089E-01  | .6535127E-01  | .2352943      |               |               |              |               |              |
| V29 | .5686963E-02  | .2506351E-01  | .5686963E-01  | .1460424      |               |              |               |              |
| V41 | -.2006089E-01 | .4431438E-01  | .5351204E-03  | -.5405012E-01 | .2672793      |              |               |              |
| V61 | -.1337793E-01 | .3578730E-01  | .3673930E-01  | -.3121516E-01 | .1515165      | .2353434     |               |              |
| V71 | -.2341137E-01 | -.1170556E-01 | -.1170556E-01 | -.4013378E-01 | .1855167      | .1572241     | .2709035      |              |
| V81 | .3015033E-01  | -.2342209E-01 | -.2342209E-01 | -.2229654E-02 | .5741350E-01  | .4459309E-02 | .3673930E-01  | .1923651     |
| V91 | -.1337793E-01 | -.5016722E-01 | -.5016722E-01 | -.3121516E-01 | -.2229654E-01 | .1595206E-01 | -.5016722E-01 | .4793757E-01 |

V91

V91 .2353434

|     | V05     | V19     | V20     | V21     | V22     | V23     | V24     | V25     | V26     | V27     | V28     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| V05 | 1.00000 |         |         |         |         |         |         |         |         |         |         |
| V19 | -.15907 | 1.00000 |         |         |         |         |         |         |         |         |         |
| V20 | .11786  | .02526  | 1.00000 |         |         |         |         |         |         |         |         |
| V21 | .44434  | -.17797 | -.13954 | 1.00000 |         |         |         |         |         |         |         |
| V22 | .43336  | -.07349 | .01021  | .44757  | 1.00000 |         |         |         |         |         |         |
| V23 | .39735  | -.18129 | .39992  | .33481  | .26929  | 1.00000 |         |         |         |         |         |
| V24 | .02739  | .25620  | .23829  | -.07523 | -.33107 | .11301  | 1.00000 |         |         |         |         |
| V25 | -.10769 | .67700  | .23939  | -.12043 | -.34975 | .13509  | .17345  | 1.00000 |         |         |         |
| V26 | .35395  | -.12339 | -.20520 | .40161  | .59702  | .13509  | -.27752 | -.26333 | 1.00000 |         |         |
| V27 | .07366  | -.02526 | -.17595 | -.02472 | .25522  | -.11860 | .35947  | -.23939 | .20520  | 1.00000 |         |
| V28 | .26518  | .30339  | -.36140 | .43380  | .25522  | .06328  | .35947  | .20520  | .20520  | .27912  | 1.00000 |
| V29 | .19446  | .12935  | .33167  | .21755  | .16516  | .40704  | .40716  | .03737  | .03737  | .13446  | .35752  |
| V41 | .05100  | -.23619 | -.03945 | -.04409 | -.07390 | -.27034 | -.25204 | -.19375 | -.19375 | .17559  | .30331  |
| V61 | -.11341 | -.20239 | -.15502 | -.12688 | .09683  | -.26463 | .10306  | -.13736 | -.13736 | .15502  | .15502  |
| V71 | -.11054 | -.33155 | -.12505 | .07729  | .11490  | -.15535 | -.31377 | -.22453 | -.22453 | -.04607 | -.04607 |
| V81 | .56406  | -.22460 | -.07020 | .17710  | .10591  | -.15713 | -.40352 | -.15206 | .34213  | -.13261 | -.13261 |
| V91 | .27120  | .12631  | .02519  | -.34203 | .00583  | -.07698 | .10006  | -.13736 | -.13736 | -.21139 | -.21139 |

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 \*\*\* DR IREM MUNDGLU PROGRAM 32 \*\*\*

|     | V29     | V41     | V61     | V71     | V81     | V91     |
|-----|---------|---------|---------|---------|---------|---------|
| V29 | 1.00000 |         |         |         |         |         |
| V41 | -.27567 | 1.00000 |         |         |         |         |
| V61 | -.16302 | .60324  | 1.00000 |         |         |         |
| V71 | -.20177 | .68951  | .66038  | 1.00000 |         |         |
| V81 | -.01329 | .25237  | .02089  | .15095  | 1.00000 |         |
| V91 | -.15872 | -.08671 | .03019  | -.17526 | .22453  | 1.00000 |

CORRELATIONS WHICH CANNOT BE COMPUTED ARE PRINTED AS 99.0.

WILKS' LAMBDA (J-STATISTIC) AND UNIVARIATE F-RATIO  
 WITH 1 AND 23 DEGREES OF FREEDOM

| VARIABLE | WILKS' LAMBDA | F         | SIGNIFICANCE |
|----------|---------------|-----------|--------------|
| V05      | .30753        | 5.462     | .0282        |
| V19      | .27473        | 50.72     | .0000        |
| V20      | .71346        | 2.179     | .1535        |
| V21      | .77359        | .1434     | .7035        |
| V22      | .78096        | .4463     | .5107        |
| V23      | .76033        | .9493     | .3400        |
| V24      | .97921        | .4582     | .4917        |
| V25      | .96154        | .9200     | .3475        |
| V26      | .76154        | .9200     | .3475        |
| V27      | .95152        | 1.172     | .2903        |
| V28      | .95152        | 1.172     | .2903        |
| V29      | .99969        | .7023E-02 | .9339        |
| V41      | .99796        | .4701E-01 | .5303        |
| V61      | .99925        | .1736E-01 | .6963        |
| V71      | .99852        | .3407E-01 | .5552        |
| V81      | .97278        | .6435     | .4307        |
| V91      | .99925        | .1736E-01 | .6963        |

COVARIANCE MATRIX FOR GROUP 1.

|     | V05           | V19           | V20           | V21           | V22           | V23           | V24           | V25           |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| V05 | .1923377      |               |               |               |               |               |               |               |
| V19 | -.364154E-01  | .1410236      |               |               |               |               |               |               |
| V20 | -.1153345     | -.5410256E-02 | .2692303      |               |               |               |               |               |
| V21 | .1029747      | -.3346154E-01 | -.1153346     | .1923077      |               |               |               |               |
| V22 | -.5410256E-01 | -.1282051E-01 | -.3346154E-01 | -.5769231E-01 | .7692305E-01  |               |               |               |
| V23 | -.5769231E-01 | -.4487179E-01 | .3235128E-01  | -.7351258E-01 | -.5123205E-01 | .1923377      |               |               |
| V24 | -.7051232E-01 | .6457179E-01  | .1027744      | -.1923077E-01 | -.5410256E-02 | -.1282051E-01 | .2692303      |               |
| V25 | .1923377E-01  | .7351232E-01  | .6457179E-01  | -.1923077E-01 | -.5410256E-02 | -.1282051E-01 | .3235128E-01  | .7692305E-01  |
| V26 | -.5410256E-01 | -.1282051E-01 | -.3346154E-01 | -.5769231E-01 | .7692305E-01  | -.1923077E-01 | -.5123205E-01 | -.4487179E-01 |
| V27 | -.3235128E-01 | -.6457179E-01 | -.1027744     | -.1923077E-01 | -.5410256E-02 | -.1282051E-01 | .3235128E-01  | -.3846154E-01 |
| V28 | .1153345      | .7692305E-01  | -.1027744     | .1153346      | .3846154E-01  | .5123205E-01  | -.3759231E-01 | .1282051E-01  |
| V29 | -.3346154E-01 | -.2692303E-01 | .7692305E-01  | -.3346154E-01 | .1282051E-01  | .4487179E-01  | .1027744      | -.3846154E-01 |
| V30 | -.5123205E-01 | -.7692305E-01 | .1923077E-01  | -.3235128E-01 | -.3346154E-01 | -.5123205E-01 | -.3759231E-01 | .1282051E-01  |
| V31 | -.5769231E-01 | -.4487179E-01 | .1027744      | .6457179E-01  | -.5410256E-02 | -.1282051E-01 | .3235128E-01  | -.3846154E-01 |
| V32 | .1923377E-01  | .7351232E-01  | .6457179E-01  | -.1923077E-01 | -.5410256E-02 | -.1282051E-01 | .3235128E-01  | -.3846154E-01 |
| V33 | -.5410256E-01 | -.1282051E-01 | -.3346154E-01 | -.5769231E-01 | .7692305E-01  | -.1923077E-01 | -.5123205E-01 | -.4487179E-01 |
| V34 | -.3235128E-01 | -.6457179E-01 | -.1027744     | -.1923077E-01 | -.5410256E-02 | -.1282051E-01 | .3235128E-01  | -.3846154E-01 |
| V35 | .1153345      | .7692305E-01  | -.1027744     | .1153346      | .3846154E-01  | .5123205E-01  | -.3759231E-01 | .1282051E-01  |
| V36 | -.3346154E-01 | -.2692303E-01 | .7692305E-01  | -.3346154E-01 | .1282051E-01  | .4487179E-01  | .1027744      | -.3846154E-01 |
| V37 | -.5123205E-01 | -.7692305E-01 | .1923077E-01  | -.3235128E-01 | -.3346154E-01 | -.5123205E-01 | -.3759231E-01 | .1282051E-01  |
| V38 | -.5769231E-01 | -.4487179E-01 | .1027744      | .6457179E-01  | -.5410256E-02 | -.1282051E-01 | .3235128E-01  | -.3846154E-01 |
| V39 | .1923377E-01  | .7351232E-01  | .6457179E-01  | -.1923077E-01 | -.5410256E-02 | -.1282051E-01 | .3235128E-01  | -.3846154E-01 |

|     | V26           | V27           | V28           | V29           | V41           | V71           | V81           | V81           |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| V26 | .7692305E-01  |               |               |               |               |               |               |               |
| V27 | .3235128E-01  | .2692303      |               |               |               |               |               |               |
| V28 | .3346154E-01  | .1923077E-01  | .2692303      |               |               |               |               |               |
| V29 | .1282051E-01  | .6457179E-01  | .1027744      | .1410236      |               |               |               |               |
| V41 | -.3346154E-01 | -.2692303E-01 | .7692305E-01  | -.6457179E-01 | .2692303      |               |               |               |
| V71 | -.2692303E-01 | .7351232E-01  | .6457179E-01  | -.1923077E-01 | .3235128E-01  | .2692303      |               |               |
| V81 | -.4487179E-01 | .1923077E-01  | .1027744      | -.1923077E-01 | .5410256E-02  | .2337672      |               |               |
| V81 | -.5769231E-01 | -.1282051E-01 | .7692305E-01  | -.7051232E-01 | .9615335E-01  | .1535662      | .2692303      |               |
| V81 | -.2692303E-01 | -.1282051E-01 | -.1282051E-01 | -.3235128E-01 | -.7051232E-01 | -.1923077E-01 | -.7051232E-01 | .2307692      |
| V81 |               |               |               |               |               |               |               | -.1023077E-01 |

## COVARIANCE MATRIX FOR GROUP

2.

|      | V05           | V19 | V23           | V21           | V22           | V23           | V24           | V25 |
|------|---------------|-----|---------------|---------------|---------------|---------------|---------------|-----|
| V05  | .2424242      |     |               |               |               |               |               |     |
| V19  | 0.            |     |               |               |               |               |               |     |
| V23  | .1212121      | 0.  | .2045455      |               |               |               |               |     |
| V21  | .0000000E-01  | 0.  | .4545455E-01  | .1515152      |               |               |               |     |
| V22  | .1000000E-01  | 0.  | .4545455E-01  | .6060606E-01  | .1515152      |               |               |     |
| V23  | .1212121      | 0.  | .1590909      | .7575758E-01  | .7575758E-01  | .2651515      |               |     |
| V24  | .9090909E-01  | 0.  | .2272727E-01  | .4545455E-01  | .4545455E-01  | .6818182E-01  | .2045455      |     |
| V25  | 0.            | 0.  | 0.            | 0.            | 0.            | 0.            | 0.            | 0.  |
| V26  | 0.            | 0.  | 0.            | 0.            | 0.            | 0.            | 0.            | 0.  |
| V27  | 0.            | 0.  | -.6818182E-01 | .4545455E-01  | .4545455E-01  | .6818182E-01  | .1136364      | 0.  |
| V28  | 0.            | 0.  | -.6818182E-01 | .4545455E-01  | .4545455E-01  | .2272727E-01  | .1136364      | 0.  |
| V29  | .3030303E-01  | 0.  | .4545455E-01  | .3030303E-01  | .3030303E-01  | .1060606      | .4545455E-01  | 0.  |
| V30  | -.2272727E-01 | 0.  | -.6818182E-01 | .1515152E-01  | .1515152E-01  | -.8333333E-01 | -.6818182E-01 | 0.  |
| V31  | -.6060606E-01 | 0.  | -.9090909E-01 | -.6060606E-01 | .3030303E-01  | -.1212121     | -.9090909E-01 | 0.  |
| V32  | -.9090909E-01 | 0.  | -.4545455E-01 | 0.            | .9090909E-01  | -.4545455E-01 | -.1363636     | 0.  |
| V33  | .4545455E-01  | 0.  | .4545455E-01  | -.3030303E-01 | -.3030303E-01 | -.1515152E-01 | -.4545455E-01 | 0.  |
| V34  | .1212121      | 0.  | .9090909E-01  | -.6060606E-01 | .3030303E-01  | -.3030303E-01 | 0.            | 0.  |
| V35  |               |     |               |               |               |               |               |     |
| V36  |               |     |               |               |               |               |               |     |
| V37  |               |     |               |               |               |               |               |     |
| V38  |               |     |               |               |               |               |               |     |
| V39  |               |     |               |               |               |               |               |     |
| V40  |               |     |               |               |               |               |               |     |
| V41  |               |     |               |               |               |               |               |     |
| V42  |               |     |               |               |               |               |               |     |
| V43  |               |     |               |               |               |               |               |     |
| V44  |               |     |               |               |               |               |               |     |
| V45  |               |     |               |               |               |               |               |     |
| V46  |               |     |               |               |               |               |               |     |
| V47  |               |     |               |               |               |               |               |     |
| V48  |               |     |               |               |               |               |               |     |
| V49  |               |     |               |               |               |               |               |     |
| V50  |               |     |               |               |               |               |               |     |
| V51  |               |     |               |               |               |               |               |     |
| V52  |               |     |               |               |               |               |               |     |
| V53  |               |     |               |               |               |               |               |     |
| V54  |               |     |               |               |               |               |               |     |
| V55  |               |     |               |               |               |               |               |     |
| V56  |               |     |               |               |               |               |               |     |
| V57  |               |     |               |               |               |               |               |     |
| V58  |               |     |               |               |               |               |               |     |
| V59  |               |     |               |               |               |               |               |     |
| V60  |               |     |               |               |               |               |               |     |
| V61  |               |     |               |               |               |               |               |     |
| V62  |               |     |               |               |               |               |               |     |
| V63  |               |     |               |               |               |               |               |     |
| V64  |               |     |               |               |               |               |               |     |
| V65  |               |     |               |               |               |               |               |     |
| V66  |               |     |               |               |               |               |               |     |
| V67  |               |     |               |               |               |               |               |     |
| V68  |               |     |               |               |               |               |               |     |
| V69  |               |     |               |               |               |               |               |     |
| V70  |               |     |               |               |               |               |               |     |
| V71  |               |     |               |               |               |               |               |     |
| V72  |               |     |               |               |               |               |               |     |
| V73  |               |     |               |               |               |               |               |     |
| V74  |               |     |               |               |               |               |               |     |
| V75  |               |     |               |               |               |               |               |     |
| V76  |               |     |               |               |               |               |               |     |
| V77  |               |     |               |               |               |               |               |     |
| V78  |               |     |               |               |               |               |               |     |
| V79  |               |     |               |               |               |               |               |     |
| V80  |               |     |               |               |               |               |               |     |
| V81  |               |     |               |               |               |               |               |     |
| V82  |               |     |               |               |               |               |               |     |
| V83  |               |     |               |               |               |               |               |     |
| V84  |               |     |               |               |               |               |               |     |
| V85  |               |     |               |               |               |               |               |     |
| V86  |               |     |               |               |               |               |               |     |
| V87  |               |     |               |               |               |               |               |     |
| V88  |               |     |               |               |               |               |               |     |
| V89  |               |     |               |               |               |               |               |     |
| V90  |               |     |               |               |               |               |               |     |
| V91  |               |     |               |               |               |               |               |     |
| V92  |               |     |               |               |               |               |               |     |
| V93  |               |     |               |               |               |               |               |     |
| V94  |               |     |               |               |               |               |               |     |
| V95  |               |     |               |               |               |               |               |     |
| V96  |               |     |               |               |               |               |               |     |
| V97  |               |     |               |               |               |               |               |     |
| V98  |               |     |               |               |               |               |               |     |
| V99  |               |     |               |               |               |               |               |     |
| V100 |               |     |               |               |               |               |               |     |

V21

V01 .2424242  
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 \*\*\* ON IBM MVS/370 PROGRAM 32 \*\*\*

PAGE

## TOTAL COVARIANCE MATRIX WITH 24 DEGREES OF FREEDOM

|     | V05          | V19          | V23          | V21          | V22          | V23          | V24          | V25          |
|-----|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| V05 | .2356567     |              |              |              |              |              |              |              |
| V19 | .7446567E-01 | .2566567     |              |              |              |              |              |              |
| V23 | .5333333E-01 | .5333333E-01 | .2500000     |              |              |              |              |              |
| V21 | .5333333E-01 | .5333333E-01 | .5333333E-02 | .1566567E-01 |              |              |              |              |
| V22 | .7500000E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .1100000     |              |              |              |
| V23 | .5333333E-01 | .5333333E-01 | .7500000E-01 | .5333333E-01 | .1666567E-01 | .2266567     |              |              |
| V24 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |              |
| V25 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V26 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V27 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V28 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V29 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V30 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V31 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V32 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V33 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V34 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V35 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V36 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V37 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V38 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |
| V39 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .5333333E-01 | .4000000E-01 |

V01

2200000

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 SPSS-X RELEASE 2.2 FROM NORTHWESTERN UNIVERSITY  
 \*\*\* BY IREQ NJWJGLU PROGRAM 82 \*\*\*

PAGE 1

DISCRIMINANT ANALYSIS

ON GROUPS DEFINED BY CODE

ANALYSIS NUMBER 1

DIRECT METHOD: ALL VARIABLES PASSING THE TOLERANCE TEST ARE ENTERED.

MINIMUM TOLERANCE LEVEL..... .00100

CANONICAL DISCRIMINANT FUNCTIONS

MAXIMUM NUMBER OF FUNCTIONS..... 1  
MINIMUM CUMULATIVE PERCENT OF VARIANCE..... 100.00  
MAXIMUM SIGNIFICANCE OF WILKS' LAMBDA..... 1.0000

PRIO: PROBABILITY FOR EACH GROUP IS .50000

DISCRIMINATION FUNCTION COEFFICIENTS  
(FISHER'S LINEAR DISCRIMINANT FUNCTIONS)

GROUP = 1 2

|     |            |           |
|-----|------------|-----------|
| 815 | -13.04522  | -42.97015 |
| 816 | -20.10366  | -41.94555 |
| 817 | 14.15115   | 34.97032  |
| 818 | 30.26051   | 53.51289  |
| 819 | -56.52311  | -39.59573 |
| 820 | 5.423219   | -2.94928  |
| 821 | 9.553350   | -3.042385 |
| 822 | 86.31034   | 152.9559  |
| 823 | 136.7479   | 143.6325  |
| 824 | 33.15225   | 34.47113  |
| 825 | 3.571554   | 23.34061  |
| 826 | 25.31145   | -1.340501 |
| 827 | 2.334555   | -3.553461 |
| 828 | -33.27245  | -31.65612 |
| 829 | 50.20459   | 72.55933  |
| 830 | -13.19377  | -9.527429 |
| 831 | 55.24244   | 93.15877  |
| 832 | -27.13111  | -19.4233  |
| 833 | (CONSTANT) |           |

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\*\*\* OF IREX UNDELJ PROGRAM 32 \*\*\*

CANONICAL DISCRIMINANT FUNCTIONS

| FUNCTION | EIGENVALUE | PERCENT OF VARIANCE | CUMULATIVE PERCENT | CANONICAL CORRELATION | AFTER FUNCTION | WILKS' LAMBDA | CHI-SQUARED | D.F. | SIGNIFICANCE |
|----------|------------|---------------------|--------------------|-----------------------|----------------|---------------|-------------|------|--------------|
| 1        | 13.41772   | 100.00              | 100.00             | .9741795              | 0              | .0509742      | 43.133      | 17   | .0005        |

\* MARKS THE 1 CANONICAL DISCRIMINANT FUNCTION(S) TO BE USED IN THE REMAINING ANALYSIS.

STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

FUNC 1

|     |          |
|-----|----------|
| V25 | -1.77537 |
| V19 | -2.32231 |
| V20 | 1.16903  |
| V21 | 1.12155  |
| V22 | -.93957  |
| V23 | -.68162  |
| V24 | -.73236  |
| V25 | 1.53705  |
| V26 | .23226   |
| V27 | 1.50092  |
| V28 | 1.57744  |
| V29 | -.57455  |
| V30 | -.08577  |
| V31 | -1.59131 |
| V32 | 1.52119  |
| V33 | -.45912  |
| V34 | 2.22693  |

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 \*\*\* 99 1957 UH30LJ PROGRAM 12 \*\*\*

STRUCTURE MATRIX:

POOLED WITHIN-GROUPS CORRELATIONS BETWEEN CANONICAL DISCRIMINANT FUNCTIONS AND DISCRIMINATING VARIABLES  
VARIABLES ARE ORDERED BY THE FUNCTION WITH LARGEST CORRELATION AND THE MAGNITUDE OF THAT CORRELATION.

|     | FUNC 1  |
|-----|---------|
| V19 | -.27524 |
| V35 | -.11712 |
| V20 | -.07132 |
| V27 | -.05231 |
| V22 | -.05231 |
| V23 | -.04737 |
| V25 | -.04535 |
| V26 | -.04535 |
| V31 | -.03875 |
| V24 | -.03577 |
| V22 | -.03522 |
| V21 | -.01582 |
| V41 | -.01542 |
| V71 | -.00872 |
| V91 | -.00637 |
| V51 | -.00537 |
| V29 | -.00495 |

UNCONSTRAINED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

|            | FUNC 1    |
|------------|-----------|
| V35        | -3.317326 |
| V1         | -5.572321 |
| V19        | 2.324227  |
| V21        | 1.998269  |
| V22        | -2.203351 |
| V23        | -1.010383 |
| V24        | -1.021771 |
| V25        | 2.133223  |
| V26        | 1.025137  |
| V27        | 3.177115  |
| V28        | 2.231449  |
| V29        | -1.193272 |
| V31        | -1.323413 |
| V31        | -2.244772 |
| V71        | 2.063112  |
| V81        | 1.045331  |
| V91        | 4.533727  |
| (CONSTANT) | -2.555374 |

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\*\*\* 95 IREX UNDOCU PROGRAM 02 \*\*\*



## CANONICAL DISCRIMINANT FUNCTIONS EVALUATED AT GROUP MEANS (GROUP CENTROIDS)

| GROUP | FUNC 1   |
|-------|----------|
| 1     | -2.37503 |
| 2     | 4.53755  |

## TEST OF EQUALITY OF GROUP COVARIANCE MATRICES USING BOX'S M

THE NAMES AND NATURAL LOGARITHMS OF DETERMINANTS PRINTED ARE THOSE OF THE GROUP COVARIANCE MATRICES.

| BOX'S M                               | LOG DETERMINANT |
|---------------------------------------|-----------------|
| 15 (109 FEW CASES TO BE NON-SINGULAR) |                 |
| 12 (109 FEW CASES TO BE NON-SINGULAR) |                 |
| POOLED WITHIN-GROUP COVARIANCE MATRIX | 17 -43.142115   |

10 TEST CAN BE RUN WITH OR WITHOUT AT LEAST TWO NON-SINGULAR GROUP COVARIANCE MATRICES.

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... ON IBM JH00000 PROGRAM 12 ...

PAGE 1

| CASE | 100 | 101 | 102 | 103 | HIGHEST PROBABILITY GROUP P(G/D) | HIGHEST GROUP P(G/D) | DISCRIMINANT SCORES |
|------|-----|-----|-----|-----|----------------------------------|----------------------|---------------------|
| 1    | 1   | 1   | 1   | 1   | 1 .0124 1.0000                   | 2 -.0000             | -1.4134             |
| 2    | 1   | 1   | 1   | 1   | 1 .8432 1.0000                   | 2 -.0000             | -3.7765             |
| 3    | 1   | 1   | 1   | 1   | 1 .3309 1.0000                   | 2 -.0000             | -4.1299             |
| 4    | 1   | 1   | 1   | 1   | 1 .6095 1.0000                   | 2 -.0500             | -4.6723             |
| 5    | 1   | 1   | 1   | 1   | 1 .5754 1.0000                   | 2 -.0000             | -3.4465             |
| 6    | 1   | 1   | 1   | 1   | 1 .3339 1.0000                   | 2 -.0000             | -4.1599             |
| 7    | 1   | 1   | 1   | 1   | 1 .8441 1.0000                   | 2 -.0000             | -4.3832             |
| 8    | 1   | 1   | 1   | 1   | 1 .7780 1.0000                   | 2 -.0000             | -5.0510             |
| 9    | 1   | 1   | 1   | 1   | 1 .7421 1.0000                   | 2 -.0000             | -3.9574             |
| 10   | 1   | 1   | 1   | 1   | 1 .3121 1.0000                   | 2 -.0000             | -3.7274             |
| 11   | 1   | 1   | 1   | 1   | 1 .1775 1.0000                   | 2 -.0000             | -5.3255             |
| 12   | 1   | 1   | 1   | 1   | 1 .3125 1.0000                   | 2 -.0000             | -3.1353             |
| 13   | 1   | 1   | 1   | 1   | 1 .4423 1.0000                   | 2 -.0000             | -4.7395             |
| 14   | 1   | 1   | 1   | 1   | 1 .2713 1.0000                   | 1 -.0000             | 3.2027              |
| 15   | 1   | 1   | 1   | 1   | 1 .3221 1.0000                   | 1 -.0000             | 4.5352              |
| 16   | 1   | 1   | 1   | 1   | 1 .3225 1.0000                   | 1 -.0000             | 5.2185              |
| 17   | 1   | 1   | 1   | 1   | 1 .3329 1.0000                   | 1 -.0000             | 3.6745              |
| 18   | 1   | 1   | 1   | 1   | 1 .2822 1.0000                   | 1 -.0000             | 3.1264              |
| 19   | 1   | 1   | 1   | 1   | 1 .2542 1.0000                   | 1 -.0000             | 3.1573              |
| 20   | 1   | 1   | 1   | 1   | 1 .7232 1.0000                   | 1 -.0000             | 4.6519              |
| 21   | 1   | 1   | 1   | 1   | 1 .1753 1.0000                   | 1 -.0000             | 5.6307              |
| 22   | 1   | 1   | 1   | 1   | 1 .2821 1.0000                   | 1 -.0000             | 5.3334              |
| 23   | 1   | 1   | 1   | 1   | 1 .1950 1.0000                   | 1 -.0000             | 5.6307              |
| 24   | 1   | 1   | 1   | 1   | 1 .9372 1.0000                   | 1 -.0000             | 4.2283              |
| 25   | 1   | 1   | 1   | 1   | 1 .2705 1.0000                   | 1 -.0000             | 3.2359              |



**F  
R  
E  
Q  
U  
E  
N  
C  
Y**

CLASSIFICATION RESULTS -

| ACTUAL GROUP |   | NO. OF<br>CASES | PREDICTED GROUP MEMBERSHIP |              |
|--------------|---|-----------------|----------------------------|--------------|
|              |   |                 | 1                          | 2            |
| GROUP        | 1 | 13              | 13<br>100.0%               | 0            |
| GROUP        | 2 | 12              | 0<br>0.0%                  | 12<br>100.0% |

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 100.00%

CLASSIFICATION PROCESSING SUMMARY

26 CASES WERE PROCESSED.  
0 CASES WERE EXCLUDED FOR MISSING OR OUT-OF-RANGE GROUP CODES.  
1 CASES HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.  
25 CASES WERE USED FOR PRINTED OUTPUT.

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\*\*\* DR IRM4 NUNOGLU PROSEAN 32 \*\*\*

PAGE 1

PRECEDING TASK REQUIRED 3.57 SECONDS CPU TIME; 37 SECONDS ELAPSED.

2 0 FINISH

9 COMMAND LINES READ.  
7 LINES DETECTED.  
1 LINE ISSUED.  
0.000000 TIME.  
0.000000 ELAPSED TIME.  
END OF JOB.

**DISCRIMINANT ANALYSIS**

**THIRD ANALYSIS**

SPSS INC LICENSE NUMBER: 19223

# NEW FEATURES IN SPSS-X RELEASE 2

FOR MORE DETAILS, USE THE COMMAND: INFO OVERVIEW FACILITIES.

- ✓ PLOT - SCATTER PLOTS, OVERLAY PLOTS, CONTOUR PLOTS ON THE PRINTER.
- ✓ HILOGLINEAR - FAST LOGLINEAR ANALYSIS FOR HIERARCHICAL MODELS.
- ✓ CLUSTER - HIERARCHICAL CLUSTER ANALYSIS.
- ✓ CLUSTER - FAST CLUSTER ANALYSIS FOR A FIXED NUMBER OF CLUSTERS.
- ✓ EXPORT - PORTABLE SYSTEM FILES FOR TRANSFER TO OTHER KINDS OF COMPUTERS.
- ✓ PROBIT - DICHOTOMOUS PROBIT AND LOGISTIC REGRESSION ANALYSIS.
- ✓ SET WIDTH - WIDTH CONTROL FOR PRINTED OUTPUT.
- ✓ XSAVE - ALLOWS NEW FLEXIBILITY IN SAVING SYSTEM FILES.
- ✓ END SUBCOMMAND - WITH DATA LIST, YOU CAN DETECT END OF FILE.

```
1 7      SUBTITLE *** DR IREM NUCUGLU PROGRAM 33 ***
2 3      DATA LIST RECORDS =1 FIXED
3 7
4 3      /CODE,V05,V17,V20,V21,V22,V23,V24
5 3      V25,V26,V27,V28,V29,V41,V01,V71,
          V81,V91.(F2.0,17F1.0)
```

THE ABOVE DATA LIST STATEMENT WILL READ 1 RECORDS FROM FILE INLINE .

| VARIABLE | REC | START | END | FORMAT | WIDTH | DEC |
|----------|-----|-------|-----|--------|-------|-----|
| CODE     | 1   | 1     | 2   | F      | 2     | 0   |
| V05      | 1   | 3     | 5   | F      | 1     | 0   |
| V17      | 1   | 4     | 4   | F      | 1     | 0   |
| V20      | 1   | 5     | 5   | F      | 1     | 0   |
| V21      | 1   | 6     | 5   | F      | 1     | 0   |
| V22      | 1   | 7     | 7   | F      | 1     | 0   |
| V23      | 1   | 8     | 8   | F      | 1     | 0   |
| V24      | 1   | 9     | 9   | F      | 1     | 0   |
| V25      | 1   | 10    | 10  | F      | 1     | 0   |
| V26      | 1   | 11    | 11  | F      | 1     | 0   |
| V27      | 1   | 12    | 12  | F      | 1     | 0   |
| V28      | 1   | 13    | 13  | F      | 1     | 0   |
| V29      | 1   | 14    | 14  | F      | 1     | 0   |
| V41      | 1   | 15    | 15  | F      | 1     | 0   |
| V01      | 1   | 16    | 16  | F      | 1     | 0   |
| V71      | 1   | 17    | 17  | F      | 1     | 0   |
| V81      | 1   | 18    | 18  | F      | 1     | 0   |
| V91      | 1   | 19    | 19  | F      | 1     | 0   |

END OF DATALIST TABLE.

124 JUL 66      BEGIN DATA  
 SPSS-X RELEASE 2.0 FROM NORTHWESTERN UNIVERSITY  
 \*\*\* DR IREY NUMOGLU PROGRAM 63 \*\*\*

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PRECEDING TASK REQUIRED      .24 SECONDS CPU TIME?      5 SECONDS ELAPSED.

7 7      DISCRIMINANT GROUPS =CODE(1,2)/VARIABLES =V05,V17,  
 8 3      V20 TO V29,V41,V61,V71,V81,V91/  
 9 1      ANALYSIS=V05,V17,V20 TO V29,V41,V61,  
 10 3      V71,V81,V91/METHOD=DIRECT/  
 11 7      STATISTICS ALL

52120 WORDS OF WORKSPACE AVAILABLE.  
 5000 WORDS ARE USED TO SATISFY MAXIMUM WORKSPACE REQUESTS.

THIS DISCRIMINANT ANALYSIS REQUIRES      1350 WORDS OF WORKSPACE.  
 124 JUL 66      SPSS-X RELEASE 2.0 FROM NORTHWESTERN UNIVERSITY  
 \*\*\* DR IREY NUMOGLU PROGRAM 63 \*\*\*

PAGE

----- DISCRIMINANT ANALYSIS -----

04 GROUPS DEFINED BY CODE

25 (UNWEIGHTED) CASES WERE PROCESSED.  
 1 OF THESE WERE EXCLUDED FROM THE ANALYSIS.  
 1 HAD MISSING OR OUT-OF-RANGE GROUP CODES.  
 1 HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.  
 25 (UNWEIGHTED) CASES WILL BE USED IN THE ANALYSIS.

NUMBER OF CASES BY GROUP

| CODE  | NUMBER OF CASES |          | LABEL |
|-------|-----------------|----------|-------|
|       | UNWEIGHTED      | WEIGHTED |       |
| 1     | 11              | 11.0     |       |
| 2     | 14              | 14.0     |       |
| TOTAL | 25              | 25.0     |       |

GROUP MEANS

| CODE  | V05    | V17     | V20    | V21    | V22    | V23    | V24    | V25     |
|-------|--------|---------|--------|--------|--------|--------|--------|---------|
| 1     | .72727 | 1.00000 | .54545 | .72727 | .90909 | .18182 | .45455 | 1.00000 |
| 2     | .42857 | .14286  | .28571 | .85714 | .85714 | .42857 | .21429 | .92857  |
| TOTAL | .56000 | .52000  | .40000 | .80000 | .88000 | .32000 | .32000 | .96000  |

| CODE  | V26     | V27    | V28    | V29    | V41    | V51    | V71    | V81    |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|
| 1     | .90909  | .45455 | .54545 | .18182 | .45455 | .03030 | .30304 | .03030 |
| 2     | 1.00000 | .28571 | .21429 | .14286 | .64286 | .71429 | .57143 | .05714 |
| TOTAL | .96000  | .36000 | .36000 | .16000 | .56000 | .68000 | .40000 | .76000 |

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 \*\*\* DR IREM NUHOGLU PROGRAM 83 \*\*\*

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| CODE  | V91    |
|-------|--------|
| 1     | .72727 |
| 2     | .64285 |
| TOTAL | .68003 |

GROUP STANDARD DEVIATIONS

| CODE  | V05    | V17     | V20    | V21    | V22    | V23    | V24    | V25     |
|-------|--------|---------|--------|--------|--------|--------|--------|---------|
| 1     | .46713 | 0.00000 | .52223 | .46713 | .30151 | .40452 | .52223 | 0.00000 |
| 2     | .51355 | .36314  | .46881 | .36314 | .36314 | .51355 | .42582 | .26720  |
| TOTAL | .50662 | .50990  | .50000 | .40825 | .33184 | .47610 | .47610 | .20000  |

| CODE  | V26     | V27    | V28    | V29    | V41    | V61    | V71    | V81    |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|
| 1     | .30151  | .52223 | .52223 | .40452 | .52223 | .50452 | .50452 | .50452 |
| 2     | 0.50000 | .46881 | .42582 | .36314 | .49725 | .46881 | .51355 | .36314 |
| TOTAL | .20000  | .48990 | .48990 | .37417 | .50662 | .47610 | .50990 | .43339 |

| CODE  | V91    |
|-------|--------|
| 1     | .46713 |
| 2     | .49725 |
| TOTAL | .47610 |



POOLED WITHIN-GROUPS COVARIANCE MATRIX WITH

23 DEGREES OF FREEDOM

|     | V05           | V17           | V20           | V21           | V22           | V23           | V24           | V25           |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| V05 | .2439300      |               |               |               |               |               |               |               |
| V17 | .4763944E-01  | .7453416E-01  |               |               |               |               |               |               |
| V20 | .4009034E-01  | .1863354E-01  | .2426037      |               |               |               |               |               |
| V21 | .8365043E-01  | .1242236E-01  | -.3444332E-01 | .1693958      |               |               |               |               |
| V22 | .6333763E-01  | .1242236E-01  | .5081875E-02  | .6267645E-01  | .1140599      |               |               |               |
| V23 | .3562722E-01  | .6211180E-02  | .9542631E-01  | .6098250E-01  | .4517222E-01  | .2232146      |               |               |
| V24 | .3367916E-02  | -.1863354E-01 | .6154715E-01  | -.9034444E-02 | -.5061875E-02 | .3590647E-01  | .2210615      |               |
| V25 | -.2484472E-01 | -.3726703E-01 | .1242236E-01  | -.6211180E-02 | -.6211180E-02 | .1863354E-01  | .9316770E-02  | .4037207E-01  |
| V26 | .3162055E-01  | 0.            | -.1976285E-01 | .3162055E-01  | .3952569E-01  | .7905138E-02  | -.2371542E-01 | 0.            |
| V27 | .2823264E-01  | .1863354E-01  | -.3783173E-01 | -.2823264E-02 | .4465757E-01  | -.2710333E-01 | .6150999E-01  | -.3106590E-01 |

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|     | V05           | V17           | V20           | V21           | V22           | V23           | V24           | V25           |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| V26 | .5372388E-01  | -.1863354E-01 | -.9260305E-01 | .8977979E-01  | .4234290E-01  | .2710333E-01  | .7036392E-01  | .9016770E-02  |
| V29 | .2992600E-01  | -.1242236E-01 | .5915923E-01  | .3613778E-01  | .2032750E-01  | .7735743E-01  | .7227555E-01  | .6211180E-02  |
| V41 | .2202145E-01  | .3175590E-01  | -.1298701E-01 | -.1524502E-01 | -.1129303E-01 | -.7679277E-01 | -.5243038E-01 | -.1552795E-01 |
| V61 | -.1637493E-01 | .2434472E-01  | -.2936174E-01 | -.2579729E-01 | .2823264E-02  | -.6775833E-01 | .2936194E-01  | -.1242236E-01 |
| V71 | -.1465097E-01 | .3726703E-01  | -.2032750E-01 | .1916375E-01  | .2202146E-01  | -.5025409E-01 | -.6662902E-01 | -.1863354E-01 |
| V81 | .1202710      | .1242236E-01  | -.1072640E-01 | .2710333E-01  | .1524502E-01  | .2540937E-01  | -.7622612E-01 | -.6211180E-02 |
| V91 | .5759458E-01  | -.1242236E-01 | .2823264E-02  | -.6662902E-01 | .5646527E-03  | -.1355157E-01 | .1851587E-01  | -.1552795E-01 |

|     | V26           | V27           | V28           | V29           | V41           | V61           | V71           | V81          |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|
| V27 | .3952569E-01  |               |               |               |               |               |               |              |
|     | .1976285E-01  | .2426037      |               |               |               |               |               |              |
|     | .2371542E-01  | .6154715E-01  | .2210615      |               |               |               |               |              |
|     | .7905138E-02  | .2258011E-01  | .6437041E-01  | .1456304      |               |               |               |              |
| V41 | -.2371542E-01 | .5025409E-01  | .1496330E-01  | -.5194505E-01 | .2562386      |               |               |              |
| V61 | -.1531023E-01 | .4178430E-01  | .4517222E-01  | -.3349125E-01 | .1473744      | .2346955      |               |              |
| V71 | -.2766798E-01 | -.4517222E-02 | .4517222E-02  | -.3783173E-01 | .1756070      | .1626205      | .2597403      |              |
| V81 | .2766793E-01  | -.2653263E-01 | -.1693958E-01 | .5546527E-03  | .4799546E-01  | -.1129303E-02 | .2597403E-01  | .1552001     |
| V91 | -.1185771E-01 | -.5251270E-01 | -.5513275E-01 | -.3218521E-01 | -.1335121E-01 | .2039215E-01  | -.4573637E-01 | .5194805E-01 |

V91

V91 .2346132

POOLED WITHIN-GROUPS CORRELATION MATRIX

|     | V05     | V17     | V20     | V21     | V22     | V23     | V24     | V25     | V26     | V27     | V28     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| V05 | 1.00000 |         |         |         |         |         |         |         |         |         |         |
| V17 | .36851  | 1.00000 |         |         |         |         |         |         |         |         |         |
| V20 | .16473  | .13851  | 1.00000 |         |         |         |         |         |         |         |         |
| V21 | .43611  | .11055  | -.16934 | 1.00000 |         |         |         |         |         |         |         |
| V22 | .41299  | .13473  | .03054  | .45091  | 1.00000 |         |         |         |         |         |         |
| V23 | .37031  | .04843  | .41269  | .31574  | .28502  | 1.00000 |         |         |         |         |         |
| V24 | .01459  | -.14516 | .26566  | -.04669 | -.03200 | .15307  | 1.00000 |         |         |         |         |
| V25 | -.25036 | -.67937 | .12547  | -.07511 | -.09153 | .19752  | .09062  | 1.00000 |         |         |         |
| V26 | .32203  | 0.00000 | -.20174 | .38644  | .58867  | -.08473 | -.25371 | 0.00000 | 1.00000 |         |         |
| V27 | .11601  | .13851  | -.15531 | -.31392 | .26805  | -.11721 | .35096  | -.31307 | .20174  | 1.00000 |         |
| V28 | .25289  | -.14516 | -.39971 | .46395  | .26570  | .12284  | .32056  | .09802  | .25371  | .26566  | 1.00000 |
| V29 | .15875  | -.11921 | .30924  | .23004  | .15769  | .43190  | .40275  | .08099  | .10410  | .12009  | .05070  |
| V41 | .03773  | .22381  | -.05186 | -.07288 | -.06579 | -.32197 | -.21856 | -.15205 | -.23470 | .20066  | .06452  |
| V61 | -.06841 | .18777  | -.12295 | -.14437 | .01725  | -.29792 | .12885  | -.12756 | -.16406 | .17496  | .19823  |
| V71 | -.05832 | .26764  | -.08094 | .04845  | .12794  | -.21013 | -.27800 | -.18196 | -.27007 | -.01799 | .01030  |
| V81 | .50585  | .10573  | -.05059 | .15302  | .10489  | .12532  | -.37673 | -.07103 | .32030  | -.12515 | -.00072 |
| V91 | .24075  | -.09394 | .01183  | -.33422 | .00345  | -.05962 | .06306  | -.15955 | -.12314 | -.22002 | -.24670 |

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|     | V29     | V41     | V61     | V71     | V81     | V91     |
|-----|---------|---------|---------|---------|---------|---------|
| V29 | 1.00000 |         |         |         |         |         |
| V41 | -.26778 | 1.00000 |         |         |         |         |
| V61 | -.16433 | .59327  | 1.00000 |         |         |         |
| V71 | -.19448 | .67793  | .65837  | 1.00000 |         |         |
| V81 | -.00344 | .21943  | -.00541 | .11842  | 1.00000 |         |
| V91 | -.17409 | -.07454 | .03900  | -.18528 | .24921  | 1.00000 |

CORRELATIONS WHICH CANNOT BE COMPUTED ARE PRINTED AS 99.C.

|     | V29     | V41     | V61     | V71     | V81     | V91     |
|-----|---------|---------|---------|---------|---------|---------|
| V29 | 1.00000 |         |         |         |         |         |
| V41 | -.26778 | 1.00000 |         |         |         |         |
| V61 | -.16433 | .59327  | 1.00000 |         |         |         |
| V71 | -.19448 | .67793  | .65837  | 1.00000 |         |         |
| V81 | .00344  | .21943  | -.00541 | .11342  | 1.00000 |         |
| V91 | -.17409 | -.07454 | .08990  | -.16528 | .24921  | 1.00000 |

CORRELATIONS WHICH CANNOT BE COMPUTED ARE PRINTED AS 99.0.

WILKS' LAMBDA (U-STATISTIC) AND UNIVARIATE F-RATIO  
WITH 1 AND 23 DEGREES OF FREEDOM

| VARIABLE | WILKS' LAMBDA | F         | SIGNIFICANCE |
|----------|---------------|-----------|--------------|
| V05      | .91376        | 2.253     | .1469        |
| V17      | .27473        | 60.72     | .0000        |
| V20      | .93074        | 1.712     | .2037        |
| V21      | .97403        | .6133     | .4415        |
| V22      | .99370        | .1457     | .7061        |
| V23      | .93105        | 1.703     | .2048        |
| V24      | .93464        | 1.609     | .2174        |
| V25      | .96726        | .7735     | .3867        |
| V26      | .94697        | 1.286     | .2681        |
| V27      | .96952        | .7232     | .4039        |
| V28      | .38271        | 3.056     | .0938        |
| V29      | .99722        | .64195-01 | .4922        |
| V41      | .96454        | .3456     | .3673        |
| V61      | .99312        | .1592     | .6935        |
| V71      | .95738        | 1.024     | .3221        |
| V81      | .93415        | 1.621     | .2156        |
| V91      | .99193        | .1571     | .6694        |

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## COVARIANCE MATRIX FOR GROUP

1.

|     | V05           | V17           | V20           | V21           | V22           | V23           | V24           | V25           |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| V05 | .2181818      |               |               |               |               |               |               |               |
| V17 | 0.            | 0.            |               |               |               |               |               |               |
| V20 | -.1363636     | 0.            | .2727273      |               |               |               |               |               |
| V21 | .1181818      | 0.            | -.1363636     | .2181818      |               |               |               |               |
| V22 | .7272727E-01  | 0.            | -.4545455E-01 | .7272727E-01  | .9090909E-01  |               |               |               |
| V23 | .5454545E-01  | 0.            | -.9090909E-02 | .5454545E-01  | .1818182E-01  | .1636364      |               |               |
| V24 | -.6363636E-01 | 0.            | .1272727      | -.6363636E-01 | -.5454545E-01 | .9090909E-02  | .2727273      |               |
| V25 | 0.            | 0.            | 0.            | 0.            | 0.            | 0.            | 0.            | 0.            |
| V26 | .7272727E-01  | 0.            | -.4545455E-01 | .7272727E-01  | .9090909E-01  | .1618182E-01  | -.5454545E-01 | 0.            |
| V27 | .3636364E-01  | 0.            | .2727273E-01  | -.6363636E-01 | .4545455E-01  | -.9090909E-01 | .7272727E-01  | 0.            |
| V28 | .1636364      | 0.            | -.1272727     | .1636364      | .5454545E-01  | .9090909E-01  | .2727273E-01  | 0.            |
| V29 | .5454545E-01  | 0.            | .9090909E-01  | .5454545E-01  | .1818182E-01  | .6363636E-01  | .1090909      | 0.            |
| V41 | .3636364E-01  | 0.            | .2727273E-01  | -.6363636E-01 | -.5454545E-01 | -.9090909E-01 | -.2727273E-01 | 0.            |
| V61 | -.9090909E-02 | 0.            | .1818182E-01  | -.9090909E-02 | -.3636364E-01 | -.2727273E-01 | .1818182      | 0.            |
| V71 | .9090909E-02  | 0.            | -.1818182E-01 | .9090909E-02  | -.6363636E-01 | -.7272727E-01 | .1818182E-01  | 0.            |
| V81 | .1909091      | 0.            | -.8181818E-01 | .9090909E-01  | .6363636E-01  | .7272727E-01  | -.1181818     | 0.            |
| V91 | .1818182E-01  | 0.            | -.3636364E-01 | -.3181818E-01 | -.2727273E-01 | .5454545E-01  | .3636364E-01  | 0.            |
|     | V26           | V27           | V28           | V29           | V41           | V61           | V71           | V81           |
| V26 | .9090909E-01  |               |               |               |               |               |               |               |
| V27 | .4545455E-01  | .2727273      |               |               |               |               |               |               |
| V28 | .5454545E-01  | .2727273E-01  | .2727273      |               |               |               |               |               |
| V29 | .1318182E-01  | .9090909E-02  | .9090909E-01  | .1636364      |               |               |               |               |
| V41 | -.5454545E-01 | .7272727E-01  | .2727273E-01  | .9090909E-02  | .2727273      |               |               |               |
| V61 | .3636364E-01  | .8131313E-01  | .1181818      | .7272727E-01  | .6181818E-01  | .2545455      |               |               |
| V71 | -.6363636E-01 | .1318182E-01  | .8181818E-01  | .2727273E-01  | .2181818      | .1454545      | .2545455      |               |
| V81 | .6363636E-01  | -.1218182E-01 | .1181818      | .7272727E-01  | .8181818E-01  | -.4545455E-01 | .4545455E-01  | .2545455      |
| V91 | -.2727273E-01 | -.6363636E-01 | -.3636364E-01 | -.4545455E-01 | -.6363636E-01 | -.9090909E-02 | -.9090909E-01 | -.9090909E-02 |

V91

## COVARIANCE MATRIX FOR GROUP

2.

|     | V05          | V17          | V20          | V21          | V22          | V23          | V24          | V25          |
|-----|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| V05 | .2637363     |              |              |              |              |              |              |              |
| V17 | .8791209E-01 | .1318681     |              |              |              |              |              |              |
| V20 | .1758242     | .3296703E-01 | .2197802     |              |              |              |              |              |
| V21 | .5593407E-01 | .2197802E-01 | .4395604E-01 | .1313681     |              |              |              |              |
| V22 | .6593407E-01 | .2197802E-01 | .4395604E-01 | .5494505E-01 | .1318081     |              |              |              |
| V23 | .1393901     | .1098901E-01 | .1758242     | .6593407E-01 | .6593407E-01 | .2637363     |              |              |
| V24 | .5494505E-01 | .3296703E-01 | .1098901E-01 | .3296703E-01 | .3296703E-01 | .5494505E-01 | .1313187     |              |
| V25 | .4395604E-01 | .6593407E-01 | .2197802E-01 | .1098901E-01 | .1098901E-01 | .3296703E-01 | .1648352E-01 | .7142857E-01 |
| V26 | 0.           | 0.           | 0.           | 0.           | 0.           | 0.           | 0.           | 0.           |
| V27 | .2197802E-01 | .3296703E-01 | .8791209E-01 | .4395604E-01 | .4395604E-01 | .2197802E-01 | .6791209E-01 | .5494505E-01 |
| V28 | .2197802E-01 | .3296703E-01 | .6593407E-01 | .3296703E-01 | .3296703E-01 | .2197802E-01 | .1043956     | .1040302E-01 |
| V29 | .1093901E-01 | .2197802E-01 | .3296703E-01 | .2197802E-01 | .2197802E-01 | .8791209E-01 | .4395604E-01 | .1098901E-01 |
| V41 | .1093901E-01 | .5494505E-01 | .4395604E-01 | .2197802E-01 | .2197802E-01 | .6593407E-01 | .7142857E-01 | .2747253E-01 |
| V61 | .2197802E-01 | .4395604E-01 | .6593407E-01 | .4395604E-01 | .3296703E-01 | .9690110E-01 | .8791209E-01 | .2197802E-01 |
| V71 | .3296703E-01 | .6593407E-01 | .2197802E-01 | .1098901E-01 | .8791209E-01 | .3296703E-01 | .1318081     | .3296703E-01 |
| V81 | .6593407E-01 | .2197802E-01 | .4395604E-01 | .2197802E-01 | .2197802E-01 | .1098901E-01 | .4395604E-01 | .1098901E-01 |
| V91 | .8791209E-01 | .2197802E-01 | .3296703E-01 | .5494505E-01 | .2197802E-01 | .6593407E-01 | .5494505E-01 | .2747253E-01 |
|     | V26          | V27          | V28          | V29          | V41          | V61          | V71          | V81          |
| V26 | 0.           |              |              |              |              |              |              |              |
| V27 | 0.           | .2197802     |              |              |              |              |              |              |
| V28 | 0.           | .2791209E-01 | .1813187     |              |              |              |              |              |
| V29 | 0.           | .3296703E-01 | .4395604E-01 | .1318681     |              |              |              |              |
| V41 | 0.           | .3296703E-01 | .5494505E-01 | .9690110E-01 | .2472527     |              |              |              |
| V61 | 0.           | .1098901E-01 | .1098901E-01 | .1098901     | .1978022     | .2197802     |              |              |
| V71 | 0.           | .2197802E-01 | .5494505E-01 | .8791209E-01 | .1428571     | .1758242     | .2637363     |              |
| V81 | 0.           | .3296703E-01 | .1208791     | .5494505E-01 | .2197802E-01 | .3296703E-01 | .1098901E-01 | .1318081     |
| V91 | 0.           | .4395604E-01 | .7142857E-01 | .2197802E-01 | .1648352E-01 | .4395604E-01 | .1093901E-01 | .9690110E-01 |

V91

V91 .2472527  
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 \*\*\* DR IREX NUMOGLU PROGRAM 03 \*\*\*

PAGE

## TOTAL COVARIANCE MATRIX WITH

## 24 DEGREES OF FREEDOM

|     | V15           | V17           | V20           | V21           | V22           | V23           | V24           | V25           |
|-----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| V05 | .2500007      |               |               |               |               |               |               |               |
| V17 | .1133333      | .2600000      |               |               |               |               |               |               |
| V20 | .5333333E-01  | .7500000E-01  | .2500000      |               |               |               |               |               |
| V21 | .7500000E-01  | -.1666667E-01 | -.4166667E-01 | .1666667      |               |               |               |               |
| V22 | .7000000E-01  | .2333333E-01  | .8333333E-02  | .5833333E-01  | .1100000      |               |               |               |
| V23 | .6333333E-01  | -.4833333E-01 | .7500000E-01  | .6666667E-01  | .4000000E-01  | .2266667      |               |               |
| V24 | .2166667E-01  | .3500000E-01  | .7500000E-01  | -.1666667E-01 | -.1666667E-02 | .1833333E-01  | .2266667      |               |
| V25 | -.1333333E-01 | -.2000000E-01 | .1666667E-01  | -.8333333E-02 | -.5000000E-02 | .1333333E-01  | .1333333E-01  | .4000000E-01  |
| V26 | .2333333E-01  | -.2000000E-01 | -.2500000E-01 | .3333333E-01  | .3666667E-01  | .1333333E-01  | -.2833333E-01 | -.1666667E-02 |
| V27 | .4000000E-01  | .5500000E-01  | -.2500000E-01 | -.8333333E-02 | .4500000E-01  | -.3666667E-01 | .8833333E-01  | -.2666667E-01 |
| V28 | .2166667E-01  | .5500000E-01  | -.6666667E-01 | .7500000E-01  | .4500000E-01  | .5000000E-02  | .8833333E-01  | .1500000E-01  |
| V29 | .3166667E-01  | -.3333333E-02 | .5833333E-01  | .3333333E-01  | .2000000E-01  | .7166667E-01  | .7166667E-01  | .6666667E-02  |
| V30 | .6666667E-02  | -.1166667E-01 | -.2500000E-01 | -.8333333E-02 | -.1333333E-01 | -.6166667E-01 | -.6166667E-01 | -.1633333E-01 |
| V31 | -.2166667E-01 | .6666667E-02  | -.3333333E-01 | -.2500000E-01 | .1666667E-02  | -.6000000E-01 | .2333333E-01  | -.1633333E-01 |
| V32 | -.3000000E-01 | -.1000000E-01 | -.3333333E-01 | .1666667E-01  | .1833333E-01  | -.3500000E-01 | -.7666667E-01 | -.2166667E-01 |
| V33 | .9333333E-01  | -.3666667E-01 | -.2500000E-01 | .3333333E-01  | .1166667E-01  | .3633333E-01  | -.6666667E-01 | -.1600000E-01 |
| V34 | .5166667E-01  | .6666667E-02  | .8333333E-02  | -.6666667E-01 | .1666667E-02  | -.1833333E-01 | .2333333E-01  | -.1333333E-01 |
| V26 | .4000000E-01  |               |               |               |               |               |               |               |
| V27 | .5000000E-01  | .2400000      |               |               |               |               |               |               |
| V28 | .7333333E-01  | .2400000      | .2400000      |               |               |               |               |               |
| V29 | .2333333E-01  | .2333333E-01  | .6500000E-01  | .1400000      |               |               |               |               |
| V30 | -.1666667E-02 | .4600000E-01  | -.1666667E-02 | -.5166667E-01 | .2566667      |               |               |               |
| V31 | .1333333E-01  | .3666667E-01  | .3666667E-01  | -.3000000E-01 | .1450000      | .2266667      |               |               |
| V32 | -.2166667E-01 | -.1333333E-01 | -.1333333E-01 | -.3333333E-01 | .1783333      | .1600000      | .2600000      |               |
| V33 | .3166667E-01  | -.3500000E-01 | -.3500000E-01 | -.1666667E-02 | .5666667E-01  | .3333333E-02  | .3666667E-01  | .1900000      |
| V34 | -.1333333E-01 | -.4666667E-01 | -.4666667E-01 | -.3600000E-01 | -.2166667E-01 | .1833333E-01  | -.4833333E-01 | .4500000E-01  |

V91

# DISCRIMINANT ANALYSIS

ON GROUPS DEFINED BY CODE

ANALYSIS NUMBER 1

DIRECT METHOD: ALL VARIABLES PASSING THE TOLERANCE TEST ARE ENTERED.

MINIMUM TOLERANCE LEVEL..... .00100

CANONICAL DISCRIMINANT FUNCTIONS

MAXIMUM NUMBER OF FUNCTIONS..... 1  
MINIMUM CUMULATIVE PERCENT OF VARIANCE... 100.00  
MAXIMUM SIGNIFICANCE OF WILKS' LAMBDA.... 1.0000

PRIOR PROBABILITY FOR EACH GROUP IS .50000

FUNCTION COEFFICIENTS  
(LINEAR DISCRIMINANT FUNCTIONS)

= 1 2

|            |           |           |
|------------|-----------|-----------|
| V05        | -31.31220 | -49.57016 |
| V17        | 130.3383  | 103.5002  |
| V20        | 64.33694  | 34.00032  |
| V21        | 76.39246  | 52.61239  |
| V22        | -110.1364 | -89.39676 |
| V23        | -3.47567  | -2.949223 |
| V24        | -0.05422  | -3.042385 |
| V25        | 101.1310  | 162.6039  |
| V26        | 126.3913  | 143.6326  |
| V27        | 87.51672  | 54.47116  |
| V28        | 63.19359  | 30.34061  |
| V29        | -6.712337 | -1.347561 |
| V41        | -23.49130 | -3.603481 |
| V61        | -67.70294 | -51.86812 |
| V71        | 87.28768  | 73.53933  |
| V81        | 2.764256  | -9.529480 |
| V91        | 132.7756  | 93.13877  |
| (CONSTANT) | -304.1083 | -167.5602 |

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| FUNCTION | EIGENVALUE | PERCENT OF VARIANCE | CUMULATIVE PERCENT | CANONICAL CORRELATION | FUNCTION | AFTER WILKS' LAMBDA | CHI-SQUARED | D.F. | SIGNIFICANCE |
|----------|------------|---------------------|--------------------|-----------------------|----------|---------------------|-------------|------|--------------|
| 1*       | 21.93953   | 100.00              | 100.00             | .9779607              | 0        | .0435926            | 45.427      | 17   | .0002        |

\* MARKS THE 1 CANONICAL DISCRIMINANT FUNCTION(S) TO BE USED IN THE REMAINING ANALYSIS.

# STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

| FUNC | 1        |
|------|----------|
| V05  | -1.72667 |
| V17  | 2.16693  |
| V20  | 1.65160  |
| V21  | 1.10409  |
| V22  | -.75523  |
| V23  | -.30532  |
| V24  | -1.19542 |
| V25  | 1.79427  |
| V26  | -.33479  |
| V27  | 1.79903  |
| V28  | 1.96665  |
| V29  | -.22615  |
| V41  | -1.11683 |
| V41  | -.84794  |
| V71  | .77416   |
| V51  | .53455   |
| V91  | 2.11655  |

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## STRUCTURE MATRIX:

POOLED WITHIN-GROUPS CORRELATIONS BETWEEN CANONICAL DISCRIMINANT FUNCTIONS AND DISCRIMINATING VARIABLES  
 VARIABLES ARE ORDERED BY THE FUNCTION WITH LARGEST CORRELATION AND THE MAGNITUDE OF THAT CORRELATION.

| FUNC | 1       |
|------|---------|
| V17  | .34689  |
| V28  | .07782  |
| V15  | .06682  |
| V20  | .05824  |
| V23  | -.05810 |
| V51  | -.05668 |
| V24  | .05646  |
| V26  | -.05052 |
| V71  | -.04505 |
| V41  | -.04094 |
| V25  | .03928  |
| V27  | .03786  |
| V21  | -.03486 |
| V91  | .01926  |
| V22  | -.01776 |
| V22  | .01699  |
| V29  | .01128  |



# UNSTANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

## FUNC 1

V05 -3.495044  
V17 7.937193  
V20 3.351811  
V21 2.532584  
V22 -2.236219  
V23 -1.715474  
V24 -2.542515  
V25 8.929523  
V26 -1.663964  
V27 3.651111  
V28 4.132324  
V29 -1.5925135  
V41 -2.197351  
V61 -1.749546  
V71 1.519013  
V81 1.353301  
V91 4.373642  
(CONSTANT) -14.32250

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## CANONICAL DISCRIMINANT FUNCTIONS EVALUATED AT GROUP MEANS (GROUP CENTROIDS)

| GROUP | FUNC 1   |
|-------|----------|
| 1     | 5.06846  |
| 2     | -3.98235 |

## TEST OF EQUALITY OF GROUP COVARIANCE MATRICES USING BOX'S M

THE RANKS AND NATURAL LOGARITHMS OF DETERMINANTS PRINTED ARE THOSE OF THE GROUP COVARIANCE MATRICES.

| GROUP LABEL                               | RANK | LOG DETERMINANT                    |
|---|------|------------------------------------|
| 1   | < 11 | (TOO FEW CASES TO BE NON-SINGULAR) |
| 2   | < 14 | (TOO FEW CASES TO BE NON-SINGULAR) |
| POOLED WITHIN-GROUPS<br>COVARIANCE MATRIX | 17   | -43.129212                         |

NO TEST CAN BE PERFORMED WITHOUT AT LEAST TWO NON-SINGULAR GROUP COVARIANCE MATRICES.

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| CASE<br>SERIAL | %S<br>VAL | SEL | ACTUAL<br>GROUP | HIGHEST PROBABILITY<br>GROUP P(D/G) P(S/D) | 2ND HIGHEST<br>GROUP P(G/D) | DISCRIMINANT SCORES |
|----------------|-----------|-----|-----------------|--|-----------------------------|---------------------|
| 1              |           |     | 1               | 1 .5503 1.0000                             | 2 0.0000                    | 5.6657              |
| 2              |           |     | 1               | 1 .5544 1.0000                             | 2 .0000                     | 4.4773              |
| 3              |           |     | 1               | 1 .5222 1.0000                             | 2 0.0000                    | 5.7057              |
| 4              |           |     | 1               | 1 .8173 1.0000                             | 2 .0000                     | 5.2995              |
| 5              |           |     | 1               | 1 .7820 1.0000                             | 2 .0000                     | 4.7917              |
| 6              |           |     | 1               | 1 .6216 1.0000                             | 2 .0000                     | 4.5749              |
| 7              |           |     | 1               | 1 .8187 1.0000                             | 2 .0000                     | 5.2977              |
| 8              |           |     | 1               | 1 .5106 1.0000                             | 2 0.0000                    | 5.7263              |
| 9              |           |     | 1               | 1 .1271 1.0000                             | 2 .0000                     | 3.5427              |
| 10             |           |     | 1               | 1 .3464 1.0000                             | 2 0.0000                    | 6.0101              |
| 11             |           |     | 1               | 1 .6812 1.0000                             | 2 .0000                     | 4.6534              |
| 12             |           |     | 2               | 2 .1874 1.0000                             | 1 0.0000                    | -5.3007             |
| 13             |           |     | 2               | 2 .5276 1.0000                             | 1 .0000                     | -3.3507             |
| 14             |           |     | 2               | 2 .0153 1.0000                             | 1 .0000                     | -1.6227             |
| 15             |           |     | 2               | 2 .8560 1.0000                             | 1 .0000                     | -4.1639             |
| 16             |           |     | 2               | 2 .7375 1.0000                             | 1 .0000                     | -3.6471             |
| 17             |           |     | 2               | 2 .1904 1.0000                             | 1 0.0000                    | -5.2917             |
| 18             |           |     | 2               | 2 .0747 1.0000                             | 1 0.0000                    | -5.7845             |
| 19             |           |     | 2               | 2 .2287 1.0000                             | 1 0.0000                    | -5.1560             |
| 20             |           |     | 2               | 2 .3511 1.0000                             | 1 .0000                     | -3.0500             |
| 21             |           |     | 2               | 2 .5118 1.0000                             | 1 .0000                     | -3.3263             |
| 22             |           |     | 2               | 2 .3440 1.0000                             | 1 .0000                     | -3.0361             |
| 23             |           |     | 2               | 2 .5113 1.0000                             | 1 .0000                     | -3.3263             |
| 24             |           |     | 2               | 2 .6644 1.0000                             | 1 .0000                     | -3.8115             |
| 25             |           |     | 2               | 2 .3717 1.0000                             | 1 0.0000                    | -4.8756             |

SYMBOLS USED IN PLOTS

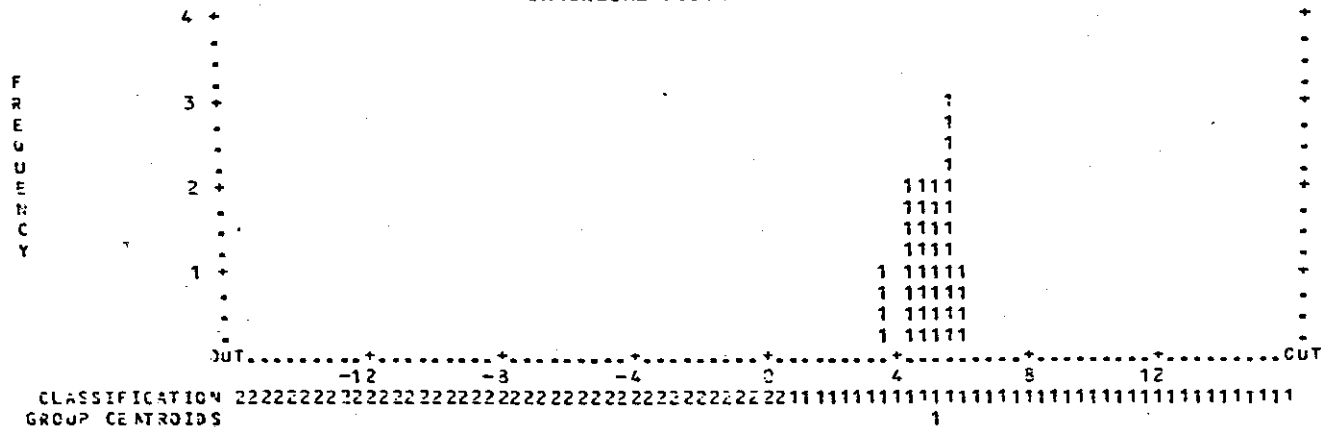
| SYMBOL | GROUP | LABEL |
|--------|-------|-------|
| -----  | ----- | ----- |

|   |   |
|---|---|
| 1 | 1 |
| 2 | 2 |

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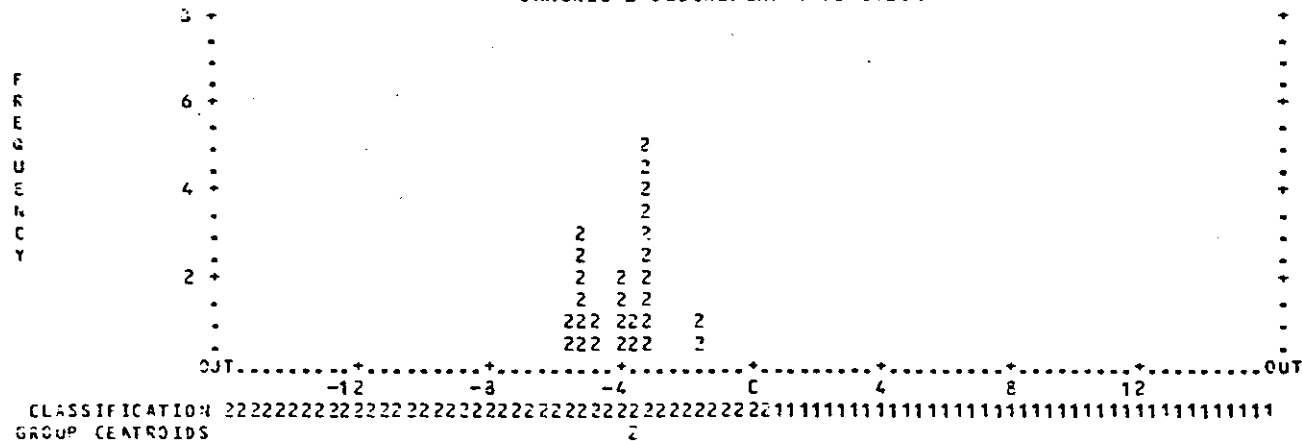
## HISTOGRAM FOR GROUP 1 1

-- CANONICAL DISCRIMINANT FUNCTION 1 --

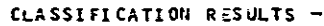


## HISTOGRAM FOR GROUP 2

-- CANONICAL DISCRIMINANT FUNCTION 1 --



**F  
R  
E  
Q  
U  
E  
N  
C  
Y**



PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 100.00P

25 CASES WERE PROCESSED.  
0 CASES WERE EXCLUDED FOR MISSING OR OUT-OF-RANGE GROUP CODES.  
1 CASES HAD AT LEAST ONE MISSING DISCRIMINATING VARIABLE.  
25 CASES WERE USED FOR PRINTED OUTPUT.

PAGE 1

12 0 FINISH

42. UCLP, EU, P03

0.784kLNS.

## APPENDIX E

## A N K E T

Boğaziçi Üniversitesi

Doktora Tezi

Tarih:

1. NET SATIŞ GELİRİNİZ (1983) aşağıda belirtilen gruplardan hangisine girmektedir?

- ☐ 15 Milyar TL'nin üstü
- ☐ 10 - 14.9 Milyar TL arası
- ☐ 5 - 9.9 Milyar TL arası
- ☐ 2 - 4.9 Milyar TL arası
- ☐ 2 Milyar TL'nin altı

2. NET BİLANÇO KÂRINIZ (1983) aşağıda belirtilen gruplardan hangisine girmektedir?

- ☐ 1 Milyar TL'nin üstü
- ☐ 500 - 999 Milyon TL arası
- ☐ 250 - 499 Milyon TL arası
- ☐ 100 - 249 Milyon TL arası
- ☐ 100 Milyon TL'nin altı

3. YATIRIM HARCAMALARINIZ (1983) aşağıda belirtilen gruplardan hangisine girmektedir?

- ☐ 10 Milyar TL'nin üstü
- ☐ 5 - 9.9 Milyar TL arası
- ☐ 1 - 4.9 Milyar TL arası
- ☐ 500 - 999 Milyon TL arası
- ☐ 100 - 499 Milyon TL arası
- ☐ 100 Milyon TL'nin altı

4. ÖZ SERMAYENİZ (1983 ) .....

5. İHRACAT GELİRİNİZ (1983) aşağıda belirtilen gruplardan hangisine girmektedir?

- ☐ 20 Milyon \$'ın üstü  
☐ 10 - 19.9 Milyon \$ arası  
☐ 5 - 9.9 Milyon \$ arası  
☐ 1 - 4.9 Milyon \$ arası  
☐ 1 Milyon \$'ın altı

6. Şirketinizde BİLGİSAYAR'dan yararlanıyor musunuz?

- ☐ EVET ☐ HAYIR

("HAYIR" ise 12. soruya geçiniz).

7. Kullandığınız bilgisayarın markası ve tipi nedir?  
 (Birden fazla ise hepsinin markası, tipi ve adedi)

.....  
 .....

8. Bilgisayarı şirketinizin hangi bölümünde (veya bölümlerinde) kullanıyorsunuz?

- ☐ Genel Müdür  
☐ Mali ve İdari İşler Bölümü  
☐ İşletme (Fabrika) Bölümü  
☐ Planlama Bölümü  
☐ Diğer (Belirtiniz) .....

- . Yalnız "Genel Müdür"ü işaretlediniz ise, 9. soruya geçiniz ve sonra 11. sorudan devam ediniz.  
 . Yalnız "Mali ve İdari İşler Bölümü"nü işaretlediniz ise, 10. soruya geçiniz ve devam ediniz.  
 . Her ikisini de işaretlediniz ise, 9. soruya geçiniz ve devam ediniz.

9. Genel Müdürlükte kullandığınız bilgisayardan nasıl yararlanıyorsunuz?

.....  
 .....

10. Mali ve İdari İşler Bölümünde kullandığınız bilgisayardan nasıl yararlanıyorsunuz?

.....  
 .....

11. Yönetici olarak karar verirken bilgisayardan ne kadar yararlandığınızı düşünüyorsunuz?

- ☐ Her konuda çok yararlı  
☐ Bazı konularda çok yararlı  
☐ Bazı konularda kısmen yararlı  
☐ Hiçbir konuda yararlı değil

12. Yönetici olarak karar verirken bilanço ve kâr/zarar mali raporlarından yararlanıyor musunuz?

- ☐ EVET ☐ HAYIR

("HAYIR" ise 14. soruya geçiniz).

13. Bu raporlar şirketinizde ne sıklıkta hazırlanıyor?

- ☐ Haftalık  
☐ Aylık  
☐ 3 Aylık  
☐ Yıllık  
☐ Diğer (Belirtiniz) .....

14. Bu raporların (bilanço ve kâr/zarar) dışında karar vermenize yardımcı olması gayesi ile hangi raporlar hazırlanıyor?

- ☐ Fon Akım Tablosu
- ☐ Başabaş Analizi
- ☐ Oran Analizi
- ☐ Diğer (Belirtiniz) .....

15. Bir mamulün maliyetini hesaplarken aşağıda belirtilen masraflardan hangilerini maliyet muhasebe bölümünüz dikkate almaktadır? (Satılan malın maliyeti hesabına giren maliyet unsurları)

- ☐ İşçilik masrafları
- ☐ Hammadde masrafları
- ☐ İşletme malzemesi masrafları
- ☐ Aydınlatma ve ısıtma
- ☐ Enerji ve su
- ☐ Tamir ve bakım
- ☐ Fabrika binası amortismanı
- ☐ Makina amortismanı
- ☐ Fabrika kirası
- ☐ İdari personel masrafları
- ☐ Ofis malzemesi masrafları
- ☐ İdari bina amortismanı
- ☐ İdari bina kirası
- ☐ Satış personeli masrafları
- ☐ Reklam ve tanıtım masrafları
- ☐ Finansman masrafları
- ☐ Diğer (Belirtiniz) .....



21. Şirketin faaliyetlerini değerlendirirken hangi raporları kullanıyorsunuz?

- ☐ Bilanço
- ☐ Kâr/zarar
- ☐ Fon Akım Tablosu
- ☐ Oran Analizi
- ☐ Diğer (Belirtiniz) .....

#### ANKETİ DOLDURAN YÖNETİCİ HAKKINDA BİLGİLER

ÜNVANI : .....

YAŞI : .....

CİNSİYETİ : .....

MESLEĞİ : .....

MEZUN OLDUĞU OKUL : .....

#### TEŞEKKÜR EDERİZ

Not: TAM MALİYET SİSTEMİ:

Üretimde kullanılan hammadde, işçilik ve imalat ile ilgili tüm giderler (Genel İmalat Giderleri) maliyete verilir.

DEĞİŞKEN MALİYET SİSTEMİ:

Değişken giderler maliyete verilir ve tüm sabit giderler dönem gideri kabul edilir.

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