DECISION CLASS AND LINKAGE IN ONE CENTRAL-SATELLITE DECISION COMPLEX

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This is to certify that the

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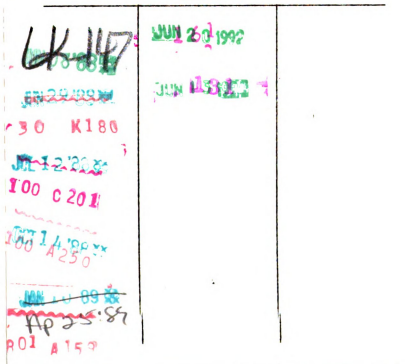

ABSTRACT

DECISION CLASS AND LINKAGE IN ONE
CENTRAL-SATELLITE DECISION COMPLEX

by Martha Amanda Plonk

The purpose of this exploratory study was to examine class and linkage relationships that exist between a central and its complex of satellite decisions. A central decision is recognized by its generation of several satellite decisions made to complete its action. The retirement housing decision was assumed to be the central decision in the decision complex under consideration.

Data were collected by interviewing 50 respondents who were living in one retirement housing project in Oregon.

The analytical framework included the conceptualization of a central-satellite decision complex with the central decision classed as strategic generating satellite decisions classed as tactical, policy, control, and program; and components of decision linkage as form, scope, and range. The linkage forms were series, radii, and compound. Series linkage subdivided into single and multiple class series; radial linkage subdivided into single, multiple, inverted, and multiplex radial; and compound did not subdivide. Both class and linkage designations were based on decision action content.

A decision profile, an adaptation of Mercator projection, was used to diagram the central-satellite decision complex. The strategic decision was placed at the top of the decision profile, and the satellite decisions in bands underneath it.

Analysis of the decision profile showed that 1325 satellite decisions were reported. Of these, 59 percent were tactical, 22 percent policy, 11 percent program, and eight percent control. All respondents reported tactical and policy decisions, 94 percent reported program decisions, and 72 percent reported control decisions. The mean for satellite decisions reported by respondents was 26.5.

Findings indicated that the variables of sex, age, occupation, education, income, and duration of time between decision and its action tended to affect the number of satellite decisions.

Form referred to the visual appearance of linkage interdependence between decisions on the profile. Analysis showed that 90 percent of the linkages were single radial. Seventeen combinations of linkage forms appeared on the decision profiles.

Scope described the number of decisions in each band on the decision profile. Eighty-six percent of the satellite decisions diagrammed in Band 1, 11 percent in Band 2, and three percent in Bands 3, 4, and 5.

Range described the number of bands through which satellite decisions were linked to the central decision. On one-half of

the decision profiles, the range of satellite decisions extended through two bands to the central decision; however on one-third of the profiles, it extended through three bands. The longest range was five.

The decisions reported centered around the following tasks: 1) choosing an apartment, 2) establishing apartment, 3) reducing possessions, 4) transporting self and possessions, 5) establishing self in community, and 6) forming living patterns.

An implication drawn from this study is that the action content of the central decision may affect the particular linkage and the decision classes surrounding the central decision in a central-satellite decision complex.

Results seem to indicate that decision class and linkage are concepts to be included in managerial decision theory and suggest potentialities for further research on decision centrality and interdependence.

DECISION CLASS AND LINKAGE IN ONE CENTRAL-SATELLITE DECISION COMPLEX

by

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CHAPTER I

INTRODUCTION AND CONCEPTUAL FRAMEWORK

Introduction

The basic research question in this study is how decisions are interrelated through decision class and linkage. Decision-making is recognized as a part of the managerial process which deals with interdependent decisions. It has been generally assumed that decisions are interrelated; however, little attempt has been made in home management to study this aspect of decision-making. Decision-making is a dynamic process. As a result of it, a chain of events is created. All decisions are not equal in importance in problems they handle, effect on present and future courses of action, and in the time required to make them. Decisions are necessarily time ordered, but they also bear other relationships to each other. (1:119) Niles, for example, divided decisions into four groups: 1) routine; 2) minor; 3) major; and 4) critical. (2:351-352) Simon separated decisions into two types: 1) programmed -- repetitive and routine decisions, and 2) nonprogrammed -- unstructured, novel, and consequential decisions. (3:5-6)

Paolucci and O'Brien raised the question about the centrality of a decision and the other decisions already shaped by this choice. Then they stated: "This question can highlight the organic

unity of decision-making -- perhaps the most significant principle of decision-making as it relates to home management." (4:30) The concept of organic unity indicates the interrelated parts form a whole larger than the sum of its parts.

In addition to Paolucci and O'Brien's concept of centrality, Knoll suggested that other ideas surround decision-making.

> The range in magnitude of decisions faced by a family is very great. This last point is just now being recognized and is an area that will need to be proved. We may be less inclined in the future to plot all decisions, great and small, on the same map. (5:336)

In support of the interdependence of decisions through decision classes and linkage, Alderson is cited. He classified decisions as strategic, tactical, program, policy, and controls. He commented:

> The logical sequence moves from strategy to program to policy to controls, but one category is not necessarily disposed of completely before taking up the next . . . . The choice of strategy is one of the major factors which sets the framework for other types of decisions. But the final test of strategy is how well it can be implemented in the other three decision areas. (6:185)

Alderson further stated that decision linkage was of several types. Decisions may be linked by relations among objectives or dimensions of manageability of resources. He also believed that another way to deal with decision interdependence was to classify the ties of linkage: 1) over time, 2) over space, and 3) among components of an organizational structure. (6:184)

This decision study deals with class and content linkage. Decision class refers to types of decisions made, while content linkage refers to the ties among these decisions based on decision objective. This study attempted to examine one central managerial decision and its satellite decisions with respect to their class and content linkage.

The Importance of Decision-Making in Home Management

Home management is the integration of action surrounding the making and executing of decisions associated with the home and family. Decision-making, the core, becomes the spotlight of management action and commands attention.

Since managerial decision-making stands as an important concept in home management, the reader will probably raise the question, "What is a managerial decision?" Simply, a managerial decision is directed toward attaining a specific end or goal. For example, a homemaker prepares a shopping list and buys groceries. Her goal, obtaining food for the week, demands decisions and action.

To extend the frontiers of knowledge in home management, research must be done to increase the present limited empirically-based information. Since decision-making is a focal point in management, it commands increasing attention in research and decision theory formulation.

Primarily, in the past, decision research in home management centered around studies on factors affecting decisions made, who makes the decisions, decision content, alternatives considered, decision process, and decision models.

Today, present research builds on past research. Examining such subjects as the following: decision centrality, decision interdependence, decision class, and values underlying decisions suggests fruitful research, thus providing increased understanding and knowledge in decision-making.

Definition of Terms

Decision-maker and a respondent are synonymous in this study.

Decision is a course of action chosen by a respondent between or among alternatives.

Decision profile is a diagram depicting class and content linkage between the central decision and satellite decisions of a respondent.

Decision symbol is a code letter which categorizes a decision into its decision class on the decision profile.

X decision designates an unreported decision; a reported decision indicated to the researcher such a decision was made prior to the reported decision.

Conceptual Framework

This study is exploratory and descriptive. It attempts to probe into class and linkage relationships that exist between a central decision and its complex of satellite decisions. The organic unity of a central decision is the core of the study.

A decision complex is thought to be interrelated through decision classes and linkages. The generic classes assumed are: central and satellite. The specific classes are: strategic, tactical, policy, control, and program. Central decision is a generic term, but in this study strategic decision is the only kind of decision in this group; therefore, central and strategic are synonymous. When a strategic (central) decision is made, supplemental decisions are needed to execute it. The supplemental decisions are termed satellite decisions since they are made to complete its action and are necessarily linked to it content-wise. The specific classes of satellite decisions are: tactical, policy, control, and program.

Decision Class

A strategic decision is crucial in the life of the decision-maker and is usually carefully considered. After the decision is made, reallocation of the decision-maker's resources takes place for an indefinite period of time. A strategic decision is recognized by its generation of several satellite decisions. The satellite decisions are made to complete its action. The retirement housing

decision is assumed to be the strategic decision in the decision complex under consideration.

A tactical decision is an instrumental decision made to begin and/or continue action for the execution of the strategic (central) decision. Its content comprises the detailed application of effort made to complete the core idea. Decisions in this class set limits and boundaries for other tactical, policy, control, or program decisions. Examples from the decision complex under study are: selecting a particular apartment in a retirement housing project, and selecting a color scheme for the living unit.

A policy decision is a plan for handling a certain decision-demanding situation if and when the situation arises. The plan, a decision rule, gives procedure for meeting the situation. Policy decisions are linked to other policy, strategic, or tactical decisions. Examples of policy decisions are: where to have guest meals, where to house overnight guests, or where to entertain a large group.

A control decision regulates, changes, facilitates, simplifies, or adjusts a decision in any of the satellite classes. Since its main function is to enable the action started in another decision to continue, it comprises an important and necessary segment of decision structure. Examples of control decisions are: removing snack bar from apartment, changing from ninth to first floor

apartment, and changing planned television placement.

A program decision results in establishing a new routine for primarily, regularly recurring activities in a new situation. Examples are: selecting the time to eat meals and planning how to get personal laundry done.

Decision Linkage

Decision linkage describes the connecting elements joining decisions together. In this study, content linkage, through objective, is considered. The substance of each decision serves as the basis for decision linkage analysis and necessary versus fortuitous time order is seen in this linkage. It is thought that three linkage components: form, range, and scope, describe decision interdependence or the ties between decisions. Form refers to the visual appearance of the linkages among decision symbols on the decision profile. Range refers to the number of consecutive satellite decisions in a vertical linkage on a decision profile while scope refers to the number of satellite decisions in each horizontal linkage position on a profile. And it is also thought that decision linkages forms are: series, radii, and compound.

In series linkage, one decision follows another in time and in dependence of action. It would be illogical to make Decision #2 until Decision #1 was made. Decision #2 depends on Decision #1 for setting the course of action.

In radial linkage, one decision is made and then subsequent decisions are linked to it but not to each other for action; the order in which these subsequent decisions are made is not dependent on each other.

Compound linkage is thought to be a combination of radial and series decisions tied to the strategic decision.

Objectives of the Study

The objectives of this study are:

(1) To determine the structure of the linkage between a central and its satellite decisions;

(2) To identify and classify the satellite decisions resulting from a central housing decision.

Assumptions

This study is based on the following assumptions:

(1) The housing decision is a central decision.

(2) The decisions resulting from a central decision can be categorized into decision classes.

(3) Decision interdependence based on decision content is an identifiable concept.

CHAPTER II

REVIEW OF LITERATURE

This research investigated decision interrelatedness by examining decision class and linkage in a central satellite decision complex; hence the review of literature was limited to decision and decision classification studies.

Decision Studies in Home Economics

Since the middle 1950's, researches in home economics have been conducted about decisions and decision-making in subject matter areas of home management and home economics education.

Home Management

In 1956, Steckle (7) reported research testing five techniques to determine methodological approaches for studying family decision-making: 1) research committee round table talks, 2) family round table talks, 3) unstructured interviews with homemakers, 4) study of good and poor decisions made by home management students, and 5) structured questionnaire. She concluded that two visits, one to orient the family to the subject and the other to collect data, or two visits plus a written record kept between visits were desirable methods for researching family decision-making.

Davis (8), following Steckle in 1957, used the diary

interview method to explore procedures used by families in making day-to-day household decisions; alternatives considered, factors influential in decision-making, relative importance of resources, and decision satisfaction. Four hundred ten household decisions reported were classified into 14 activity categories. One-fifth of the decisions were made about care of the house and almost the same number were made about food preparation. Only 11 percent of the homemakers saw more than two alternatives for each decision. Key factors varied with the activity areas. The homemaker participated in making all decisions reported, and she made independently 65 percent of all decisions. Most of the decisions reported were satisfactory.

Studies (9, 10, 11) have been made of the decision process using either rural or farm families as respondents. Dix's (9) study in 1957 examined the steps farm families use in arriving at major decisions. Honey, Britton, and Hotchkiss (10) in 1959 reported research on decision-making dealing with the use of financial resources in a rural community. In 1961, Schomaker (11) investigated financial decision-making in farm families, and her findings indicated that financial decision-making includes the following subprocesses: 1) recognizing a problem, 2) seeing or seeking alternatives, 3) deliberating on these alternatives, 4) making a choice among alternatives, and 5) taking action on the decision.

In her research reported in 1963, Bustrillos (12) explored decision-making style which was recognized as a behavioral profile formed by combining the elements: mode, time reference, and decision-making rule. Mode describes the way ideas develop; time reference refers to time base -- past, present, or future time; and decision-making rule specifies how alternative courses of action are evaluated and an alternative selected.

The researcher, Dix, worked with a decision-making model which prescribes the following sequential steps: recognizing a problem, seeking alternatives, examining these alternatives, and then choosing one of the alternatives; however, Bustrillos viewed decision process as having individual rather than universal style. She employed the term decision style for decision process and examined style of selected homemakers for three decision problems. Obviously, this research suggested another model for examining the decision-making process.

In 1964, Parimala reported on her study on opportunities homemakers had in one village in India for decision-making in 12 household activities. And she also studied their acceptance of new ideas for performing these activities in the home. (13)

Home Economics Education

In 1956, Paolucci (14) studied decision making in relation to management of beginning home economics teachers. After the

data on decisions made by teachers were collected, the researcher placed them in one of the following categories: 1) how to teach; 2) use of time; 3) discipline; 4) care and use of room, materials, and equipment; 5) interruptions; 6) what to teach; and 7) money. Findings indicated that beginning teachers vary in number of decisions made, but tend to be alike in the kinds of decisions made and with satisfactions relative to management decisions.

Later, Lacot (15) studied freedom ninth-grade Puerto Rican girls perceived they had in making personal decisions about activities outside the home, peer relationships, handling money for personal expense, and participation in school organizations to see if they were achieving the developmental tasks of gaining independence from parents.

Decision Research in Other Disciplines

Also researchers in other disciplines such as economics, sociology, agriculture, military science, mathematics, education, and nursing have studied decision-making. The researchers reviewed in this study are those concerned with some aspect of decision classification and analysis.

Agriculture

Johnson (16) in 1953 identified five types of decision situations: 1) inactive, 2) learning, 3) forced-action, 4) subjective

risk, and 5) subjective certainty. In the inactive situation information available is inadequate to make decisions and the cost of securing needed information exceeds its value. The learning situation is described as one where information to make decisions is inadequate, but the value of additional information exceeds its cost. Forced - action situation describes the situation where a decision must be made without adequate information. In the subjective risk situation knowledge is adequate, though imperfect, to take positive or negative action and cost of knowledge equals its value. Knowledge complete enough for managers to act as if it were perfect characterizes the subjective certainty situation.

In 1957, Gray (17) studied five major strategies: 1) purchase of hay, 2) purchase of concentrates, 3) reduced herd, 4) increased leases of range and croplands, and 5) made no change in conditions that were adopted by cattle ranches in Oregon to meet drought situations in 1954 and 1955 to see the effect of these strategies or management decisions in the production on their ranches.

Also Hagenstein (18) in 1963 studied the location decision of three types of wood-using industries in the northern Appalachian area. He described the location decision as non-routine with the economic objective, "profit-satisficing ." This decision was made in three stages: 1) recognizing that expansion or relocation is relevant, 2) choosing a satisfactory location to enable the firm to

maintain satisfactory profit levels, and 3) choosing among the satisfactory locations on the basis of nonmonetary or personal factors.

Military Science

The Office of Military History, Department of the Army, published a study in 1960 of 23 command decisions made in World War II. Twelve of these decisions were made by chiefs of state, and 11 by military commanders in the field. The President of the United States, acting as Commander in Chief of the Armed Forces, made six of the 12 decisions reached by chiefs of state.(19)

In the preface to this study on command decisions, the panel of authors stated that decision has always fascinated the student of military science. When military students study war, they are interested in command decisions whether they are made on the battlefield or by councils of state. In these decisions lie the lessons of conflict that shape history. (19:iii)

In his introductory essay to this volume on command decisions, Greenfield, Chief Historian for the United States Office of the Chief of Military History, stated that the term command decision

> eludes precise definition. What it immediately suggests is a military commander, faced with a difficult choice or choices, taking the responsibility for serious risk on the basis of his estimate of the situation.
>
> It implies the presence of certain elements as basic ingredients of the act of decision: a desired objective or an assigned mission, a calculation of risk, exercise of authority, assumption of personal responsibility, and a decisive influence on the course of events.(19:1)

Mathematics

Rutenberg's (20) sequential decision model described a decision procedure, not the actual decision, to be used in making a decision in any contingency. In his work reported in 1961, he applied the sequential approach to decision-making in determining optimum levels of service in queuing systems such as supermarkets and to a class of replacement problems such as light bulbs in industrial plants. Nonsequential policies are based on expected behavior of the system, while sequential policies are based on observation of actual behavior; therefore, they may be more costly because more records must be maintained.

Education

In 1963, Brubacher (21) studied programmed and nonprogrammed decisions of school boards and patterns used in making decisions. He hypothesized that school boards would have different patterns for programmed and non-programmed decisions, but he found school boards have a fairly uniform pattern of decision-making. Nonprogrammed decisions have more acts of disagreement, a higher proportion of evaluative acts, and a larger number of proposal-making acts than programmed decisions.

Nursing

In 1963, Puckett working with psychiatric nurses identified 22 strategic decisions made during 128 eight-hour observation days

of five nurses.

The purpose in studying these strategic decisions was to analyze the decision-making behavior of groups of professionally trained psychiatric nurses, to identify the body of knowledge unique to psychiatric nursing, and to provide background for curriculum development in psychiatric nursing. These 22 strategic decisions met the following criteria: "1) produce observable change in patient behavior, 2) be distinguishable from routine and/or administration decisions, 3) demonstrable appropriateness, 4) lead to sequential decisions, 5) incorporate therapeutic goals, 6) evidence originality and creativity." (22:31)

The definition of sequential decisions used in this study was:

> any decision that is dependent on or evolves from the evaluation or interaction or consequences of a strategic decision. For the purpose of this study, a sequential decision must be directly related to the strategic decision and nursing care problem but does not have to meet the criteria for a strategic decision with one exception -- be distinguishable from routine and/or administrative decisions. (22:33)

No sequential decisions were reported in the analysis of the data, and there is no indication she identified sequential decisions in this study.

Decision Classification Suggested but Unresearched

Different types of classification of decisions are found in the literature. Various bases for classification included: process,

rationality, behavior, decision magnitude, and polarity.

Process

Liston interpreted

> managerial decision making -- [as] mainly mental process of four different types:
>
> a. Policy decisions -- the selection of goals and ordering them by priority; and also decisions about which of the available resources are relevant for the given family situation, and the general roles to be played by family members.
>
> b. Allocative decisions -- those of deciding the most productive ways of distributing relevant resources among their alternative uses . . . .
>
> c. Organization and control decisions -- which relate to the systematizing of physical activities -- the answering of the what, when, who, how, and why questions in relation to getting a given task, or a whole cluster of tasks, done harmoniously and expeditiously.
>
> d. Coordination - interaction decisions relating to processes which are involved throughout policy making, resource allocation, and organization. Here we have decisions about best means of communication within the family and in relation to the larger society, about what information is necessary for making certain decisions and how new information is to be obtained, about the criteria by which evaluation may take place throughout the whole process of management, about responsibilities of family members in the process of making family decisions, about ways of motivating family members to play their respective roles. (23:15-16)

Although Liston spoke of types of process, her types could be viewed as a content rather than process classification.

Rationality

Two authors, Back and Diesing, classified decisions according to type of rationality used in making them. Back (24)

outlined three models of decision-making: rational, irrational, and non-rational. In rational decision-making, the optimal alternative was chosen from the alternatives considered. Irrational decision-making focuses on the person, not on the situation and "is useful in explaining those decisions which seem to run counter to the long-run utility of the outcome." (24:16)

> However, the non-rational model can be applied, for example, to situations in which little is known of the relevant facts, the results are vital, and the opportunity will not repeat. Examples are command decisions of a general, or moral commitments to a creed. We know from experience that decisions are made in these cases -- there is an act which creates something new not contingent on past internal or external factors and which entails a voluntary, definite commitment. Such decisions are not rational, for they rest on the recognition of insufficient knowledge; they are not irrational, for they are not determined by the psychodynamic structure of the person. (24:17)

Diesing (25) described five types of decision-making: technical rationality, economic rationality, social rationality, legal rationality, and political rationality. He stated, "technical rationality appears in actions which are undertaken for the sake of achieving a given end." (25:9) In economic rationality the processes, exchange and allocation, resulted because there was a "plurality of alternative ends," (25:17) "common means, scarcity of resources, and availability of neutral media for value measurement." (25:18)

Social rationality involved two or more people. It resulted in integration which

> develops through a selective process in which both individuals and social systems participate. Individuals in social relations try to reduce conflicts and tensions within roles and between roles. They try to live up to their obligations a little more and to find some accommodation between conflicting obligations; or, if obligations are too severe and are unattainable, they substitute more realistic obligations and turn the unattainable ones into ideals. They learn to temper their role expectations, and to conform in some degree with the expectations of others toward them. (25:77)

In legal rationality, rules are applied to situations. Each rule describes the situation to which it applies and authorizes the action for the situation. Political rationality deals with decision-making structures. (25:170)

Perhaps Liston's allocative and policy decisions were subsumed in Diesing's economic rationality, while his social rationality embodied the same decision situations as Liston's organization and control, and coordination-interaction decisions.

Behavior

Gross and Crandall (26) and Katona (27) designate two types of behavior: genuine decisions and habitual or routine decisions. Since genuine decisions are seldom made, "they lead to responding to a situation in a new way." (27:49) In routine decisions, a person acts as he did in similar situations previously handled.

Decision Magnitude

When she discussed executive decisions, Niles (2:351-352) outlined four types: routine, minor, major, and critical. Routine

decisions are made at the point of action about frequently recurring situations and follow policy and procedure. Minor decisions, the next highest level, often adjust policy and procedure. Major decisions, the third highest level, affect the business in the years ahead, and involve the use of considerable financial resources. These decisions take executive handling. Critical decisions, the highest level, affect the life of the business and demand the best wisdom in judging information and facts. Similarly, one person seldom makes either critical or major decisions.

Polarity

Likes Niles, Simon typed executive decisions. He differentiated two polar types of decisions: programmed decisions and nonprogrammed decisions.

> Having christened them, I hasten to add that they are not really distinct types, but a whole continuum with highly programmed decisions at one end of the continuum and highly unprogrammed decisions at the other end. We can find decisions of all shades of gray along the continuum, and I use the term programmed and nonprogrammed simply as labels for the black and the white of the range.
>
> Decisions are programmed to the extent that they are repetitive and routine, to the extent that a definite procedure has been worked out for handling them so that they don't have to be treated de novo each time they occur . . . . (3:5)
>
> Decisions are nonprogrammed to the extent that they are novel, unstructured, consequential. There is no cut-and-dried method for handling the problem because it hasn't arisen before, or because it is so important that it deserves a custom-tailored treatment.

> General Eisenhower's D-Day decision is a good example of a nonprogrammed decision. (3:6)

In his most recent work published in 1962 and cited earlier in this section, Diesing (25) described five types of decisions; however, in a previous article (28) he designated two types of decision: economic and noneconomic. In economic decision-making the objective was to maximize welfare or satisfaction; but in noneconomic decision-making solutions to problems characterized by cultural value conflicts and disorganization result in courses of action to handle these problems.

Following his 1955 article in Ethics on economic and noneconomic decisions, Diesing (29) wrote another article in which he describes socioeconomic decisions which are a blend of both economic and noneconomic decisions. This type of decision deals with problems that include "both important goals and important elements of internal conflict." (29:6)

Decision Interrelatedness Suggested in Home Management Literature but Unresearched

Writers of home management literature have suggested that decision interrelatedness is an important managerial concept; but, to the present, home management researchers have not investigated it.

Gross and Crandall stated there are "large and small decisions. The larger the decision the more it affects future

decisions." (26:73) The choice of an occupation serves as an example. However, the cumulative effect of small decisions may affect large decisions.

In discussing decision-making, Knoll also pointed to decision interrelatedness when she stated that, "Decision-makers are influenced by decisions previously made and by anticipated future demands." (5:336)

Paolucci and O'Brien in an article cited in Chapter I, raised the question about decision interrelatedness when decision centrality was discussed. In an earlier article they stated:

> Emphasize that decisions are interrelated and that those today determine, to some extent, the kinds that will be possible in the future. Although the effects of some decisions are of short duration, others can influence a family throughout its lifetime -- a fact which should caution the student to use foresight in making a decision today that markedly shapes tomorrow. Long-term decisions such as job choices and purchase of a home may be awkward, expensive, even impossible to change; consequently, one ought to exercise care in making them. (30:17)

Again, in discussing home management, Paolucci and O'Brien stated, "that management is a process -- that is a series of related decisions -- is an important concept to develop, thereby emphasizing the importance of decision interdependence." (31:46)

These authors: Gross, Crandall, Knoll, Paolucci, and O'Brien pointed to the concept of decision interrelatedness and suggested the effects of its far reaching influence in family management.

CHAPTER III

METHODOLOGY

This exploratory and descriptive study examined a central decision and its satellite decisions. This chapter describes the procedures used to examine decision class and linkage in one central-satellite decision complex. The chapter also describes the selection of the sample, the development of the instruments, and field work.

The Selection of the Sample

Residents of the retirement housing project selected for the study had made the central decision under investigation.

Rationale for Selection of the Sample

Retirement housing projects are a comparatively new type of housing for that segment of the population aged 60 and over. No decision studies have been found in either home management or in other disciplines that have examined the retirement housing decision. So far no home management research has selected respondents in the group aged 60 and over for study. Since this is a managerial decision people in our society may make and since the population aged 60 and over is expected to continue to increase in the United States, the examination of this decision seemed timely.

Criteria for the Choice of the Respondents in this Study

For this study respondents were selected who had 1) made the same central decision, 2) could be located and reached for interviewing by the researcher in a designated period of time, and 3) were willing to cooperate in the study. The residents of a large Oregon retirement housing project met these criteria.

After the particular housing project was chosen for study, certain criteria for selecting the respondents within the project were set up. The main criteria were 1) that the respondents be the first residents of this Oregon retirement housing project and have lived in the apartments from one to six months, and 2) that men and women residents living alone be interviewed in their proportion to the total resident population in the project.

Only persons living alone were interviewed because researching a central managerial decision made solely by individuals seemed feasible for an exploratory study. Methodology for studying a central decision made by an individual needs to be tried and tested before attempting to analyze a central decision made by two or more people; however, the investigation of a central decision made jointly by two people should be a fruitful research topic for developing theory about family decision-making. Therefore, more complex research would follow after the supporting blocks of exploratory research have built its foundation.

Location of the Sample

The Executive Director of a new retirement housing project which had opened in Oregon's Willamette Valley in August, 1963, gave the researcher permission to ask the residents for interviews. When she was ready to begin the study, the researcher held conferences with the Executive Director to plan the field work.

Choice of the Respondents

First, the researcher obtained a list of the retirement housing residents with the telephone numbers of potential respondents. Couples and residents sharing apartments were eliminated because they did not meet the criterion that the individuals must be living alone.

Fifty-two residents were interviewed; two respondents failed to meet the criterion of living alone at the time they moved to the housing project. Of 84 potential respondents in the study, 11 refused to grant interviews. Probably some of these residents found verbalizing about these decisions an unpleasant topic. Five residents indicated their willingness to be interviewed, but due to illness, vacations, and other circumstances beyond the control of the researcher and the residents, they were not interviewed. The researcher was unable to make telephone contact with the remaining 16 potential respondents.

Interview Guide and Schedule

An interview schedule and interview guide were constructed for collecting data (Appendix A, p. 96). The information obtained on the schedule included demographic data, the type of apartment selected in retirement housing, income range and sources, and type of housing for 10 years preceding the move to retirement housing.

The interview guide provided a system for recording decisions that respondents reported making following their decision to move to retirement housing. Space was provided on the interview guide for recording the decisions, coding them, and listing alternatives rejected. When there was a question about a reported decision meeting the decision definition, alternatives rejected were recorded.

Development of Instruments

For background on retirement housing and its residents, the researcher interviewed one retirement housing administrator of a 374-unit project, two residents, and one women who was planning to become a resident of a 342-unit retirement project. These interviews gave some information on problems faced and decisions made by residents and administrators, but the information obtained seemed inadequate for developing instruments for collecting data on satellite decisions.

In the next step, pilot reconnaissance, permission was

obtained from the Executive Director of a 126-unit retirement housing project in the Willamette Valley, Oregon, to interview residents.

Five couples, two single women, three widowers, and seven widows volunteered for interviews. All had lived in retirement housing at least one year. On the first day, the researcher conducted unstructured interviews to obtain basic information for formulating questions about the retirement housing decision; however, on the second day, she structured the interviews and asked questions developed from analysis of the data given on the previous day on demographic facts, decisions resulting from the retirement housing decision, and present activities. The structured interviews provided more concise and helpful information. These data were studied and used as a basis for developing a preliminary interview guide and interview schedule.

Pretesting the Interview Guide and Schedule

The preliminary instruments -- the interview guide and interview schedule -- were pretested in retirement housing in Detroit, Michigan, with five residents: one couple and three women. The subsequent analysis of these pretest instruments indicated the need for format changes to facilitate recording and analyzing data. Also the interview guide was shortened and several questions on the interview schedule clarified and expanded.

Collection of the Data

The field work, conducted by the researcher, was started on November 21, 1963, and completed on February 1, 1964. This time span included preliminary conferences with the Executive Director to prepare for the field work and to interview the respondents.

Entree and Establishing Rapport

To initiate contacts with the residents, the Executive Director presented the researcher to residents in their dining room during the noon meal, explained the purpose of the research, and said the researcher would ask for interviews.

Interviewing

To arrange interviews, the researcher contacted most of the residents by telephone for appointments. All interviews were conducted in the respondents' apartments. Respondents were given copies of the interview guide and schedule to follow during the interviews; these were collected at the end of the interview. The data were recorded verbatim by the researcher as given by the respondent. The average length of the interviews was an hour, though some lasted two hours.

Analysis of Data

The data were analyzed in the following ways:

1. The conceptual framework was used to place decisions

into their respective classes.

2. A decision profile, plotting decision class and linkage, was made for the decision complex of each respondent.

The decision profile resulted from the analysis of decision class and linkage. Not only did it serve as a tool for describing decision interdependence, or linkage, but it was also used to calculate the number of decisions in each class. Interdependence between and among decisions was based on decision content.

Decision Class

First, the decisions reported by the respondents were classified into their satellite classes and given the letter codes T, P, C, and R for tactical, policy, control, and program decisions, respectively. After classification, the satellite decisions were numbered consecutively within the four classes, for example, the first policy decision reported was symbolized as P_1, the second as P_2.

Decision Profile

Originally it was planned to have a decision target profile with the strategic decision in the center of the target and the satellite decisions diagrammed in rings around it. Although this plan worked in the pretest, it proved unsatisfactory later because there were too many decisions placed in the first ring surrounding the strategic decision for easy reading. Consequently another diagrammatic scheme was used.

Since the earth, a globe, is often represented on a flat surface in maps, the Mercator projection was employed to chart decision interdependence. The definition of Mercator projection in Webster's New World Dictionary of Language follows:

> a method of making maps in which the earth's surface is shown as a rectangle, with the meridians as parallel straight lines spaced at equal intervals and the parallels of latitude as parallel straight lines intersecting the meridians at right angles but spaced further apart as their distance from the equator increases; areas on such maps become increasingly distorted toward the poles. (32:920)

For the decision profile used here, the Mercator projection had to be altered slightly. On a map lines running east and west represent latitude; but in this study they mark bands representing connections between decisions. The strategic (central) decision is placed at the top in the position of the North Pole and the satellite decisions are diagrammed in the bands beneath it. Band 1 surrounds the central decision. Thus bands are numerically ordered with the band the greatest distance from the central decision having the highest number (Figure 3.1 and Appendix B).

When the decision profiles were made, X type decision was added to indicate a decision made but not reported in the interview. A reported decision indicated such a decision necessarily had been made. These eight X decisions were categorized by class and counted in the totals for their classes; four were tactical and four were policy.

Respondent Number ___

LINKAGE FORMS

__ Single Class Series
__ Multiple Class Series
__ Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
__ Total

DECISION PROFILE

STRATEGIC DECISION

DECISION KEY

T	Tactical	__
P	Policy	__
C	Control	__
R	Program	__
*	Unreported	__
	Total	__

No. of Band	Choosing Unit	Establishing Unit	Reducing Possessions	Transporting Self and Possessions	Establishing Self in Community	Forming Living Patterns
1						
2						
3						
4						
5						

Fig. 3.1. --Decision profile

Decision Tasks

After carefully studying each respondent's reported decisions the researcher found that the actions of these decisions centered around the following tasks: 1) choosing an apartment unit, 2) establishing the apartment unit, 3) reducing possessions, 4) transporting self and possessions, 5) establishing self in the community, and 6) forming living patterns.

Choosing an apartment unit included decisions made about size and location of the apartment unit in the building. The category establishing the apartment unit covered decisions made about selection and placement of furniture, colors for apartment and furnishings, lodging taken while the respondent purchased furniture or waited for it to arrive and changes made in furnishings and equipment. The category reducing possessions included decisions made about disposition of furniture, family treasures, real estate, automobile, and storage of furniture and other personal possessions while waiting to see if they were needed in the new housing situation. Decisions made about transporting self and possessions included those made about moving possessions to retirement housing, setting the moving date, and traveling to the new residence. The decisions categorized under establishing self in community included those made about involvement in the retirement housing community, and activities and business contacts in city and state. Included in

the category forming living patterns were policies about guests, medical service, group activity, and decisions made about routines for daily living and self maintenance.

To show decisions by class and number for each task, the profile was divided into six parts, one for each task. On the Mercator projection these divisions correspond to meridians.

Decision Linkage

For describing decision interdependence the researcher employed three linkage components: form, scope, and range.

Form. -- Form refers to the visual appearance of the decision symbols on the decision profile. These linkages either fan out as radii or become straight lines through at least two bands or combine both forms. The linkage shown by straight lines connecting decision symbols in two or more bands represents a series of decisions in time order and in action. When two or more radii appear in the same band attached to either the strategic or another satellite decision, the decisions represented are not necessarily time ordered within the band. However, a decision attached in a succeeding band to decisions in the preceding band follows sequentially any decisions to which it is attached. Linkage forms are series, radial, and compound.

a. Series linkage --

(1) Single class series linkage has two or more decisions in the same class. Since each decision is on a separate band on the decision profile, this linkage forms a straight line.

(2) Multiple class series linkage is composed of two or more decisions in different classes; each decision is on a separate band and forms a straight line on the decision profile.

b. Radial linkage --

(1) Single radial linkage represents one decision and is attached radially in Band 1 to the central decision.

(2) Multiple radial linkage has at least two decisions in Band 2 linked to one decision in Band 1, and may or may not have radial linkage in the succeeding bands.

(3) Inverted multiple radial linkage has one decision in Band 2 attached to two or more decisions in Band 1, and has either no decisions in Band 3, or is followed by single or multiple radial forms there.

(4) Multiplex radial linkage has two or more forms of radial linkage in Band 2 and may have a single radial form in Band 2 or 3.

c. Compound linkage --

Compound linkage is composed of a combination of series and radial linkages.

Scope.-- Scope refers to the number of decisions within a

band. For example, a decision profile may have 12 decisions in Band 1, two in Band 2, one in Band 3.

Range. -- Range refers to the number of bands through which a linkage passes.

Reliability

To reduce bias, an independent coder was given the data with the decision class definitions and asked to categorize the decisions. After classification, the researcher and coder compared their categorization of decisions on 26 percent of the interviews and for these reached agreement on 99.4 percent of satellite decisions reported. When diagramming the decisions on the decision profile, classification of the decisions was considered again. After this analysis, the agreement between the classification of the independent coder and researcher was 89.5 percent for the satellite decisions reported in the study.

To check linkage and task categories, an independent analyst checked every fifth interview or 20 percent of the decision profiles. Agreement with the researcher was 96.5 percent for task categories and 95.8 percent for linkage analysis.

CHAPTER IV

DESCRIPTION OF THE SAMPLE

Since the objective was to study one central decision and its resulting satellite decisions, respondents who had made the retirement housing decision, the central decision under study, were selected.

Demographic Characteristics of Sample

Sex, Age, and Marital Status

The researcher interviewed six men and 44 women in this study. Of the 50 respondents, 48 reported their ages; however, two respondents did not give their exact ages, but stated they were over 65 years old. The age of about 60 percent of the respondents was over 72 years. However, 10 percent of the respondents had not reached 65, the customary retirement age. The range in ages was 32 years, which is more than a generation between the oldest and youngest respondents, and indicated a heterogeneous population in this retirement housing.

Over two-thirds of the respondents were widows; but only one-tenth were widowers. However, the proportion of single respondents was one-sixth (Table 4.1).

Table 4.1. -- Marital Status and Age of Respondents

Marital Status	Age in Years 57-64	65-72	73-80	81-89	Not given	Total	Percentage
Single							
Male				1		1	2.0
Female	1	2	3		1	7	14.0
Married	1					1	2.0
Widow	3	10	13	7	1	34	68.0
Widower		1	2	2		5	10.0
Divorced		1	1			2	4.0
Total	5	14	19	10	2	50	100.0

	Mean	Median	Mode	Range
All reporting (N=48)	74.1	74.0	72,73,83	57-89
Male (N=6)	79.8	80.0	None	69-89
Female (N=42)	73.3	74.0	72,74	57-88

Length of Time Widowed

Of the 78 percent of the respondents who had lost their spouses through death, 34 percent of them had lost their husbands or wives in the last five years. However, about one-third of this group had been widows or widowers over 10 years.

Number of Living Children

More than half of the 42 ever married respondents had living children; of these about 60 percent had one child. However, the number of the respondents with two and three children was the same,

17 percent. Only one respondent had four children (Table 4.2).

Table 4.2. -- Marital Status* and Number of Living Children

Marital Status	Number of Children			Number of Persons	Percentage
	Male	Female	Total		
Widowers	7	2	9	5	21.7
Widows	14	13	27	16	69.7
Divorced	1		1	1	4.3
Married		1	1	1	4.3
Total	22	16	38	23	100.0

	Mean	Median	Mode	Range
Respondents (N=23)	1.7	1.0	1	1-4

*Eight respondents were single; 18 widows and one divorcee did not have children.

Formal Education of Respondents

Fourteen percent of the respondents had not finished high school while 36 percent had completed four years of college and in some cases had taken graduate work. Fifty-six percent of the group had graduated from high school, taken specialized training, or had attended college for one or two years (Table 4.3). The United States Bureau of the Census reported in 1961 for men aged 65 and over the median educational level was 8.3 years; however, this datum was not available for women in this age group. (33:32)

Table 4.3. -- Formal Education of Respondents

Educational Level	Number of Respondents			
	Male	Female	Total	Percentage
Grades 4-7		3	3	6.0
Grades 8-10	2	2	4	8.0
High School Graduates		14	14	28.0
Specialized Training	2	8	10	20.0
College 1-2 Years		4	4	8.0
College Graduates	1	7	8	16.0
College Graduates with Graduate Work	1	7	8	16.0
Master's Degrees		2	2	4.0
Total	6	44	50	100.0

	Number of Years			
	Mean	Median	Mode	Range
Education (N=50)	13.2	13.0	12	4-18

Occupation

Over one-third or 16 of the 44 women in the sample had been full-time homemakers before moving to retirement housing. Of the approximate two-thirds of the respondents who had been engaged in remunerative occupations, about 45 percent were in professions; almost one-third were in clerical and sales; and the remainder, 20 percent, were in managerial, service, or manufacturing occupations (Table 4.4).

Table 4.4. -- Occupation of Respondents*

Occupation	Male	Female	Total	Percentage
Professional	2	14	16	32.0
Managerial	2	2	4	8.0
Clerical and Sales	1	10	11	22.0
Service	1	1	2	4.0
Manufacturing	0	1	1	2.0
Homemaking	0	16	16	32.0
Total	6	44	50	100.0

*If fully or partially retired, the occupation listed is for the last employment; if employed, present occupation is listed.

Length of Retirement from Gainful Employment

About 40 percent of the fully retired respondents who had been engaged in remunerative occupations had been retired for five or fewer years; however, 40 percent had been retired over 10 years before moving to retirement housing. The two partially employed respondents, a teacher and an accounting stenographer, had left full employment, one and nine years respectively (Table 4.5).

Income Range

Seven of the 50 respondents stated that they were not certain of their incomes. Of the 43 reporting their incomes, 58 percent received incomes under $3,000 per year. About 85 percent of all respondents reporting incomes received under $5,000 per year while only five percent received incomes over $11,000 . No

Table 4.5. -- Length of Retirement from Gainful Employment*

Classification	Years: Under 2	2-5	6-10	11-20	Over 20	Total	Percentage
Fully retired							
Male	1	1		3	1	6	18.2
Female	5	6	5	8	1	25	75.6
Partially retired							
Female	1		1			2	6.2
Total	7	7	6	11	2	33	100.0

	Mean	Median	Mode	Range
Retired (N=33)	8.7	8.0	1	0-24

*Sixteen women were full-time homemakers; one woman was employed and had not retired.

respondents reported incomes in the $9,000 to $10,999 bracket (Table 4.6).

In the United States in 1962, 85 percent of the nonmarried men and 93 percent of the nonmarried women aged 65 and over had incomes under $3,000. Only one percent of the men and less than half of one percent of the women received incomes $10,000 and over. The median income for the nonmarried men aged 65 and over was $1,365 and for women $1,015. (34:8)

Sources of Funds for Living

Sources of funds for living were categorized as follows:

Table 4.6. -- Income Range of Respondents*

Income Range	Number			Percentage
	Male	Female	Total	
Under $2,500	2	17	19	38.0
$2,500 to $2,999	1	5	6	12.0
$3,000 to $4,999	1	10	11	22.0
$5,000 to $6,999		3	3	6.0
$7,000 to $8,999	1	1	2	4.0
$11,000 and Over	1	1	2	4.0
Unknown		7	7	14.0
Total	6	44	50	100.0

	Median	Mode	Range
Income Range (N=43)	Between $2,500 and $2,999	Under $2,500	Under $2,500 to over $11,000

*No respondents had incomes in the $9,000 to $10,999 bracket.

Old-Age, Survivors, and Disability Insurance, pensions, dividends and interest, real estate, insurance annuity, savings, and other. Sixty percent of the respondents reported receiving Old-Age, Survivors, and Disability Insurance benefits, but no one reported receiving his total income from this source (Table 4.7). Presently, Old-Age, Survivors, and Disability Insurance covers nine out of ten persons employed, but the coverage is 71 percent for the total aged population. (35:204)

The most frequently reported source of funds was dividends

Table 4.7. -- Sources of Funds for Living

Sources	Percentage of Funds from Various Sources: Under 25	25-50	51-75	76-90	100	Not given	Total	Percentage
Old-Age, Survivors and Disability Insurance	7	15	4	1		3	30	60.0
Pensions	4	3	4	2	4		17	34.0
Dividends and Interest	9	7	4	3	5	3	31	62.0
Real Estate	2	2	4		1	3	12	24.0
Insurance Annuity	3	2					5	10.0
Other		2		2		1	5	10.0
Savings	2	4				2	8	16.0
Total	27	35	16	8	10	12		

	Number: Mean	Median	Mode	Range
Sources (N=50)	2.1	2	2	1-3

and interest; yet only 20 percent of the respondents received all income from this source. Approximately one-third of the respondents were pensioners; but only one-fourth of this group received their total income from pensions (Table 4.7).

No one had more than three sources of funds; yet all respondents had at least one source. The most frequently reported number of sources of funds for living was two; 44 percent of the

respondents had this number. Only one-fifth of the respondents had one source of funds while slightly over one-third had three sources. The most frequently reported percentage of income from one source was the one-fourth and one-half category (Table 4.7).

Type of Housing and Number of Years in Last Residence Before Moving to Retirement Housing

Approximately two-fifths of the respondents owned and occupied their own homes before the move to retirement housing, while slightly over one-third lived in either unfurnished or furnished apartments. Only eight percent of the respondents shared the home of relatives. Of the 10 percent living in housing classified as "other," two lived in hotels; two lived with friends; and one lived in retirement housing.

Only one-tenth of the respondents changed residences in the year before coming to retirement housing. In comparing this statistic with the national average, where one-fifth of the population moves each year, the respondents made fewer changes. Forty percent of the respondents had spent over 10 years in their last residence (Table 4.8).

Description of the Housing Project in which Respondents Lived

The housing project where the respondents interviewed in this study lived was located in Oregon's Willamette Valley. The

Table 4.8. -- Type of Housing and Number of Years in Last Residence before Moving to Retirement Housing

Type of Housing	Number of Years: Under One	1-4	5-10	11-20	Over 20	Total	Percentage
Owned House		2	2	5	12	21	42.0
Rented House			1	1		2	4.0
Rented Unfurnished Apartment		3	6		1	10	20.0
Rented Furnished Apartment	1	5	2			8	16.0
Lived with Own Family	2	1		1		4	8.0
Other	2	2	1			4	10.0
Total	5	13	12	7	13	50	100.0

	Years: Mean	Median	Mode	Range
Length of Time (N=50) in Last Residence	12.3	7.5	4,5	0-52

building offered 258 apartment units, lounges, library, roof garden, sun decks, auditorium-chapel, 20-bed infirmary, and hobby rooms. Each apartment had private bath with shower and tub, and closet. A snack bar with refrigerator and range designed to look like a piece of furniture could be purchased on special order. No furnishings were provided except wall-to-wall carpeting and draperies. Food service was provided in a central dining room.

For this housing, the resident paid a monthly maintenance fee which included the following: food service for three meals each day, utilities including telephone, janitorial service and room laundry. After the first week and up to two months a credit was allowed for vacation periods.

In addition to the maintenance fee, the lessee paid a leasehold fee. These fees varied with apartment size. The project is financed by leasehold fees and a Federal Housing Administration insured loan.

The housing project has no claim on the estate of the leaseholder, but the apartment reverts back to the housing corporation after the lessee and his or her surviving mate can no longer occupy the apartment.

Types of Retirement Apartments Selected by Respondents

Essentially, the retirement housing projects where the study was conducted offered four types of retirement apartments: 1) basic or one room; 2) basic room plus sleeping alcove separated by folding doors; 3) two room, a living room and bedroom; and 4) penthouse with bedroom and living room plus private view balcony. All apartments had private baths and entrance halls. Some of the basic apartments varied in size within this group as the living-bedroom of basic expanded apartments was four feet longer

than the 15 x 15 foot living-bedroom of the basic apartment. First floor apartments were built for conversion to infirmary rooms if ever needed.

Almost seven-eighths of the respondents selected the basic apartment. Of this group 65 percent chose the smaller basic unit while 35 percent selected the expanded one. No respondent chose a penthouse; however, ten percent of the respondents did choose two-room apartments. Only eight percent of the respondents selected first-floor apartments (Table 4.9).

Table 4.9. -- Types of Retirement Apartments Selected by Respondents

Type	Male	Female	Total	Percentage
One room basic apartment	5	38	43	86
One room basic apartment plus sleeping alcove		2	2	4
Living and bedroom apartment	1	4	5	10
Total	6	44	50	100

Period of Time between Move to Retirement Housing and Interview

Sixty-four percent of the respondents had lived in retirement housing between three and five months; two percent had lived there less than one month; thirty-four percent had lived there between one and two months.

CHAPTER V

FINDINGS

Introduction

The conceptual framework for this study theoretically and operationally defined five decision classes: strategic, tactical, policy, control, and program and three decision linkage components: form, range, and scope. Form subdivided into radial, series, and compound linkages. Definitions of these decision classes and linkage components appear in Chapter I, pages five through eight.

Analysis was made of satellite decisions according to the following demographic characteristics: sex, age, occupation previous to retirement, education, income, and living arrangements prior to retirement and also by task categories. Analysis was also done of linkage combinations on the decision profiles, and between and among task categories.

Decision Class

From the interview guides, a decision profile was made for each of the 50 respondents. And from these profiles, the total numbers for all classes of satellite decisions were computed for the entire sample.

Analysis of the Numbers of Satellite Decisions

The total number of satellite decisions classified in this

study was 1325. Almost three-fifths of the decisions classified as tactical. Of the remaining two-fifths of the decisions, over half were categorized as policy, approximately one-fourth as program, and less than one-fifth as control (Table 5.1).

Table 5.1. -- Number of Decisions by Class

Decision Class	Number	Percentage
Tactical	782*	59
Policy	286*	22
Control	106	8
Program	151	11
Total	1325	100

*Includes four x decisions. This table included eight x decisions. In analysis, these will be treated hereafter as reported decisions.

Table 5.2 presents the frequency distribution and the range for all satellite decision classes. Here dispersion characterizes the total numbers of decisions reported in each class by respondents. The variation in range for tactical, policy, control, and program was 23, 15, 9, 8 respectively; however, the variation in range for total decisions made by respondents was 31.

For analysis, the totals for each satellite decision class were grouped by number intervals. Almost three-fourths of the respondents made between 11 and 20 tactical decisions. Approximately 60 percent of the respondents reported between one and five policy and control decisions, and 88 percent made program

Table 5.2. -- Frequency Distribution for Decision Class

Number of Decisions	Tactical		Policy		Control		Program		All Classes	
	F	%	F	%	F	%	F	%	F	%
0					13	26	3	6		
1			1	2	14	28	4	8		
2			5	10	10	20	10	20		
3			4	8	1	2	17	34		
4	1	2	10	20	4	8	10	20		
5			9	18	2	4	3	6		
6	2	4	6	12	2	4	1	2		
7			4	8	2	4	1	2		
8	4	8	4	8	1	2	1	2		
9			1	2	1	2				
10	1	2	1	2						
11	2	4	2	4						
12	3	6	1	2					2	4
13	3	6	1	2					1	2
14	3	6							2	4
15	3	6							1	2
16	2	4	1	2					2	4
17	8	16								
18	4	8							1	2
19	8	16								
20									3	6
21	1	2							1	2
22									2	4
23									1	2
24	2	4							1	2
25									5	10
26	2	4							5	10
27	1	2							2	4
28									1	2
29									3	6
30									2	4
31									1	2
32									3	6
33									4	8
34										
35										
36									1	2
37									1	2
38										
39									1	2
40										
41									1	2
42									2	4
43									1	2
Total	50	100	50	100	50	100	50	100	50	100

decisions. Over 60 percent of the respondents reported making between 21 and 35 satellite decisions; however, about one-fourth made between 12 and 20 decisions (Table 5.3).

Table 5.3. -- Number Intervals for Decision Class

Number Interval	Tactical		Policy		Control		Program		Total	
	N	%	N	%	N	%	N	%	N	%
0					13	26	3	6		
1-5	1	2	29	58	31	62	44	88		
6-10	7	14	15	30	6	12	3	6		
11-15	14	28	5	10					6	12
16-20	22	44	1	2					6	12
21-25	3	6							10	20
26-30	3	6							13	26
31-35									8	16
36-40									3	6
41-45									4	8
Total	50	100	50	100	50	100	50	100	50	100

Combinations of Satellite Decisions on Profiles

All respondents reported tactical and policy decisions. And 94 percent reported program decisions, but only 74 percent reported control decisions (Table 5.4).

Analysis of Satellite Decisions by Various Demographic Characteristics

Sex. -- Table 5.5 presents mean, median, mode, and

Table 5.4. -- Combination of Decision Classes on Decision Profiles

Decision Classes	Number of Respondents	Percentage
Tactical, policy, control, program	35	70
Tactical, policy, control	2	4
Tactical, policy, program	12	24
Tactical, policy	1	2
Total	50	100

range for satellite decision classes for all respondents. Moreover, these statistics are shown for both sexes. Although there were only six men to compare with 44 women, the mean in every decision class was lower for men than for women.

Age. -- When the respondents were grouped according to age, the means were computed for decision classes. After age 65, the customary retirement age, the means for all decision classes tended to decrease as the age of the respondents increased (Table 5.6).

Occupation before Retirement. -- Means for all decision classes were computed for occupations prior to retiring. Homemakers and respondents in managerial occupations had the same mean, the lowest for all decision totals. Together these groups included 40 percent of the respondents. The professional occupational group, comprising one-third of the respondents had the highest mean for one of the largest occupational groups. The service

Table 5.5. -- Decision Class Statistics

Class	Statistics			
	Mean	Median	Mode	Range
	All Respondents			
Tactical	15.7	16.5	17, 19	4-27
Policy	5.7	5.0	4	1-16
Control	2.1	1.0	1	0-9
Program	3.0	3.0	3	0-8
All decisions	26.5	26.0	25, 26	12-43
	Men (N=6)			
Tactical	10.8	11.0	12	6-17
Policy	3.8	4.0	4	1-8
Control	1.7	0.5	0	0-7
Program	2.5	3.5	None	0-5
All decisions	18.8	14.0	12	12-32
	Women (N=44)			
Tactical	16.3	17.0	18	4-27
Policy	5.9	5	5	2-16
Control	2.2	1	14	0-9
Program	3.1	3	3	0-8
All decisions	27.5	26.5	26	13-43

and manufacturing groups were higher, but together they accounted for only six percent of the respondents.

The means for professional group, the clerical and sales group, and homemakers -- the three largest occupational groups -- ranked high, medium and low respectively for all decision classes

Table 5.6. -- Decision Mean by Age Group and Class

Age Groups	Number of Respondents	Mean				
		Tactical	Policy	Control	Program	All Decisions
57-64	(N=5)	18.0	6.0	3.8	3.0	30.8
65-72	(N=14)	17.9	7.0	2.7	3.4	30.9
73-80	(N=19)	14.7	5.4	1.3	3.0	24.3
81-89	(N=10)	13.5	4.9	1.6	2.8	22.4
Not Given	(N=2)	15.5	4.0	4.0	2.0	27.5

Table 5.7. -- Decision Mean by Occupation and Class

Occupation		Mean				
		Tactical	Policy	Control	Program	All Decisions
Professional	(N=16)	16.8	6.9	2.9	2.9	29.4
Managerial	(N=4)	15.2	3.8	0.8	4.0	23.7
Clerical and Sales	(N=11)	15.1	5.7	2.3	3.0	26.1
Service and Manufacturing	(N=3)	18.0	5.6	3.6	3.3	30.6
Homemaking	(N=16)	14.6	5.1	1.3	2.8	23.7

as well as total decisions (Table 5.7).

Figure 5.1 graphically presents the range for decisions totals by occupations. The ranges show the same trend as the means and also show the dispersion of decisions totals for the

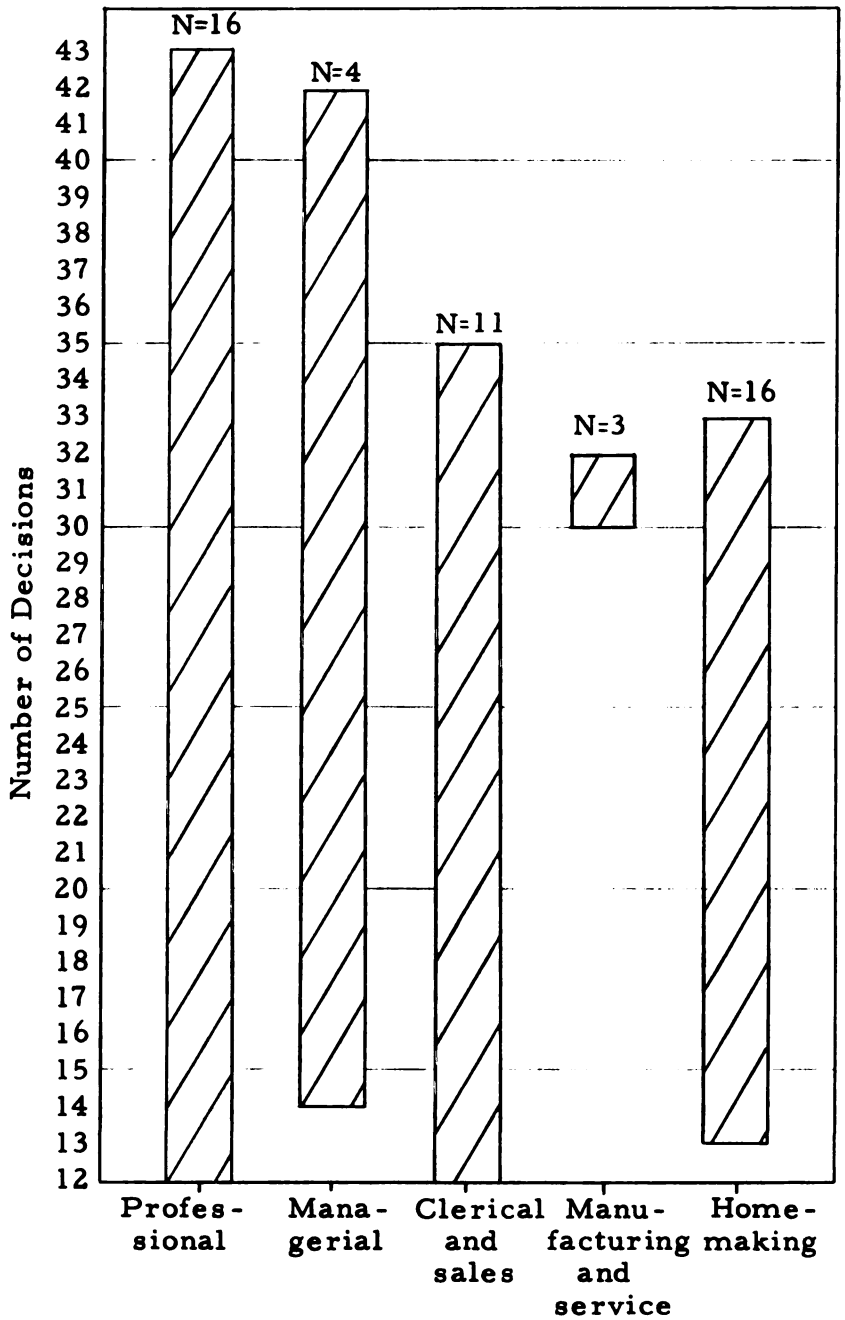

Fig. 5.1--Range of decision totals by occupation.

various occupational groups.

Education. -- The mean number of satellite decisions was computed for each educational group. Over one-third of the respondents had the same mean, 26. The high school graduates had the lowest mean; however, college graduates with graduate work or master's degrees had the highest mean (Table 5.8).

The range for satellite decisions tended to increase as the educational level increased, except for the respondents with 1-2 years of college. The range for this group was next to the lowest (Figure 5.2).

Income. -- For the three lowest income brackets, the means for satellite decisions increased slightly as the income increased. For the brackets over $5,000, the means for satellite decisions decreased as the income increased (Table 5.9).

Income and Age. -- When the respondents' incomes were under $5,000 and their ages 65 and over, the satellite decision means decreased as age increased. The satellite decision means increased as income increased for the 80-89 year old age group reporting their incomes, but the numbers of respondents in the cells in this group were small (Table 5.10).

Living Arrangement Just Prior to Retirement Housing. -- The means for satellite decisions were computed for types of living arrangements occupied before moving to retirement housing.

Table 5.8. -- Decision Mean by Educational Level

Educational Level	Number of Respondents (N=50)	Mean
Grades 4-7	3	26.3
Grades 8-10	4	26.2
High School Graduate	14	23.9
Specialized training	10	26.7
College 1-2 years	4	25.7
College graduates	8	28.3
College graduate with graduate work	5	29.8
Master's degree	2	30.0

Table 5.9. -- Decision Mean by Income Range*

Income Range	Number of Respondents (N=50)	Mean
Under $2,500	19	26.9
$2,500 to $2,999	6	29.0
$3,000 to $4,999	11	31.5
$5,000 to $6,999	3	25.6
$7,000 to $8,999	2	20.0
$11,000 and over	2	19.9
Unknown	7	21.7

*No respondents had incomes in the $9,000 to $10,999 bracket.

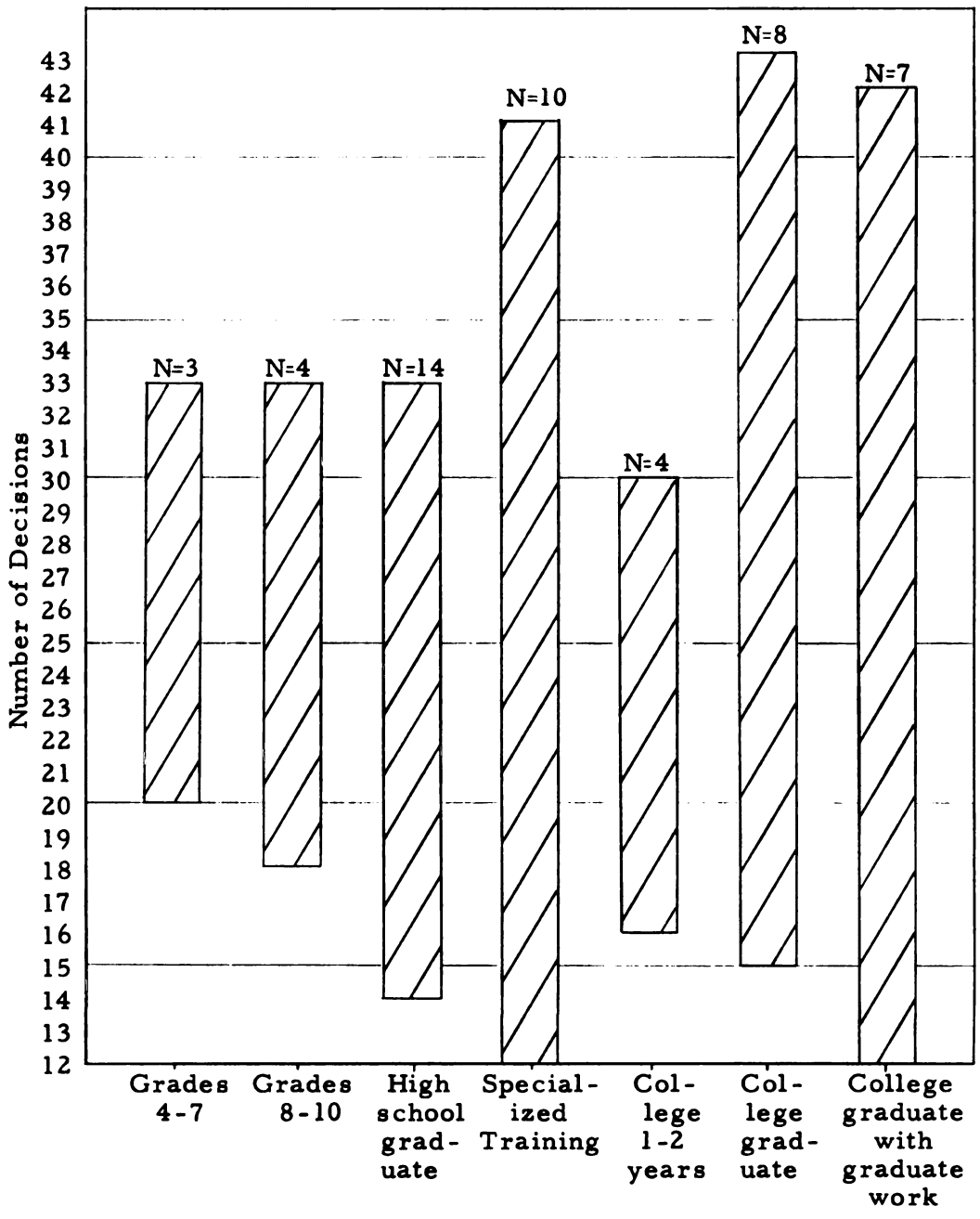

Fig. 5.2--Range of decision totals by educational level.

Table 5.10. -- Decision Mean by Income and Age Groups*

	Age by Year Groups									
	57-64		65-72		73-80		80-89		Not Reported	
Income	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
Under $2,500	2	29.0	3	32.6	8	26.5	5	21.4	1	26.0
$2,500 - $2,999			2	37.0	4	25.0				
$3,000 - $4,999	2	35.0	4	31.5	2	26.5	2	26.5	1	25.0
$5,000 - $6,999			1	16.0			2	30.5		
$7,000 - $8,999	1	26.0	1	14.0						
$11,000 and over					2	19.5				
Not reported			3	27.3	3	19.0	1	13.0		

*No respondents had incomes in the $9,000 to $10,999 bracket.

One-fifth of the respondents lived in unfurnished apartments and had the highest mean for satellite decisions. It is not surprising that those respondents living with their families would report the fewest decisions. Renting or owning a home made no difference in the mean of satellite decisions reported (Table 5.11).

Occupation and Educational Level. -- The means for satellite decisions of professional and homemaker groups tended to increase as the educational level increased. Occupation may have been the influencing factor since college graduates who were homemakers had a lower mean than the professional group. These two occupations, both the same size, accounted for two-thirds of the respondents. The clerical and sales group, the second largest

Table 5.11. -- Decision Mean by Type of Housing

Type of Housing	Number of Respondents (N=50)	Mean
Owned house	21	26.1
Rented house	2	26.0
Rented unfurnished apartment	10	31.5
Rented furnished apartment	8	24.0
Lived with own family	4	19.7
Other	5	27.8

occupational group, had few respondents in the various educational categories (Table 5.12).

Period of Time between Making and Executing Decision

Table 5.13 presents data on the period of time between making and executing the central decision. After six months, as the period between making and executing the decision increased, the mean for satellite decisions increased. Moreover, these respondents with longest periods of time between deciding and executing the decision had the highest satellite decision mean. The respondents in the longest time period had the most time to make satellite decisions, but the most time to forget them. On the other hand, those in the shortest time period had made the decisions most recently, and they might be expected to report more decisions. However, the data do not support this expectation.

Table 5.12. -- Decision Mean by Occupation and Educational Level

Occupation	Educational Level													
	4-7 grades		8-10 grades		High School Graduate		Specialized training		College 1-2 years		College Graduate		College graduate with graduate work or Master's degree	
	N	M	N	M	N	M	N	M	N	M	N	M	N	M
Professional					2	26.0	1	32.0	1	28.0	5	30.0	7	29.8
Managerial			1	18.0	1	21.0	2	28.0						
Clerical and Sales	2	26.5	1	33.0	1	26.0	5	27.0	1	16.0	1	24.0		
Service and Manufacturing			1	32.0	1	30.0			1	30.0				
Homemaking	1	26.0	1	22.0	9	22.8	2	22.5	1	29.0	2	26.0		

M = Mean.

Table 5.13. -- Decision Mean by Time Periods between Making Decision to Move and Moving to Retirement Housing

Months	Number of Respondents (N=50)	Mean
Under one month	4	22.3
1-6 months	17	27.6
7-12 months	7	24.0
13-24 months	8	26.7
25-36 months	8	30.5
Not given	6	23.3

Figure 5.3 presents ranges for time periods between deciding and executing the decision. The group with the longest time period -- 25 to 36 months -- had the lowest range, but the highest mean. The group with the shortest time period, under one month, had the second lowest range; however, they had the lowest mean.

Decision Tasks

As the profiles were being finalized, the substance of the decision action indicated they centered around performing six tasks: 1) choosing apartment unit, 2) establishing apartment unit, 3) reducing possessions, 4) transporting self and possessions, 5) establishing self in community, and 6) forming living patterns. These tasks were necessary to complete the action of the central decision.

Table 5.14 shows the analysis made of the satellite

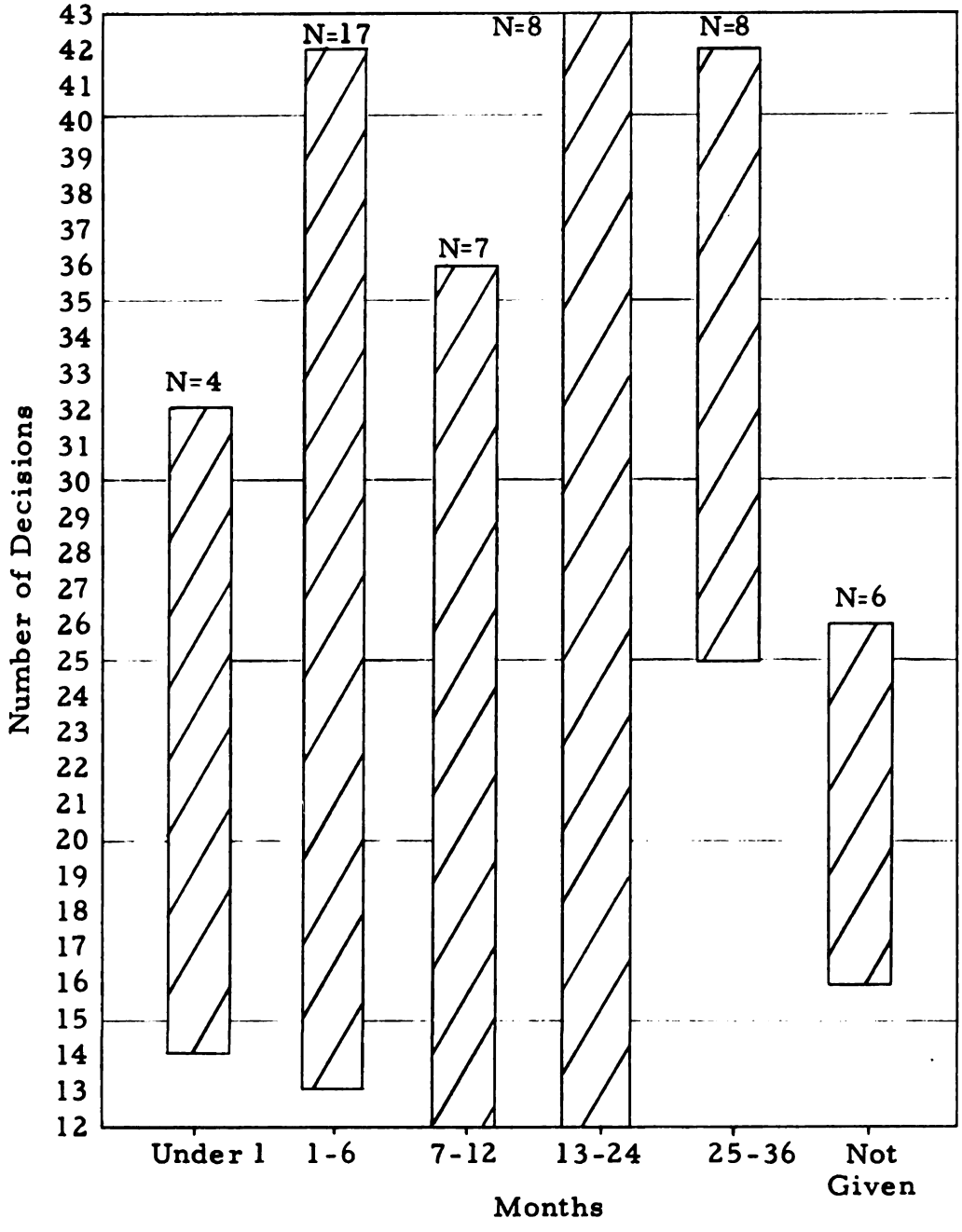

Fig. 5.3--Range of decision totals by time period between decision to move and move to retirement housing.

decision classes by tasks. More decisions, one-third of the total, were made about establishing the apartment unit than any other task. Moreover, 27 percent of the decisions were divided about equally among three tasks: choosing the apartment unit, establishing self in community, and transporting self and possessions.

More tactical decisions -- 44 percent -- were made about establishing the apartment unit than about any other task; however, very few tactical decisions were made about establishing self in community and forming living patterns. Not only were the majority, 55 percent, of the policy decisions made about forming living patterns, but all the program decisions concerned this task. However, over half of the control decisions dealt with establishing the apartment unit (Table 5.14).

For accomplishing four tasks: choosing the unit, establishing the unit, reducing possessions, and transporting self and possessions, the vast majority of satellite decisions were tactical. Not only did policy decisions predominate in the task, establishing self in the community, but they predominated in the task, forming living patterns. The two tasks, establishing unit and forming living patterns, had the highest means. These tasks centered around the new experience, living in retirement housing. However, the respondents may have reported more decisions about these tasks because they were more pleasant to recall. And these tasks

Table 5.14. -- Number of Decisions by Task and Class

	Tactical		Policy		Control		Program		Total	
Task	N	%	N	%	N	%	N	%	N	%
Choosing apartment unit	119	15.2			1	0.9			120	9.1
Establishing apartment unit	346	44.3	34	11.9	58	54.8			438	33.1
Reducing possessions	183	23.4	9	3.1	19	17.9			211	15.9
Transporting self and possessions	103	13.2	1	0.3	26	24.5			130	9.8
Establishing self in community	30	3.8	86	30.1	2	1.9			118	8.9
Forming living patterns	1	0.1	156	54.6			151	100.0	308	23.2
Total	782	100.0	286	100.0	106	100.0	151	100.0	1325	100.0

conceivably may have provided more opportunity to make decisions (Table 5.15).

Linkage

Linkage -- interrelationships tying the satellite decisions to the central decisions -- was analyzed.

Form

This study identified three major forms of decision linkage: radial, series, and compound. Radial linkage subdivided into four forms: single, multiple, inverted and multiplex, while series linkage subdivided into two forms: multiple class and single class.

Table 5.15. -- Number of Decisions by Class and Task

	Task											
	Choosing Apartment Unit		Establishing Apartment Unit		Reducing Possessions		Transporting Self and Possessions		Establishing Self in Community		Forming Living Patterns	
Class	N	%	N	%	N	%	N	%	N	%	N	%
Tactical	119	99.0	346	79.0	183	86.7	103	79.0	30	25.4	1	0.3
Policy			34	7.8	9	4.3	1	1.0	86	72.9	156	50.7
Control	1	1.0	58	13.2	19	9.0	26	20.0	2	1.7		
Program											151	49.0
Total	120	100.0	438	100.0	211	100.0	130	100.0	118	100.0	308	100.0
Mean	2.4		7.6		4.2		2.6		2.4		6.2	

Compound linkage had no subdivisions.

Forms of Linkage on Decision Profiles. -- First, the decision profiles were analyzed for forms of decision linkages. One-sixth of the respondents had only radial forms of linkage; however, over four-fifths of the respondents had radial and series linkages. One twenty-fifth had compound linkages (Table 5.16).

Table 5.16. -- Forms of Linkages on Decision Profiles

Form	Number of Respondents (N=50)	Percentage
One form		
Radial	8	16
Combination of two forms		
Radial and series	41	82
Radial and Compound	1	2
Total	50	100

Combination of Linkage Forms on Profiles. -- Further analysis showed that there were 17 combinations of linkage forms on the decision profiles. The most frequent combination of linkage forms -- single radial and multiple class series -- was reported by one-fifth of the respondents. Forty percent of the respondents reported two forms of linkage; however, there were five combinations of two forms of linkage on the profiles. And over one-third of the respondents had three forms of linkage on their profiles; about one-fifth had four forms of linkage. Only one respondent

reported a combination of five forms of linkage (Table 5.17).

Linkage Forms with Decision Totals in Each Form. -- Table 5.18 gives a summary of the forms of linkages on the decision profiles. The vast majority, 90 percent were single radial linkage; however, only three-fourths of the decisions connected to the central decision by this form of linkage. The combined percentages for three other forms of radial linkage -- multiple, inverted, and multiplex -- totaled less than three percent; nevertheless, 10 percent of the decisions tied to the central division in these linkages. Approximately seven percent of the linkage attached to the central decision in series, but these linkages contained 14 percent of the decisions.

Linkage between Decisions in Task Categories. -- Almost all the satellite decisions linked to other satellite decisions in the same task categories, but a few, three percent, were linked across task categories. Less than two percent of the linkages were between task categories (Table 5.19).

Scope

Scope refers to number of decisions within each band on the profiles. When the decisions were divided by decision class in each band, the vast majority, 92 percent, of the tactical and policy decisions were in Band 1. Actually almost all the program decisions were in Band 1. Over three-fourths of the control decisions were

Table 5.17. -- Combinations of Linkage Forms on Decision Profiles

Combinations of Forms	Number of Types	Number of respondents	Percentage
Single radial	1	3	6
Single radial, multiple radial	2	2	4
Single radial, inverted radial	2	3	6
Single radial, compound	2	1	2
Single radial, single class series	2	4	8
Single radial, multiple class series	2	10	20
Single radial, single class series, multiple class series	3	9	18
Single radial, multiple radial, single class series	3	5	10
Single radial, multiple radial, multiple class series	3	2	4
Single radial, multiplex radial, multiple class series	3	1	2
Single radial, multiple radial, single class series, multiple class series	4	3	6
Single radial, multiple radial, inverted radial, multiple class series	4	2	4
Single radial, multiple radial, inverted radial, single class series	4	1	2
Single radial, multiple radial, single class series, multiple class series	4	1	2
Single radial, multiplex radial, single class series, multiple class series	4	1	2
Single radial, inverted radial, single class series, multiple class series	4	1	2
Single radial, multiple radial, multiplex radial, single class series, multiple class series	5	1	2
Total		50	100

Table 5.18. -- Number of Decisions within Linkage Forms

Linkage	Linkages		Decisions	
	Number	Percentage	Number	Percentage
Radial				
Single	1001	90.0	1001	75.6
Multiple	18	1.6	77	5.8
Inverted	8	0.7	41	3.1
Multiplex	3	0.3	20	1.5
Series				
Single Class	33	3.0	82	6.2
Multiple Class	49	4.4	97	7.3
Compound	1		7	0.5
Total	1113	100.0	1325	100.0

Table 5.19. -- Linkages between Decisions in Task Categories

Linkages	Number of Linkages	Percentage	Number of Decisions	Percentage
Between task categories				
Transporting self and possessions and establishing self in community	11		22	
Transporting self and possessions and reducing possessions	1		2	
Establishing unit and choosing unit	1		2	
Establishing unit and reducing possessions	1		3	
Forming living patterns and establishing unit	1		2	
Reducing possessions and establishing unit	3		6	
Subtotal	18	1.6	37	3.0
Within task categories	1095	98.4	1288	97.0
Total	1113	100.0	1325	100.0

in Band 2. By definition no control decisions were in Band 1 (Table 5.20).

Table 5.20. -- Number of Decisions by Range, Class, and Scope

	Number of decisions in each class on each line									
	Tactical		Policy		Control		Program		Total	
Range	N	%	N	%	N	%	N	%	N	%
Band 1	724	92.6	263	92.0			150	99.4	1137	85.9
Band 2	49	6.4	20	7.0	81	76.4	1	.6	151	11.5
Band 3	7	.8	3	1.0	19	17.9			29	2.0
Band 4	1)				5	4.7			6	.5
	)	.2								
Band 5	1)				1	1.0			2	.1
Total	782	100.0	286	100.0	106	100.0	151	100.0	1325	100.0

Within the first band, about two-thirds of the decisions were tactical, almost one-fourth were policy and over one-eighth were program decisions. The majority of the decisions in Bands 2, 3, 4, and 5 were control decisions (Table 5.21).

Scope means for satellite decisions were computed. As the band number increased, the means for all satellite decision classes decreased (Table 5.22).

Range

Range refers to the number of bands through which the satellite decisions are linked to the central decision. Not only did half of the profiles show satellite decisions tied to the central

Table 5.21. -- Number of Decisions by Class and Scope

Decision Class	Bands 1 N	1 %	2 N	2 %	3 N	3 %	4 N	4 %	5 N	5 %
Tactical	724	64.0	49	32.5	7	24.0	1	16.6	1	50.0
Policy	263	23.0	20	13.2	3	10.7				
Control			81	53.7	19	65.3	5	83.4	1	50.0
Program	150	13.0	1	.6						
Total	1137	100.0	151	100.0	29	100.0	6	100.0	2	100.0

Table 5.22. -- Decision Mean for Scope by Decision Class

Band	Means Tactical	Policy	Control	Program	Total
1	14.48	5.26		3.00	22.74
2	.98	.40	1.62	.02	3.02
3	.14	.06	.38		.58
4	.02		.10		.12
5	.02		.02		.04

Table 5.23. -- Decision Linkage Range

Number of Bands	Number of Profiles	Percentage
One band	3	6
Two bands	25	50
Three bands	18	36
Four bands	2	4
Five bands	2	4
Total	50	100

decision through two bands, but a third of the profiles showed satellite decisions tied to the central decision through three bands. On only six percent of the profiles did the satellite decisions tie to the central decision through just one band. Less than 10 percent of the profiles had decisions linked to the central decision through Bands 4 and 5 (Table 5.23).

Upon examination of the central-satellite linkages, it was found that 90 percent of the decisions tied directly to the central decision and had no other decisions linked to them. Less than one-half of one percent of the linkages extended through four and five bands (Table 5.24).

Table 5.24. -- Decision Linkage Range and Scope

Number of Bands	Number of Linkages	Percentage
One band	1001	90.0
Two bands	84	7.5
Three bands	24	2.1
Four bands	2	.2
Five bands	2	.2
Total	1113	100.0

Table 5.25 presents the decision linkage range by tasks and gives the number of satellite decisions in each band by decision class. The longest linkage range -- extending through five bands --

Table 5.25. -- Number of Decisions by Class, Task, and Range

	Task																																	
	Choosing Apartment Unit										Establishing Apartment Unit								Reducing Possessions						Transporting Self and Possessions						Establishing Self in Community				Forming Living Patterns			
	Band																																	
	1		2		3		4		5		1		2		3		4		1		2		3		1		2		3		1		2		1		2	
Decision Class	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Tactical	97	100	15	94	5	100	1	100	1	100	336	96	10	16					168	95	13	39	2	100	102	100	1	4			20	19	10	78	1	0		
Policy											15	4	16	28	3	14			8	5	1	3					1	4			85	81	1	7	155	51	1	50
Control			1	6									33	56	19	86	5	100			19	58					23	92	3	100			2	15				
Program																																			150	49	1	50
Total	97	100	16	100	5	100	1	100	1	100	351	100	59	100	22	100	5	100	176	100	33	100	2	100	102	100	25	100	3	100	105	100	13	100	306	100	2	100

occurred for the task choosing the apartment unit. Most of the decisions in Band 1 classified as tactical yet most of them in Bands 2 and 3 classified as control.

Table 5.26 reports the number of satellite decisions for each band and task. Again this table points to the fact that most decisions were in Band 1. With the exception of forming living patterns, the percentages of decisions in the five remaining tasks range between 11-19 percent in Band 2. All decisions in Bands 3, 4, 5 totaled less than one percent of the satellite decisions.

Table 5.26. -- Number of Decisions by Range and Task

	Choosing Apartment Unit		Establishing Apartment Unit		Reducing Possessions		Transporting Self and Possessions		Establishing Self in Community		Forming Living Patterns	
	N	%	N	%	N	%	N	%	N	%	N	%
Band 1	97	80.9	351	80.2	176	83.5	102	78.5	105	89.0	306	99.4
Band 2	16	13.3	59	13.6	33	15.6	25	19.2	13	11.0	2	.6
Band 3	5	4.2	22	5.0	2	.9	3	2.3				
Band 4	1	.8	5	1.0								
Band 5	1	.8	1	.2								
Total	120	100.0	438	100.0	211	100.0	130	100.0	118	100.0	308	100.0

CHAPTER VI

SUMMARY AND IMPLICATIONS

Introduction

This chapter summarizes the results of this exploratory and descriptive study which focused on decision centrality, class and linkage; discusses findings; points out certain limitations; and suggests implications for research.

Summary

The researcher studied a central decision -- the retirement housing decision. Fifty residents of an Oregon retirement housing project were interviewed. The analytical framework used included the conceptualization of central-satellite decision complex with the central decision classed as strategic generating satellite decisions classed as tactical, policy, control, and program. It further conceptualized three components of decision linkage: form, scope, and range; and it envisioned linkage forms: series, radii, and compound. In addition, series linkage subdivided into single and multiple class series; radial linkage subdivided into single, multiple, inverted, and multiplex radial; and compound linkage, did not subdivide.

The satellite decisions reported and the demographic data

collected were recorded on interview guides and interview schedules. The action content of the decisions served as the basis for classifying decisions and for determining decision linkage and interdependence. After the decisions were classified on the interview guides, decision profiles were made for each respondent for analysis of decision class and linkage.

These data reported the classification of satellite decisions generated by a central decision and the analysis of linkage within the central satellite decision complex. Findings indicated that tactical decisions were the most frequently reported satellite decision class and the frequency order of the other satellite decision classes was policy, program, and control. Of the 1325 satellite decisions classified, 59 percent were tactical, 22 percent policy, 11 percent program, and eight percent control.

All fifty respondents reported tactical and policy decisions; however, 94 percent of the respondents reported program decisions, and 72 percent of them reported control decisions. The mean for satellite decisions reported by respondents was 26.5.

Findings indicated that the variables: sex, age, occupation, education, income, and duration of time between decision and its action tended to affect the number of satellite decisions.

Linkage analysis showed that the vast majority, 93 percent, of the linkages were radial. Of these, 90 percent were single radial,

and the remaining three percent were multiple, inverted, and multiplex forms. However, seven percent of the linkages were about equally divided between multiple and single class series forms.

Seventeen combinations of linkage forms appeared on the decision profiles. The most frequent combination of linkage forms was single radial and multiple class series, and it was reported by one-fifth of the respondents. The vast majority, 82 percent, of the decision profiles had combinations of radial and series linkages.

Scope was the linkage component used to describe the number of decisions in the bands on the decision profile. Most of the satellite decisions, 86 percent, diagrammed in Band 1, directly linked to the central decision. About 11 percent of the satellite decisions were in Band 2 and altogether about three percent of them were in Bands 3, 4, and 5. Approximately two-thirds of the decisions in Band 1 were tactical; about one-fourth, policy; and one-eighth, program. Most of the decisions in Bands 2, 3, 4, and 5 were control.

Range, the last component of linkage considered, described the number of bands through which the satellite decisions were linked to the central decision. On one-half of the decision profiles, the range of satellite decisions extended through two bands to the central decision; however, on one-third of the profiles, it extended through three bands. The longest linkage range extended through

five bands. The highest number of satellite decisions in one linkage complex was 10.

The decisions reported centered around the following tasks: 1) choosing an apartment unit, 2) establishing an apartment unit, 3) reducing possessions, 4) transporting self and possessions, 5) establishing self in the community, and 6) forming living patterns. These particular task categories were not conceived before data collection but were apparent in analysis.

An implication drawn from the study of the findings is that the action substance of the central decision may affect the particular decision linkages and the decision classes surrounding the central decision in a central-satellite decision complex.

In conclusion, results would seem to indicate decision class and linkage are concepts to be included in managerial decision theory, and that a central decision affects other choices in a decision complex.

Limitations

Several conditions of the study limit the extent of the legitimate generalization. Limitations are inherent in the results of any study; the findings are necessarily limited to the specific setting and problems in which the research was conducted. No attempt was made to randomize the sample or to interview respondents in

more than one retirement housing project. And the respondents' ability to verbalize decisions made, the methodology, the data collection and analysis, the locale of the study, and the setting of the interview limited findings in this study.

The Respondents

The respondents were asked to project themselves back to the time they made the retirement-housing decision and give all consequential decisions resulting from it. Since they were not oriented to analyzing much less enumerating and verbalizing decisions, these factors undoubtedly limited findings. Also, individuals vary in their ability to recognize situations in which they can make or did make decisions and in what they considered a decision important enough to report. For example, only a few respondents reported making any decisions about changing their addresses, but all the respondents changed their addresses.

Statements made by the residents who were asked but did not grant interviews suggested they anticipated difficulty in verbalizing about their housing decision and its resulting satellite decisions. When they were asked for interview, several residents replied defensively by saying they felt this decision-making was their own business.

Methodology

Two interviews, the first for orientation of the respondent

to the subject and the second for collection of data, would perhaps be an improvement over a single interview.

Data Collection and Analysis

In the interview respondents were asked to recall decisions made as a result of the retirement housing decision. Since the period of time between making the central decision and its execution varied from three weeks to three years, the period of time to remember decisions was lengthy for the majority of respondents. Recall as a method of collecting data has inherent limitations. It would be preferable in such studies if the respondents could be located and their cooperation obtained in recording decisions as made. This method should give more detailed and comprehensive data than recall; however, it would be limited to a longitudinal research program.

Analysis of decision action content by the researcher which was the basis for determining linkage in this study has limitations. It might be an improvement if the decision profile were made with the respondent or made by the researcher and then reviewed with the respondent.

Locale of Study

The study was limited to one geographic location in one state. And all respondents lived in the same building. In another study data could be collected in more than one housing project;

however, this type housing project seems to be located in a limited number of geographic areas in the United States.

Setting of the Interview

Recording the satellite decisions in the respondents' apartments proved convenient for them and provided them a familiar environment that engendered assurance and security. However, negative feelings about one's own apartment could have affected decisions reported. In another study it might be preferable to conduct all interviews in the same room to control this environmental variable.

Discussion

No attempt was made to discuss the importance of the central decision with the respondents interviewed or to learn their reasons for making it; however, one respondent did say this housing decision was the most difficult decision she ever made, more so than getting married. She indicated she weighed the alternatives carefully and painstakingly in reaching this difficult decision. While difficulty may be no criterion of a central decision, the importance of the decision was recognized by many respondents.

The finding that respondents tended to report fewer decisions as age increased after 65 and over would seem to support Cumming and Henry's theory that

> aging is an inevitable mutual withdrawal or disengagement, resulting in decreased interaction between the

> aging person and others in the social systems he belongs to. The process may be initiated by the individual or by others in the situation. The aging person may withdraw more markedly from some classes of people while remaining relatively close to others. (36:14)

Cumming and Henry also state that in aging they "see changes in the personality that both cause and result in decreased involvement with others and increased preoccupation with himself." (36:15) The mean of 7.6 for decisions for the task establishing the apartment and the mean 6.2 for forming living patterns compared with the mean of 2.4 decisions for establishing self in community would indicate respondents are more preoccupied with self than with establishing self actively as a community member in the housing project and in the wider community.

In discussing decisions with one respondent, he said he would help with such jobs as mimeographing the housing project newspaper, but he would not participate in organized group activities.

Analysis of demographic data showed that the respondents in this study are not typical of the nationwide population aged 65 and over; they are better educated and receive higher incomes. And almost half of those engaged in remunerative work before retirement were in occupations classified as professional.

These data indicated the heterogeneity of the ages of retirees. In this study respondents' ages ranged from 57 to 89 years with a mean and a median age of 74 years.

When classifying the satellite decisions, it was found that tactical decision was the most frequently reported decision class. This class of decision is instrumental to begin and/or continue action of a central decision. It was probably reported more frequently because it is specifically directed toward reaching the goal -- retirement housing residence. Also, there were more decision problems that would generate decisions categorized in this class.

Findings also indicated that certain action demanding problems were expected to result from the central decision and that policy decisions were made to manage them when they occurred. The data indicated some respondents did in fact project themselves into the future and thought about new problems that the execution of the central decision would create. This central decision generated more of these problems for some respondents than others because these decisions seem to result from the respondents' previous and projected life style.

Control decisions were the least frequently reported decision class. Probably fewer control decisions were reported because they are often on-the-spot decisions with a short time span between decision and action and were either not recalled or seemed too insignificant to mention. Those reported indicated that the respondents had carefully considered them; therefore, they were more easily remembered.

Another factor that probably affected the number of control decisions was the respondent's recognition of a situation he could control. For example, one respondent chose the blue color scheme, one of the four possible alternatives for apartment color in the retirement housing project. When the blue rug came it was a much deeper blue than the sample indicated. He refused to accept it because he felt he could not live with the intense blue. After this action, he chose a color more pleasing to him from those available.

New living or work situations usually change routines. Most respondents reported consciously making program decisions to develop workable routines to simplify these regularly recurring activities. Although the living situation was highly structured, the reported program decision indicated respondents developed their own unique routines for self-maintenance.

Implications for Research

This exploratory study indicates the need for further study of decision class and linkage or the ties that connect decisions.

Using the same conceptual framework with sharpened definitions for decision class and linkage, the research needs to be enlarged to include both larger homogeneous and heterogeneous groups. Such research would further test the wider applicability of the conceptual framework and would permit comparisons to be made on

decision linkage and class between and among groups for decision complexes. In addition, the conclusions reached in these researches could become the building blocks for further study that might lead to the quantification of decision linkage forms and classes in various types of decision complexes.

The concepts of linkage and centrality suggest the fruitfulness of longitudinal decision studies. When a central decision is studied longitudinally, the time period selected to consider the central decision should be in keeping with the magnitude of the central decision and its potential for generating other decisions.

Linkage in this study was based on decision content relations in a central-satellite decision complex. The action ensuing from the execution of the central decision under investigation resulted in generation of satellite decisions. However, further studies might explore other bases for linkage. The interdependence among particular resource-allocation decisions made by either individuals or families would be another linkage relation for investigation. Interdependence of decisions which results in a given time period would seem to merit investigation. Still another approach to linkage would be to center the analysis on decisions tied by spatial relations. Suggested for investigation are the linkage of decisions related to planning, furnishing, or redecorating a home. Not only could a linkage study examine family decisions made in different

geographical locations but another study could examine the linkage or ties between decisions made by various family members.

This study also suggests research on the effect of environmental and situational factors on decisions made. For example, the researcher could have expected each respondent to make decisions about the following: floor, size, side of building, and price of his apartment; however, findings indicated that the decision mean for choosing an apartment unit was 2.4. Factors such as the following limited the decisions respondents made. One respondent might have wanted the river view on third floor, but the only river view apartment available was on the fifth floor at the time he made the decision. Another respondent's income may have limited his choice to the least expensive unit type. However, in another retirement housing project visited, all rooms were the same size; therefore, these residents had no decision to make about apartment size. When a respondent selected an apartment unit after the building was completed and opened for occupancy, he did not have a choice of color for his apartment. Sometimes a respondent chose his apartment to be near a friend. These situational and environmental factors help explain why some respondents reported more decisions than other respondents.

In this study a finding indicated that as educational level increased, the respondents reported more decisions. Further research could

explore this subject and it would have implication for teaching management. Is the prolific decision-maker a "better" decision-maker than the person who makes fewer decisions to reach the same goal? Does the prolific decision-maker receive more satisfaction when he has reached his goal than the person who makes few decisions but attains the same goal? Does educational level increase the ability to recognize decision-making situations, see, and examine alternative choices or does it make management more difficult because there seem to be more decisions to make?

Linkage, the ties in the decision complex under study, was based on analysis of action content. Data indicated that linkage ties between the central and satellite decisions were comprised of many satellite decisions not dependent on each other but resulting from a central decision. Linkage analysis indicates that considerable range and scope decision generation is a characteristic of a central decision.

The important finding about linkage in this study is that decision centrality is the powerful determinant of decision interdependence. Some satellite decisions are necessarily linked to each other, but interdependence is basically dependent on centrality. This finding merits further investigation using the same as well as different bases to determine linkage. When a central decision is made, it influences the course of events in the decision-maker's life because

it conditions the satellite decisions linked to it. Satellite decisions form a constellation around a central decision. The key to decision linkage is centrality.

Analysis of the decision profiles showed that very few satellite decision linkages had more than three satellite decisions joined consecutively. The longest was five links. This finding suggests further investigation of this aspect of decision linkage.

Linkage on the decision profile indicated only that the action in the second decision follows the action in the first decision. No attempt was made in this study to link satellite decisions in a hierarchy or to weigh their importance. This subject deserves consideration in further research.

Some questions raised in this study were: How do linkage forms vary in other central-satellite decision complexes? If a number of central decisions were analyzed, would there be a patterning of forms of satellite decisions or would the linkage forms be individualistic for all satellite decisions? What influence do environmental and situational factors have on decision linkage?

Another line of inquiry suggested for further research is identification of strategic decisions. Common sense knowledge indicates that decisions vary in importance, but research could amplify this knowledge. In this study the assumption was made that the central decision was in fact a strategic decision. Specific

criteria for identifying strategic decisions would be a major contribution to knowledge in the field of management.

This study suggests decision systems in management, a subject for further research. The goal directed, managerial, central decision's action creates a decision system of satellite decision classes. Management is concerned with keeping these systems functioning to reach objectives. In studying managerial decisions, the researcher must take a "frozen slice" at a given point in time to study the systems in operation or take one system and isolate it for study. This study would seem to have done the latter.

This study has suggested further potentialities for research on decision centrality, class, linkage, and interdependence. It has shown the productivity and workability of this approach, heretofore unresearched in home management.

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APPENDIX A

Interview Number_____
Length of Interview_____

PART A INTERVIEW SCHEDULE

1. Date_____ 2. Sex (Circle) M F 3. Age_____

4. Type of unit_____ 5. Marital Status (Circle) (1) Single
(2) Married (3) Widow (4) Widower (5) Divorced (6) Separated

6. If widow(er), how long have you been one?_____
(No. of years)

7. Number of children_____
Sex and Age of Children

(1) F M _____
(2) F M_____
(3) F M_____
(4) F M_____
(5) F M_____
(6) F M_____
(7) F M_____
(8) F M_____

8. Education (Circle highest level attained)

(1) Grade school 1 2 3 4 5 6
(2) Junior High School 7 8 9
(3) Senior High School 10 11 12
(4) College 1 2 3 4 Graduate
(5) Master's Degree
(6) Professional Degree
(Example: Medicine)
(7) Doctor's Degree
(8) Other_____

9. Occupation_____
_____
_____

(1) Are you still engaged in this occupation?_____
(2) How long have you been retired?_____

11. Income Range	12. Source of Income	13. Proportion (Percentage)
(1) Under $2,500_____	(1) Social Security_____	(1)_____
(2) $2,500 to $2,999_____	(2) Retirement fund from employment____	(2)_____
(3) $3,000 to $4,999_____	(3) Pension _____	(3)_____
(4) $5,000 to $6,999____	(4) Dividends_____	(4)_____
(5) $7,000 to $8,999____	(5) Interest_____	(5)_____
(6) $9,000 to $10,999___	(6) Other (list)_____	(6)_____
(7) $11,000 and over____	(7) Insurance annuity_____	(7)_____

PART A - 2 - Interview Number____

14. Where were you living before you came here?

(1) Owned home ____
(2) Rented house ____
(3) Rented unfurnished apartment ____
(4) Rented furnished apartment ____
(5) Rented furnished room ____
(6) Rented unfurnished room ____
(7) Lived with family ____
(8) Lived with friends ____
(9) Other ____

15. How long did you live there?_____

16. If answer in question Number 15 is less than ten years, record housing changes during this period.

	Type of housing	Length of residence
(1)	_____	_____
(2)	_____	_____
(3)	_____	_____
(4)	_____	_____
(5)	_____	_____
(6)	_____	_____
(7)	_____	_____
(8)	_____	_____
(9)	_____	_____

17. How long have you lived in this retirement housing project?

_____

PART B - 3 - Interview Number_____

INTERVIEW GUIDE

1. Let's go back to the time when you made the decision to come here. What kinds of decisions did you have to make to get ready to move here? Let's go back and trace these decisions as they were made. (Probable decisions: furniture disposal, family treasures, household furnishings, kitchen equipment, furniture for unit here, colors for walls here, moving date, disposition of car, decisions since moving here.)

Code	Decisions	Alternatives Rejected

PART B - 4 - Interview Number_____

2. Were there some situations you expected to arise for which you made a choice in advance about what you would do if the situation occurred? Probable decisions: how to house guests, where to have guest meals, how to entertain large groups, and what to do if emergency surgery were required.

Code	Decisions	Alternatives Rejected

PART B - 5 - Interview Number_____

SUPPLEMENTAL PAGE FOR INTERVIEW GUIDE

Code	Decisions	Alternatives Rejected

APPENDIX B

Respondent Number 1

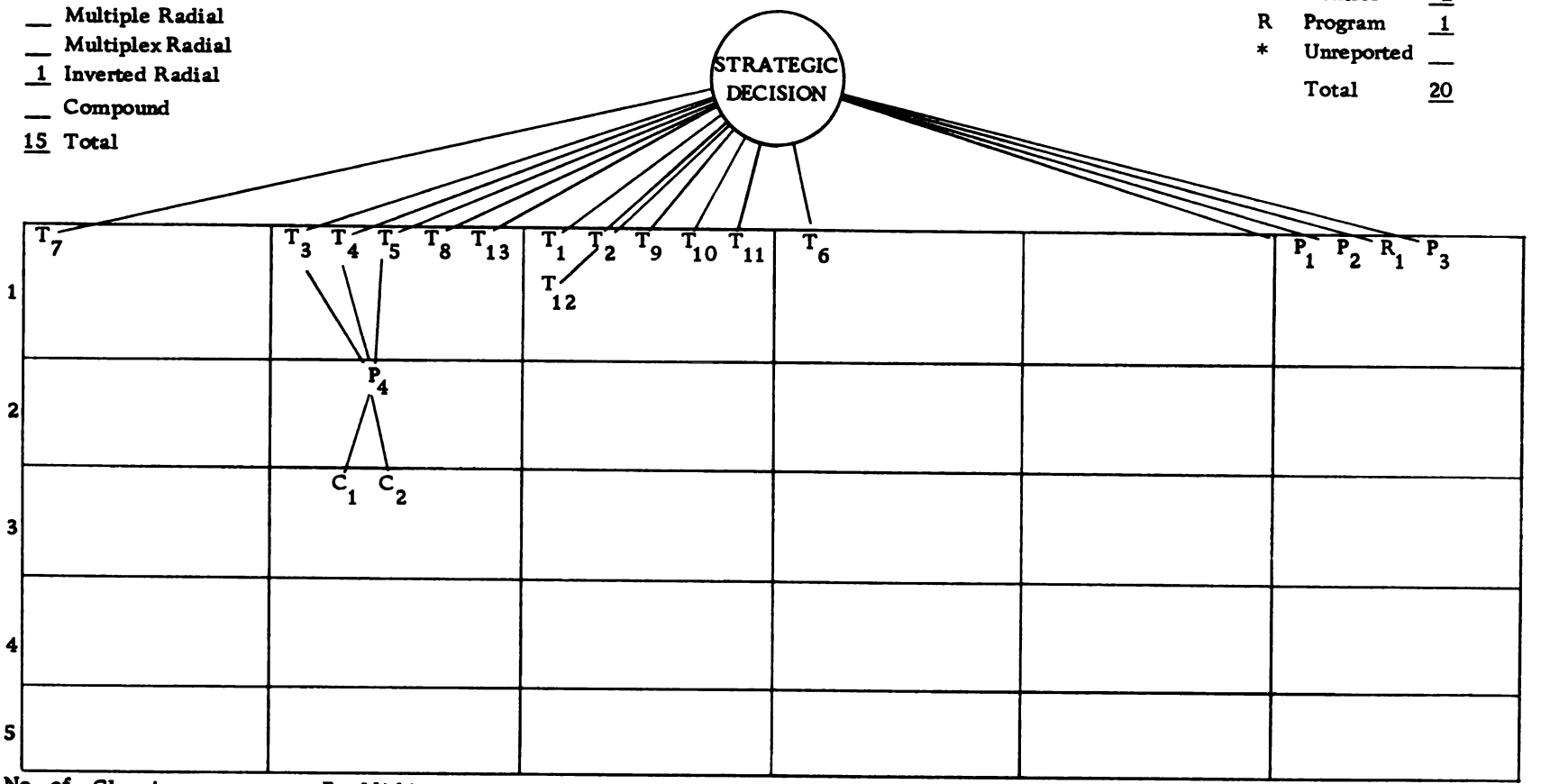
DECISION PROFILE

LINKAGE FORMS

- __ Single Class Series
- __ Multiple Class Series
- 14 Single Radial
- __ Multiple Radial
- __ Multiplex Radial
- 1 Inverted Radial
- __ Compound
- 15 Total

DECISION KEY

T	Tactical	13
P	Policy	4
C	Control	2
R	Program	1
*	Unreported	__
	Total	20



Respondent Number 2

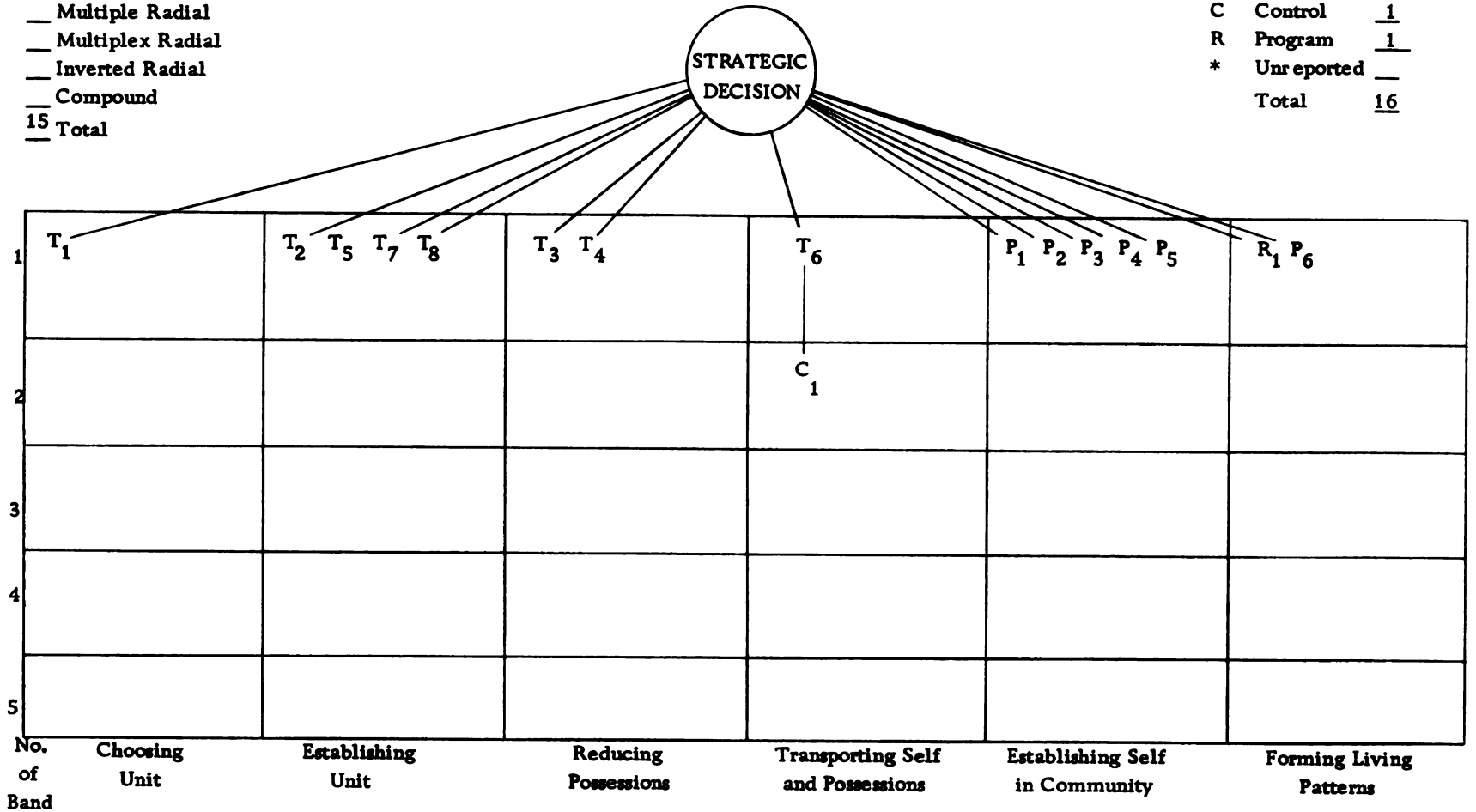
DECISION PROFILE

LINKAGE FORMS

__ Single Class Series
1 Multiple Class Series
14 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
15 Total

DECISION KEY

T	Tactical	8
P	Policy	6
C	Control	1
R	Program	1
*	Unreported	__
	Total	16



Respondent Number 3

LINKAGE FORMS

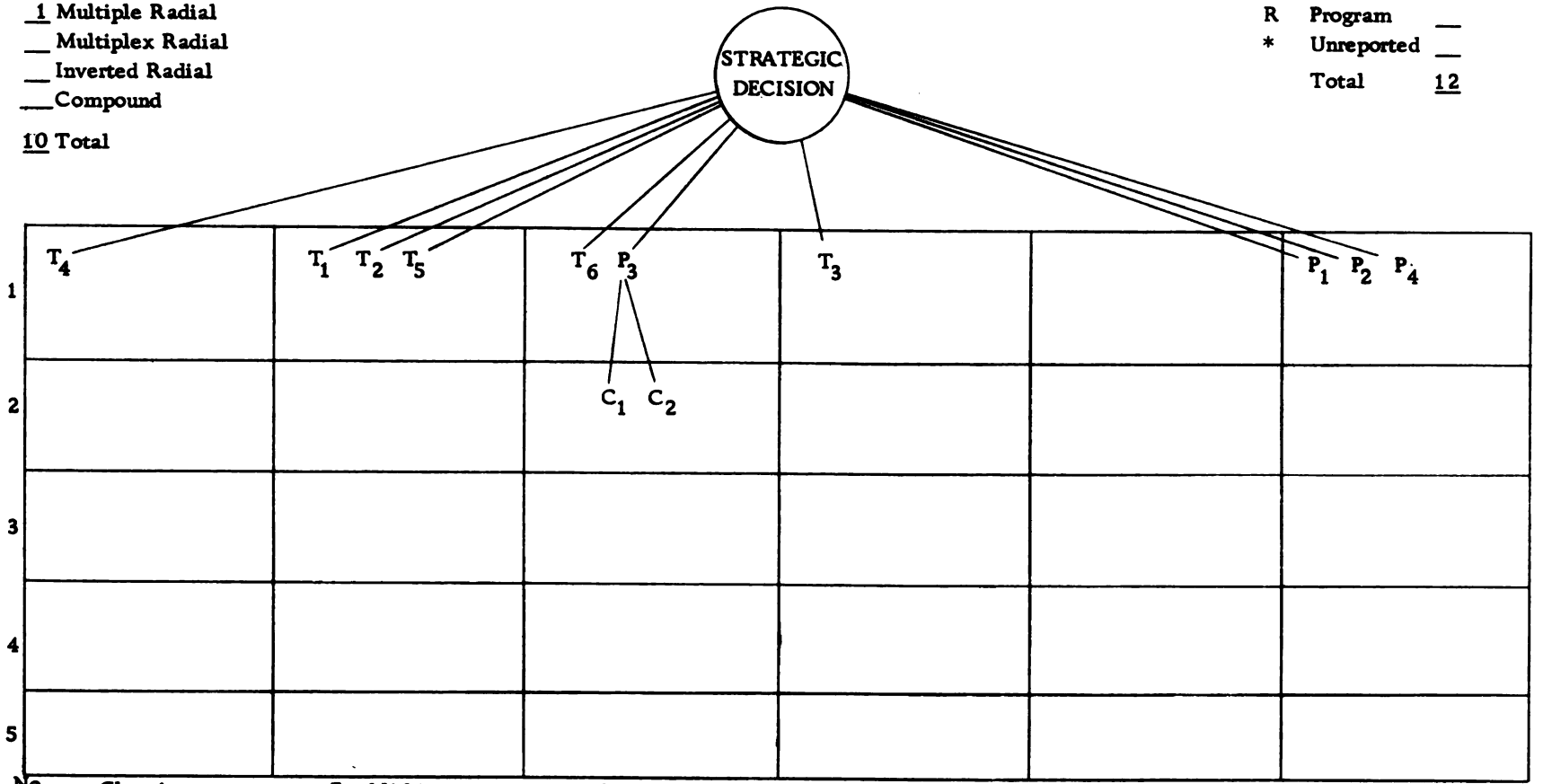
__ Single Class Series
__ Multiple Class Series
9 Single Radial
1 Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound

10 Total

DECISION PROFILE

DECISION KEY

T	Tactical	6
P	Policy	4
C	Control	2
R	Program	__
*	Unreported	__
	Total	12



Respondent Number 4

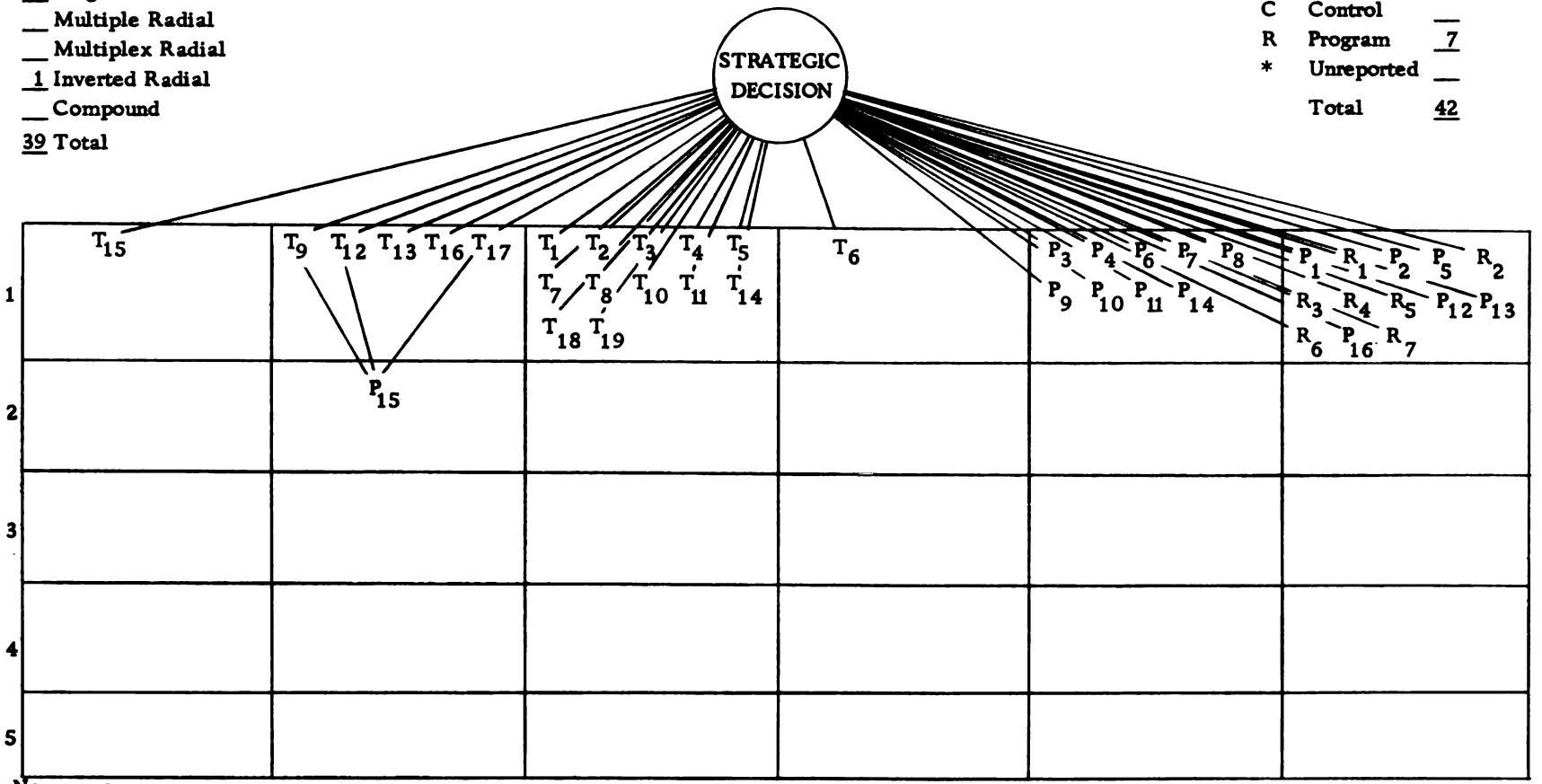
DECISION PROFILE

LINKAGE FORMS

__ Single Class Series
__ Multiple Class Series
38 Single Radial
__ Multiple Radial
__ Multiplex Radial
1 Inverted Radial
__ Compound
39 Total

DECISION KEY

T	Tactical	19
P	Policy	16
C	Control	__
R	Program	7
*	Unreported	__
	Total	42



Respondent Number 5

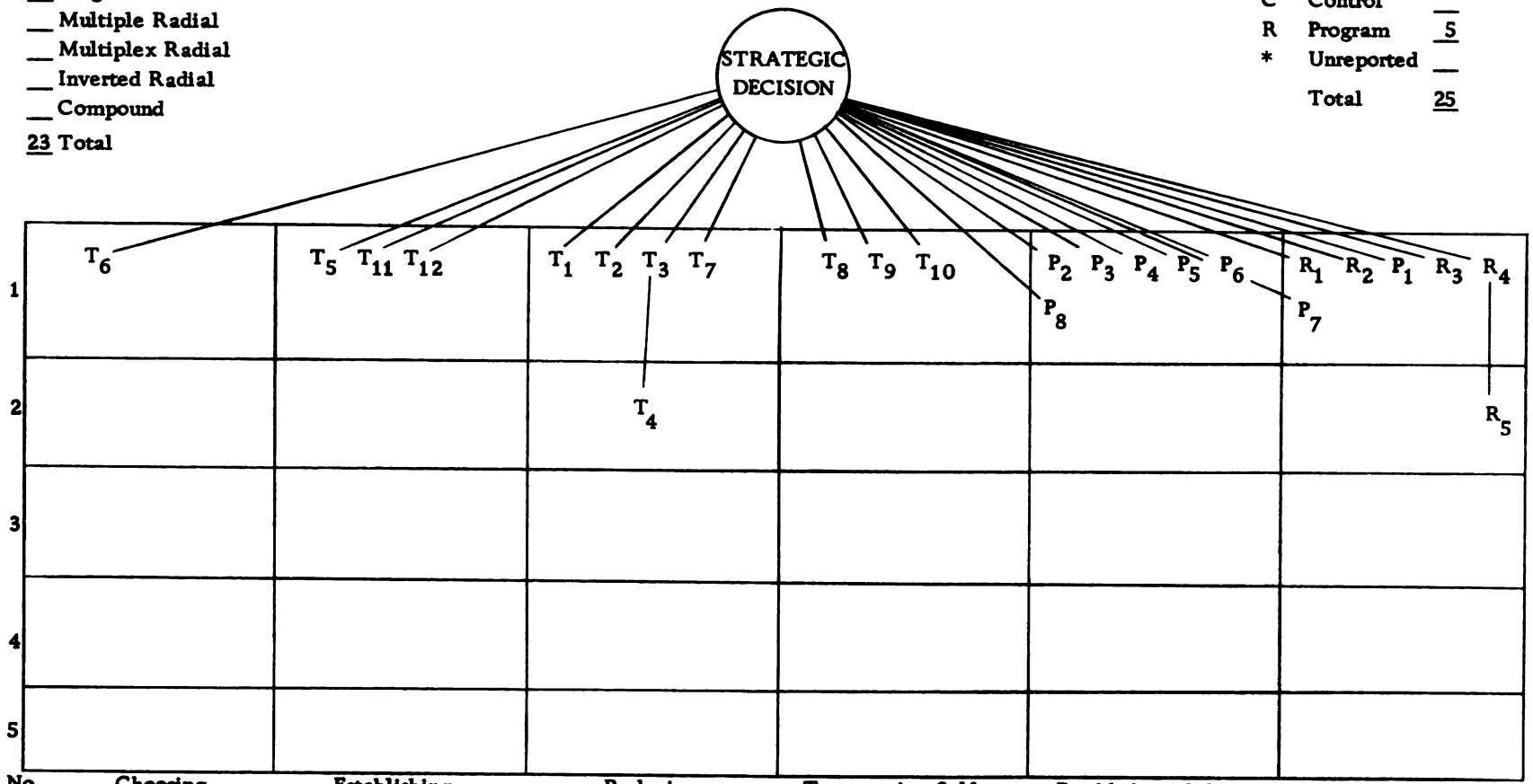
LINKAGE FORMS

2 Single Class Series
__ Multiple Class Series
21 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
23 Total

DECISION PROFILE

DECISION KEY

T	Tactical	12
P	Policy	8
C	Control	__
R	Program	5
*	Unreported	__
	Total	25



Respondent Number 6

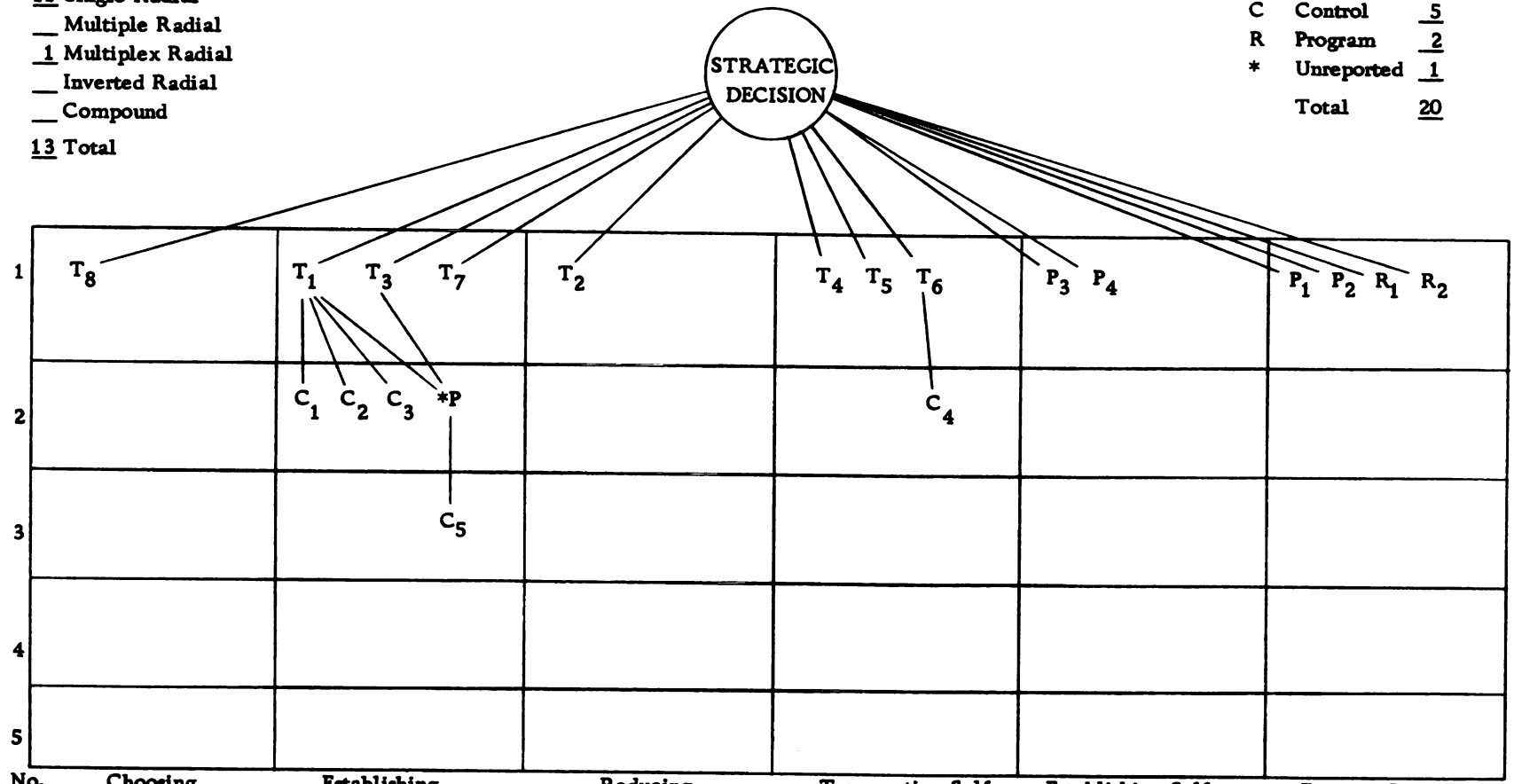
DECISION PROFILE

LINKAGE FORMS

__ Single Class Series
1 Multiple Class Series
11 Single Radial
__ Multiple Radial
1 Multiplex Radial
__ Inverted Radial
__ Compound
13 Total

DECISION KEY

T	Tactical	8
P	Policy	4
C	Control	5
R	Program	2
*	Unreported	1
	Total	20



Respondent Number 7

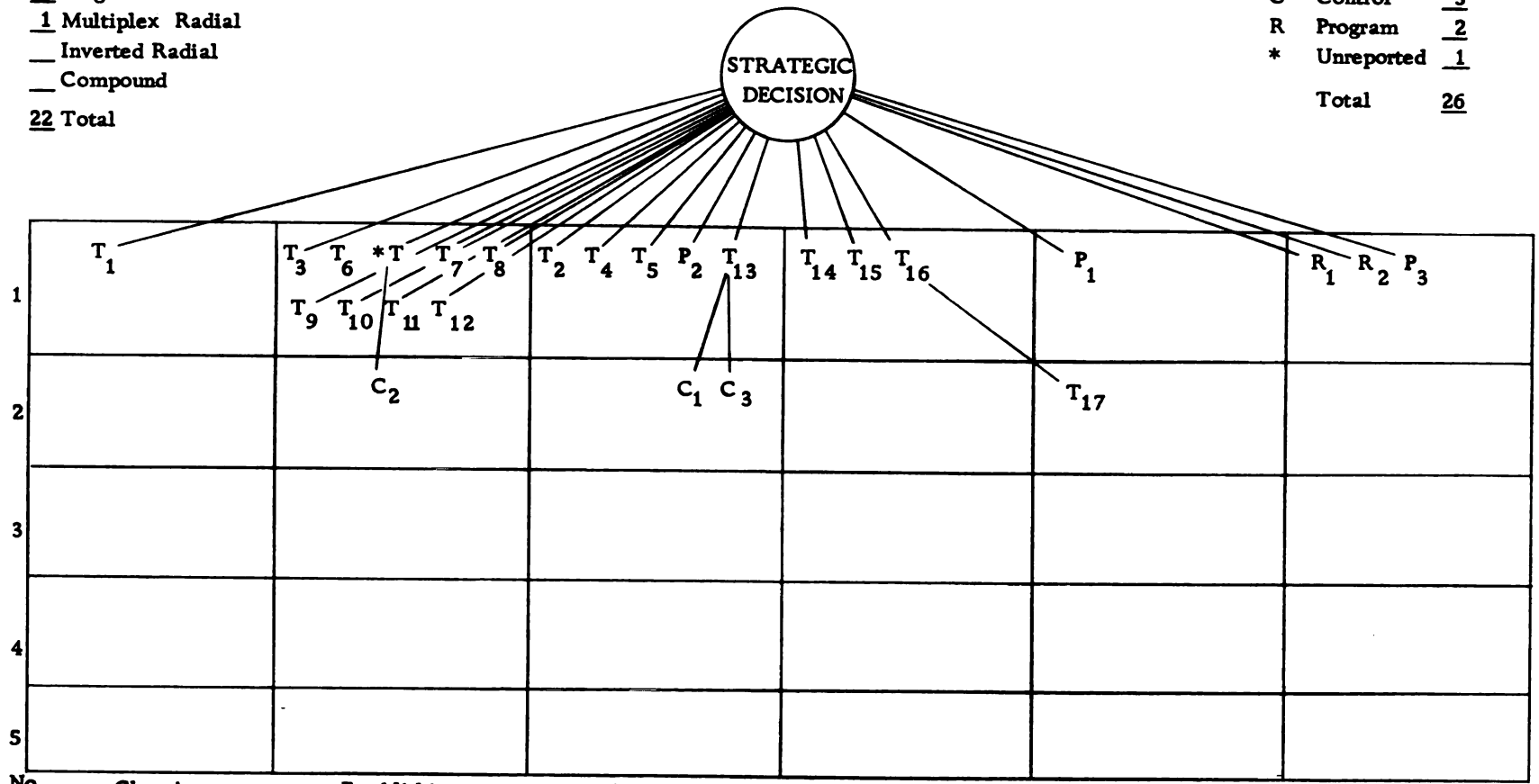
DECISION PROFILE

LINKAGE FORMS

1 Single Class Series
1 Multiple Class Series
19 Single Radial
1 Multiplex Radial
__ Inverted Radial
__ Compound
22 Total

DECISION KEY

T	Tactical	17
P	Policy	3
C	Control	3
R	Program	2
*	Unreported	1
	Total	26



Respondent Number 8

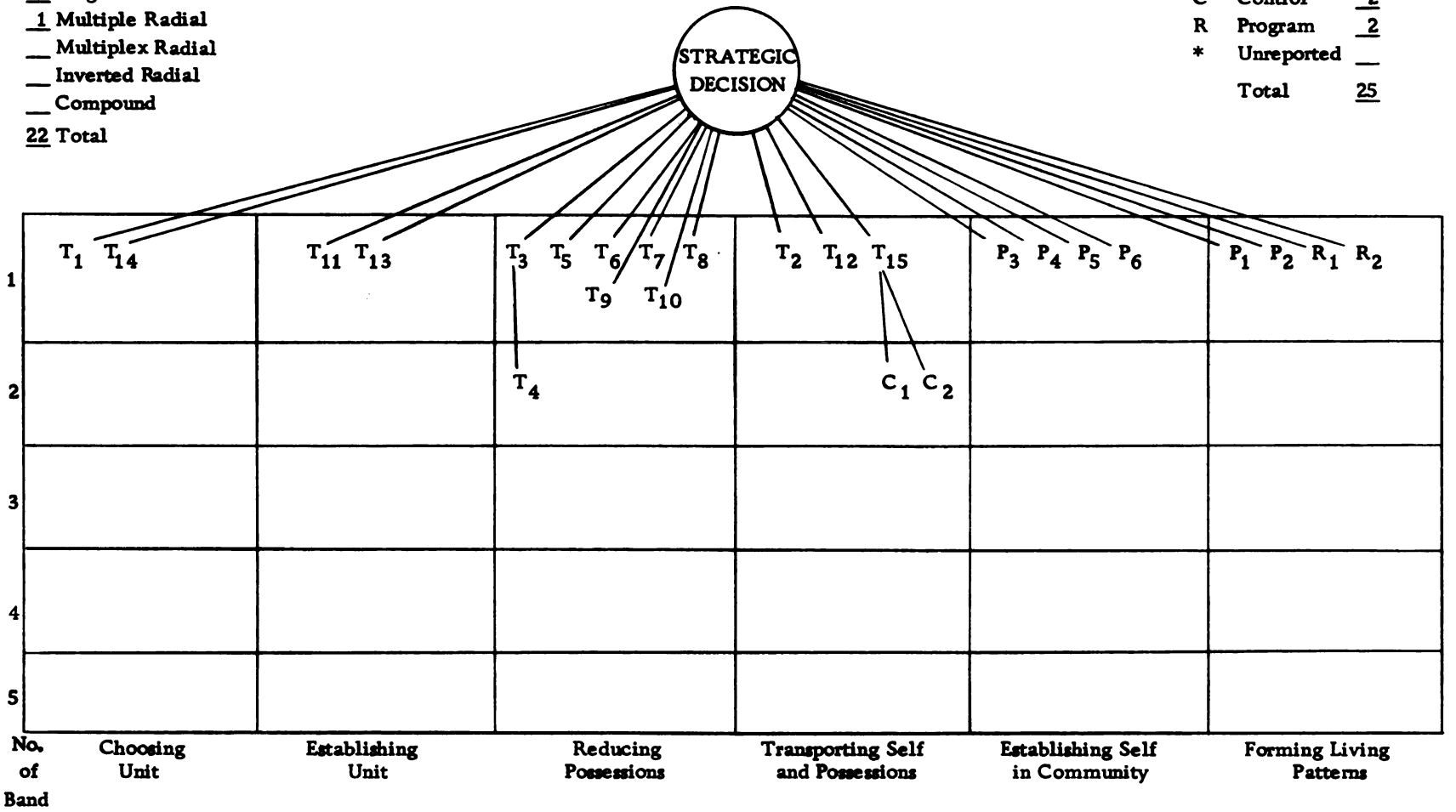
DECISION PROFILE

LINKAGE FORMS

1 Single Class Series
__ Multiple Class Series
20 Single Radial
1 Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
22 Total

DECISION KEY

T	Tactical	15
P	Policy	6
C	Control	2
R	Program	2
*	Unreported	__
	Total	25



Respondent Number 9

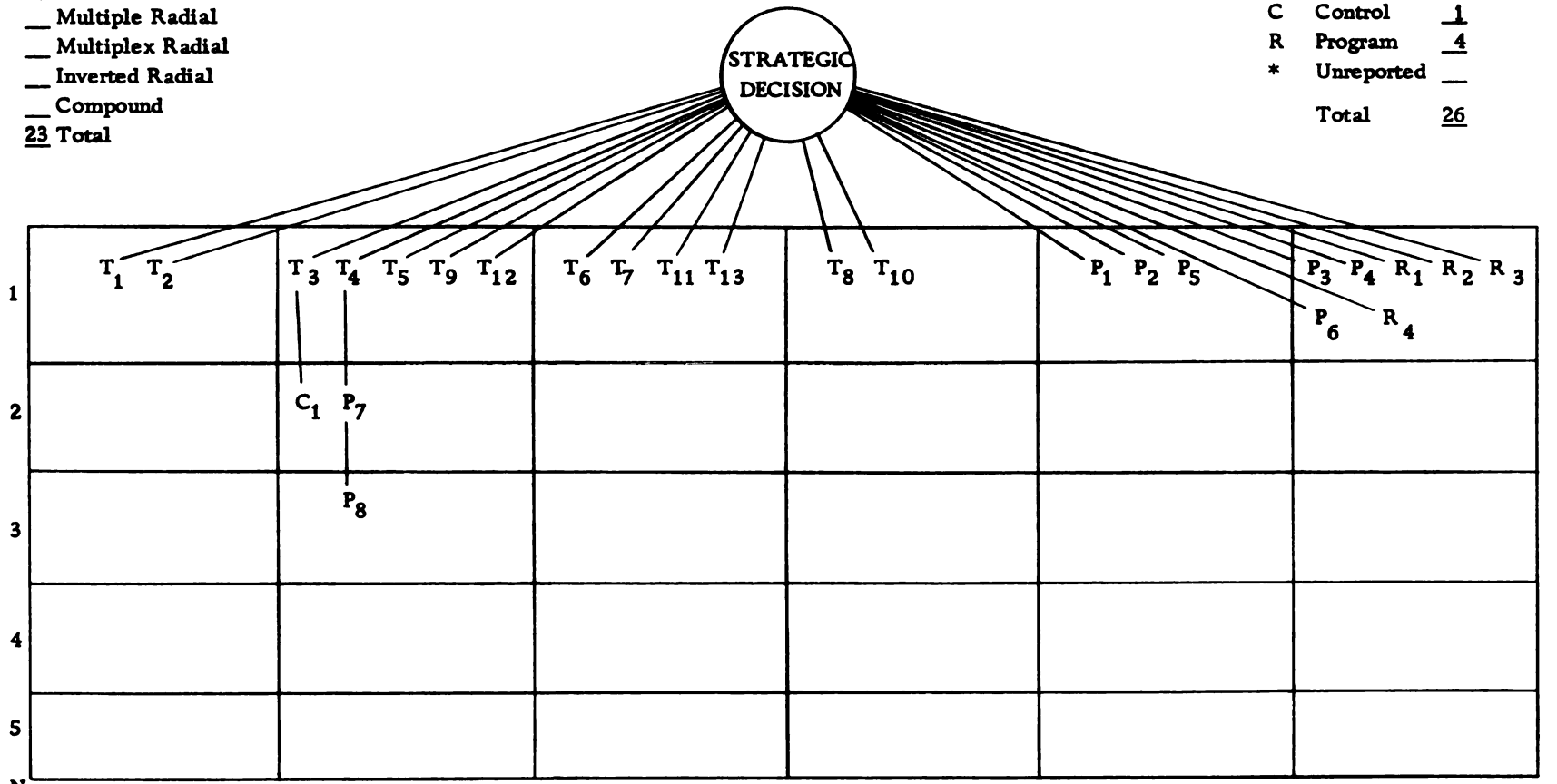
LINKAGE FORMS

__ Single Class Series
_2 Multiple Class Series
21 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
23 Total

DECISION PROFILE

DECISION KEY

T	Tactical	13
P	Policy	8
C	Control	1
R	Program	4
*	Unreported	__
	Total	26



Respondent Number 10

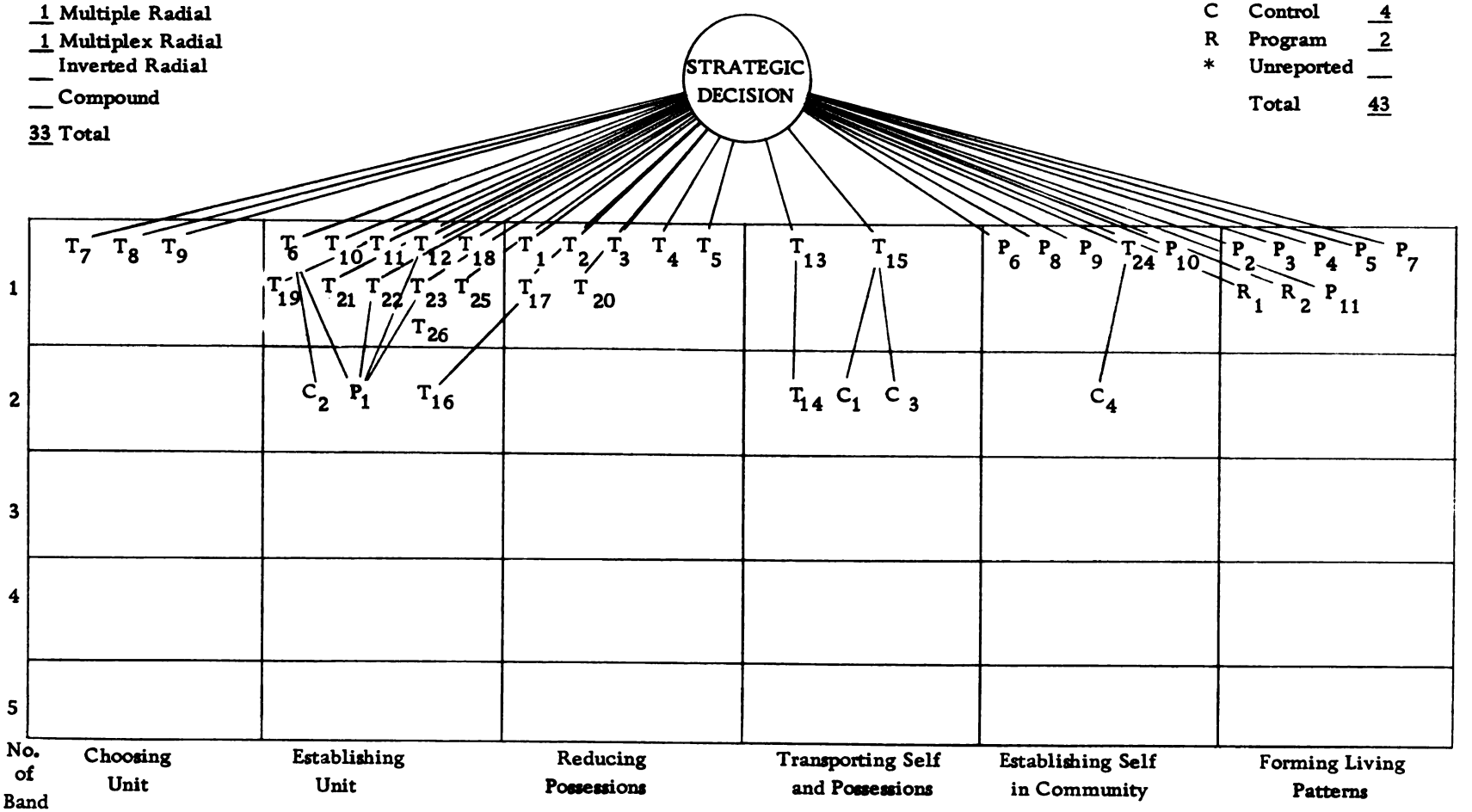
LINKAGE FORMS

2 Single Class Series
1 Multiple Class Series
28 Single Radial
1 Multiple Radial
1 Multiplex Radial
__ Inverted Radial
__ Compound
33 Total

DECISION PROFILE

DECISION KEY

T	Tactical	26
P	Policy	11
C	Control	4
R	Program	2
*	Unreported	__
	Total	43



Respondent Number 11

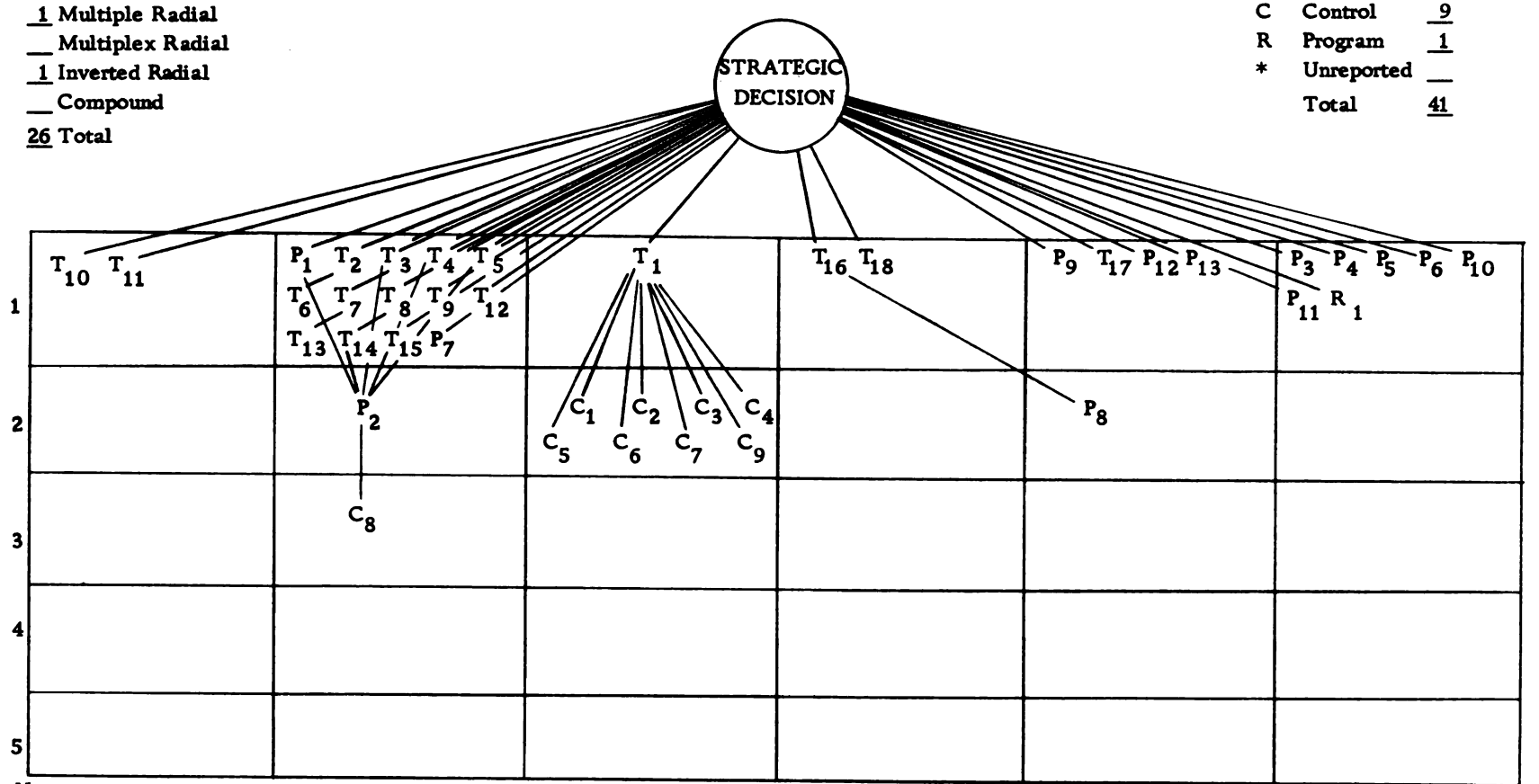
LINKAGE FORMS

__ Single Class Series
1 Multiple Class Series
23 Single Radial
1 Multiple Radial
__ Multiplex Radial
1 Inverted Radial
__ Compound
26 Total

DECISION PROFILE

DECISION KEY

T	Tactical	18
P	Policy	13
C	Control	9
R	Program	1
*	Unreported	__
	Total	41



Respondent Number 12

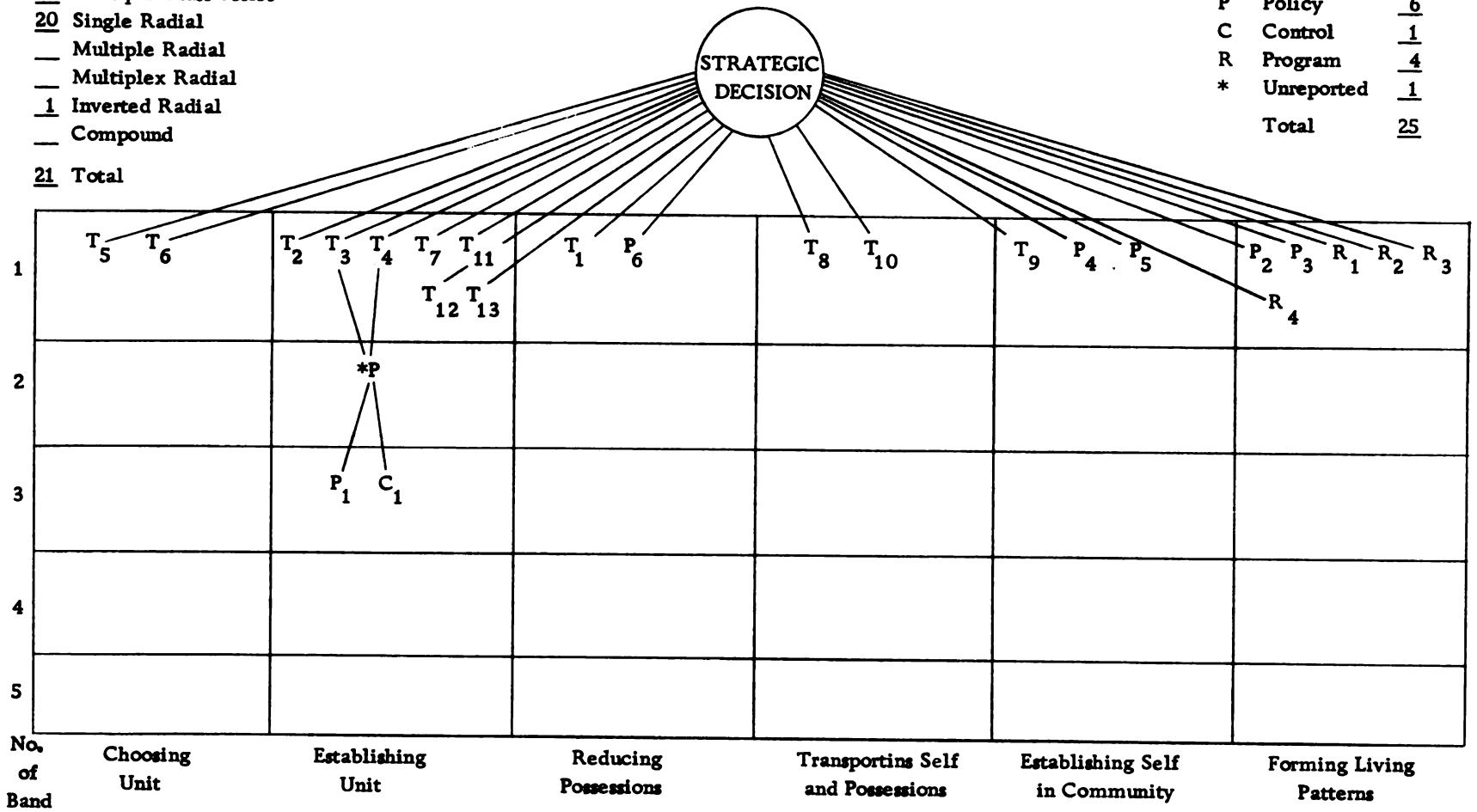
DECISION PROFILE

LINKAGE FORMS

__	Single Class Series
__	Multiple Class Series
20	Single Radial
__	Multiple Radial
__	Multiplex Radial
1	Inverted Radial
__	Compound
21	Total

DECISION KEY

T	Tactical	13
P	Policy	6
C	Control	1
R	Program	4
*	Unreported	1
	Total	25



Respondent Number 13

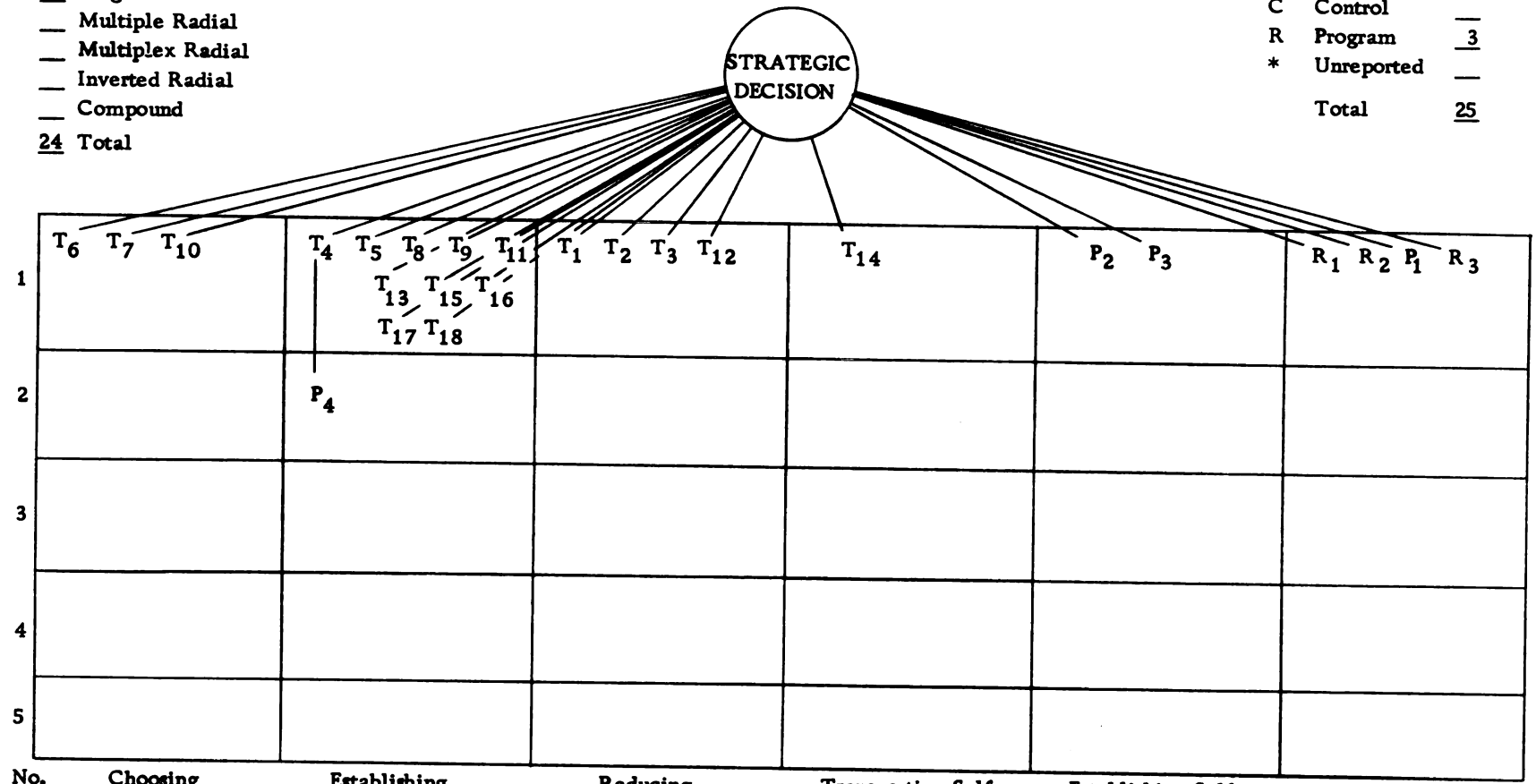
DECISION PROFILE

LINKAGE FORMS

__ Single Class Series
1 Multiple Class Series
23 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
24 Total

DECISION KEY

T	Tactical	18
P	Policy	4
C	Control	__
R	Program	3
*	Unreported	__
	Total	25



Respondent Number 14

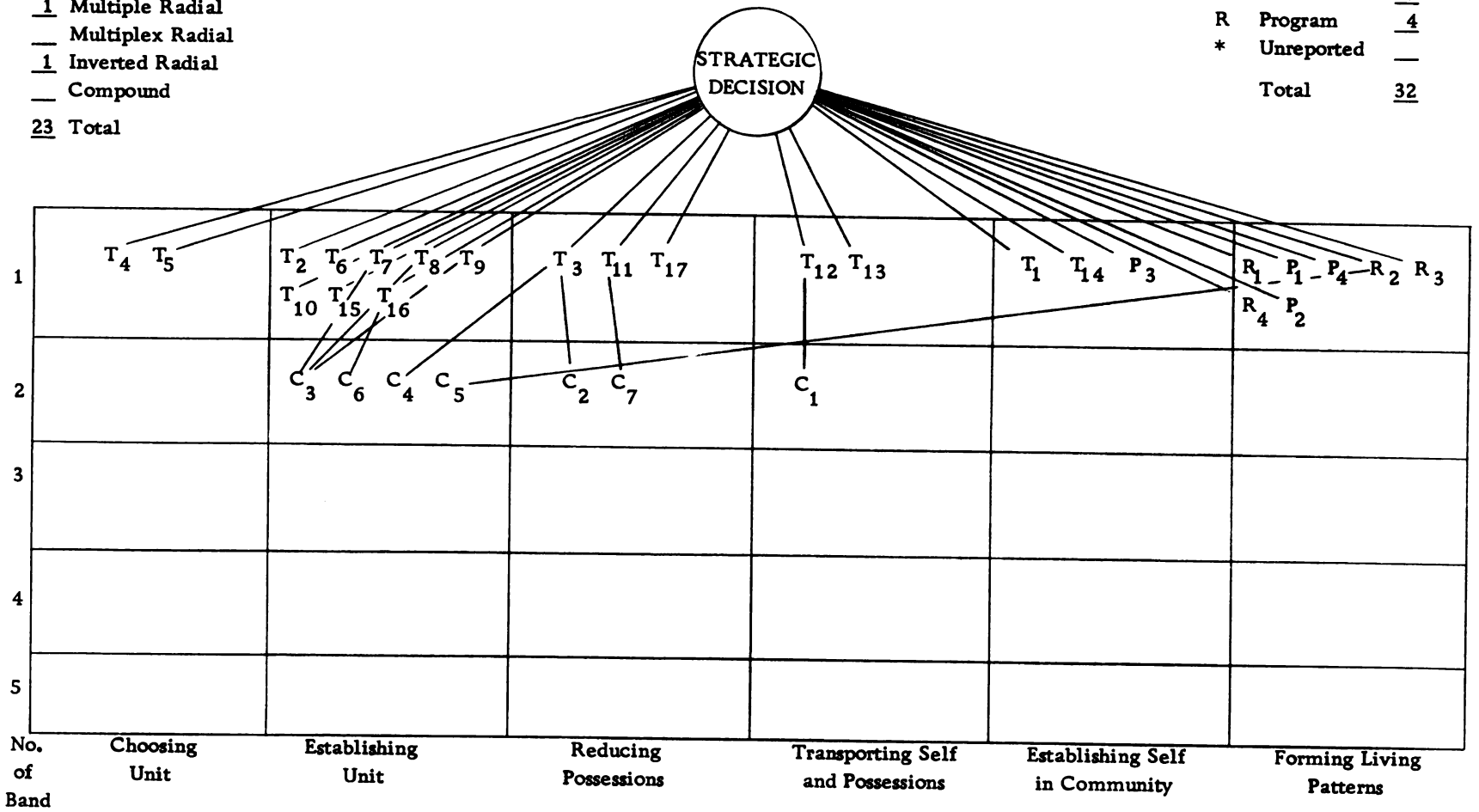
DECISION PROFILE

LINKAGE FORMS

__	Single Class Series
4	Multiple Class Series
17	Single Radial
1	Multiple Radial
__	Multiplex Radial
1	Inverted Radial
__	Compound
23	Total

DECISION KEY

T	Tactical	17
P	Policy	4
C	Control	7
R	Program	4
*	Unreported	__
	Total	32



Respondent Number 15

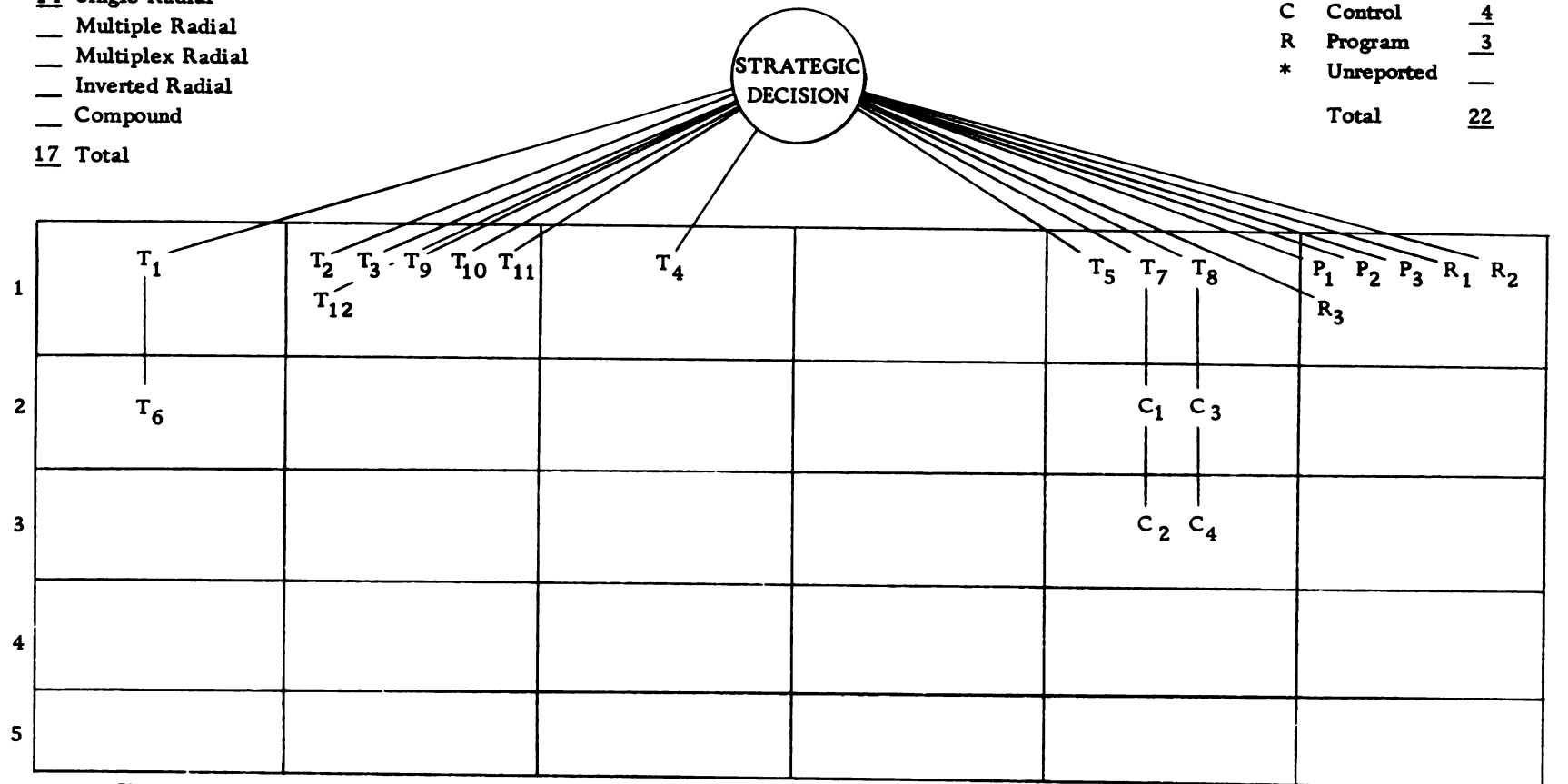
DECISION PROFILE

LINKAGE FORMS

1 Single Class Series
2 Multiple Class Series
14 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
17 Total

DECISION KEY

T	Tactical	12
P	Policy	3
C	Control	4
R	Program	3
*	Unreported	__
	Total	22



Respondent Number 16

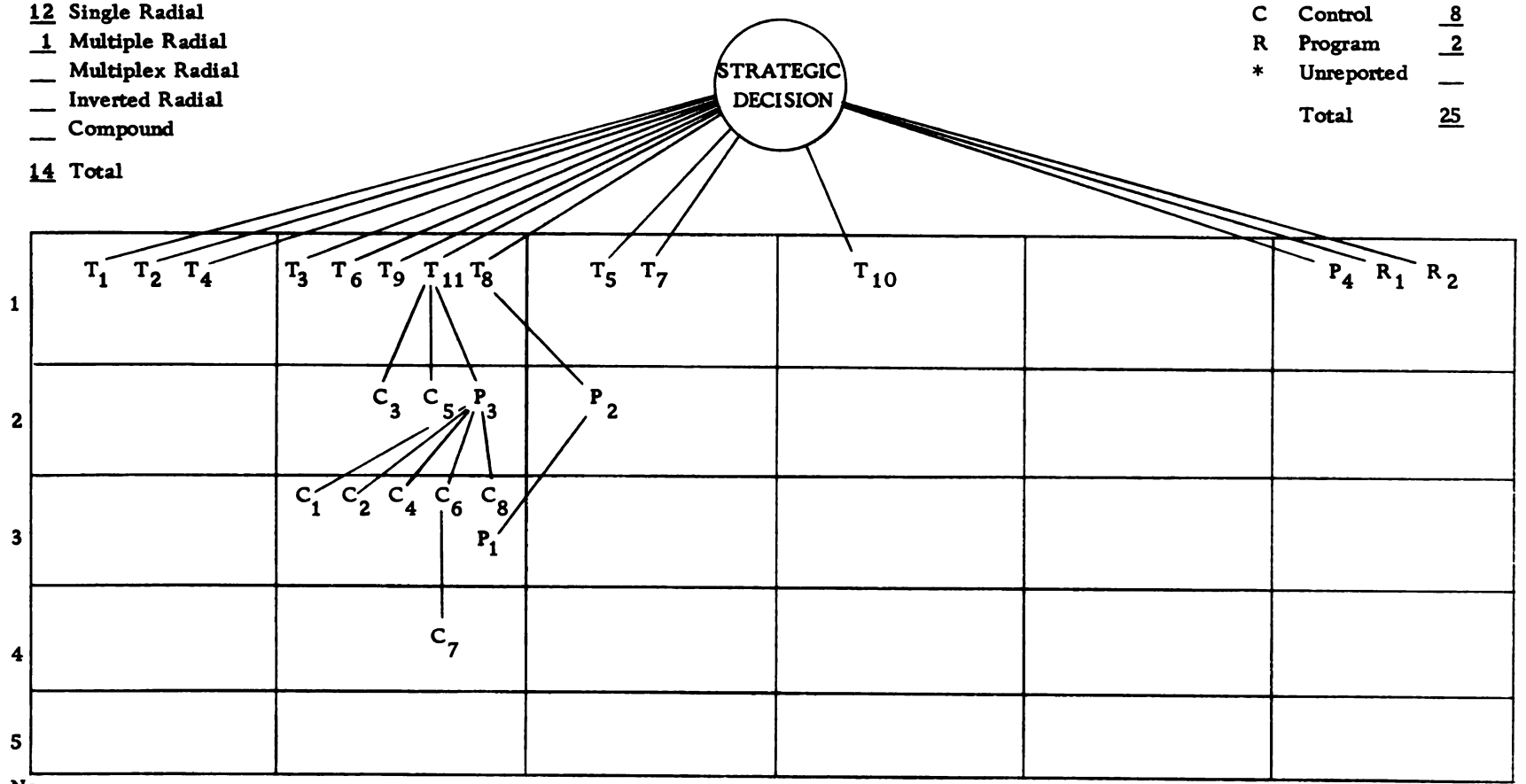
DECISION PROFILE

LINKAGE FORMS

__ Single Class Series
1 Multiple Class Series
12 Single Radial
1 Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
14 Total

DECISION KEY

T	Tactical	11
P	Policy	4
C	Control	8
R	Program	2
*	Unreported	__
	Total	25



Respondent Number 17

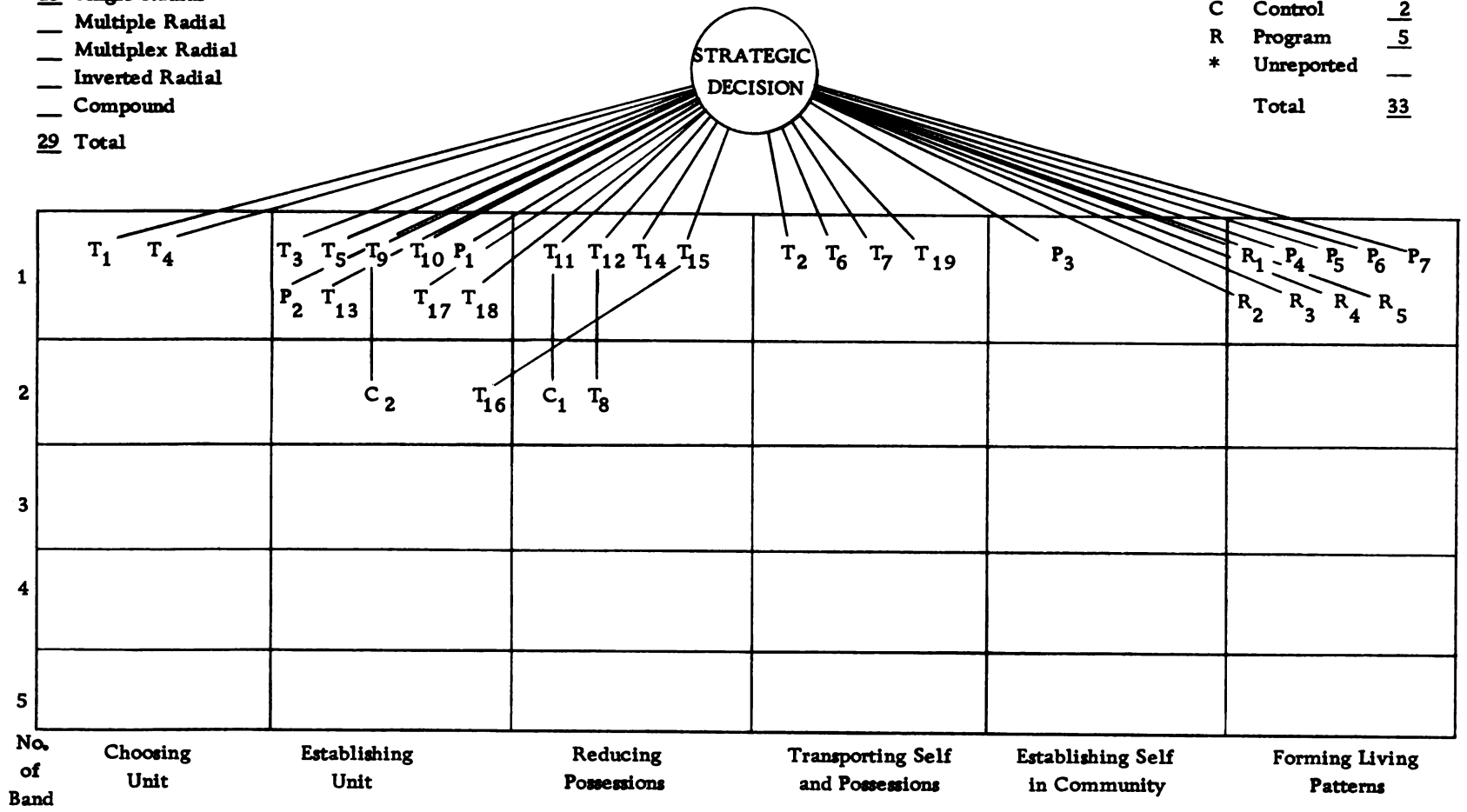
DECISION PROFILE

LINKAGE FORMS

- 2 Single Class Series
- 2 Multiple Class Series
- 25 Single Radial
- __ Multiple Radial
- __ Multiplex Radial
- __ Inverted Radial
- __ Compound
- 29 Total

DECISION KEY

T	Tactical	19
P	Policy	7
C	Control	2
R	Program	5
*	Unreported	__
	Total	33



Respondent Number 18

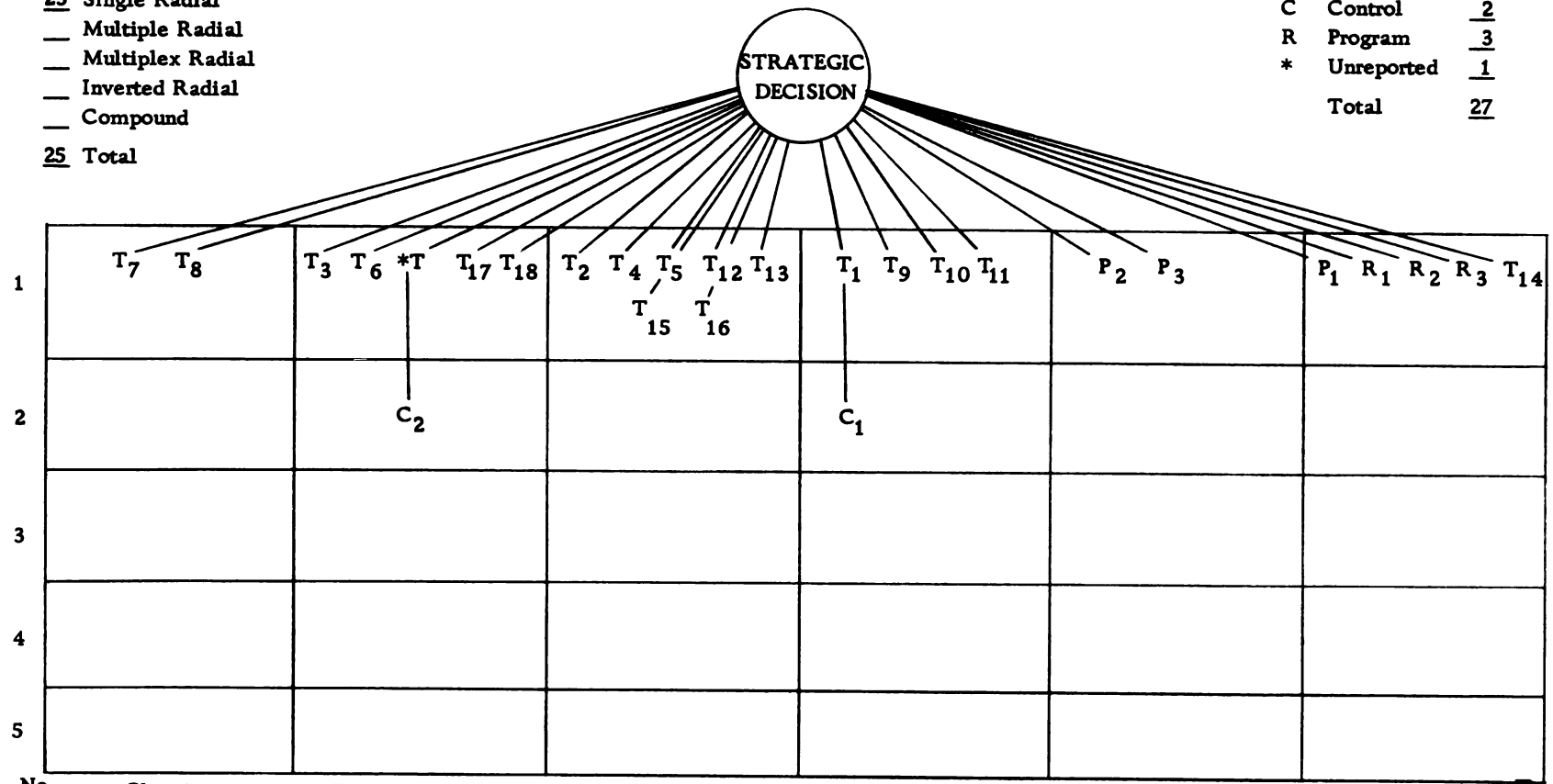
DECISION PROFILE

LINKAGE FORMS

__ Single Class Series
2 Multiple Class Series
23 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
25 Total

DECISION KEY

T	Tactical	18
P	Policy	3
C	Control	2
R	Program	3
*	Unreported	1
	Total	27



Respondent Number 19

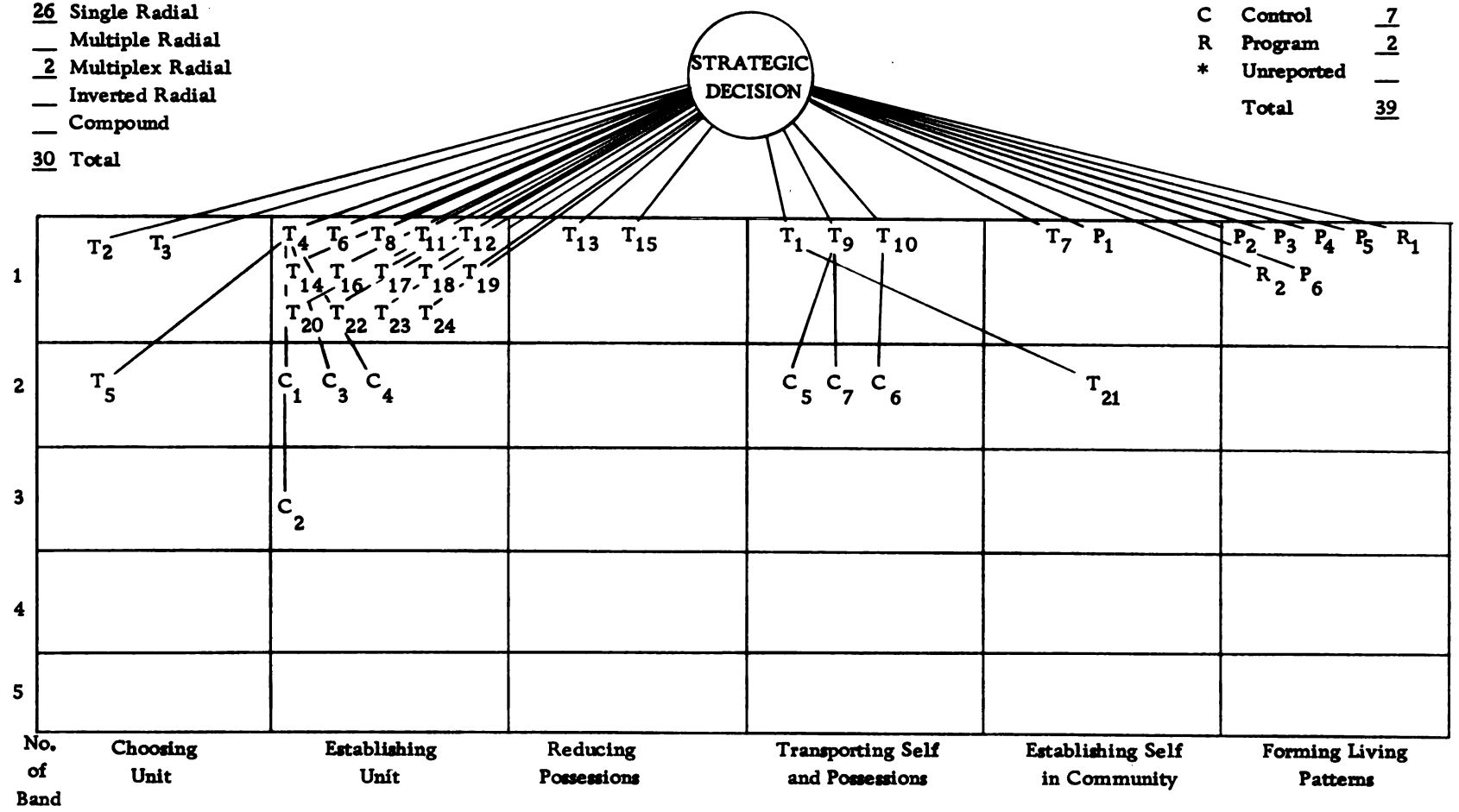
DECISION PROFILE

LINKAGE FORMS

1	Single Class Series
1	Multiple Class Series
26	Single Radial
__	Multiple Radial
2	Multiplex Radial
__	Inverted Radial
__	Compound
30	Total

DECISION KEY

T	Tactical	24
P	Policy	6
C	Control	7
R	Program	2
*	Unreported	__
	Total	39



Respondent Number 20

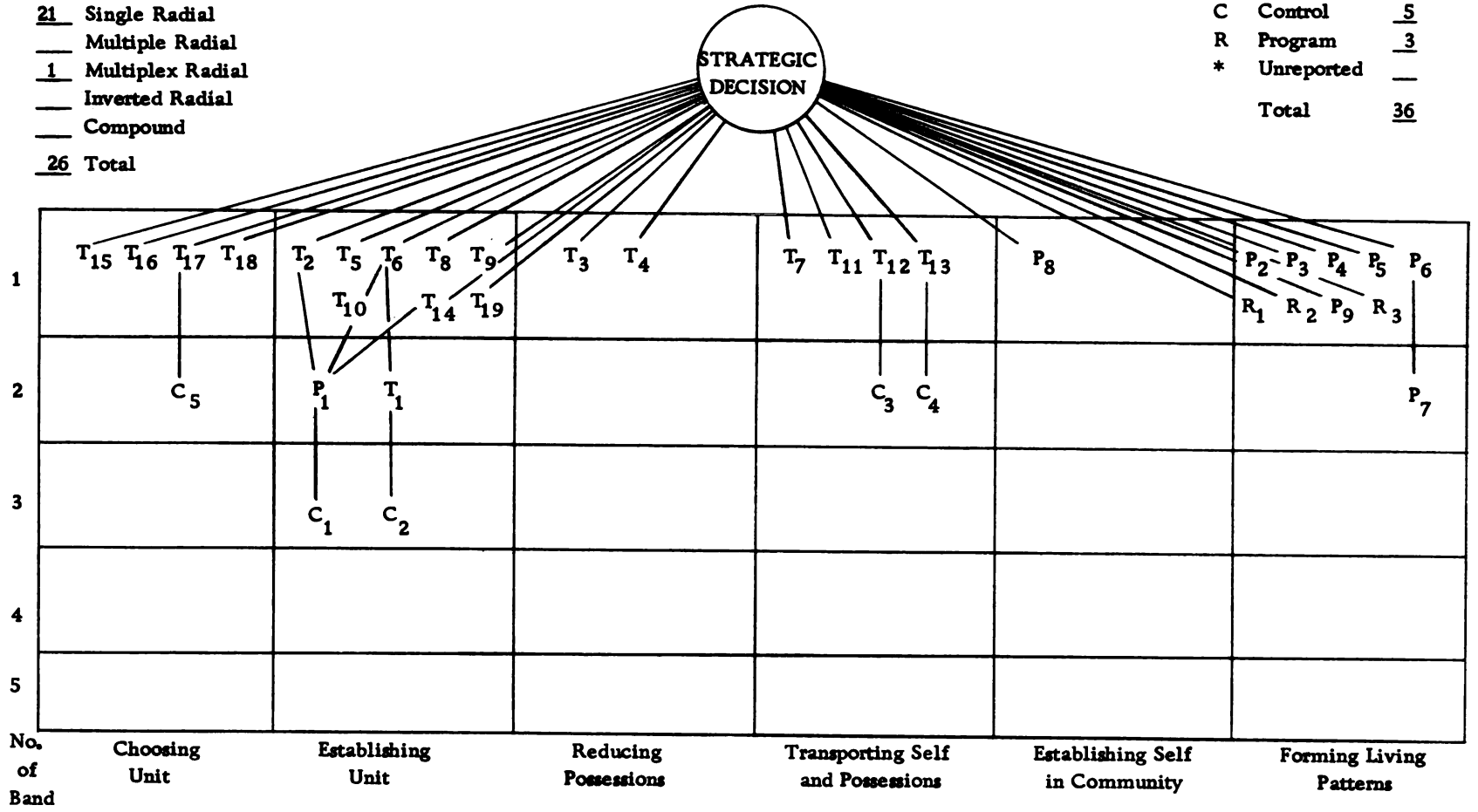
DECISION PROFILE

LINKAGE FORMS

1	Single Class Series
3	Multiple Class Series
21	Single Radial
___	Multiple Radial
1	Multiplex Radial
___	Inverted Radial
___	Compound
26	Total

DECISION KEY

T	Tactical	19
P	Policy	9
C	Control	5
R	Program	3
*	Unreported	___
	Total	36



Respondent Number 21

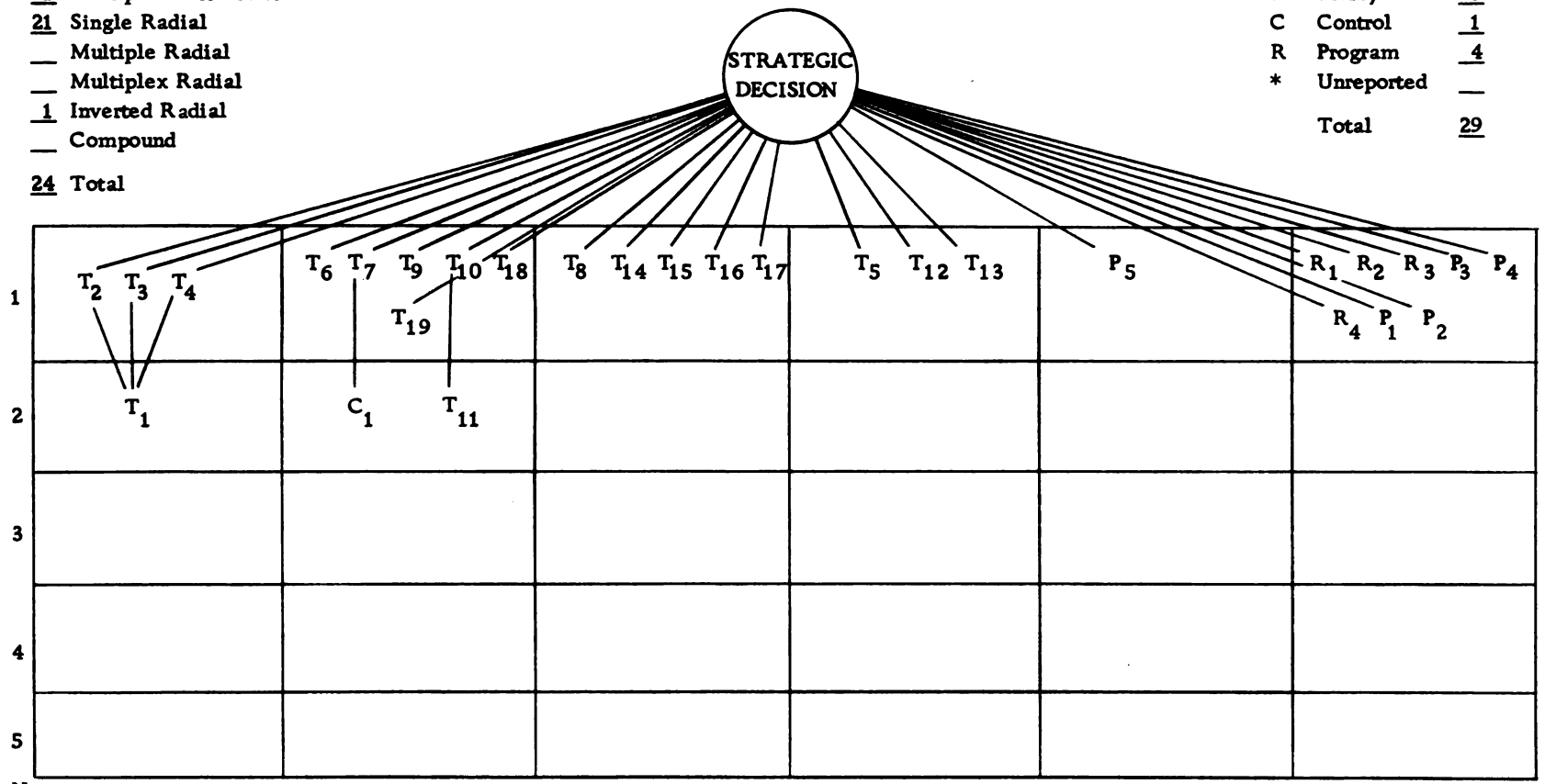
DECISION PROFILE

LINKAGE FORMS

1	Single Class Series
1	Multiple Class Series
21	Single Radial
__	Multiple Radial
__	Multiplex Radial
1	Inverted Radial
__	Compound
24	Total

DECISION KEY

T	Tactical	19
P	Policy	5
C	Control	1
R	Program	4
*	Unreported	__
	Total	29



Respondent Number 22

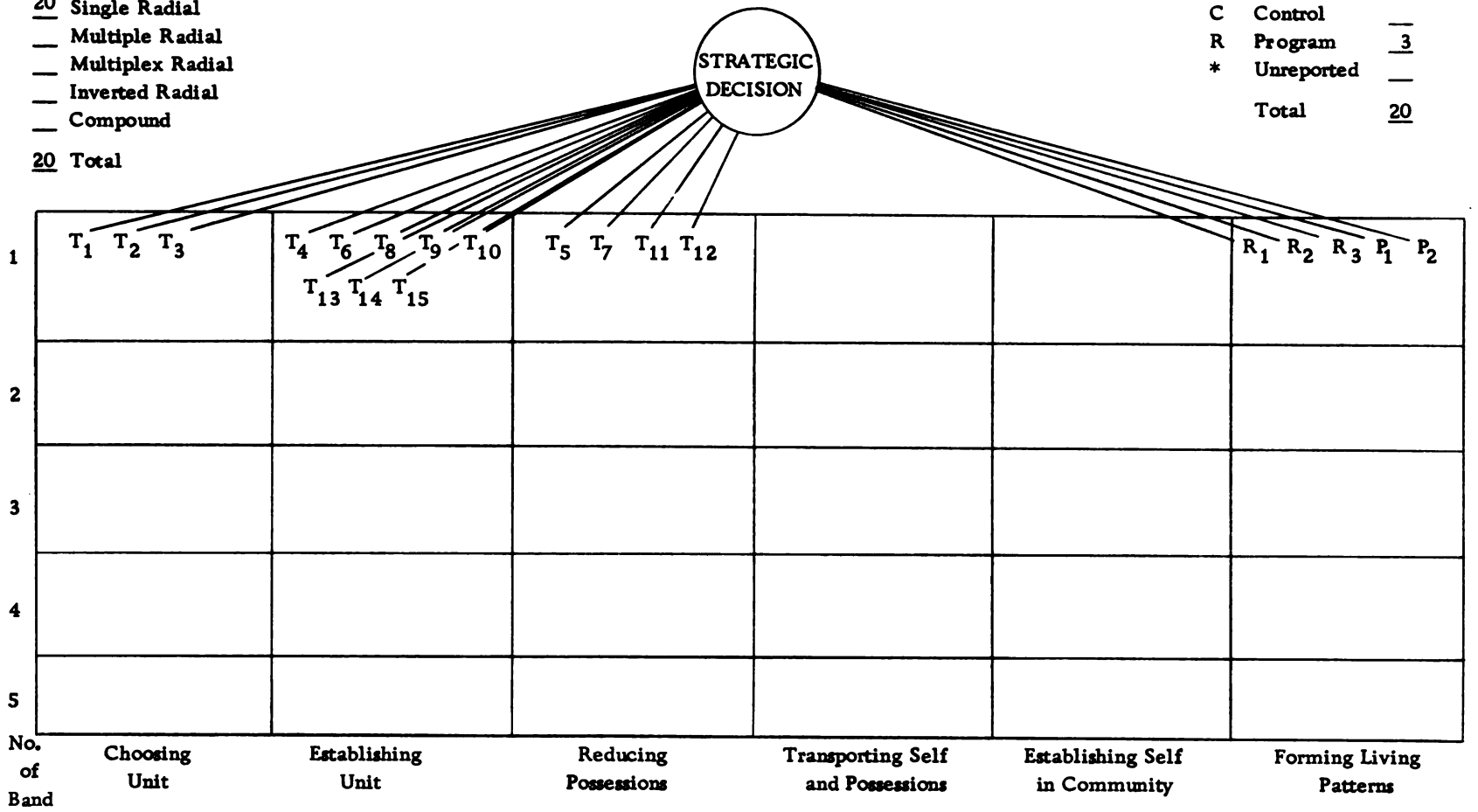
DECISION PROFILE

LINKAGE FORMS

- __ Single Class Series
- __ Multiple Class Series
- 20 Single Radial
- __ Multiple Radial
- __ Multiplex Radial
- __ Inverted Radial
- __ Compound
- 20 Total

DECISION KEY

T	Tactical	15
P	Policy	2
C	Control	__
R	Program	3
*	Unreported	__
	Total	20



Respondent Number 23

LINKAGE FORMS

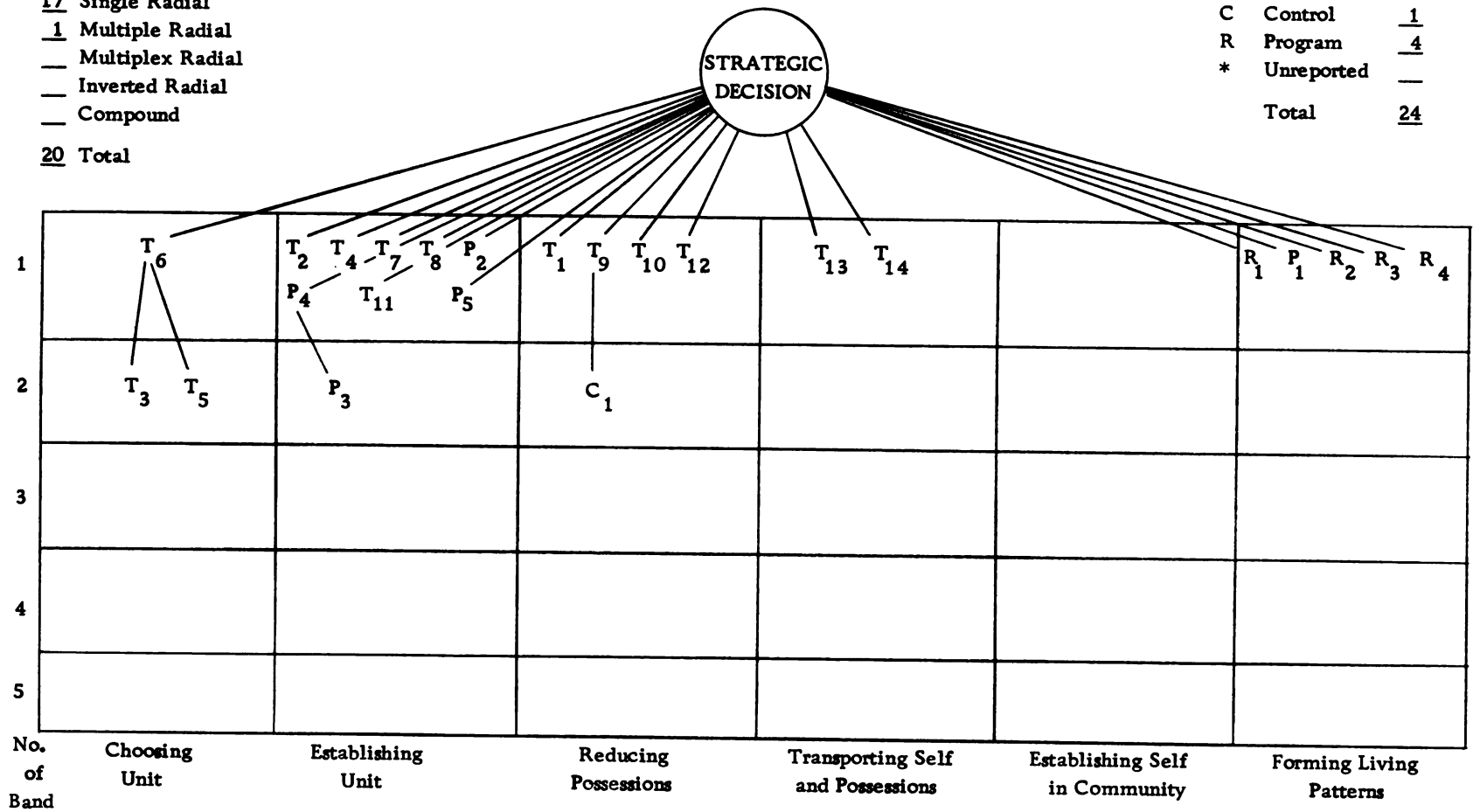
1 Single Class Series
1 Multiple Class Series
17 Single Radial
1 Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound

20 Total

DECISION PROFILE

DECISION KEY

T	Tactical	14
P	Policy	5
C	Control	1
R	Program	4
*	Unreported	__
	Total	24



Respondent Number 24

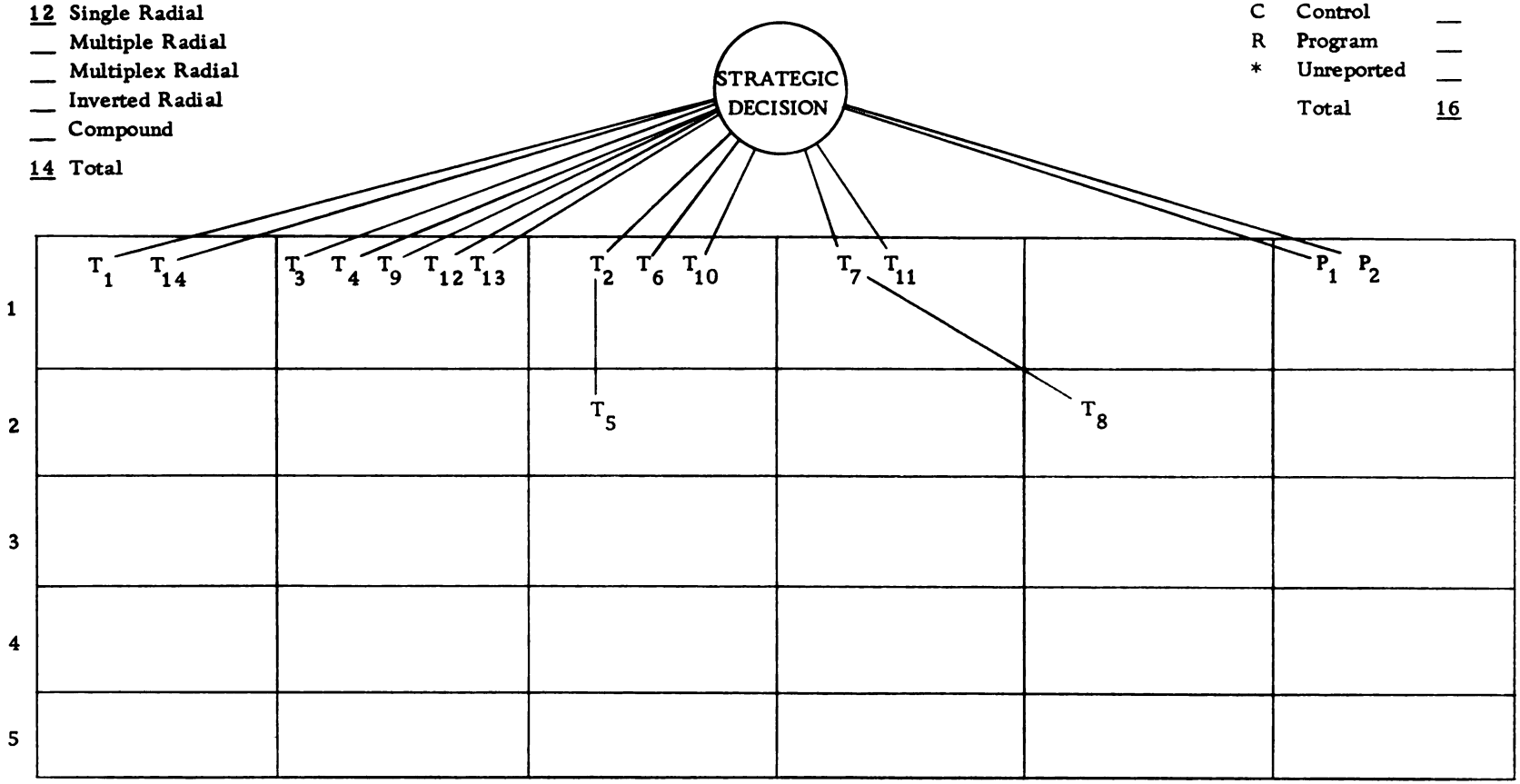
DECISION PROFILE

LINKAGE FORMS

2 Single Class Series
__ Multiple Class Series
12 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
14 Total

DECISION KEY

T	Tactical	14
P	Policy	2
C	Control	__
R	Program	__
*	Unreported	__
	Total	16



Respondent Number 25

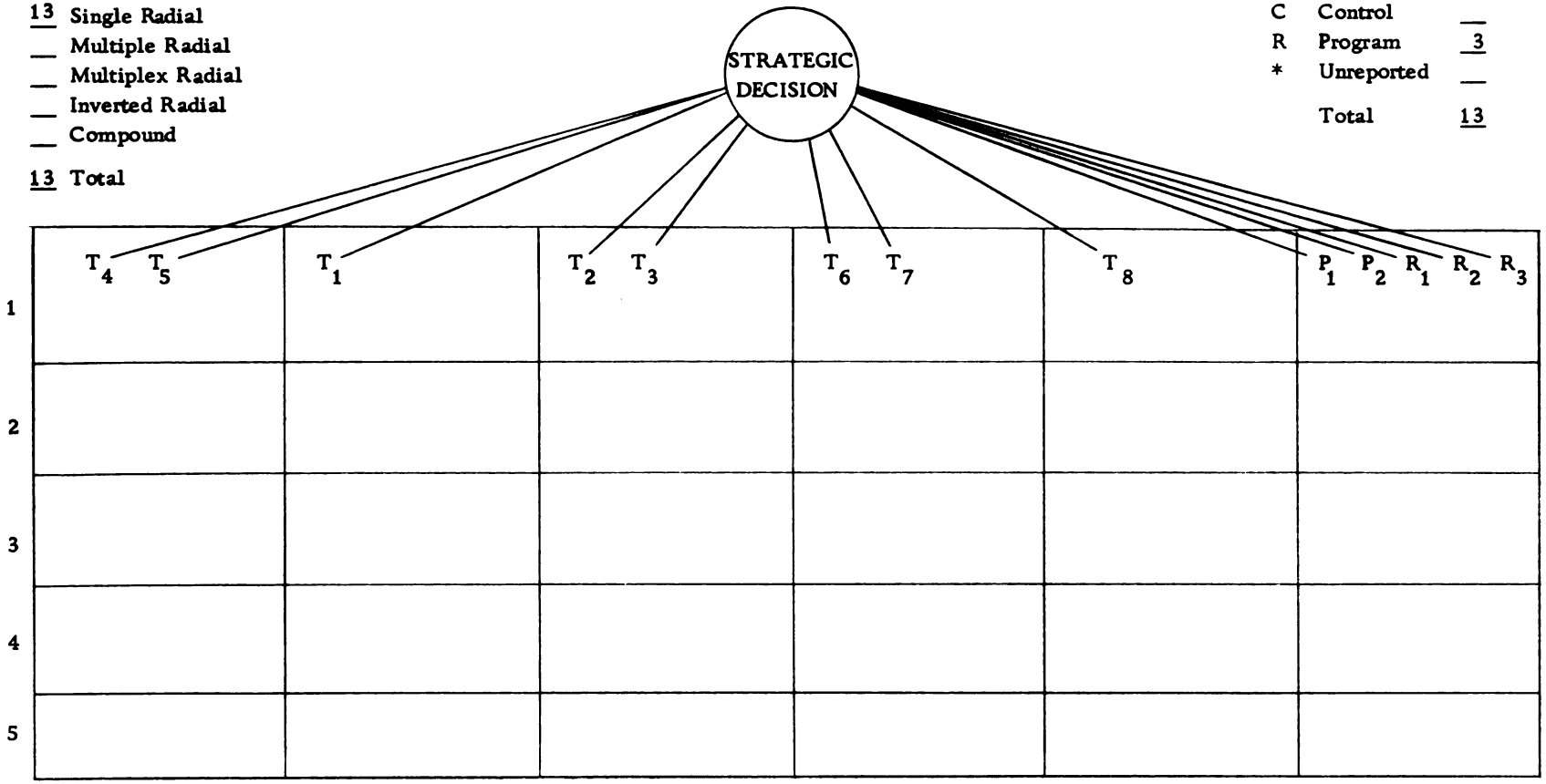
DECISION PROFILE

LINKAGE FORMS

__ Single Class Series
__ Multiple Class Series
13 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
13 Total

DECISION KEY

T	Tactical	8
P	Policy	2
C	Control	__
R	Program	3
*	Unreported	__
	Total	13



LINKAGE FORMS

__ Single Class Series
2 Multiple Class Series
21 Single Radial
1 Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound

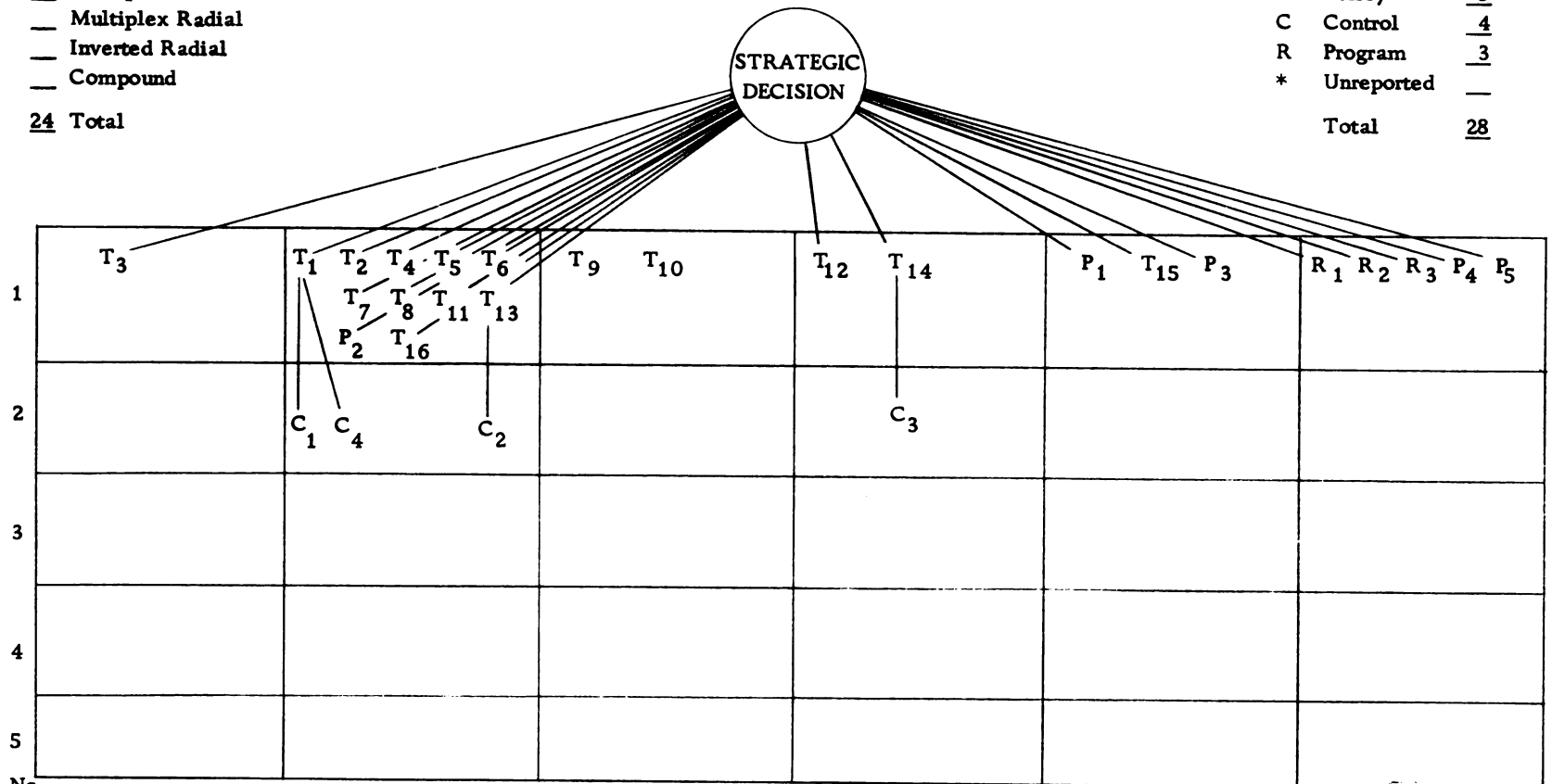
24 Total

Respondent Number 26

DECISION PROFILE

DECISION

T	Tactical	16
P	Policy	5
C	Control	4
R	Program	3
*	Unreported	__
	Total	28



Respondent Number 27

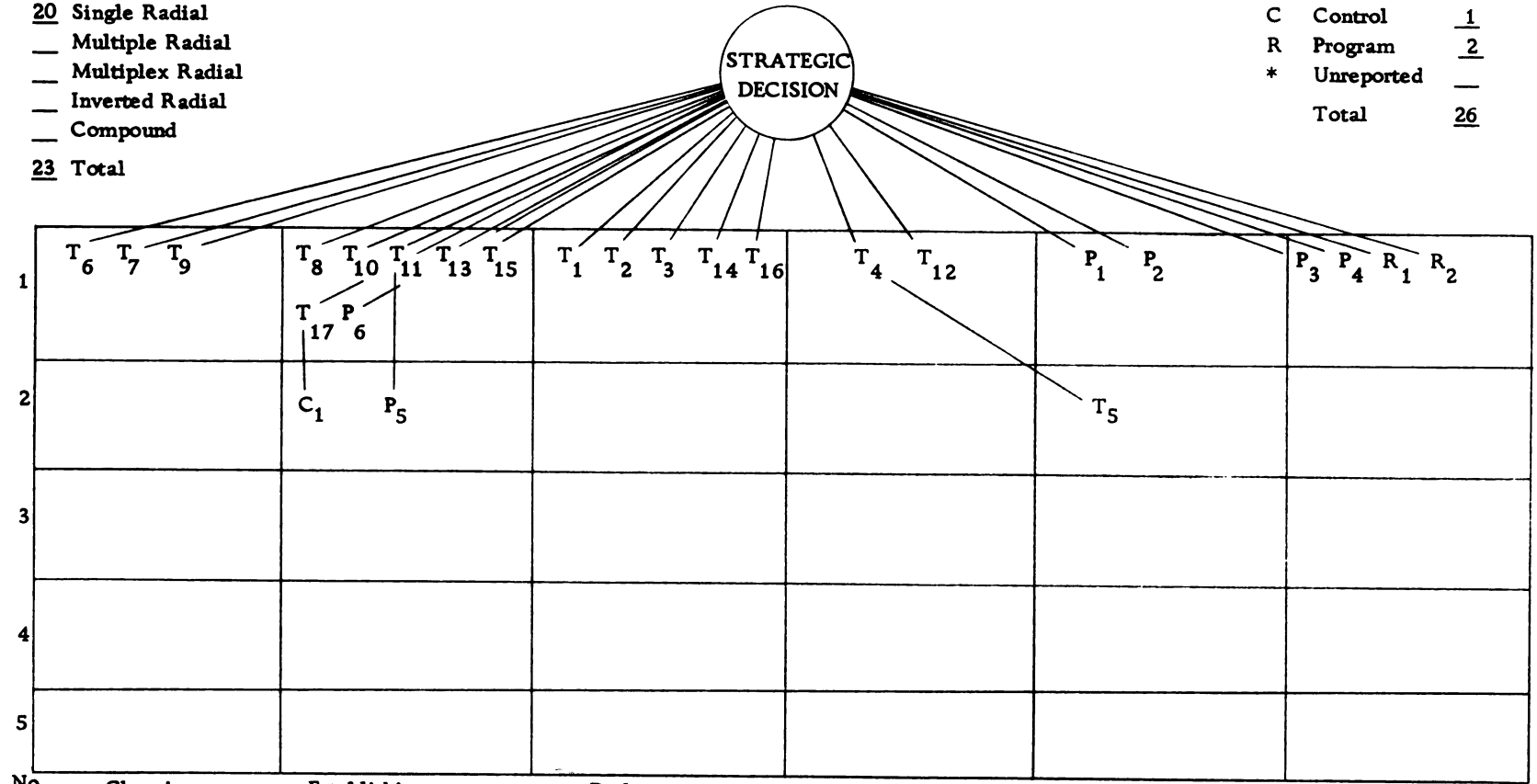
DECISION PROFILE

LINKAGE FORMS

1 Single Class Series
2 Multiple Class Series
20 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
23 Total

DECISION KEY

T	Tactical	17
P	Policy	6
C	Control	1
R	Program	2
*	Unreported	__
	Total	26



Respondent Number 28

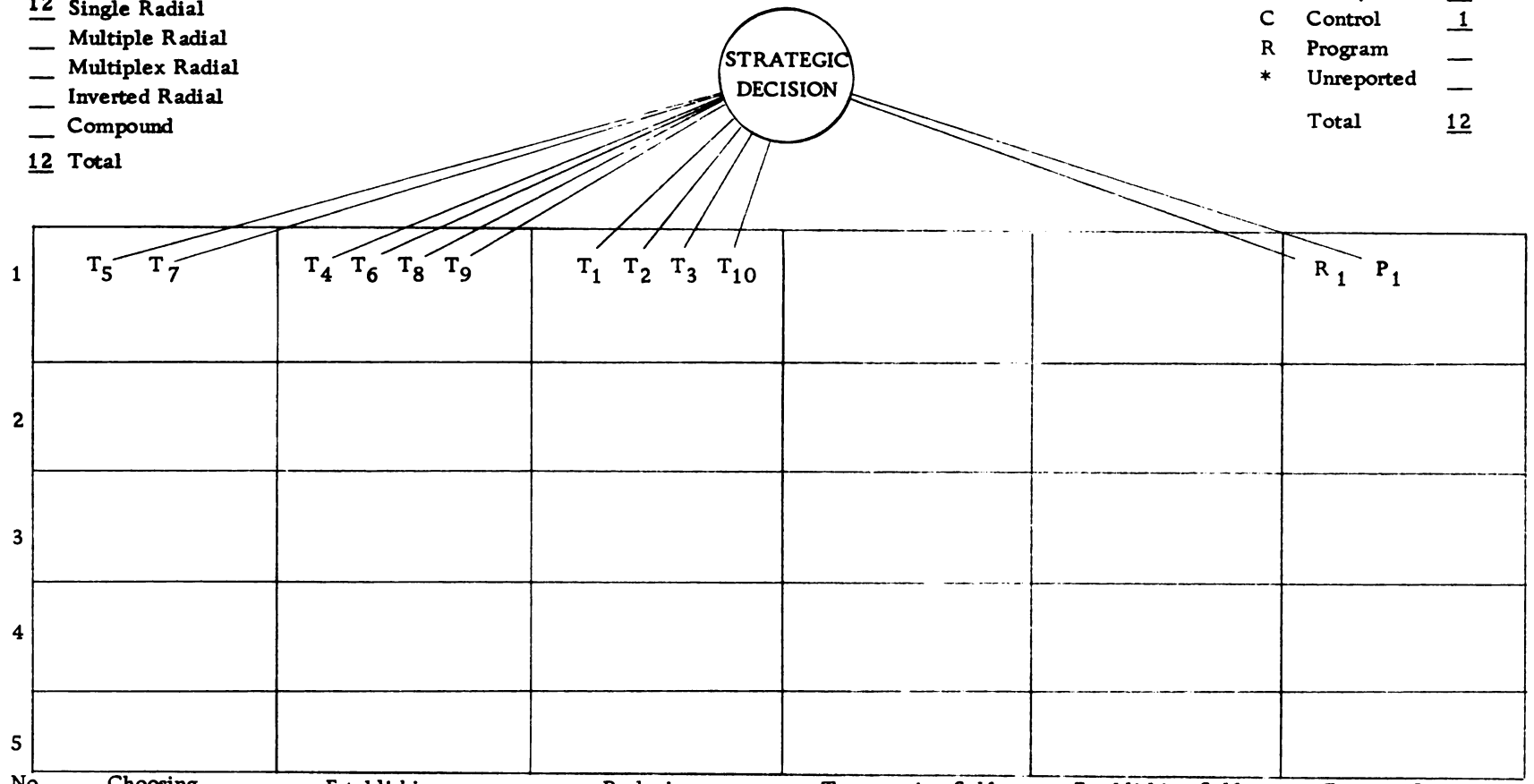
DECISION PROFILE

LINKAGE FORMS

__ Single Class Series
__ Multiple Class Series
12 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
12 Total

DECISION KEY

T	Tactical	10
P	Policy	1
C	Control	1
R	Program	__
*	Unreported	__
	Total	12



Respondent Number 29

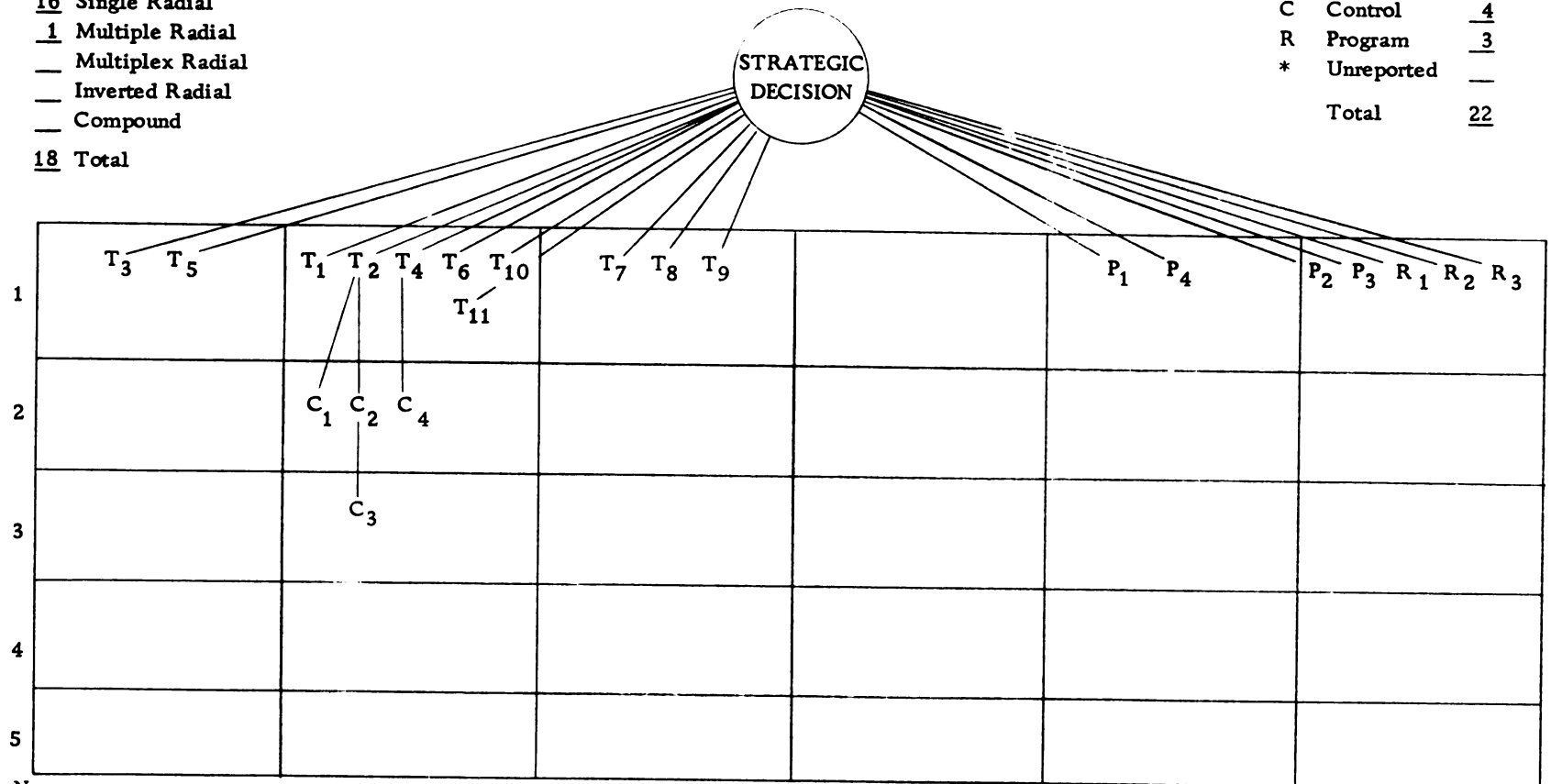
LINKAGE FORMS

__ Single Class Series
1 Multiple Class Series
16 Single Radial
1 Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
18 Total

DECISION PROFILE

DECISION KEY

T	Tactical	11
P	Policy	4
C	Control	4
R	Program	3
*	Unreported	__
	Total	22



Respondent Number 30

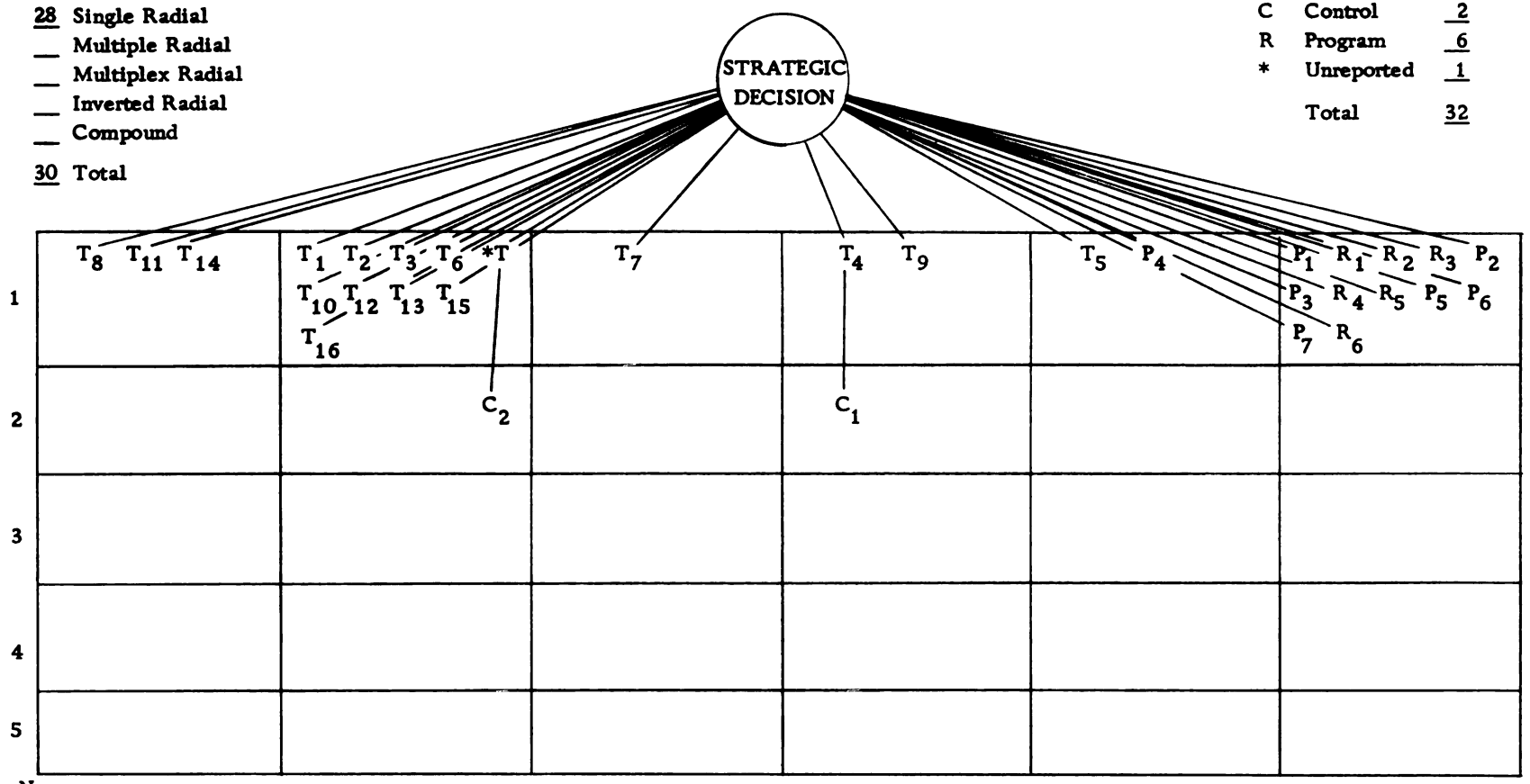
DECISION PROFILE

LINKAGE FORMS

__ Single Class Series
2 Multiple Class Series
28 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
30 Total

DECISION KEY

T	Tactical	16
P	Policy	7
C	Control	2
R	Program	6
*	Unreported	1
	Total	32



Respondent Number 31

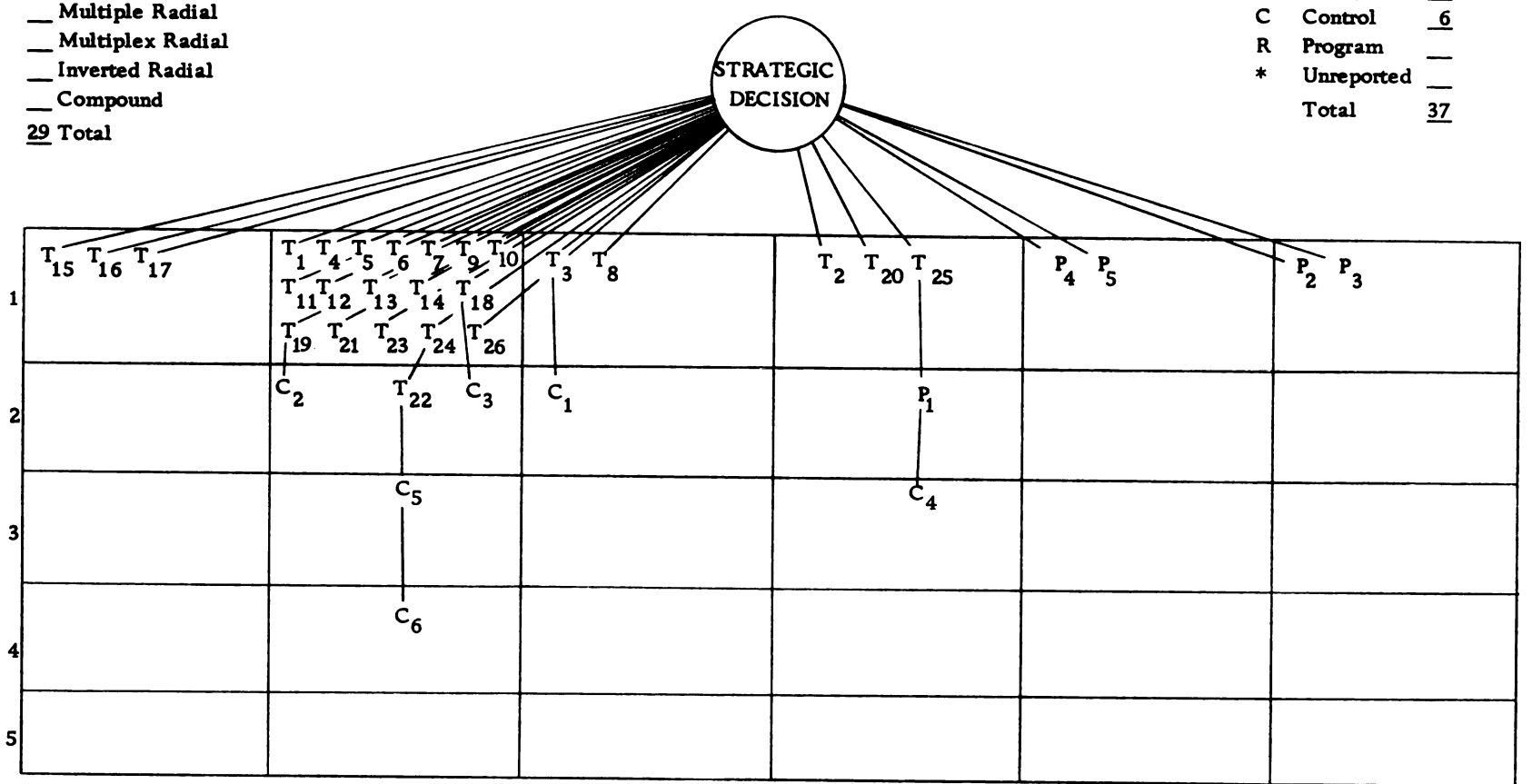
LINKAGE FORMS

__ Single Class Series
5 Multiple Class Series
24 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
29 Total

DECISION PROFILE

DECISION KEY

T	Tactical	26
P	Policy	5
C	Control	6
R	Program	__
*	Unreported	__
	Total	37



No. of Band	Choosing Unit	Establishing Unit	Reducing Possessions	Transporting Self and Possessions	Establishing Self in Community	Forming Living Patterns

Respondent Number 32

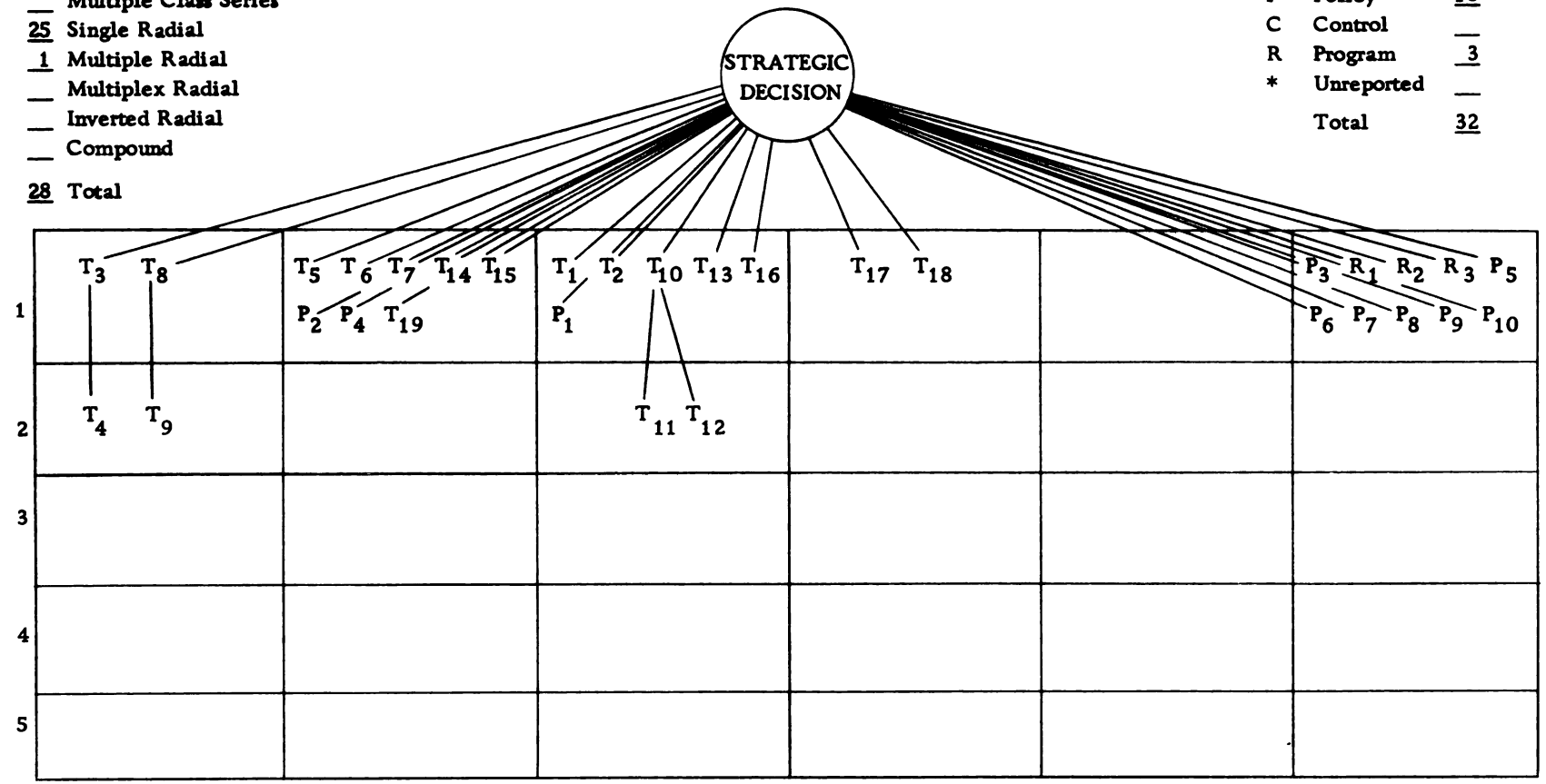
DECISION PROFILE

LINKAGE FORMS

2	Single Class Series
__	Multiple Class Series
25	Single Radial
1	Multiple Radial
__	Multiplex Radial
__	Inverted Radial
__	Compound
28	Total

DECISION KEY

T	Tactical	19
P	Policy	10
C	Control	__
R	Program	3
*	Unreported	__
	Total	32



No. of Band	Choosing Unit	Establishing Unit	Reducing Possessions	Transporting Self and Possessions	Establishing Self In Community	Forming Living Patterns

Respondent Number 33

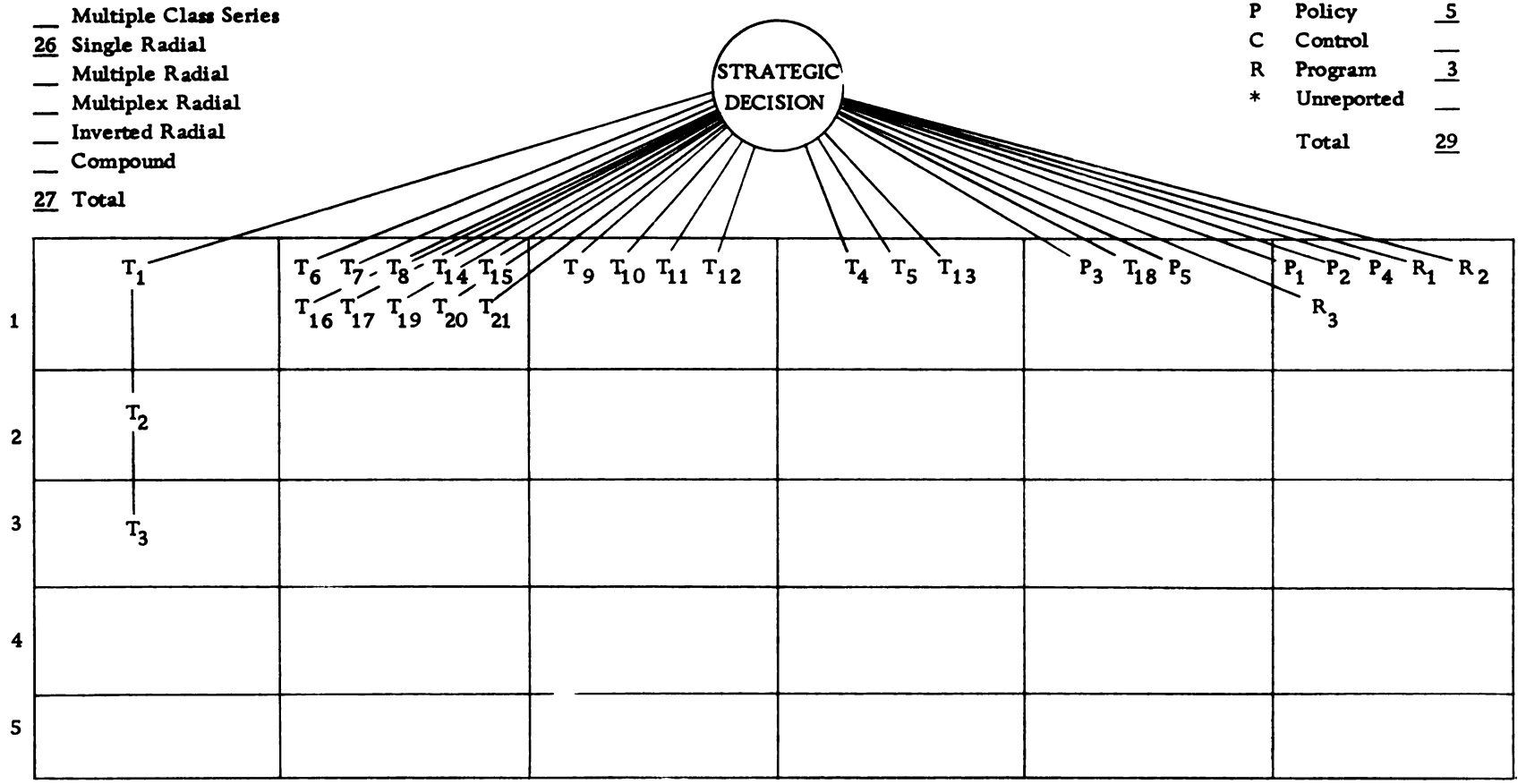
DECISION PROFILE

LINKAGE FORMS

1 Single Class Series
__ Multiple Class Series
26 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
27 Total

DECISION KEY

T	Tactical	21
P	Policy	5
C	Control	__
R	Program	3
*	Unreported	__
	Total	29



Respondent Number 34

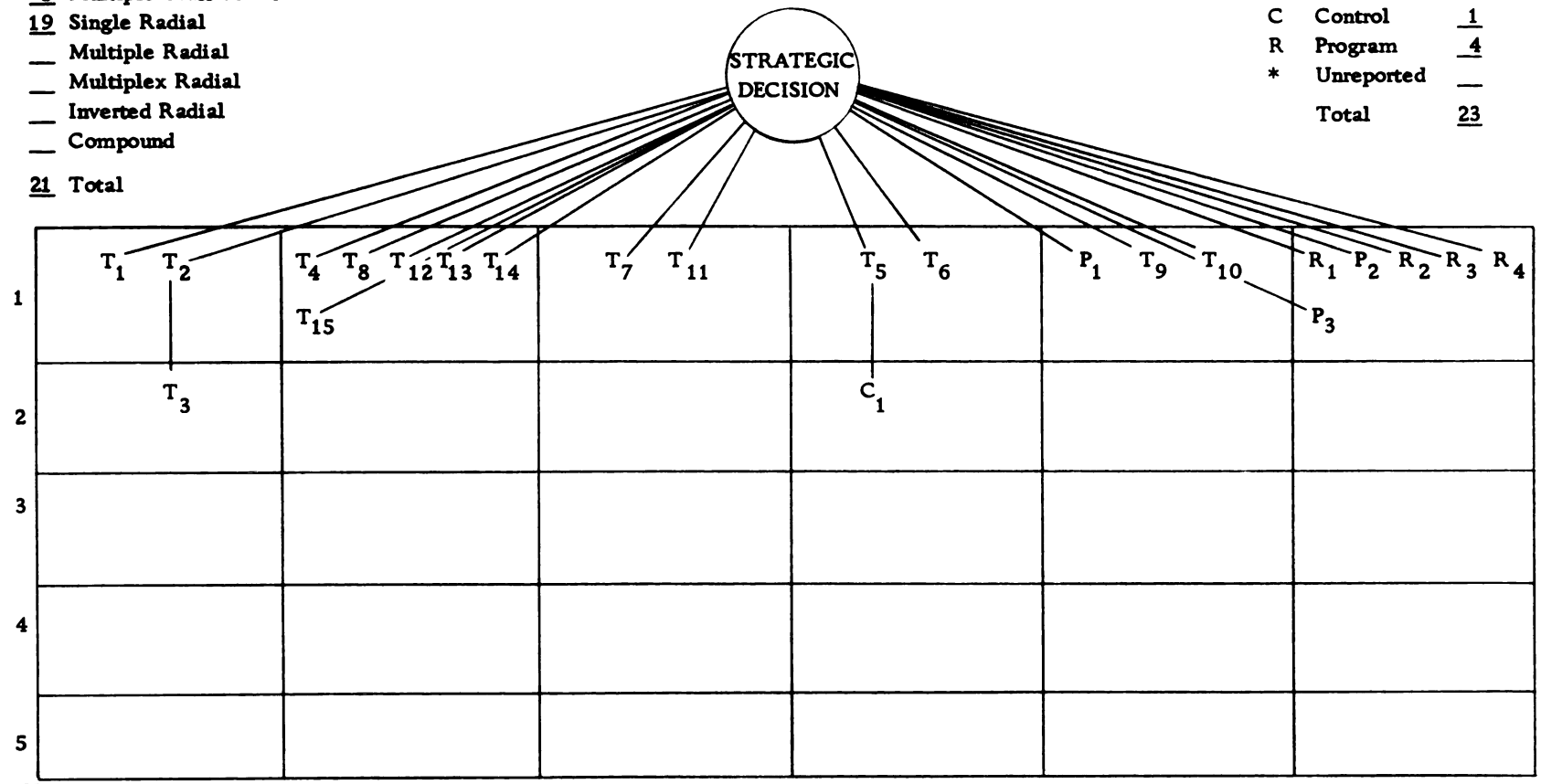
DECISION PROFILE

LINKAGE FORMS

1	Single Class Series
1	Multiple Class Series
19	Single Radial
__	Multiple Radial
__	Multiplex Radial
__	Inverted Radial
__	Compound
21	Total

DECISION KEY

T	Tactical	15
P	Policy	3
C	Control	1
R	Program	4
*	Unreported	__
	Total	23



Respondent Number 35

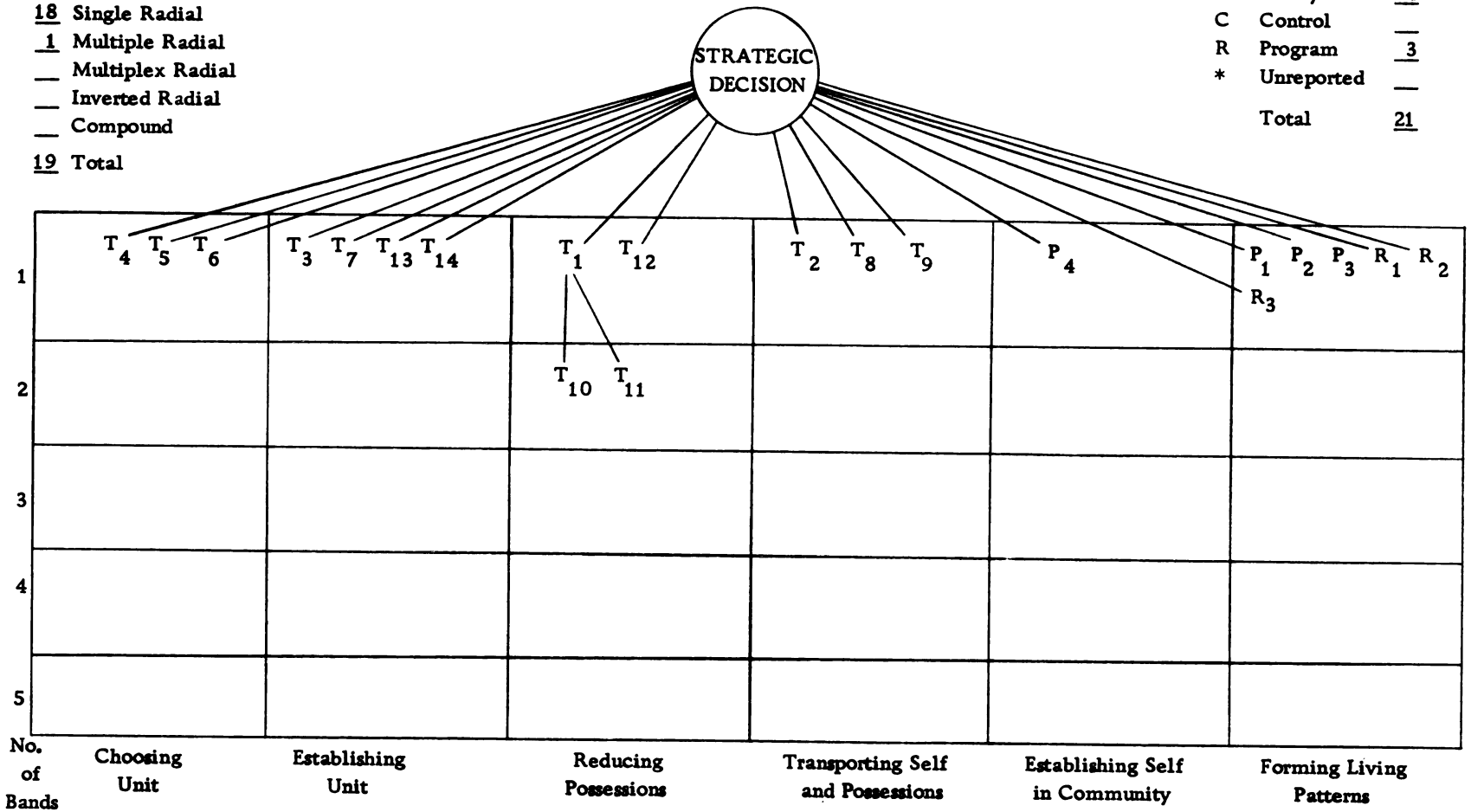
DECISION PROFILE

LINKAGE FORMS

__ Single Class Series
__ Multiple Class Series
18 Single Radial
1 Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
19 Total

DECISION KEY

T	Tactical	14
P	Policy	4
C	Control	__
R	Program	3
*	Unreported	__
	Total	21



Respondent Number 36

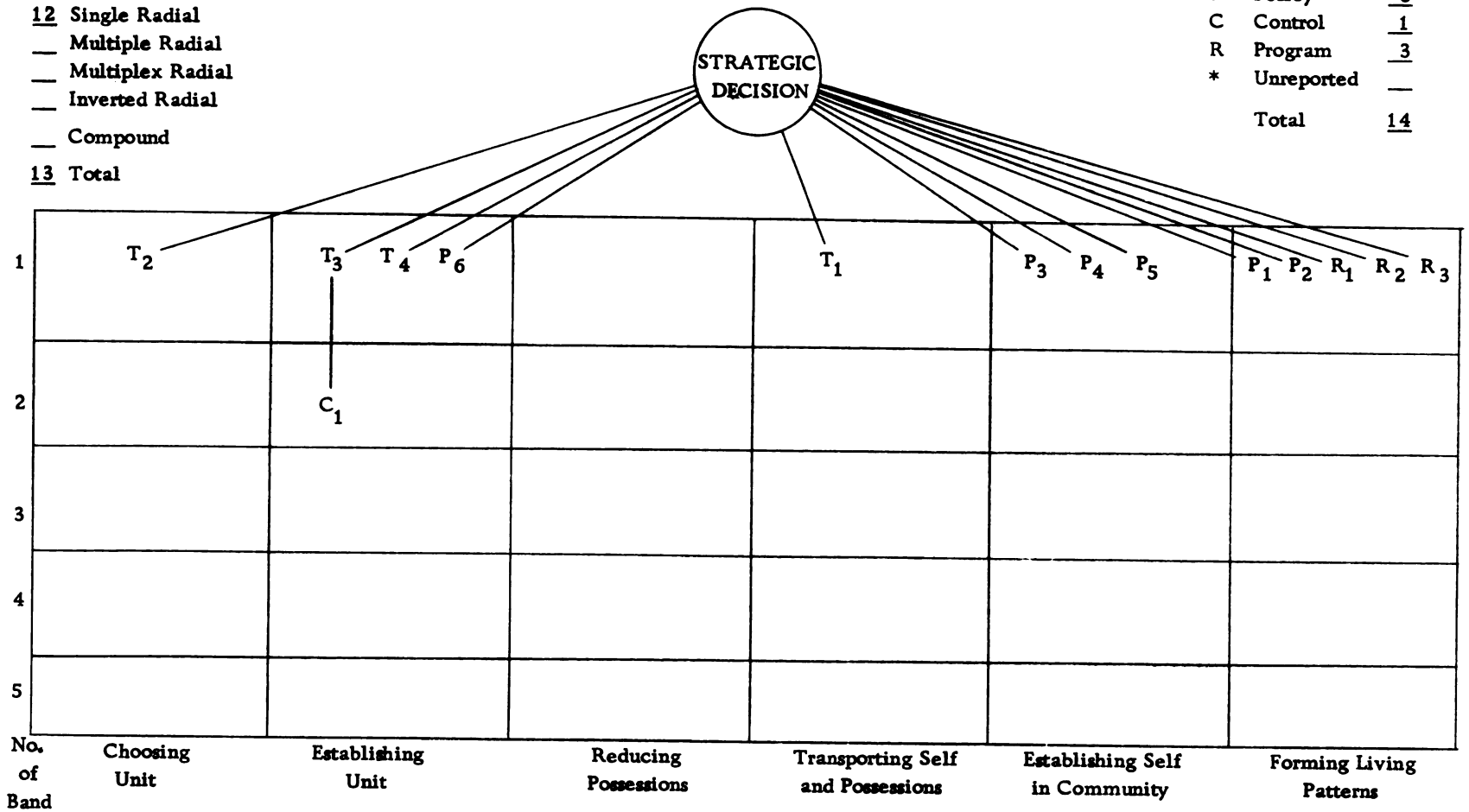
DECISION PROFILE

LINKAGE FORMS

__ Single Class Series
1 Multiple Class Series
12 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
13 Total

DECISION KEY

T	Tactical	4
P	Policy	6
C	Control	1
R	Program	3
*	Unreported	__
	Total	14



Respondent Number 37

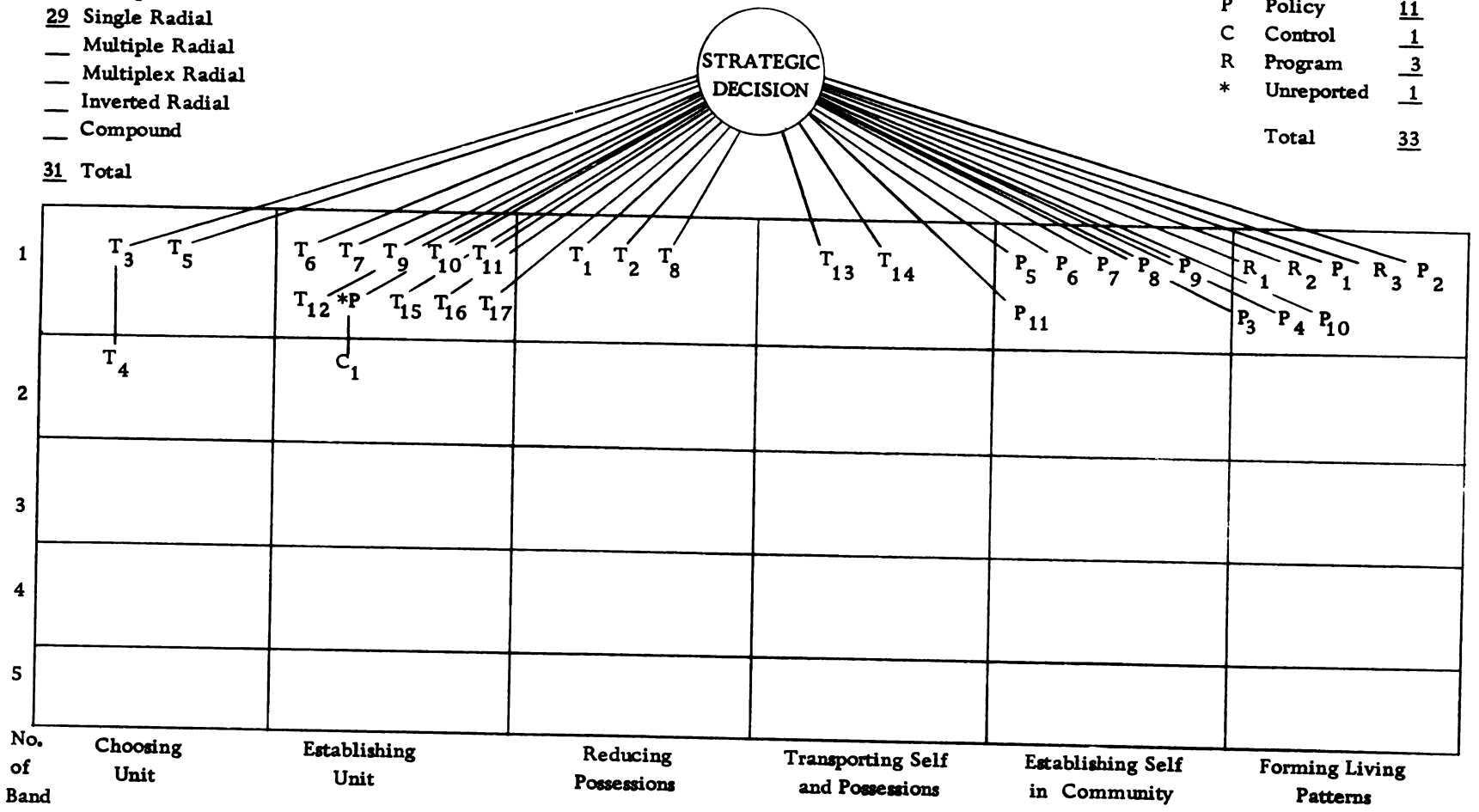
DECISION PROFILE

LINKAGE FORMS

1	Single Class Series
1	Multiple Class Series
29	Single Radial
__	Multiple Radial
__	Multiplex Radial
__	Inverted Radial
__	Compound
31	Total

DECISION KEY

T	Tactical	17
P	Policy	11
C	Control	1
R	Program	3
*	Unreported	1
	Total	33



Respondent Number 38

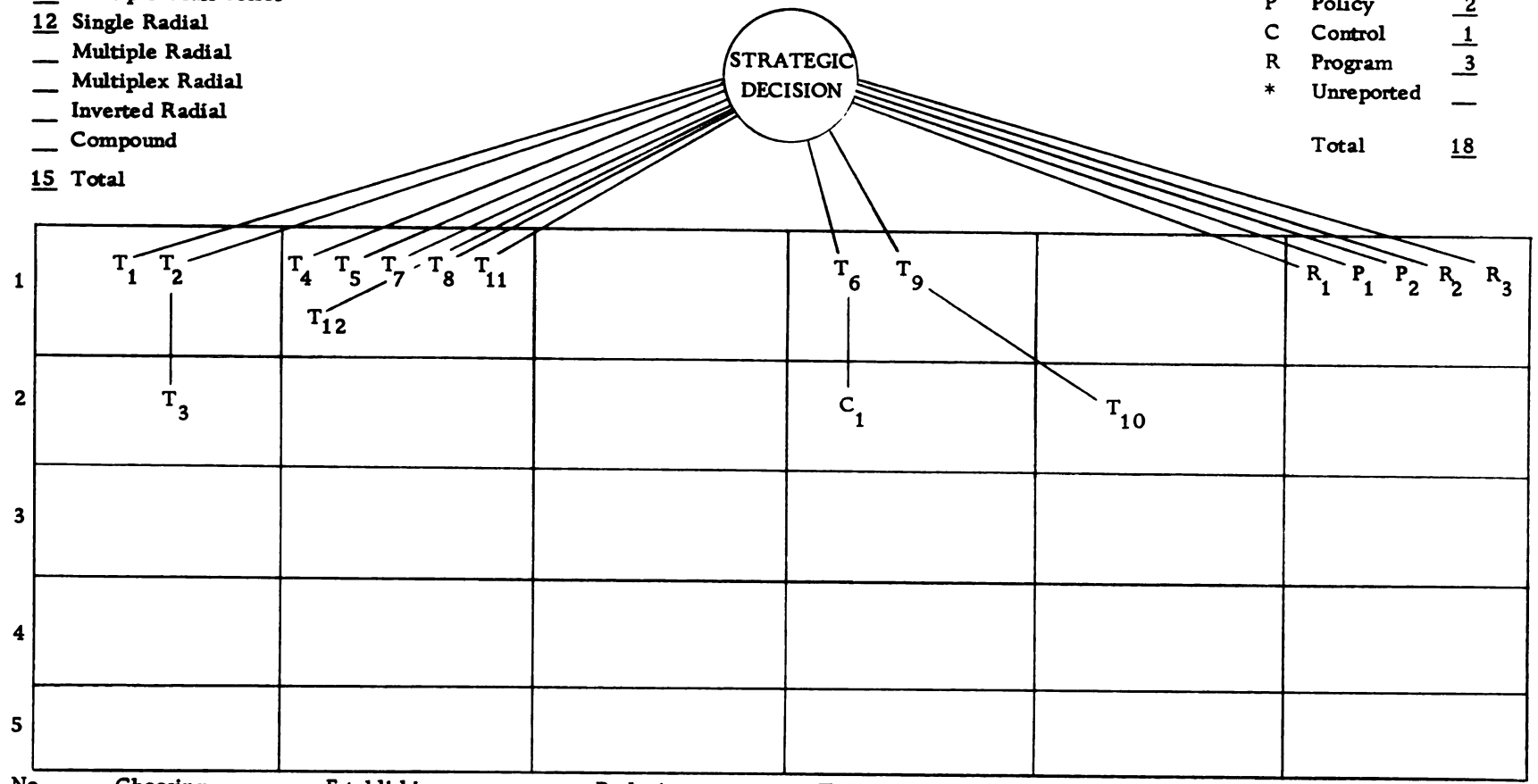
DECISION PROFILE

LINKAGE FORMS

2 Single Class Series
1 Multiple Class Series
12 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
15 Total

DECISION KEY

T	Tactical	12
P	Policy	2
C	Control	1
R	Program	3
*	Unreported	__
	Total	18



Respondent Number 39

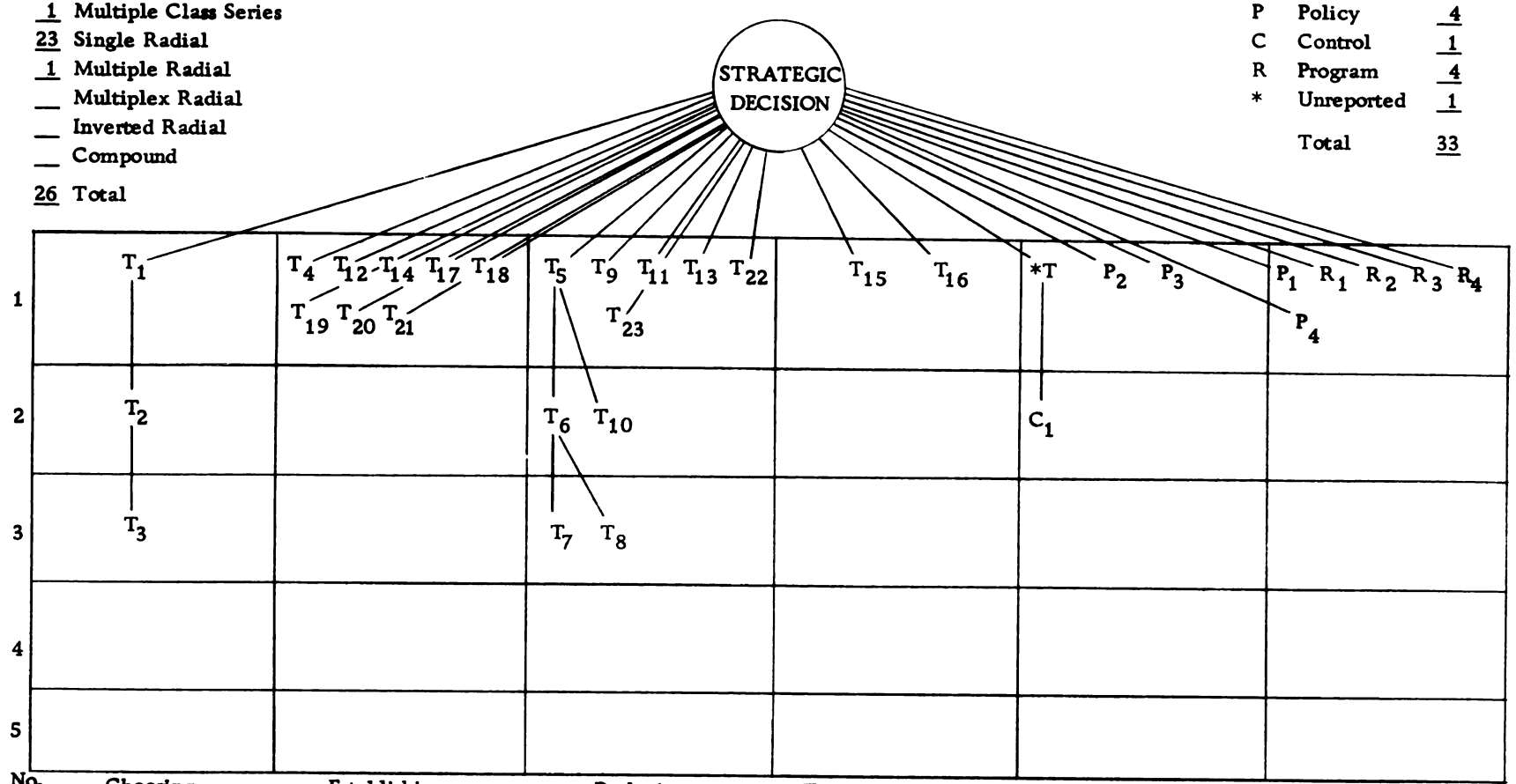
DECISION PROFILE

LINKAGE FORMS

1 Single Class Series
1 Multiple Class Series
23 Single Radial
1 Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
26 Total

DECISION KEY

T	Tactical	23
P	Policy	4
C	Control	1
R	Program	4
*	Unreported	1
	Total	33



Respondent Number 40

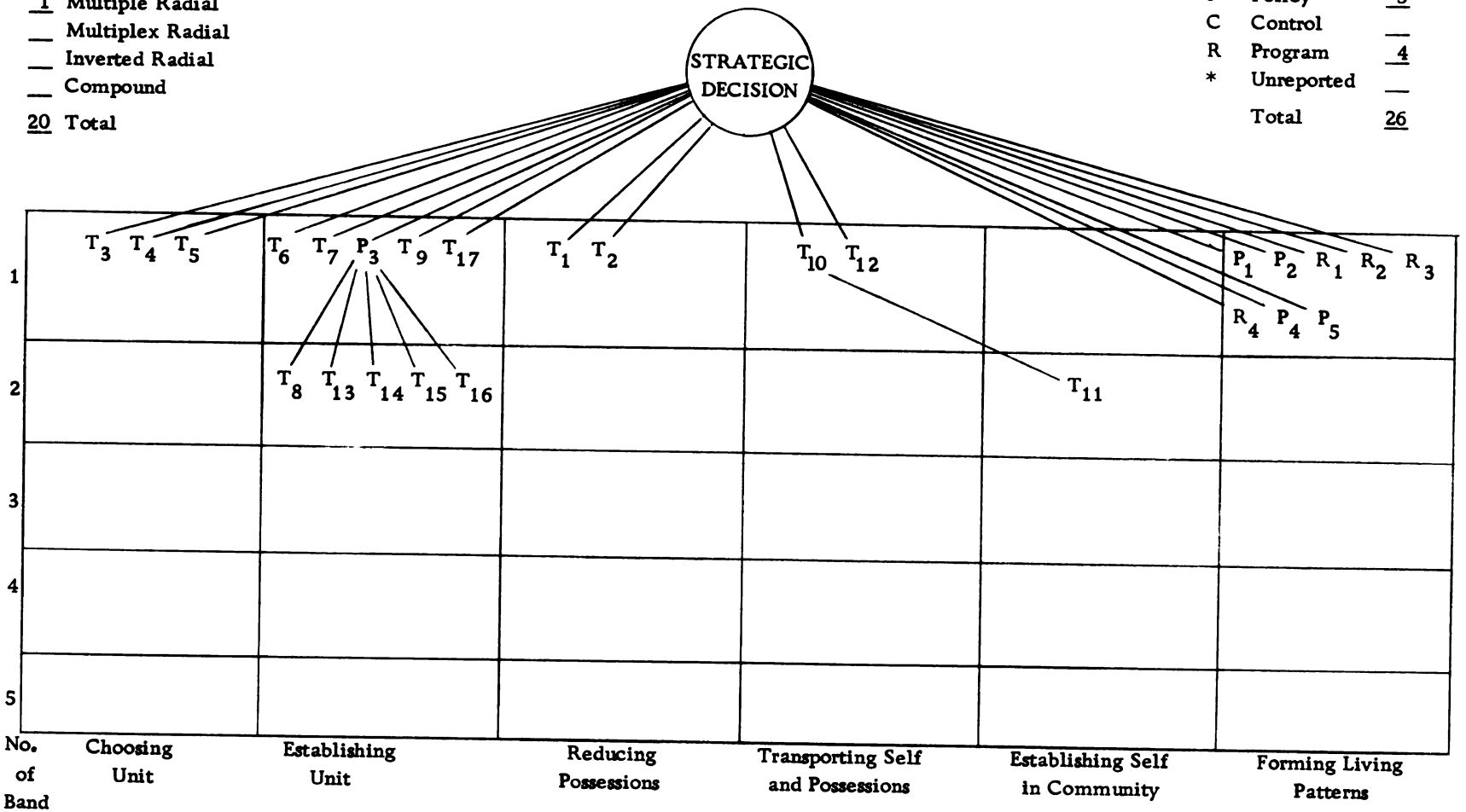
DECISION PROFILE

LINKAGE FORMS

1	Single Class Series
__	Multiple Class Series
18	Single Radial
1	Multiple Radial
__	Multiplex Radial
__	Inverted Radial
__	Compound
20	Total

DECISION KEY

T	Tactical	17
P	Policy	5
C	Control	__
R	Program	4
*	Unreported	__
	Total	26



Respondent Number 41

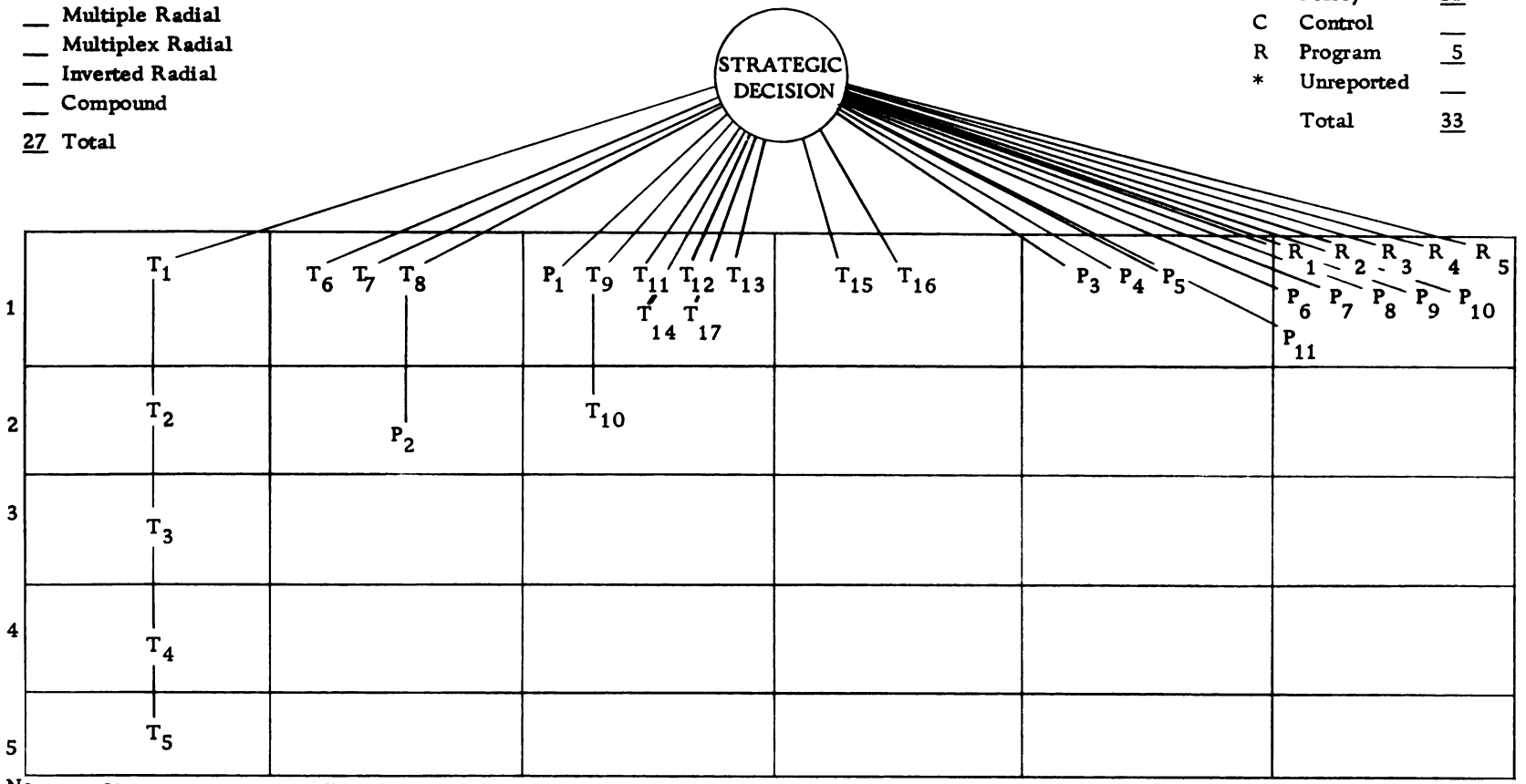
LINKAGE FORMS

2 Single Class Series
1 Multiple Class Series
24 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
27 Total

DECISION PROFILE

DECISION KEY

T	Tactical	17
P	Policy	11
C	Control	__
R	Program	5
*	Unreported	__
	Total	33



Respondent Number 42

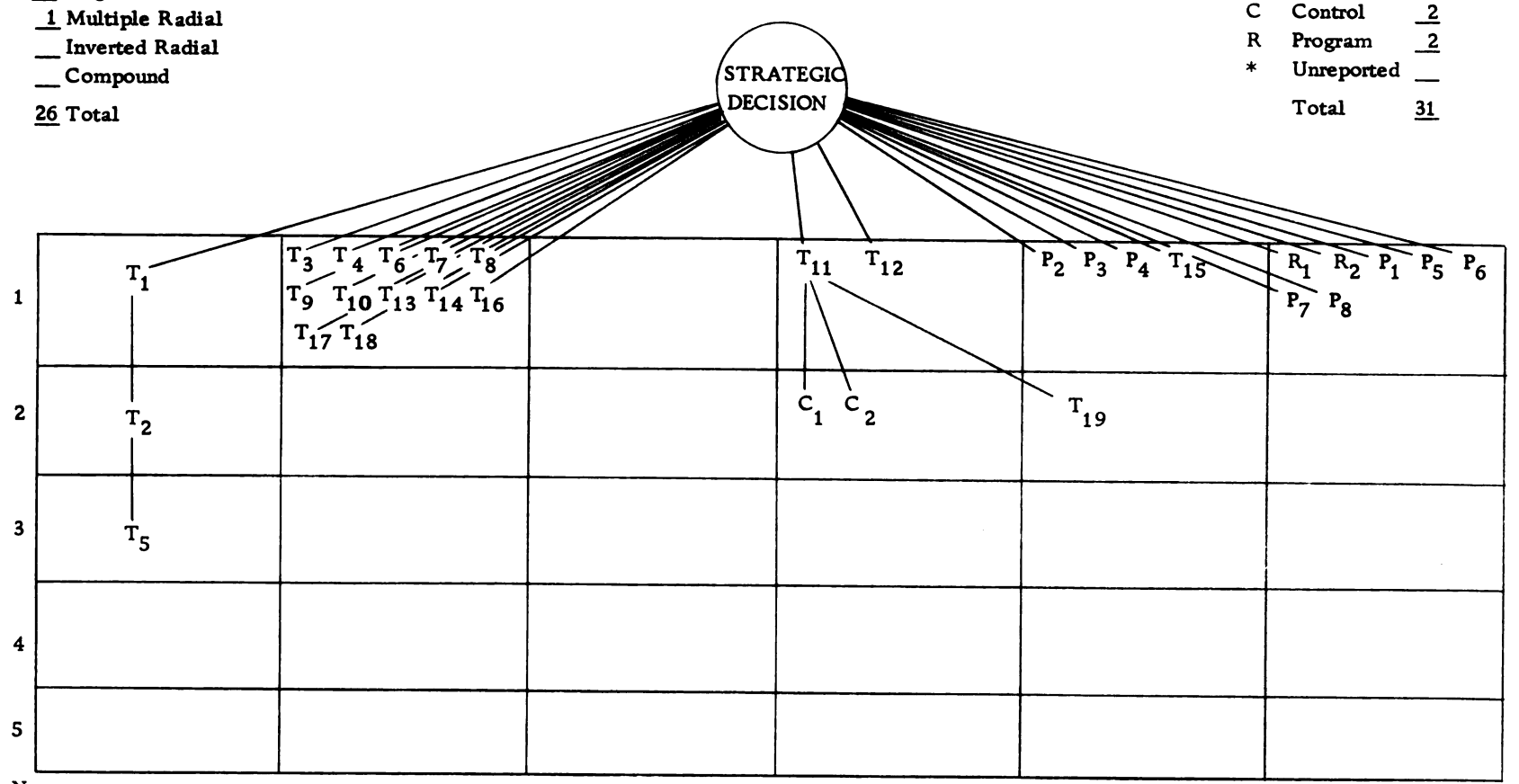
LINKAGE FORMS

1 Single Class Series
__ Multiple Class Series
24 Single Radial
1 Multiple Radial
__ Inverted Radial
__ Compound
26 Total

DECISION PROFILE

DECISION KEY

T	Tactical	19
P	Policy	8
C	Control	2
R	Program	2
*	Unreported	__
	Total	31



Respondent Number 43

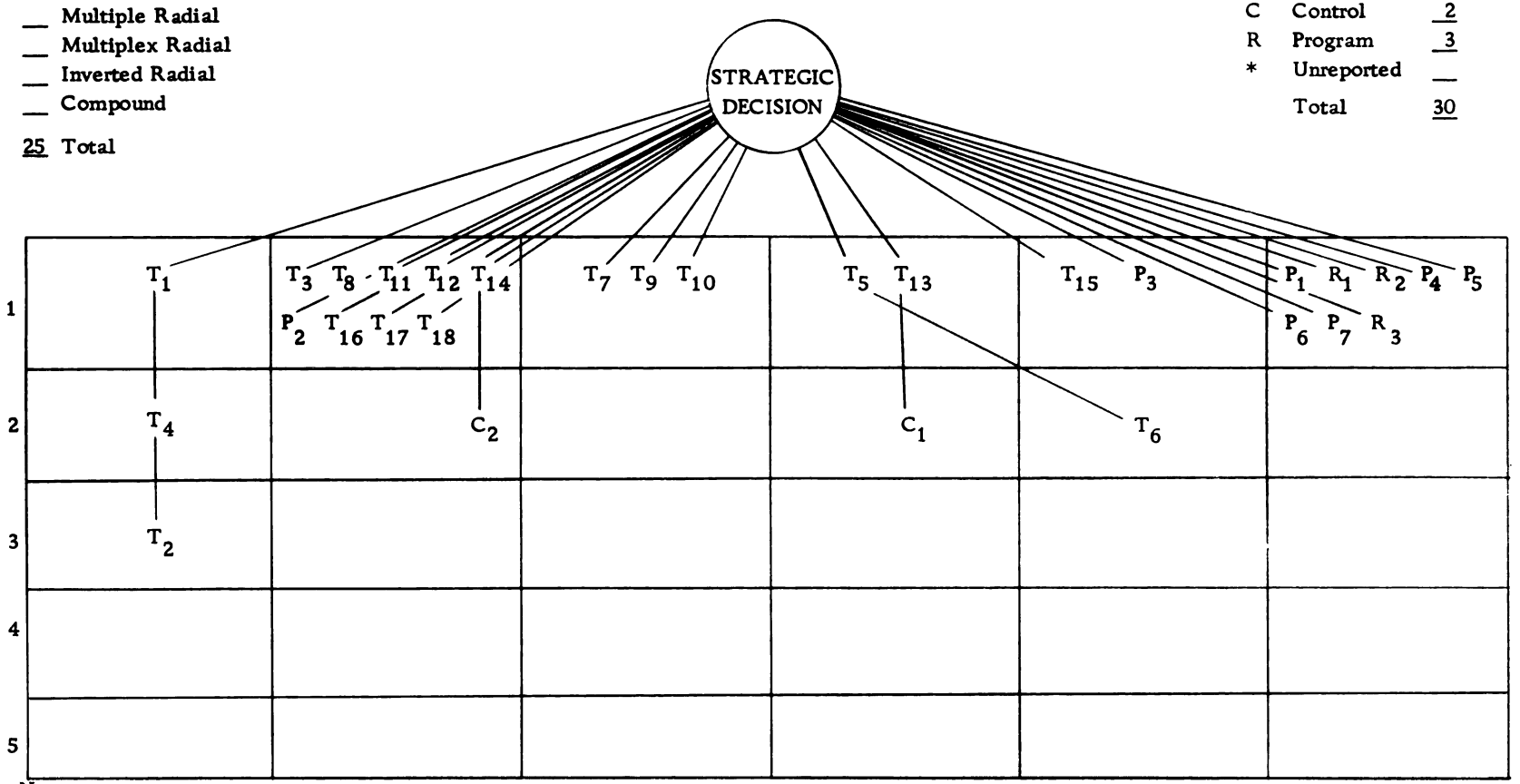
LINKAGE FORMS

2 Single Class Series
2 Multiple Class Series
21 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
25 Total

DECISION PROFILE

DECISION KEY

T	Tactical	18
P	Policy	7
C	Control	2
R	Program	3
*	Unreported	__
	Total	30



Respondent Number 44

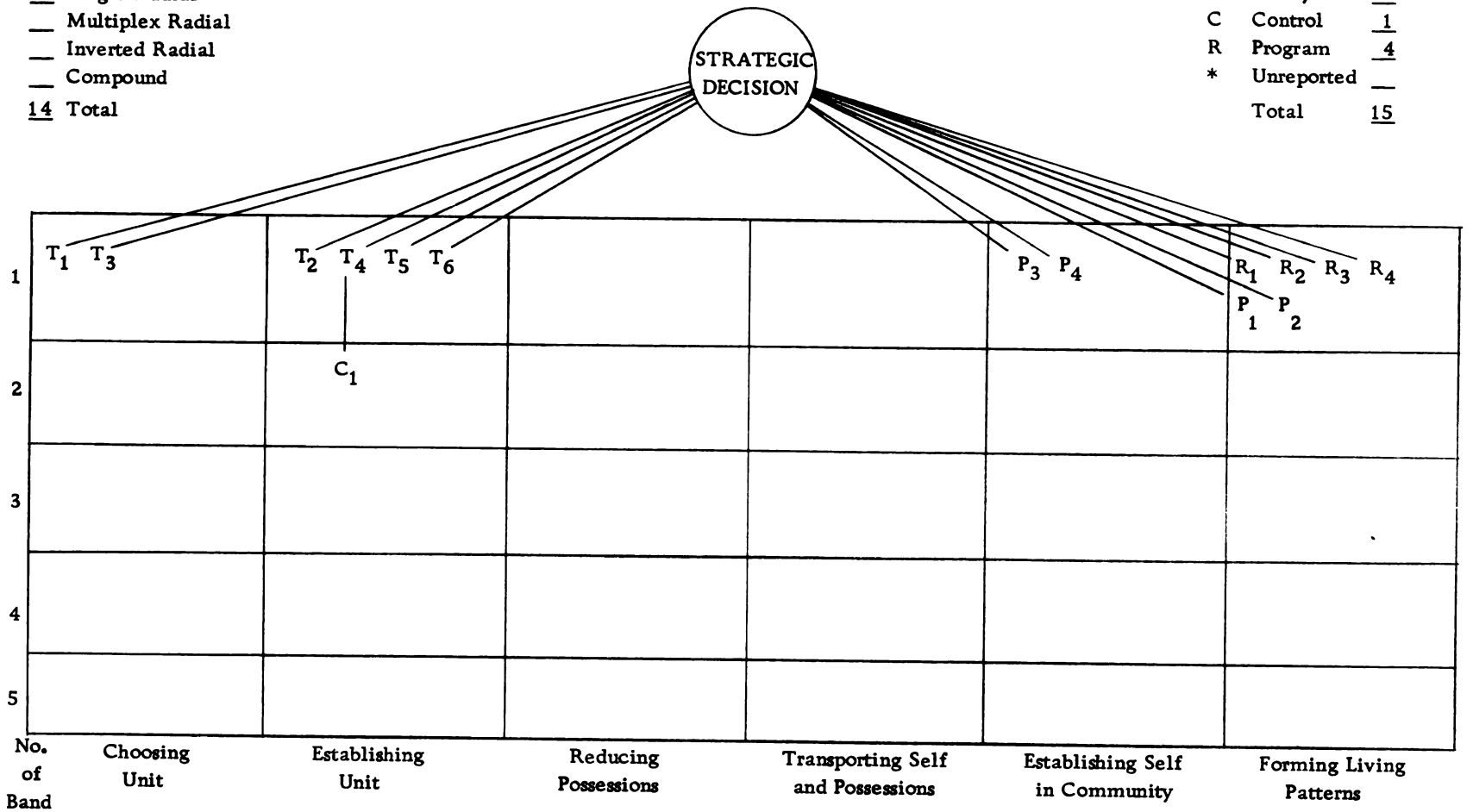
LINKAGE FORMS

1 Single Class Series
__ Multiple Class Series
13 Single Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
14 Total

DECISION PROFILE

DECISION KEY

T	Tactical	6
P	Policy	4
C	Control	1
R	Program	4
*	Unreported	__
	Total	15



Respondent Number 45

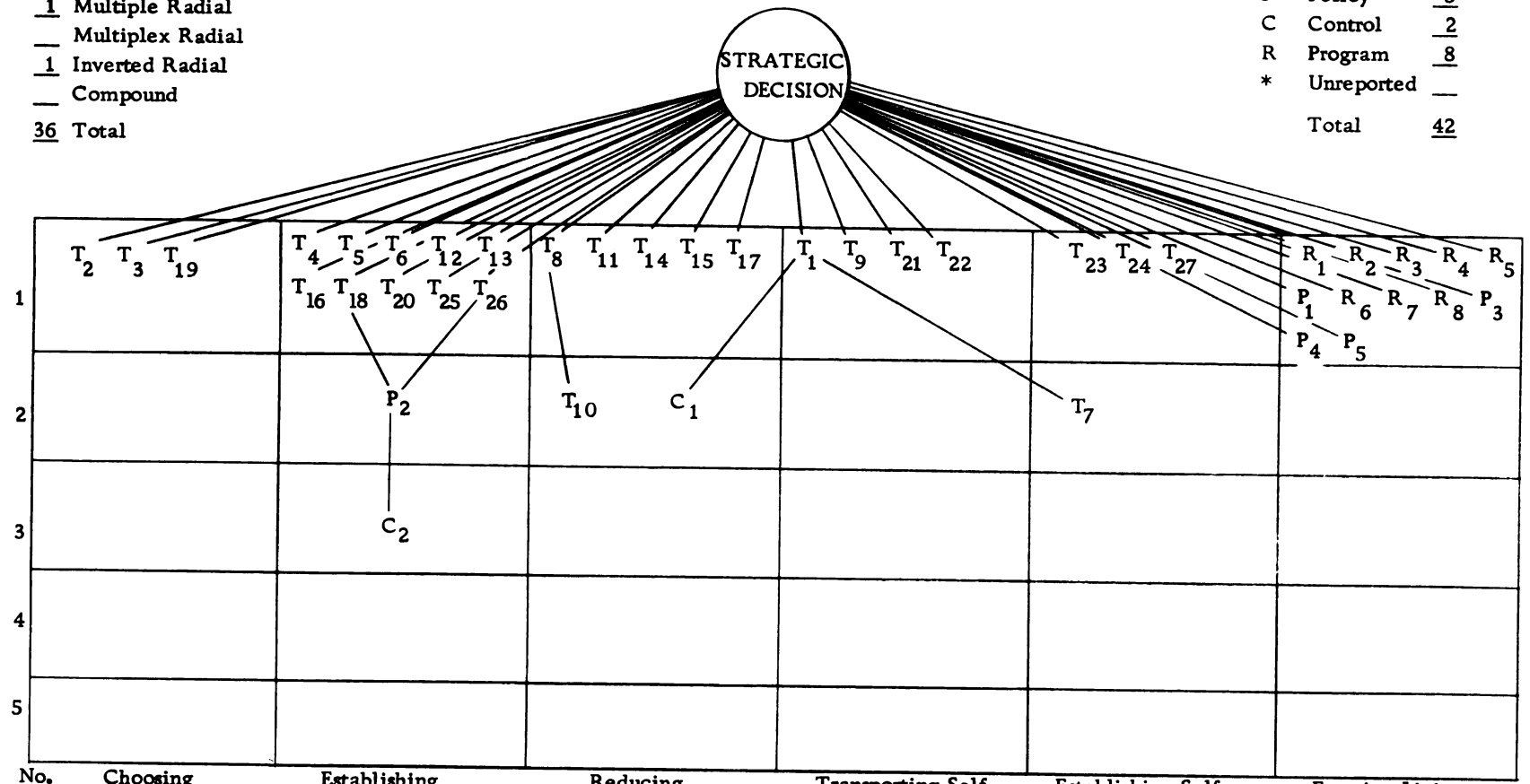
LINKAGE FORMS

1 Single Class Series
__ Multiple Class Series
33 Single Radial
1 Multiple Radial
__ Multiplex Radial
1 Inverted Radial
__ Compound
36 Total

DECISION PROFILE

DECISION KEY

T	Tactical	27
P	Policy	5
C	Control	2
R	Program	8
*	Unreported	__
	Total	42



Respondent Number 46

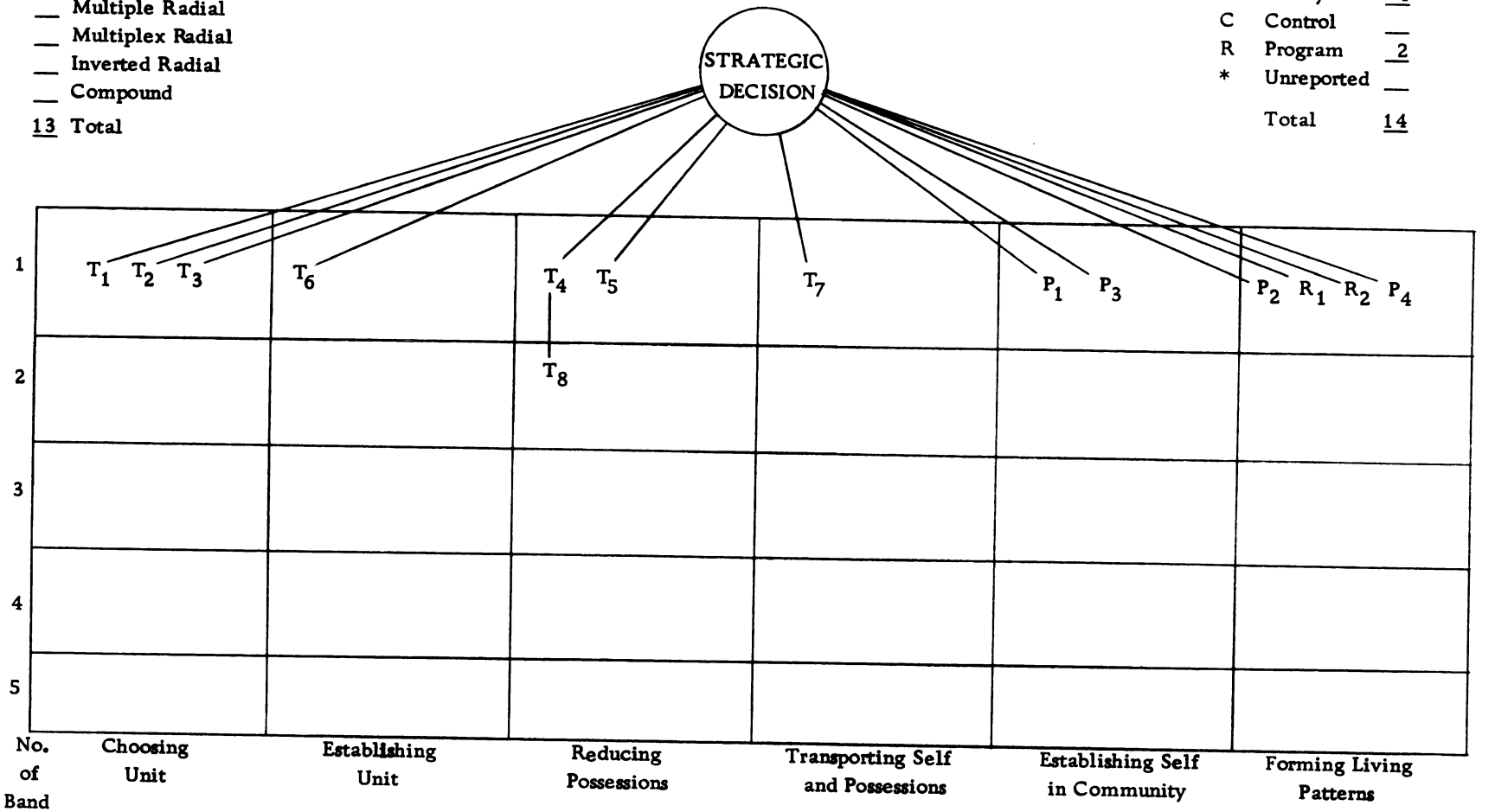
LINKAGE FORMS

1 Single Class Series
__ Multiple Class Series
12 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
13 Total

DECISION PROFILE

DECISION KEY

T	Tactical	8
P	Policy	4
C	Control	__
R	Program	2
*	Unreported	__
	Total	14



Respondent Number 47

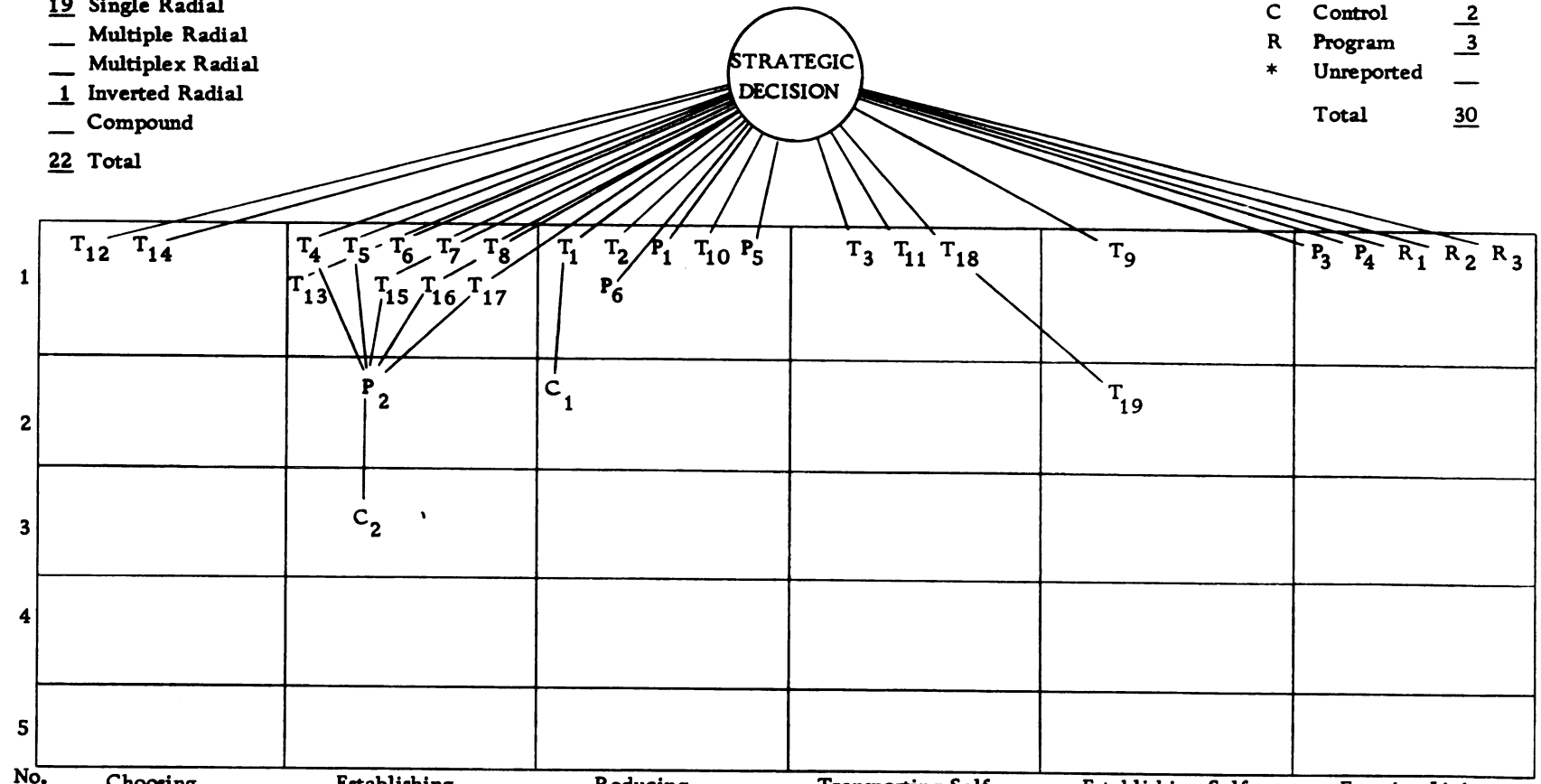
DECISION PROFILE

LINKAGE FORMS

1	Single Class Series
1	Multiple Class Series
19	Single Radial
__	Multiple Radial
__	Multiplex Radial
1	Inverted Radial
__	Compound
22	Total

DECISION KEY

T	Tactical	19
P	Policy	6
C	Control	2
R	Program	3
*	Unreported	__
	Total	30



No. of Band	Choosing Unit	Establishing Unit	Reducing Possessions	Transporting Self and Possessions	Establishing Self in Community	Forming Living Patterns

Respondent Number 48

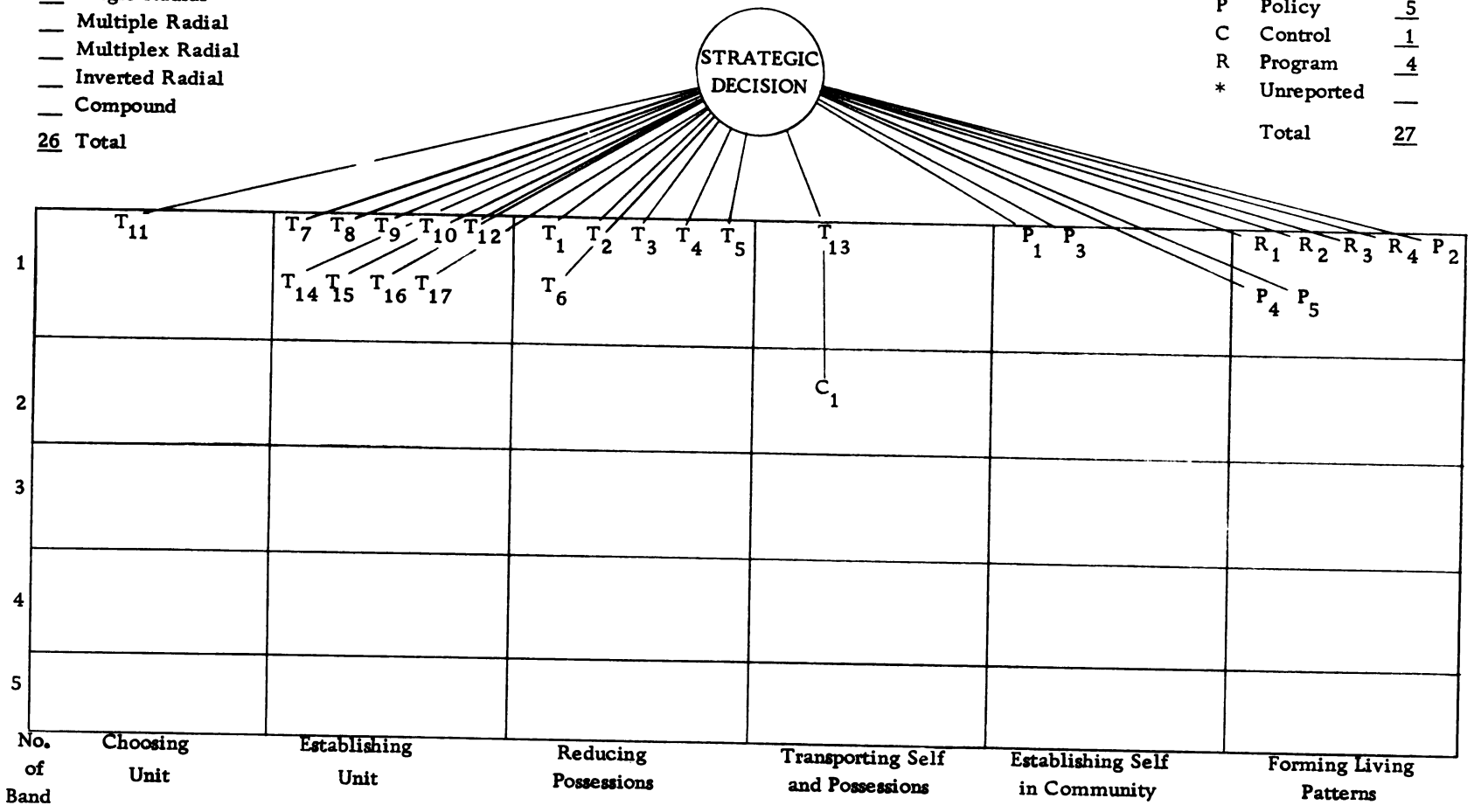
DECISION PROFILE

LINKAGE FORMS

__ Single Class Series
1 Multiple Class Series
25 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
26 Total

DECISION KEY

T	Tactical	17
P	Policy	5
C	Control	1
R	Program	4
*	Unreported	__
	Total	27



Respondent Number 49

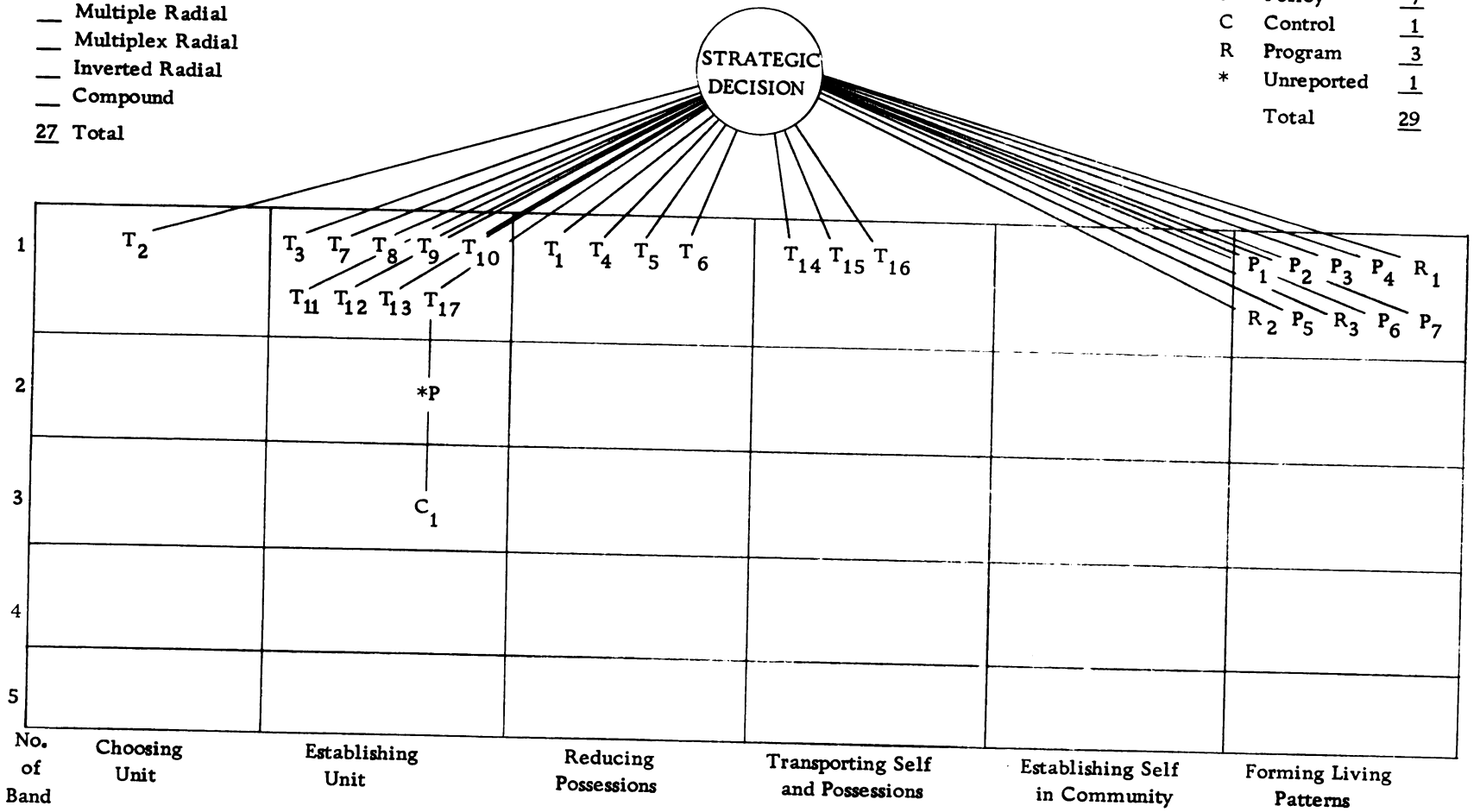
LINKAGE FORMS

__ Single Class Series
1 Multiple Class Series
26 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
__ Compound
27 Total

DECISION PROFILE

DECISION KEY

T	Tactical	17
P	Policy	7
C	Control	1
R	Program	3
*	Unreported	1
	Total	29



Respondent Number 50

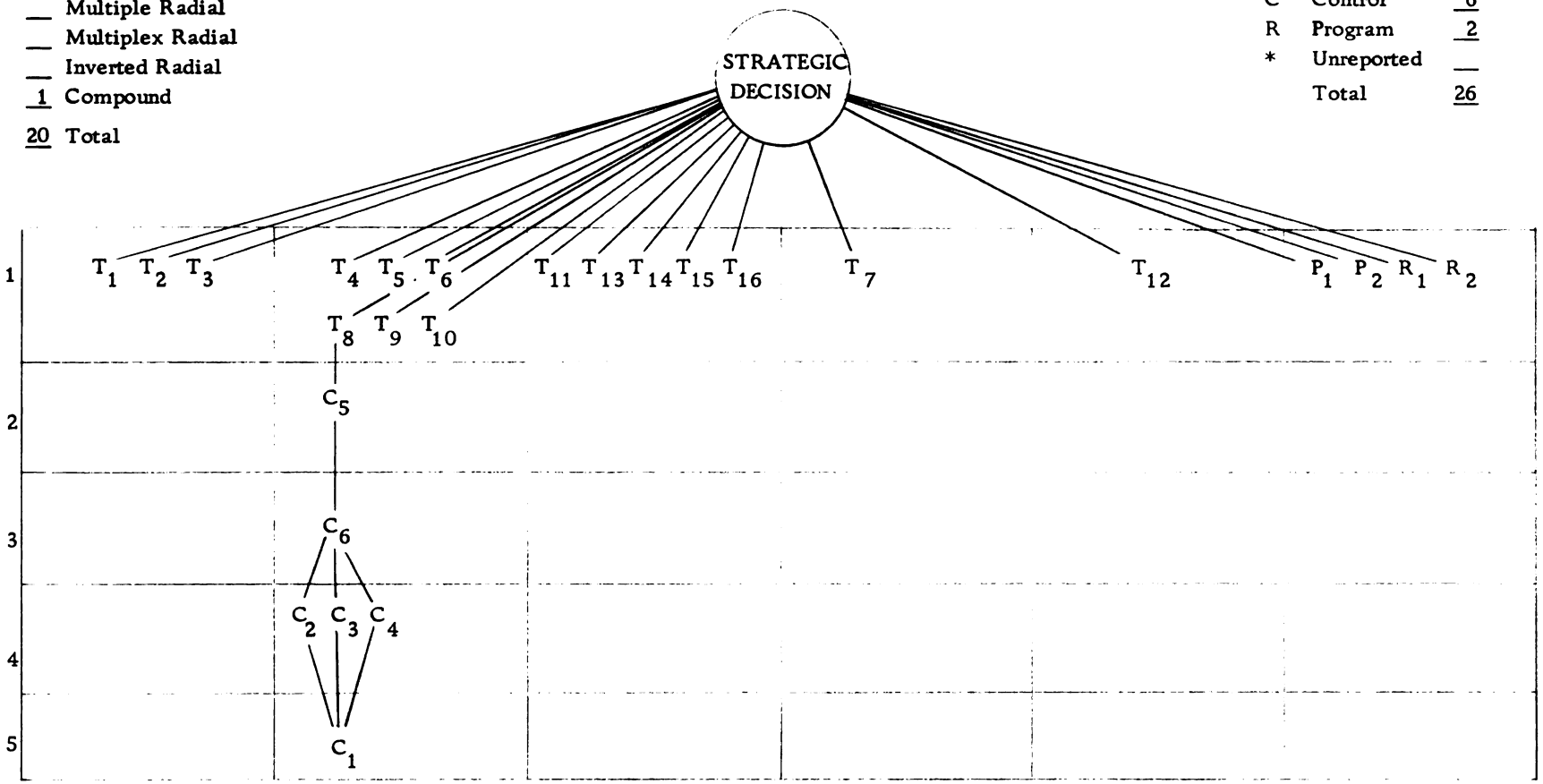
DECISION PROFILE

LINKAGE FORMS

__ Single Class Series
__ Multiple Class Series
19 Single Radial
__ Multiple Radial
__ Multiplex Radial
__ Inverted Radial
1 Compound
20 Total

DECISION KEY

T	Tactical	16
P	Policy	2
C	Control	6
R	Program	2
*	Unreported	__
	Total	26



No. of Band	Choosing Unit	Establishing Unit	Reducing Possessions	Transporting Self and Possessions	Establishing Self in Community	Forming Living Patterns