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PERCEIVED ENVIRONMENTAL CONTROL OVER INTERUNIVERSITY ATHLETICS IN CANADA: A RESOURCE DEPENDENCE PERSPECTIVE

by

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A thesis submitted to the School of Graduate Studies and Research
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ABSTRACT

When there is an exchange relationship between an organization and its environment, there is a potential for dependence and, therefore, control (Emerson, 1962; Jacobs, 1974; Pfeffer & Salancik, 1978; Thompson, 1967). Due to the economic realities within the Canadian higher education system, interuniversity athletics organizations are increasingly being forced to consider sources of funding in their environment in addition to the traditional support from the university general fund and student activity fees. The control implications of non-university funding are of particular concern to athletics administrators.

The purpose of this study was to determine whether those environmental elements which provide financial resources to the organization were perceived by the athletics directors to have control over the interuniversity athletics program. A theoretical framework, which incorporated the Emerson (1962) power-dependence theory of social exchange relations, and the concepts of resource dependence and power, was developed to examine the following hypothesis:

> The interuniversity athletics organization is perceived to be controlled by the elements (individuals, groups, organizations) in its environment in relation to its relative resource dependence on those elements.

Another purpose of the study was to examine Emerson's power-dependence theory in the context of interuniversity athletics.

Athletics directors from 34 (75.5%) of the 45 interuniversity athletics organizations in Canada completed the Survey of Canadian

Interuniversity Athletics Programs and an accompanying interview. The survey elicited information about the organization's resource dependence on various sources in its environment, in terms of relative funding, as well as perceptions of the control of 15 environmental elements over seven basic activities of the organization, and overall. The interview was useful for further investigating the dynamics of perceived control. The organization, itself, was included as one of the elements, in order to complete the organization-set analysis. Univariate ANOVAs with repeated measures on the environmental elements were used to further describe organizational autonomy and perceived environmental control, and t-tests were employed to compare the organization's relative resource dependencies.

The results of Spearman rank correlation analyses revealed varied support for the hypothesis. Only the moderate to considerable perceived control of the university central administration was significantly related to the organization's substantial dependence on it for university general funds ($p<.05$). Although the organization was also notably dependent on student activity fees, the general student body was not perceived to have control that was commensurate with that dependence; nevertheless, that element's resource dependence-based potential for control was verified. Provincial/federal sport organizations and ministries, and corporate sponsors, were found to have significant resource dependence-based perceived control over the organization ($p<.05$). However, both elements were perceived to have relatively little control, and the organization was only minimally dependent on them for resources. The implications for perceived environmental control, of various funding patterns in interuniversity

athletics, are discussed in the study.

Additional correlation analyses examined, but found limited support for, the relationship between perceived control of those elements which do not provide the resources but have some formal control over their administration, and the organization's dependence on those resources. There was also minimal support for the relationship between the perceived control of elements which do not provide the resources but have an indirect effect on the organization's ability to acquire them, and the organization's dependence on those resources. The findings suggest that the direct control or provision of a resource was a stronger basis for perceived control. Finally, there was limited support for the inverse relationship between the resource dependence-based perceived control of an element, and the organization's dependence on alternate sources. The results suggest that this relationship was contingent on the magnitude of the alternate sources.

The study concluded that perceived environmental control was varyingly associated with the organization's resource dependence on its environment. The findings imply that perceived control may be based in other dependencies, which warrant examination. Although there was limited support for the power-dependence theory in the context of interuniversity athletics and financial dependence, it may be more applicable when other relevant dependencies are considered.

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Chapter I

INTRODUCTION

Interuniversity athletics has a long-standing tradition within Canadian higher education. Athletic competition among universities has been a popular phenomenon since the late 1800s, when student-athletes first yearned to test their physical prowess against their counterparts at rival institutions (Mathews, 1974). What started as an informal student-organized program was soon taken over by university faculty and administration, who wanted to ensure that a program of such increasing magnitude was kept within the best interests of the students and institution.

Over the years, interuniversity athletics has continued to grow in breadth and quality. Today, the organizational unit responsible for its administration provides a highly visible university program. Despite issues which tend to challenge its role in higher education, there have been diligent efforts in the past few decades to uphold athletics as a legitimate part of the students' educational experience; a part which must complement and not contradict the academics program (Association of Universities and Colleges of Canada [AUCC], 1966; Mathews, 1974; Rickerd Report, 1985; Taylor, 1986).

A focus on the role of interuniversity athletics has been closely associated with the question of who is, and who should be, controlling the program (AUCC, 1966; Inglis, 1988, 1991; Mathews, 1974; Rickerd Report, 1985; Taylor, 1986). Attention has focused upon the control of individuals, groups and other organizational units within the

university over the interuniversity athletics program and, to a lesser degree, the influence exerted by non-university individuals, groups and organizations. Implications for the direction of interuniversity athletics have been of particular interest in these discussions and investigations.

University control and a commensurate responsibility for the funding of interuniversity athletics has received particular attention, and recommendation (Mathews, 1974; Rickerd, 1985; Taylor, 1986). However, the increasing financial constraints that face interuniversity athletics, and indeed all university programs, have compelled athletics administrators to seek funding beyond the traditional sources of university general funds and/or student activity fees (Council of Ontario Universities, 1987; Inglis, 1988; Keyes, 1986; Macintosh, 1986; Mohr, 1986; Ouellet, 1986; R. Pugh, personal communication, January 1989; Rickerd Report, 1985). The need to procure funds from non-university sources has heightened concern about the dimension of non-university control over interuniversity athletics (Copp, 1986; Grant, 1979; Keyes, 1986; Semotiuk, 1986). A basis of this concern is the perception that these sources may not necessarily embrace the underlying principles of educational priority.

Interuniversity athletics funding and control may be studied from the perspective of an organization-environment power relationship which is based on resource exchange (Cook, 1977; Jacobs, 1974; Pfeffer & Salancik, 1978). Resource dependence theorists contend that where there is an exchange relationship there is potential for dependence and control (Emerson, 1962). While the interuniversity athletics organization is able to generate some revenues, it is considerably dependent on its environment for resources to operate its program.

Financial resources have traditionally come from university sources, but are increasingly being sought from non-university funds as well. The resource dependence perspective thus provides an appropriate theoretical framework for the study of perceived environmental control over interuniversity athletics in Canada.

1.1 Need for the Study

Control in interuniversity athletics has been a recurrent topic of discussion and some study, focusing on who has, and who should have, control over the direction of the program in order to preserve its educational objectives. Funding is another dimension which has received consideration throughout the history of interuniversity athletics in Canada, but which has recently commanded increased attention because of the difficult financial conditions which are forcing athletics administrators to pursue non-university funding. The potential consequences of non-university funding have raised additional concerns about control over interuniversity athletics.

Therefore, there is a need to further understand the nature of environmental control over interuniversity athletics: to determine the relative magnitude of control of the various elements (individuals, groups, organizations) in the environment of interuniversity athletics, and to examine whether that control is based in the provision of financial resources. The basis and relative magnitude of environmental control must be understood before researchers and administrators can begin to study, propose and implement strategies to manage that control.

1.2 Statement of Purpose and Contributions of the Study

The purpose of this study is to examine perceived environmental

control over Canadian interuniversity athletics, from a resource dependence perspective. That is, to determine whether those environmental elements which provide financial resources for the operation of the interuniversity athletics program are perceived by the athletics directors to have control over the direction of that program.

Another purpose of this study is to examine the Emerson (1962) power-dependence theory of social exchange relations, within the confines of a theoretical framework which incorporates the concepts of resource dependence and control. Several authors have utilized this theoretical perspective to study the resource dependence-power relationship between a focal organization and its primary supplier (Pfeffer, 1972; Pfeffer & Leong, 1977; Provan, 1982; Salancik, 1979; Skinner & Guiltinan, 1986). However, the examination of an organization in its relatively complex environment necessitates a more comprehensive description of the resource dependence-power relationships with all its suppliers. The current study examines this relationship within the context of Canadian interuniversity athletics.

1.3 Statement of Hypothesis and Research Questions

The hypothesis to be tested in this study emerges from the literature on resource dependence and environmental control. The hypothesis states that:

> The interuniversity athletics organization is perceived to be controlled by the elements (individuals, groups, organizations) in its environment in relation to its resource dependence on those elements.

The following research questions will guide the collection of information and its analysis:

1. What is the perceived environmental control over interuniversity athletics in Canada? Does it vary according to the:
   a) conference membership of the institution?;
   b) size of the university, in terms of full-time student enrolment?;
   c) size of the interuniversity athletics program, in terms of number of sports?;
   d) administrative structure of the interuniversity athletics organization (that is, whether it is affiliated with, or independent of, an academic unit)?
2. What are the resource dependencies in interuniversity athletics in Canada, in terms of relative funding? Do they vary according to factors a) to d) listed above?
3. Is there a relationship between the interuniversity athletics organization's resource dependence on an element in its environment, and the perceived control which that element has over the organization?

1.4 Operational Definitions

Interuniversity Athletics. In this study, interuniversity athletics refers to both the program of sports and the organizational unit responsible for its provision. It refers to the organization and administration of an athletics program for student-athletes to train and compete at the highest level possible within the Canadian university system. Interuniversity athletics is distinct from other university sports programs such as recreation and intramurals.

Perceived Control. Control is defined as the enactment of power

such that one organization has a perceived impact on the decision making of another organization. It is distinct from power, which is potential, and is considered to be synonymous with influence. Perceived control may be the outcome of explicit or implicit power attempts.

Resources. The focus of this study is on the financial resources which the organization acquired for the fiscal year 1989-90. Service-in-kind resources are estimated as a dollar figure. Physical resources, such as facilities and utilities, are considered separately from the financial statement of resources.

Organizational Environment. The focus of this study is the organization's task environment (Dill, 1958), as opposed to its general environment. The general environment of an organization includes broad factors, trends and conditions having the potential to affect all organizations; for example, culture, education, technology and economy (Kast & Rosenzweig, 1985). An organization's task environment is unique to each organization and comprises those elements which are "potentially relevant to goal setting and goal attainment" (Dill, 1958, p. 410); they represent "stimuli that the organization might respond to" (p. 411).

Elements. Elements constitute the individuals, groups or organizations in a focal organization's environment. They are analogous to nature's elements in that they may have a constructive and/or destructive effect on other elements with which they are in contact. In this study, elements include those individuals, groups or organizations with which the interuniversity athletics organization may interact. Elements which provide resources are also referred to as sources of funding.

Chapter II

DEVELOPMENT OF A THEORETICAL FRAMEWORK

This chapter presents a review of the literature, leading to the development of a theoretical framework for this study. The first section (2.1) examines the concepts of power and dependence from a theoretical perspective, and the second section (2.2) focuses on the definition and measurement of power, control and influence. Both precede the presentation of the theoretical framework (2.3). A brief presentation of the literature on managing environmental control (2.4) is followed by a short review of several related power-dependence studies (2.5).

The basis for the study of environmental control over an organization lies in the open systems approach to organizational research (Emery & Trist, 1965; Pfeffer, 1972; Pfeffer & Salancik, 1978). As open systems, organizations are involved in exchange relations with their environments for survival.

> Organizations are not able to internally generate either all the resources or functions required to maintain themselves, and therefore organizations must enter into transactions and relations with elements in the environment that can supply the required resources and services. (Aldrich & Pfeffer, 1976, p. 83).

In order to examine the organizational implications of exchange with the environment, Thompson (1967), and then Jacobs (1974), extended Emerson's (1962) power-dependence theory of social relations to the examination of organization-environment relations; also referred to as

interorganizational exchange relations (Aldrich & Pfeffer, 1976; Goodman & Pennings, 1977; Kast & Rosenzweig, 1985). This theory states, in simple terms, that one organization will have power over another organization to the degree that the latter organization is dependent on the former for necessary resources.

2.1 Power-Dependence

The Emerson (1962) power-dependence theory was originally developed to explain interpersonal power relations, however he suggested that it has more extensive applications. The first part of Emerson's model proposes that the dependence of one "actor" A on another B is, "(1) directly proportional to A's **motivational investment** in goals mediated by B, and (2) inversely proportional to the **availability** of those goals to A outside of the A-B relation" (p.32). Thompson (1967) provided one of the earliest extensions of Emerson:

> An organization is dependent on some element of its task environment (1) in proportion to the organization's need for resources . . . which that element can provide and (2) in inverse proportion to the ability of other elements to provide the same resource . . . . (p. 30)

Jacobs (1974) redefined Emerson's concept of dependence, such that the degree of dependence of one organization on another is a function of (a) the criticality or essentiality of the resource(s) which the other can provide, (b) the substitutability of the resource(s), and (c) the availability of the resource(s) from alternative sources.

Pfeffer and Salancik (1978) developed their own definition of dependence as a function of three critical factors. There are, however, obvious parallels with Jacobs' (1974) work. The first factor is the

importance of the resource exchange, which has two dimensions: (a) the criticality of the resource, which is a measure of the ability of the organization to continue functioning without it (this is analogous to Jacobs' concepts of essentiality and substitutability); and (b) the relative magnitude of the resource exchange, or the proportion of the organization's total inputs or outputs accounted for by this exchange. Consideration of relative magnitude goes beyond simply addressing whether the resource is critical and whether it is available elsewhere, as measures of resource dependence. Pfeffer and Salancik's second factor is the other organization's degree of discretion over the allocation and use of a resource which it provides to the focal organization, such that the focal organization is dependent on the other organization for access to, and use of funds. The third factor related to the dependence of one organization on another is the concentration of resource control in the focal organization's environment; that is, the extent to which the organization has exchange relations with many, or only a few, elements in the environment. This factor parallels Jacobs' concept of the availability of alternative sources.

The conceptualizations of Emerson (1962), Thompson (1967), Jacobs (1974), and Pfeffer and Salancik (1978) may be synthesized in brief. Resource dependence is directly proportional to (a) the extent to which the resource is important to the organization's functioning, (b) the relative magnitude of the resource exchange, and (c) the extent to which it is not available from alternative sources.

The second part of Emerson's (1962) model argues, following from the first postulate, that A's dependence on B implies B's potential power over A, while they are in this relationship. Emerson discussed two underlying assumptions in this theory: first, that power is a

function of a social relation, and is not an attribute of one actor or another; and second, that social relations entail "ties of mutual dependence" (p. 32). In other words, there is reciprocal dependence, or interdependence in any relationship (Pfeffer & Salancik, 1978; Thompson, 1967). Interdependence implies that, rather than zero-sum power, wherein the power of one actor is at the expense of the power of another, net power will accrue to the organization which is less dependent (Emerson, 1962; Thompson, 1967). Based on Emerson then, where there is symmetric or reciprocal dependence, there will be a reciprocal power relationship; an imbalance, or asymmetry in the dependence relationship will result in an unbalanced, or unequal power relation.

Pfeffer and Salancik (1978) summarized the resource dependence-power relationship as one in which "the potential for one organization's influencing another derives from its discretionary control over resources needed by that other and the other's dependence on the resource and lack of countervailing resources or access to alternative sources" (p. 53). The preceding conceptualizations of dependence and power imply that if certain conditions are <u>not</u> met, to some degree, then there will be a symmetric power-dependence relationship. Loss of autonomy is an unfavourable condition for an organization, and the literature addresses strategies by which an asymmetric power-dependence relationship may be modified. These strategies are briefly examined later in the chapter.

2.2 <u>Power, Control and Influence</u>

The study of power has received much attention at the interpersonal level, with power based on personal and situational attributes (Bacharach & Lawler, 1980; Blau, 1964; Etzioni, 1961; French

& Raven, 1959; Mechanic, 1962; Mintzberg, 1983; Tedeschi, 1974; Wrong, 1968). Power has also been a concept of interest at the intraorganizational level, studied particularly through the strategic contingency approach (Hickson, Hinings, Lee, Schneck & Pennings, 1971; Hinings, Hickson, Pennings & Schneck, 1974; Salancik & Pfeffer, 1974, 1983). This approach examines the accrual of power to those departments/units which can resolve critical organizational uncertainties, or problematic dependencies (Jacobs, 1974). Acquisition of resources can be a source of organizational uncertainty, and several studies have examined the power which accrues to organizational units or members who are able to, directly or indirectly, help reduce that uncertainty for the organization (Pfeffer & Leong, 1977; Provan, Beyer & Kruytbosch, 1980; Salancik & Pfeffer, 1974).

The study of organization-environment, or interorganizational power relationships has received increasing attention in the literature in the past twenty years, and resource exchange has been a common basis of power examined. The interorganizational power research draws on, and in turn complements work from the interpersonal and intraorganizational levels.

2.2.1 Definitions

Emerson (1962) defined power as a potential which is "empirically manifest only if A makes some demand, and only if this demand runs counter to B's desires" (p. 33). This definition concurs with the Weberian (1947) conceptualization that a power relation denotes the overcoming of resistance. Bierstedt (1950) also assumed that power has its incidence only in social opposition, or resistance. Emerson added that "any operational definition must make reference to **change** in the

conduct of B attributable to demands made by A" (p. 33).

Muth (1984) argued against the coercive implications of these classic definitions of power because they limit the range of relations which may be considered, since not all are based in force (also Provan, 1978). He defined power "simply as the ability of an actor to affect the behaviour of another actor" (p. 27). Ability is "the resource capacity necessary to exercise power" (p. 27), an actor may be any individual, group or organization, and affect implies that there will be an intended maintenance of, or change in, prior conditions.

If power is potential (Emerson, 1962) then, according to Muth (1984), control is a "completed act of power" (p. 28). Empirically, control "designates the result of an act of power - it is the manifest acquiescence of one actor to the power of another" (Muth, 1984, p. 28). Muth's definition accounts for behaviour change that may not necessarily meet with resistance. Katz and Kahn (1966) referred to the demonstrated use of power as influence. Provan (1978) similarly used the term influence to define power which has been enacted. Labelle (1980) found that the terms control and influence reflect the same meaning in the educational administration literature.

Muth developed a power-control matrix to facilitate the distinction between latent, or potential power and manifested power (see Figure 1). Power may be manifested when Actor acts; if Other (the dependent party) responds as Actor wishes, then control has been observed (cell 1). Power remains latent when Actor does not act; if, however, Other responds as Actor would wish, then Actor's power and control can be inferred by Other's response (cell 3). If Actor's power remains latent and Other does not respond as Actor would wish, then control cannot be observed or inferred (cell 4).

	Other Responds As Actor Intends	Other Does Not Respond as Actor Intends
Actor Acts	Control Observed: Actor's power-type* inferred from Actor's and Other's behaviours. 1 3	No Control Observed: Actor's and Other's behaviours suggest that Actor is not sufficiently powerful relative to Other in this instance. 2 4
Actor Does Not Act	Control Inferred: Both Actor's power and control relative to Other inferred from Other's behaviour.	No Control Observed or Inferred: No inferences about Actor's power relative to Other possible.

* Muth (1984) identified three power sub-types, or behaviours, on a continuum of coercion, to authority, to influence.

Figure 1. A Power-Control Matrix (Muth, 1984, p. 29).

Provan (1980) might refer to the situation presented in cell 3 as implicit control, such that the power relationship has a subtle, indirect or diffuse effect on the behaviour of the affected organization (also Wrong, 1968). Implicit control may be said to have occurred when, "behaviour is influenced by the assumption by the weaker party that rewards and sanctions can and will be controlled by the stronger party (Provan, 1980, p. 550). In other words, the mere existence of power may be sufficient to affect another's behaviour (Muth, 1984). Furthermore, "for A's power over B to be real when it is not actually exercised, B must be convinced of A's capacity to control him and must modify his behaviour accordingly" (Wrong, 1968, p. 677).

In contrast, Mindlin and Aldrich (1975) posited that only explicit control attempts may have an affect on an organization; "only when B imposes actual demands upon A will A adapt its structure to meet them" (p. 384). Salancik (1979) also contended that demands must be explicit for power to be manifested: "when demands are not explicitly communicated or enforcement is not anticipated, then one should expect little compliance regardless of the dependencies on an influencing organization" (p. 378). Thus, explicit control involves direct, intentional efforts (Wrong, 1968), or the "actual use of power" (Provan, 1980, p. 532).

Nevertheless, both implicit and explicit control are defined by an empirical effect on the behaviour of an organization. For behaviour to be affected in an "intended" direction (Muth, 1984), the organization must at least be aware of the interests, goals or needs of the power holder. However, this awareness need not necessarily be a function of explicit power attempts. It is a function of the organization's perception or knowledge of the environment's power and demands (Pfeffer

& Salancik, 1978).

To summarize then, power is an attribute of an asymmetric exchange relation. It refers to the resource capacity necessary to influence or control, such that another's behaviour is affected in an intended direction. Control and influence are synonymous terms for the manifestation or enactment of power, and may be the outcome of explicit or implicit attempts.

2.2.2 Measuring Power

Provan (1980) noted that power is a multi-dimensional concept, and criticized previous studies for failing to differentiate between the measurement of potential and enacted power. He distinguished these concepts: If any attempt to measure power "does not consider whether or not that power is currently being exercised to affect outcomes," then it is a measure of potential power (Provan, 1980, p. 551). Further, potential power is a static measure, because no interaction need take place in order to measure the capacity to exert influence (Provan, 1980). Based on a review of the literature, Provan developed a matrix of organizational power measures (see Figure 2).

In his review, Provan (1980) found that subjective measures of both potential and enacted power (cells 1 and 2) have been obtained from (a) general perceptions of power (e.g., Pfeffer, 1972; Rus, 1978; Salancik & Pfeffer, 1974), and (b) the perceptions of power over specific key issues (e.g., Pfeffer, 1972), which were then summed (e.g., Provan, 1982; Provan et al., 1980; Provan & Skinner, 1989; Skinner & Guiltinan, 1986). According to Provan (1980), there tends to be a weak distinction between potential and enacted when measuring the perception of power. The rationale is that respondents tend to base their

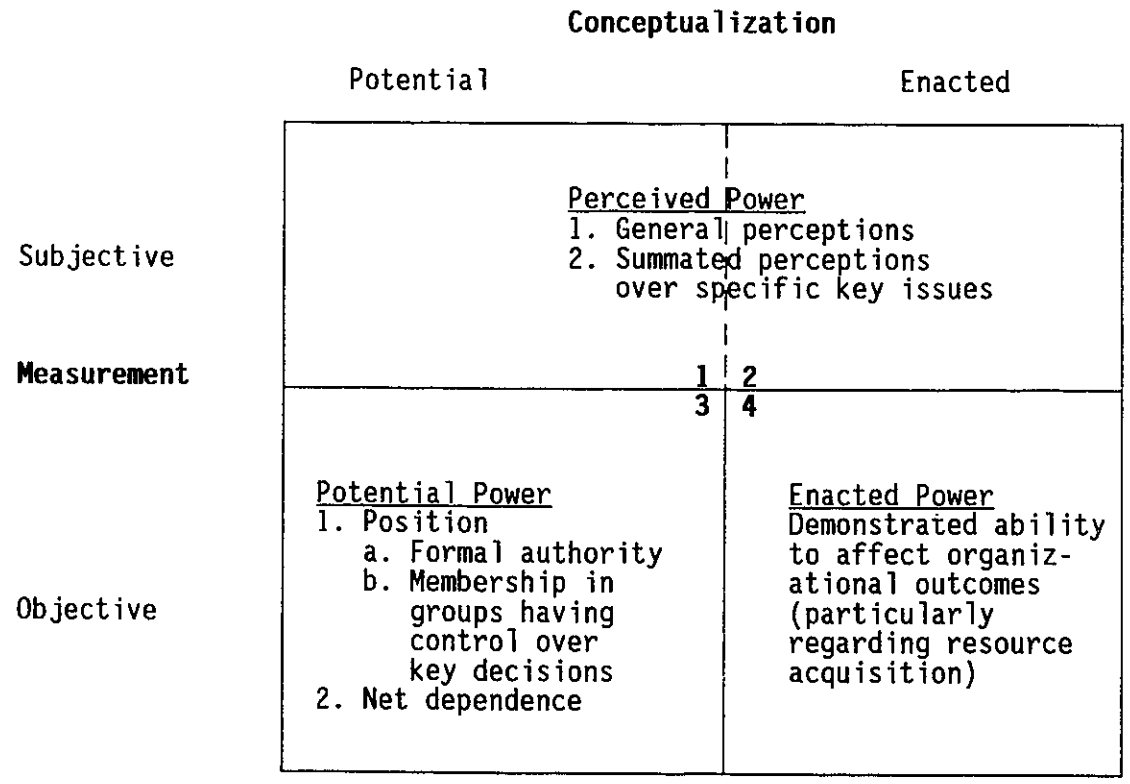

Figure 2. Classification of Organizational Power Measures (Provan, 1980, p. 554).

judgements on both observed control and inferred power.

He further criticized the subjective measure of power because "perceptions of power tend to be weighted in favour of . . . known events" (p. 554). This would be a weakness in measuring the perception of potential power, however it would seem appropriate to focus the study of enacted power, or control, on that which has been observed (Rus, 1978). Thompson and Luthans (1983) also expressed wariness of the subjective measurement of power: "because of power's negative connotation, an individual often will not report accurately on actions that are taken that might be classified as related to power" (p. 72).

According to Provan's (1980) classification, there have been two approaches to the objective measure of potential power (cell 3). The first is typical to the study of intraorganizational power. Power can be measured according to an individual's or group's position in an organization (position power), which would dictate their formal authority, and/or membership in a group(s) with the potential to exert influence (Hinings et al., 1974; Salancik & Pfeffer, 1974). Pfeffer (1981) refers to this as the use of representational indicators to measure power.

The second approach to the objective measure of potential power is in terms of net dependence (e.g., Aiken & Hage, 1968; Pfeffer, 1972; Pfeffer & Leong, 1977; Provan, 1982; Provan et al., 1980; Salancik, 1979; Tolbert, 1985), which is based on the conceptualization of Emerson (1962) that A has power over B to the extent that B is dependent on A. Pfeffer (1981) referred to this approach as the assessment of power by its determinants, and acknowledged that dependence on financial resources is more readily observable than other bases. Assessing potential power in terms of net dependence requires an understanding of

the exchange relationship in order to determine the difference in the mutual dependence inherent in such a relationship (Provan, 1980). Researchers using this approach have tended to overlook the full extent of the dependence relationship, admittedly because of the difficulty in measuring the variety, and sometimes qualitative nature (Aldrich, 1976), of factors which may determine mutual dependence (Provan, 1980). Studies have varied in the actual measures they have used to determine dependence; for example, some considered the relative magnitude of the exchange relation, and some considered the availability of other sources as an inverse measure of organizational dependence. Interestingly, two of the more recent studies measured resource dependence subjectively (Provan & Skinner, 1989; Skinner & Guiltinan, 1986).

Enacted power (influence or control) has been measured in objective terms (cell 4) as the "demonstrated ability to affect organizational outcomes" (Provan, 1980, p. 554). Pfeffer (1981) referred to this approach as the assessment of power by its consequences. However, there has been a tendency to limit the objective measure of control over organizational outcomes to the study of an issue which can be quantified, such as: (a) acquisition of resources (Pfeffer & Leong, 1977; Provan et al., 1980; Salancik & Pfeffer, 1974), (b) effect on organizational structure (Aiken & Hage, 1968; Pugh et al., 1969; Tolbert, 1985), and (c) organizational response to a particular demand (Salancik, 1979).

It appears that the use of subjective and objective measures of potential and enacted power have varied throughout the literature. There are inherent strengths and weaknesses in their respective methodologies, however according to Provan (1980), the objective measurement of both potential and enacted power is preferable, and

perceptual measures are acceptable if they are backed up by objective measures.

2.3 Presentation of the Theoretical Framework

An empirical application of the concepts of resource dependence, power-dependence and control, for the study of perceived environmental control over interuniversity athletics in Canada, is facilitated by the framework presented in Figure 3. According to cell 1, when there is a perception that an environmental element has control over the organization in relation to the organization's dependence on that element for resources then, according to this framework, one may infer resource dependence-based control. This cell represents the main hypothesis of this study.

Cell 2 suggests that if the organization is dependent on an environmental element for resources, but is not perceived to be controlled by that element, then one may infer that resource dependence-based power has not been enacted and it remains as potential. There may be several explanations for this situation. The environmental element may be attempting to control the organization, but the attempts are perceived to be weak and/or infrequent. These attempts may be ineffectual because the organization is not made aware of the element's wants or needs, or infrequent control attempts may not be taken seriously. Alternatively, when there is resource dependence but no perceived control there may be symmetric dependence between the organization and the environmental element. This symmetric dependence may be based on other than financial resources.

Both cells 1 and 2 represent the Emerson (1962) power-dependence theory, such that power, or the potential for control, is based in

	PERCEIVED CONTROL	NO PERCEIVED CONTROL
RESOURCE DEPENDENCE (Potential Power)	Power is enacted; resource dependence-based perceived control is inferred. 1	Power is not enacted (power remains as potential) - perceived control is weak/infrequent - there is symmetric dependence 2
NO RESOURCE DEPENDENCE	Power is enacted; resource dependence is not a basis for perceived control. 3	No inferences about resource dependence-based perceived control can be made. 4

Figure 3. Framework for the Analysis of Perceived Environmental Control over Interuniversity Athletics in Canada, from a Resource Dependence Perspective.

resource dependence. Whereas cell 2 reflects the resource dependence-based power, or control potential of an element, cell 1 reflects the further enactment of power, or resource dependence-based perceived control.

Cell 3 suggests that if the organization is perceived to be controlled by an element in its environment but is not dependent on that element for resources, then power has been enacted yet it is not possible to infer resource dependence as a basis for perceived control in this situation. According to cell 4, if the organization is not perceived to be controlled by the environmental element, nor is it dependent on that element for resources, then one cannot make any inferences about resource dependence-based perceived control.

2.4 Managing Environmental Control

A discussion of resource dependence-based environmental control would not be complete without addressing the environment's effect on an organization, and the organization's efforts to cope with that control. Research has primarily addressed the effect on organizational decision making (Pfeffer, 1972; Pfeffer & Leong, 1977; Pfeffer & Salancik, 1978; Provan, 1982; Provan et al., 1980; Rus, 1978; Salancik, 1979; Skinner & Guiltinan, 1986), and the impact on organizational structure (Aiken & Hage, 1968; Child, 1972; Pugh et al., 1969; Tolbert, 1985).

Minimizing organizational dependence, and thus the potential for control by environmental elements, is an important extension of the resource dependence approach (Aldrich, 1976; Aldrich & Pfeffer, 1976; Hoy & Miskel, 1987; Pfeffer & Salancik, 1978). Indeed, according to Yuchtman and Seashore (1967), the goal of any organization is to attain a successful bargaining position within the environment, such that it

can acquire necessary resources and maintain a certain degree of autonomy. Emerson (1962) considered this inherent need when he proposed several "balancing processes which operate through changes in the variables which define the structure of the power-dependence relation" (p. 35).

Blau (1964) extended that work when he described four theoretical conditions of social independence. These conditions represent four alternatives by which an actor A may reduce his dependence, or increase his independence, in relation to another actor B. First, actor A may possess or control resource(s) which actor B wants, thus leading to reciprocal exchanges and interdependence. Galbraith (1967) referred to this as countervailing power. Second, assuming there are alternative suppliers, actor A may obtain needed resources elsewhere, thereby eliminating or reducing the exchange relation with actor B. Third, actor A may coerce actor B into furnishing the resource(s). Fourth, actor A may resolve to do without the resource(s) supplied by actor B (Blau, 1964). These last two conditions are considered to be unrealistic in modern society (Mindlin & Aldrich, 1975). The first two are addressed further in a discussion of organizational strategies.

Specific strategies for coping with environmental control have been discussed at some length in the literature (Aldrich & Pfeffer, 1976; Fennell & Alexander, 1987; Hoy & Miskel, 1987; Pfeffer & Salancik, 1978; Scott, 1987; Thompson, 1967). There are three perspectives found in the literature, and they may be placed on a continuum of organizational compliance to organizational withdrawal, with respect to the particular environment. At one end of the continuum, the organization simply accepts the environmental control and attempts to manage it by making internal adjustments.

At the mid-point on the continuum, the organization reacts to environmental control and attempts to reduce the demands placed upon it. There are several strategies by which an organization may accomplish this. The organization may try to buffer itself from the environment (Fennell & Alexander, 1987; Hoy & Miskel, 1987; Kast & Rosenzweig, 1985; Scott, 1987; Thompson, 1967). Alternatively, the organization may bargain, merge or enter into joint ventures with other organizations in an attempt to modify its power-dependence relationship with a particular organization (Fennell & Alexander, 1987; Hoy & Miskel, 1987; Litwak & Hylton, 1962; Pfeffer & Leong, 1977; Pfeffer & Salancik, 1978; Provan, 1982; Provan et al., 1980; Salancik, 1979; Scott, 1987; Skinner & Guiltinan, 1986; Thompson, 1967; Thompson & McEwen, 1958). This type of management strategy reflects Blau's (1964) first two conditions: (1) the organization can increase its power relative to the more powerful environmental element by having access to a resource which that element values, and/or (2) the organization can reduce its relative dependence on that element by seeking resources from other sources. Emerson (1962) noted the diffusion of dependency which may occur with the implementation of these balancing strategies, while Fennell and Alexander (1987) indicated that a loss of autonomy is implied by additional linkages. In other words, an organization is simply moving from one power-dependence relation to another. Research has yet to address this repercussion.

At the other end of the continuum, an organization may seek to handle external control by reshaping its environment; for example, by altering its products, suppliers, or clients (Thompson, 1967). Alternatively, an organization may select another environment in which to operate (Aldrich & Pfeffer, 1976; Child, 1972; Hasenfeld & English,

1974; Hoy & Miskel, 1987; Rus, 1978). Limited research has been conducted on this perspective.

A contingency approach to organizational strategies for coping with environmental control should be considered. From this perspective, the most effective organizational form or behaviour would be a function of the nature of that control (Hasenfeld & English, 1974; Hoy & Miskel, 1987; Kast & Rosenzweig, 1985; Lawrence & Lorsch, 1967; Mindlin & Aldrich, 1975). Thus, an examination of the basis and magnitude of environmental control is a prerequisite to its management.

2.5 Review of Related Studies

Three levels of organization-environment analysis have been discussed in the literature: (a) the dyadic relationship between the focal organization and its primary supplier (Hall, 1987; Mindlin & Aldrich, 1975), (b) the relationship between a focal organization and the other elements in its organization-set (Evan, 1966), and (c) the relationships within an interorganizational network, of which the focal organization is one member (Aiken & Hage, 1968; Aldrich, 1976; Benson, 1975; Cook, 1977). As the study of organizational environments moves forward, researchers have been encouraged to conduct their work at the more comprehensive network level (Cook, 1977; Mindlin & Aldrich, 1975), addressing the overall impact of interdependencies and power relationships on each organization in the network.

Most resource dependence research, however, has taken place at the dyadic and/or organization-set level; the former addressing the organization-supplier relationship (Pfeffer, 1972; Salancik, 1979), and the latter examining the effect of other organization-set elements on that relationship (Pfeffer & Leong, 1977; Provan, 1982; Skinner &

Guiltinan, 1986). The majority of research has focused solely on control of the primary supplier over the focal organization, and has not addressed the power or control of other environmental elements over that organization.

It would seem more appropriate then to classify these three levels of analysis in terms of (a) an organizational perspective, examining impact on the organization (levels one and two), and (b) an environmental perspective, addressing impact on the environment (level three); and to acknowledge the value of conducting research from both. Recent works by Skinner and Guiltinan (1986) and Provan and Skinner (1989) indicate the need to give continuing attention to the power-dependence relationship from an organizational perspective.

In an early study, Pfeffer (1972) examined the relationship between the resource dependence of 141 industrial firms on government, and the perceived influence of the government on those firms. Two subjective measures of government influence included the firm managers' perceptions of the degree to which they would comply with two hypothetical, but realistic demands of the government, and their ranking of the government in terms of actual influence, relative to several other external organizations. Pfeffer also used two measures of resource dependence. An objective measure addressed the relative magnitude of the firm's total sales with the government. A subjective measure considered the financial condition of the firm, as a factor in its dependence on the government for financial aid; managers were asked to rate the availability of alternate sources of funding as an indication of their firm's financial limitations. An incomplete report of the Kendall rank-order correlation coefficients in that study discourages anything more than a brief review of the findings here.

Pfeffer (1972) reported significant relationships between the firms' relative dependence on government for sales and the managers' willingness to comply with both hypothetical government demands ($p \leq .05$). A significant relationship between the firms' financial limitations, and therefore dependence on the government for aid, and the managers' willingness to comply with one of the hypothetical demands of government was also noted ($p = .04$). These findings verified the resource dependence-based power potential of government. The study further revealed significant relationships between both measures of resource dependence and the government's ranking in terms of actual influence on the managers' decision making activities ($p \leq .06$).

Therefore, the study found that firms which sold relatively more to the government, and firms which were in relatively poor financial condition and were thus dependent on the government for financial aid, perceived themselves to be more influenced by government demands. According to Pfeffer (1972), the results highlighted the need to consider external influence and interdependence relationships in analyzing organizational behaviour.

Another study of power and dependence in organization-environment relations, between consumer product organizations ($n=78$) and government, used slightly different measures of resource dependence and control (Salancik, 1979). The hypothesis stated that organizational responsiveness in terms of compliance to government demands is a multiplicative function of the degree of pressure of those demands and the ratio of interdependence between the organization and government. Organizational compliance to government demands for affirmative action on management job opportunities for women was measured as the dependent variable. Pressure of demands was added to the equation based on

Salancik's argument that "when demands are not explicitly communicated . . . then one should expect little compliance regardless of the dependencies on an influencing organization" (p. 378). Rather than a direct measure, however, this variable was considered as a function of the public visibility of the organization, presuming that greater social pressure befalls a more highly visible consumer product corporation. Resource interdependence was measured as a ratio of the percentage of the organization's sales to government and the percentage of government's defense contracts taken by the organization.

Salancik (1979) reported support for the hypothesis, such that an organization's visibility, as an indicator of public pressure, and its relative dependence on government for sales were significant factors in that organization's compliance with government demands ($R=.68$, $p<.001$). Upon comparison of alternative equations, a stronger relationship was observed between organizational compliance and resource dependence on government when pressure of demands was also considered. Salancik concluded that organizational compliance was not a simple function of resource dependence on government.

Skinner and Guiltinan (1986) examined resource dependence and power in a dealer-manufacturer network. Their hypothesis stated that "the greater the dependence of channel member **i** [a product dealership] on supplier **j** [manufacturer] for resources and services, the greater the influence of **j** over the operational decisions of i" (p. 704). They also considered the effect of other interorganizational linkages: "The greater the access of channel member **i** to industry elites, other channel members and/or alternative suppliers **k**, the less the dependence of **i** on **j** for resources and services. . . [and] the less the influence of supplier **j** over the operational decisions of channel member **i**" (p. 704-

705).

Managers of 103 dealerships rated the manufacturers' influence, which was operationally defined as "the extent to which the manufacturer controls the marketing strategy decision variables of the dealers" (Skinner & Guiltinan, 1986, p. 705). Ratings of perceived influence over 20 decision areas were standardized and summed to form a composite measure of perceived manufacturer control (Cronbach's α=.90). A measure of resource dependence on the primary manufacturer was obtained by asking the managers to rate how much they depended on that supplier for various resources, services, and support (Cronbach's α=.90). Measures of interorganizational linkages included: (1) perceived dependence on secondary manufacturers as a group for various resources, services, and support (Cronbach's α=.91); (2) the number of joint programs of a dealer, defined as "those in which they temporarily participate with another firm in a project on a joint basis that will benefit them both" (p. 706); and (3) the number of contacts with industry elites, referred to as "personal interactions with an industry figure in a position of power and prestige. . . thus able to help a manager deal with problems facing the business" (p. 707). These linkages appear to reflect one, and perhaps two of Blau's (1964) conditions for organizational independence: the dealer's dependence relationship with the manufacturer may be modified by obtaining needed resources elsewhere, and the dealer may possess a resource which the manufacturer wants or values by virtue of any inter-dealership programs and contacts with industry elites.

A significant relationship between the dealer's perception of resource dependence on the primary manufacturer and perceived influence of that manufacturer over dealer decisions was reported (r=.70, p<.01).

Skinner and Guiltinan (1986) also found general support for the inverse relationship between other interorganizational linkages and perceived manufacturer influence: The dealer's perceived dependence on secondary manufacturers and the number of joint programs were both significantly related to the perceived influence of the primary manufacturer ($r=-.22$ and $r=-.23$, respectively, $p<.01$). It was confirmed that these relationships were significantly based in the modification of the dealer's perceived dependence on the manufacturer by these other interorganizational linkages ($r=-.40$ and $r=-.32$, respectively, $p<.01$).

Skinner and Guiltinan (1986) concluded that "the results generally support resource dependence theory" (p. 710), such that the influence of one organization over another was directly related to the dependence of that second organization on the first. It was further concluded from the results that "the development of extra-network linkages can enable one organization to reduce the degree of influence exerted by a more powerful member of an interorganizational network" (p. 710). They warned, however, against generalizing these single-setting results.

Provan's (1982) work was based on a larger doctoral research project on United Way and its member agencies. A unique relationship exists between these organizations, as the agency is relatively dependent on United Way for funding, while United Way is dependent on the agency for presenting a legitimate and valued service to the public from whom funds are raised. This provided an interesting setting for the examination of a power-dependence relationship (Pfeffer & Leong, 1977). Provan examined the following hypothesis: "The greater the dependence on United Way for resources, the more an agency's decisions will be influenced by United Way" (p. 445). He also sought to determine whether any agency is able to reduce United Way influence by reducing

its dependence on that organization, and therefore considered a second hypothesis: "The greater an agency's involvement with organizations other than United Way from which it can obtain resources, the less the agency's decisions will be influenced by United Way" (p. 446).

Executive directors of 46 agencies rated the degree to which internal agency decisions in five areas were influenced by United Way. The items were combined to form a single scale (Cronbach's α=.83). A measure of financial net dependence was based on the agency's dependence on United Way (as a percentage of the agency's total budget provided by United Way) minus United Way's dependence on the agency (as a percentage of United Way's total budget provided to the agency, which reflects the importance of the agency to United Way) (Provan et al., 1980). Agency dependence on United Way for two other critical resources - information and legitimacy - was also considered. Four indicators of an agency's non-United Way interorganizational linkages were measured: (1) the number of other sources of funding used by the agency, (2) the degree of inter-agency executive communication, (3) the number of inter-agency programs, and (4) the number of inter-agency board interlocks (Provan, 1982).

Provan (1982) reported a significant relationship between the net dependence of the agency on United Way for financial resources and perceived United Way influence over agency decisions (r=.20, $p \leq .10$). A significant relationship was also reported between the agency's dependence on United Way for information and legitimacy, and perceived influence of United Way over agency decisions (r=.26, $p \leq .05$). Provan reported significant negative relationships between two of the non-United Way interorganizational linkages - number of other funding sources (r=-.19, $p \leq .10$) and inter-agency board interlocks (r=-.21,

$p \leq .10$) - and perceived United Way influence. However these relationships were not based in the modification of the agency-United Way dependence relationship as expected.

Provan (1982) concluded that the study provided significant, albeit weak support for the power-dependence proposition, and suggested that factors other than those studied may have affected the extent to which agency decisions were influenced by United Way. Provan speculated that United Way may have selectively controlled those agencies which it felt needed management assistance, or which requested help, since it had a vested interest in the member agencies' value in the community. This influence relationship may have been independent of the agencies' resource dependence on United Way. Provan further concluded that agencies which were able to obtain critical resources from other organizations were not necessarily going to be less influenced by United Way. Finally, Provan suggested that the power-dependence theory may be better able to explain interorganizational influence within certain types of organization-sets, and further research in a variety of interorganizational networks was recommended.

2.6 Summary

A theoretical framework, based on Emerson's (1962) power-dependence theory of social relations, was developed to facilitate the examination of resource dependence as a basis for perceived environmental control over Canadian interuniversity athletics (see Figure 3). Thompson (1967), Jacobs (1974), and Pfeffer and Salancik (1978) adapted Emerson's theory to the study of organization-environment relations. According to their work, resource dependence is directly proportional to (a) the extent to which the resource is important to the

organization's functioning, (b) the relative magnitude of the resource exchange, and (c) the extent to which it is not available from alternative sources. Furthermore, one organization will have potential power over another to the extent that the latter is dependent on the former for resources.

Despite considerable variation in the definition and measurement of power, a popular interpretation of the concept is that power is a potential; it refers to the resource capacity required to exert influence or control (Muth, 1984). Control and influence are synonymous terms for the manifestation or enactment of power, such that change occurs. Provan (1980) developed a classification scheme to describe the subjective and objective measurement of potential and enacted power, and the respective strengths and weaknesses of these measures. Despite Provan's recommendation of objective measures, recent studies have employed subjective measures of resource dependence and control.

Several studies were reviewed in some detail because of their relevance to the theoretical framework and methodology of the current study (Pfeffer, 1972; Provan, 1982; Salancik, 1979; Skinner & Guiltinan, 1986). These studies indicated support for the resource dependence-based power/control relationship between a focal organization and its primary source. Salancik (1979), however, found a significant relationship only when the pressure of demands of the controlling body was also considered. Skinner and Guiltinan (1986) further reported that a focal organization's relations with other sources had a negative effect on the perceived influence of the primary source, which was explained by a modification of the resource dependence relationship. The contextual variations among the reported studies suggest the need to consider the power-dependence theory of organization-environment

relations in other settings.

The current study uses the theoretical framework, and capitalizes on previous resource dependence research, to examine perceived environmental control over Canadian interuniversity athletics from that perspective. An understanding of the nature of environmental control, including its basis, will facilitate the further research and application of organizational coping strategies.

Chapter III

REVIEW OF THE LITERATURE ON INTERUNIVERSITY ATHLETICS IN CANADA

The first section of this chapter (3.1) provides an historical review of funding and control in Canadian interuniversity athletics, from the program's inception to the present day. This is followed by a review of the related research (3.2), specifically regarding control (3.2.1), and funding (3.2.2), in Canadian interuniversity athletics. An examination of these topics is largely based on four works: (1) Mathews' (1974) review of Athletics in Canadian Universities, the result of a nation-wide study commissioned by the Association of Universities and Colleges of Canada (AUCC) and Canadian Interuniversity Athletic Union (CIAU); (2) the Report of the Special Committee on Intercollegiate Athletics (1985) (the Rickerd Report), a province-wide study commissioned by the Council of Ontario Universities (COU); (3) The Role of Interuniversity Athletics (Taylor, 1986), published proceedings from a national conference hosted by the Canadian Council of University Physical Education Administrators (CCUPEA); and (4) Inglis' (1988, 1991) research on influence in interuniversity athletics in Ontario. Additional studies and documents augment these sources.

3.1 Funding and Control in Canadian Interuniversity Athletics

The consideration of funding and control in interuniversity athletics has typically been with regard to implications for the general mission of the program. Interuniversity athletics competitions were student-initiated and controlled in the late 1800s, but were soon taken

over by faculty and university administration who feared abuses of the program if it was left in the hands of the students.

> It was only when the growth of athletic programs became obviously irreversible and the questionable ethical practice of excessive recruiting of athletes became linked to athletic programs that educational authorities attempted to rectify the situation by demanding that appropriate controls be established over the competitive athletic programs. (Mathews, 1974, p. 23)

Hence, athletic associations or councils were established, comprising faculty, administrative and student representation.

In 1923, with the steady growth of interuniversity athletics in Canada, the Athletics Committee of the National Conference of Canadian Universities recommended that the university dictate athletic policy, and that ultimate control of athletics be in the hands of the faculty (Mathews, 1974). The intent, according to Mathews, was to ensure "that an athletic program has no place in higher education unless it is designed for student participation and educational objectives" (p. 24). This first formal recommendation for policy and control was to have considerable impact on the future direction of interuniversity athletics in Canada.

In 1966, and again in 1974, the Association of Universities and Colleges of Canada (AUCC) confirmed the role of competitive university athletics in the total educational experience of higher learning in Canada, as long as it continued to be designed for student participation and based on educational objectives (Mathews, 1974). To that end, it was recommended that the universities assume financial responsibility for the interuniversity athletics program, based on the rationale that, "if one is to accept the academic credibility of. . . athletics. . .

then it is obvious that the financial responsibility for the . . . programs should be assumed by the institution" (Mathews, 1974, p. 32). This conviction was echoed in the Rickerd Report (1985), and at the 1986 CCUPEA conference (Taylor, 1986).

The recommendation for institutional financial responsibility was also intended to contest the funding of interuniversity athletics from student activity fees and/or non-university sources (AUCC, 1966; Mathews, 1974). The argument against student funding was that "hand-in-hand with accepting responsibility for financing of a program goes a desire to exercise control over it" (Mathews, 1974, p. 32). Mohr (1986) concurred that "if students are to be expected to pay an increasing share of the costs, then they will demand an increasing share of the power to determine how those monies are spent." (p. 101) Mathews' (1974) ultimate concern was program control in the hands of a shifting population. This concern was re-expressed by Ouellet (1986), who stated that an interuniversity athletics program which "relies partly on student subsidization, acknowledges partial control of students in the governance of athletics programs, which often produces, not only a lack of consistency in the administrative process, but also in the orientation of the programs" (p. 30). Mohr suggested that students may have different intentions than the administration for the interuniversity athletics program. Mathews also foresaw problems with non-university funding: "To deny support for athletic programs on the principle that they should be self-sufficient, can be expected to lead to either severe limitation of programs or to an undesirable and dangerous degree of promotion and commercialization of the spectator sports" (p. 32).

Commensurate with institutional financial responsibility, further

recommendations were made in an attempt to preserve the educational objectives of interuniversity athletics in Canada. In 1966, the AUCC urged institutions to (a) establish interuniversity athletics as one department in a wider division of physical education, to ensure faculty control and academic accountability, and (b) to give the athletics director full decision making authority under the advisement of a student/faculty athletics committee. In 1974, Mathews reasserted "that physical education and athletic programs be integrated into a single administrative unit" (p. 28). To further promote educational legitimacy, he recommended that "the operating policies of a department of athletics should be established by a policy-making body that is similar in composition to the policy-making bodies of the other academic departments of an institution of higher education" (p. 29). Later, the Rickerd Report (1985) urged Ontario universities to formalize their statement of philosophy on interuniversity athletics, embracing the principle of academic responsibility for athletics policy.

The issue of university funding and control in interuniversity athletics has focused on recommendations for a model that is most favourable to the preservation of educational objectives. However, with the increasing need to seek additional resources beyond the university, athletics administrators are concerned that non-university pressures will precipitate compromises in the educational philosophy of interuniversity athletics (Taylor, 1986). Corporate sponsorships and government grants are two non-university funding sources which have received the most attention in the Canadian literature.

Funding based on non-university contracts such as corporate sponsorship and television coverage is a concern for varying reasons. The valued publicity, exposure and revenues from television coverage is

believed to further enhance the acquisition of sponsorship, and to some extent alumni and spectator dollars (Grant, 1979). These factors put pressure on the interuniversity athletics program to present a high quality, winning product. These pressures have been felt in the United States where alumni donations, as well as sponsorship dollars and television revenues, are believed to fluctuate with a college team's win-loss record (Grant, 1979; Sigelman & Carter, 1982). Many attribute the academic compromises, recruiting violations, and exploitation of athletes in American intercollegiate athletics to non-university funding and control (Atwell, 1988; Frey, 1985; Grant, 1979; Kjeldsen, 1982; Lucas & Smith, 1978; Miller, 1982; Sack, 1982).

In Canada, according to Keyes (1986), "the concept 'more is better' is being promoted - more practice is needed, more exhibition games are necessary, more tournaments are required, more money is needed" (pp. 45-46). Smith (1981) warned that higher profile, revenue-generating sports may end up getting preferential treatment within the interuniversity athletics program, despite the difficulty in arguing that one sport is more educational than another. Further, there is the conviction that interuniversity athletics portrays a conflicting message by obtaining the more accessible sponsorships from breweries and tobacco companies (Keyes, 1986; Semotiuk, 1986). There is a concern that these funding relationships may be exploiting the program and/or the athletes, and overshadowing "our primary mission of providing good competition in an educational environment" (Keyes, 1986, p. 46). This has prompted the question: "What is the academic and athletic costs of the benefits received from these sponsorship dollars?" (Keyes, 1986, p. 45).

The concern with Federal Government funding of interuniversity athletics in Canada is that its mandate for high performance sport may

be at cross-purposes with the university's educational priorities (Connell, 1986; Keyes, 1986; Macintosh, 1986; Pederson, 1988). The Federal Government became interested in national and international athletic excellence as a means of promoting national unity and identity (Macintosh, 1987). The government depends on the production of high performance athletes and feels that universities, with their facilities and expertise, are a prime site for this production (CIAU, 1989; Jackson, 1986; Keyes, 1986; Macintosh, 1986; Moriarty & Holman-Prpich, 1987).

As Jackson (1986) pointed out, universities have reaped many benefits from the channeling of resources to meet the government's high performance sport mandate: national and international experience for athletes, coaches, officials, and administrators; the provision of world class facilities; revenue or shared funding opportunities, such as facility rentals, travel subsidies, and coaching appointments. However, several ramifications have been discussed. There is a perception that academic standards would be compromised if institutions were to condone the flexibility for high performance athletes which is being sought by the Federal Government (Connell, 1986; Keyes, 1986). Already, the establishment of CIAU legislation relaxing student eligibility requirements for participation in interuniversity athletics is, according to Keyes, an example of "a shift in emphasis in both the interuniversity athletic program and the academic conditions required of all athletes" (p. 43). It has also been purported that the establishment of national team training centres at particular universities would lead to competitive imbalances within the conferences and the CIAU (Macintosh, 1986; Mohr, 1986; OUAA, 1988). Further, there is a concern that resources for interuniversity athletics (coaches,

athletes, facilities, funds) would be rechanneled to high performance sport, encouraged by the government's mandate (Jackson, 1986; Macintosh, 1986; OUAA, 1988).

The relationship between control and government funding was implied by Sport Canada, the government agency for sport, when it stated in 1973 that "increased sums would be available so long as 'the goals of the member institutions of the CIAU are equal to those of the nation - athletic excellence in national and international competition'" (in Moriarty & Holman-Prpich, 1987, p. 63). In other contexts, Macintosh (1987) and Slack and Kikulis (1989) described the loss of autonomy in national sport governing bodies that has been commensurate with the demands for increasing financial support from the Federal Government for their expanding programs. "Government financial support, such as funds for quadrennial planning and high performance sport centres, has increasingly been tied to compliance with government policies and has created additional demands and pressures on these organizations" (Slack & Kikulis, 1989, p. 189). Macintosh stated that,

> As the size of federal government grants to national sport associations grew dramatically during the 1970s, so did the independence of these bodies decrease. By the early 1980s, federal ministers for sport and fitness were making sport policy pronouncements that were to be ignored by national sport governing bodies only at the risk of losing financial support from the federal government. (p. 183)

Slack and Kikulis noted that, despite the obvious manifestation of dependence, "there has been little attempt to examine the dynamic and interactive nature of this relationship" (p. 189).

Discussions about non-university funding and control in Canadian

interuniversity athletics have taken a range of perspectives: There is uncertainty about whether involvement in non-university funding necessarily means compromise (Copp, 1986); there is a fear that it does mean compromise (Keyes, 1986); and there is a suggestion that involvement will be only up to the point of compromise and no further (Connell, 1986). The current status of non-university funding and control in Canadian interuniversity athletics requires further examination.

3.2 Related Research

3.2.1 Control in Canadian Interuniversity Athletics

Inglis (1988) addressed the question of control, or influence, in interuniversity athletics in her doctoral research. The study did not examine any basis for influence, such as funding, and the main focus was intra-university governance, however, it warrants review by virtue of the similarity to this study, and the relevance of the results.

From an intra-university perspective, Inglis (1988) examined the perceived influence of athletics directors over the interuniversity athletics programs in their respective Ontario universities. Using a scale of 1 (little influence) to 9 (much influence), 12 athletics directors rated the degree of influence they perceived themselves to have over 22 organizational decision areas. A factor analysis resulted in three decision areas with high internal consistency: (1) administrative decisions, including policy and budget development, selection of sports and establishment of practice schedules, and disciplinary action on eligibility and recruitment violations; (2) strategic decisions, including staffing and philosophy development; and

(3) marketing decisions, including the establishment of policy on sponsorship, and generation of revenues from off-campus sources. The athletics directors perceived themselves to have high influence over administrative decisions (M=7.38, S.D.=0.84), and only slightly less influence over strategic (M=6.93, S.D.=0.67) and marketing decisions (M=6.42, S.D.=1.06). On an additional measure, the athletics directors perceived themselves to be very close to the decision making process (M=8.00, S.D.=0.71) (Inglis, 1988).

Inglis (1988) also examined the perceived influence of the university presidents over the interuniversity athletics programs within their respective institutions. On a similar 9-point scale, the athletics administrators (comprising athletics directors and/or men's and women's athletics coordinators) and university presidents were asked to rate the latter's degree of leadership in governance over the interuniversity athletics program. There was no significant difference between the athletics administrators' (M=5.33, S.D.=2.25) and university presidents' (M=5.56, S.D.=1.90) perceptions of the moderate degree of presidential leadership in interuniversity athletics governance. The preferred degree of presidential leadership was slightly, but not significantly higher (Inglis, 1988).

Those same respondents, plus the athletics board chair, were asked to rate the degree to which the athletics board had regulatory authority over the interuniversity athletic program, on a 4-point scale of no degree to high degree of regulatory authority (Inglis, 1988). The results showed that the majority of the athletics administrators, presidents and athletics board chairs perceived the athletics board to have a moderate degree of regulatory authority over interuniversity athletics, and that the athletics administrators and presidents

preferred this level of board involvement. Inglis' methodology did not permit comparison of the extent of perceived influence between the athletics administrators, the presidents, and the athletics boards.

From an extra-university perspective, (Inglis, 1988) identified several agencies which had the potential to influence the interuniversity athletics program: (1) the COU, whose membership comprised the president of each Ontario university, and which had recently established the Ontario Commission on Interuniversity Athletics (OCIA); (2) the OUAA and the OWIAA conferences, of which all participating universities are members; (3) the CIAU, which includes OUAA and OWIAA membership; (4) alumni; and (5) corporate sponsors. On a scale of 1 (little influence) to 9 (much influence), the athletics administrators and university presidents were asked to indicate the degree of influence each group exerted on the athletic program at their respective institutions. The question was left open to allow the respondents to consider other extra-university agencies. The results are summarized in Table 1 to facilitate presentation.

As reported by Inglis (1988), the athletics administrators perceived the OUAA, OWIAA and CIAU to have a similar level of high influence over interuniversity athletics. The university presidents also perceived the OUAA and OWIAA to have high influence, however they perceived the CIAU to have significantly less influence than the OUAA and OWIAA ($p<.10$). Both the administrators and presidents perceived the COU to have moderate influence. They perceived the alumni to have a significantly lesser influence than the COU, and corporate sponsors to have significantly lesser influence than the alumni over interuniversity athletics ($p<.10$); these latter two extra-university agencies were perceived to have low influence. In addition, two respondents cited

Table 1

Athletics Administrators' and University Presidents' Perceptions of Extra-University Influence over Interuniversity Athletics in Ontario (Inglis, 1988).

ELEMENT	ATHLETICS ADMINISTRATORS (n=37)	UNIVERSITY PRESIDENTS (n=15)
Ontario Universities Athletic Association (OUAA)	7.08[a1] (1.23)[b]	7.07[1] (1.28)
Ontario Women's Intercollegiate Athletics Association (OWIAA)	7.03[1] (1.54)	7.20[1] (1.27)
Canadian Interuniversity Athletic Union (CIAU)	6.78[1] (1.48)	5.47[2] (1.25)
Council of Ontario Universities (COU)	5.35[2] (1.80)	5.33[2] (1.99)
Alumni	3.57[3] (1.79)	3.00[3] (1.20)
Corporate Sponsors	2.49[4] (1.50)	2.33[4] (1.23)
Scheffé Critical Criterion (p<.10)	0.97	1.52

[a] Mean value, Scale of 1 (low) to 9 (high)
[b] Standard Deviation value
[1] Within-group ranking

Sport Canada and one cited provincial sport organizations as having moderate influence, and one respondent rated military ethos while another rated local media as having low influence; however, no values were reported (Inglis, 1988).

In her discussion, Inglis (1991) suggested that the high degree of perceived influence of the OUAA and OWIAA was likely a function of their supporting role in men's and women's interuniversity athletics in Ontario. These organizations provide the structures and rules for league and playoff competition, and there is frequent contact between them and the individual universities which make up their membership. Less frequent contact between the CIAU and the institutions, due to fewer sports offered and fewer institutions involved at the national championship level, was cited as the reason that organization was perceived to have only moderate influence. The moderate degree of perceived influence of the COU was expected because of the role of the recently formed OCIA and subsequent presidential involvement in eligibility audits and gender equality issues. Inglis concluded that these four agencies had moderate to high influence over interuniversity athletics because of their structural and programming associations, and common mission in the governance of athletics.

Inglis (1991) suggested that the low rating of perceived influence of alumni "can be explained by the lack of strong alumni affiliations and programming on Ontario campuses" (p. 30). The low rating of perceived influence of corporate sponsors "could be due to corporate sponsors not contributing significant amounts of money, or it could be that the corporate sponsors are contributing significantly but not exerting influence" (p. 31). Inglis' results are of interest, however she acknowledged the need for further research.

> If athletic programs continue to grow in terms of the quality of athletic performance and in marketing activities, one can anticipate that the potential influence from outside agencies will increase. . . While at present the influence by the alumni and corporate sponsors was deemed low, there are conditions under which their influence could change that would affect the governance of the athletic programs. (1991, p. 31)

Inglis (1991) recommended that the influence of other extra-university groups, such as sport governing bodies, be identified and assessed periodically.

3.2.2 Funding in Canadian Interuniversity Athletics

There have been a few limited reviews of the funding of interuniversity athletics programs in Canada. Mathews (1974) reported, very generally, that most universities favoured financial support of interuniversity athletics from university general funds. Feedback from the universities surveyed revealed that 21% received the greatest proportion of their budget from these funds, 14% were substantially funded by student activity fees, and the rest were supported by some combination of the two. Mathews also found that gate receipts provided minimal resources to the interuniversity athletics budget, while facility rentals to the community made a considerable contribution to the coffers of some universities. He did not discuss any other sources of funding.

Campbell and Slack (1982) conducted a limited study on trends in interuniversity athletics funding between 1977/78 and 1981/82; a low response rate (57%, n=25), however, demands caution during interpretation of the results. Their findings revealed that the

university general fund and student activity fees, in that order, were the greatest sources of financial support for the interuniversity athletics program. The results are not clear, but it seems that funding patterns varied between institutions (24% of the institutions surveyed received over 90% of their budget from general university funds, and 68% were at least partially supported by a student athletic fee). The authors found that there was an overall decrease in the percentage of the athletics budget acquired from these two sources, and that the difference was made up through "generated funds" (p. 5) from facility rentals, membership fees and sport camps for children. They also found that government funding, gate receipts and activity registration fees remained the same over time, although it was not clear what proportion of the budget they comprised.

There were two other, less formal, investigations of funding in interuniversity athletics. As part of its results, the Rickerd Report (1985) revealed that interuniversity athletics in Ontario was primarily funded from a combination of student activity fees and direct institutional support (in terms of facilities and financial support from the operating budget of the university). The Report also revealed that other revenue sources, such as gate receipts, corporate sponsorship, facility rental, and alumni and corporate donations "represent only a very small fraction of what is required to meet the expenses of operating interuniversity athletics" (p. 10). According to the Report, there was a perception that substantial increases in financial support for interuniversity athletics could not be expected from these non-university sources, primarily because of restrictions imposed by the OUAA and OWIAA, and by the institutions themselves, on the kinds and amounts of revenues which corporations and alumni can legitimately

provide (also Mohr, 1986).

In the most recent investigation of funding in interuniversity athletics, conducted by Janzen (1986) for the CCUPEA conference on the Role of Interuniversity Athletics, an informal telephone survey of Canadian athletics directors elicited information about the nature of funding for their respective programs. Janzen's findings are presented briefly:

(1) 84% of universities surveyed were supported by a student activity fee;

(2) revenue from gate receipts did not contribute substantially to the budget of most athletics programs, ranging from zero to $84,000;

(3) alumni support was extremely varied, but generally insignificant, across the country, ranging from zero to $150,000;

(4) the majority of interuniversity athletics programs received some level of corporate sponsorship, from (e.g.) breweries, soft drink companies, shoe companies and restaurants, although most only brought in between $5,000 and $10,000;

(5) summer sport camps generated significant revenues in Western Canadian universities (with three grossing over $250,000), but very few institutions in Ontario, Quebec and Atlantic Canada received significant income from sport camps; and

(6) facilities operation and maintenance costs for the majority of the interuniversity athletics programs were covered by the university.

Janzen did not discuss the extent to which athletics budgets were supported by university general funds although, based on previous

reports, it can be assumed that this was a major source.

While these studies shed some light on the funding of interuniversity athletics in Canada, further clarification is required. It appears that there is a range of sources - university and non-university - and variation in the amounts acquired from each. Some of the variation seems to be attributable to region. This aspect of interuniversity athletics must be examined further in order to determine whether perceived environmental control over interuniversity athletics is a function of the organization's relative dependence on various sources, and whether the non-university funding-related concerns of athletics administrators are justified.

3.3 Summary

Control over interuniversity athletics in Canadian universities has received ongoing attention since its inception in the late 1800s. The enduring principle which has guided the growth of interuniversity athletics is that it should remain a program which operates in the best educational interests of its student participants. Commensurate with that tenet has been the continuing recommendation that some form of academic control be maintained over the program, and that the institutions accept financial responsibility for the program. However, as interuniversity athletics programs continue to expand in breadth and depth, and universities face an increasingly stringent economy, the reality is that the organizations must seek funds beyond the traditional support from university sources. Interuniversity athletics administrators are concerned about the program control implications of funding from non-university sources; perhaps justifiably, when they consider the perceived degree of Federal Government control over

Canada's national sport organizations, or the perceived control of corporate sponsors and booster clubs over intercollegiate athletics in the United States.

Up to this point, research has focused primarily on the intra-university control of Canadian interuniversity athletics, with some attention to extra-university influence. The basis of that control was not given formal consideration. The most recent investigations of funding in interuniversity athletics revealed that the majority of funds were being acquired from university sources (university general fund and/or student activity fees), but with an increase in funding from non-traditional sources, particularly internal revenues generated by the organization itself. Despite the financial pressures within the university, it appears thus far that non-university sources have made a minimal contribution to the interuniversity athletics budget.

The concern that perceived program control may have some basis in funding justifies its examination from a resource dependence perspective. The theoretical framework presented in the previous chapter facilitates an examination of perceived environmental control over interuniversity athletics, the organization's resource dependencies on the environment, and whether there is a relationship between them, as speculated.

Chapter IV

METHODS

This chapter begins by identifying the particular level of Canadian interuniversity athletics which is the focus of analysis in this study (4.1); that is, the institutional as opposed to regional or national levels. The following two sections describe the methods of data collection (4.2) and operationalization of the dependent and independent variables (4.3). Finally, the statistical treatment of the data is explained (4.4).

4.1 Focus of Analysis

The phenomenon of Canadian interuniversity athletics can be examined at the institutional, regional conference and/or Canadian Interuniversity Athletic Union (CIAU) levels (Moriarty & Holman-Prpich, 1987). The focus of the current study is resource dependence and perceived control in interuniversity athletics at the institutional level, however it will help to clarify the focus of analysis if the character of each level, and the unique relationships among them, are described.

The delivery of the interuniversity athletics program takes place at the institutional level. The basic function of the interuniversity athletics organization is to offer directly to the student-athlete the opportunity to pursue athletic excellence, through access to coaching, training, facilities and competition. The program is run by the athletics director and/or men's and women's athletics coordinators,

staff, and coaches within the organization, and is varyingly governed by an athletics board, the university president or some representative of central administration, and the faculty or recreation department with which it may be affiliated. Outside the university, the interuniversity athletics organization is governed to some extent by its regional conference association and the CIAU.

Each institution participating in interuniversity athletics competition is a member of one of six regional conferences, which have existed in some form since the early 1900s (Moriarty & Holman-Prpich, 1987). These conferences include the Canada West Universities Athletic Association (CWUAA), the Great Plains Athletic Conference (GPAC), the Ontario Universities Athletic Association (OUAA), Ontario Women's Intercollegiate Athletic Association (OWIAA), the Quebec Student Sports Federation (QSSF), and the Atlantic Universities Athletic Association (AUAA). The conference serves a coordinative function, furnishing the structure and rules which guide league and championship competition. It also represents the sport and regional interests of its members to the community. The conferences are primarily funded and governed by their member institutions.

The CIAU was originally established in 1906, with only Ontario and Quebec membership, but was reformed in 1955 with full representation from the members of each conference (Moriarty & Holman-Prpich, 1987). Its purpose is to serve as a coordinative system for the structure and rules which guide national championship competition, and to represent the interests of its members to the sport community at the national and international levels. The CIAU is governed by its member institutions, but is largely funded by the federal government, through Sport Canada, and to a lesser degree by the corporate sector (R. Pugh, personal

communication, January 1989).

Due to the relationships among the institutions, conferences and the CIAU, based on membership and responsibility for interuniversity athletics, there is bound to be a ripple effect when environmental pressure is encountered at a particular level. For example, the vote of one institution's interuniversity athletics organization may impact on the conference, which may in turn impact on the CIAU. Similarly, the vote of the CIAU membership may impact on the conference members, and thus on an interuniversity athletics organization. As a further example, the CIAU may be particularly susceptible to control by Sport Canada, because of its considerable dependence on that organization for funds to operate its program and offer national championship competitions to its members (Moriarty & Holman-Prpich, 1987). Interuniversity athletics at the institutional level may be at least indirectly subject to that influence.

Any relations between the interuniversity athletics organization and elements in its environment are based on the interest, investment and/or sense of responsibility those individuals, groups and organizations have towards interuniversity athletics. The student-athletes are the prime, but certainly not the sole, beneficiaries of the program.

4.2 Collection of Data

A research instrument - Survey of Canadian Interuniversity Athletics Programs - was developed to collect information about the perceived control of various environmental elements over interuniversity athletics, and the organization's relative dependence on those elements for financial resources. Perceptions of the head athletics director in

each of the 45 CIAU member institutions were solicited, based on a list obtained from the CIAU Directory 1989-1990. The athletics director was selected as the sole respondent from each institution because, as the chief executive officer, that individual is the prime decision maker in the relatively flat interuniversity athletics organization (Inglis, 1988); it was believed that he/she would have the best sense of environmental impact on the program. The sample size in the current study was similar to that of Provan (1978).

The instrument, which is presented in Appendix A, commenced with the collection of descriptive background information, according to certain demographic variables that may be useful in explaining variations in perceived control and funding. Survey Part I sought objective data on the amounts of funding acquired from various sources for the 1989-90 interuniversity athletics budget. Survey Part II measured the athletics directors' ratings of perceived control of various environmental elements over particular organizational activities. This second part of the survey was augmented by an interview with each athletics director, for the purpose of further investigating the dynamics of perceived environmental control. Permission was given by each respondent to tape-record the interviews, which ranged in length from 40 to 75 minutes.

The athletics directors were initially contacted by telephone in May, 1990, and asked to participate in the study. The surveys were mailed out in early June, and the majority were returned at the scheduled interviews which took place during the CIAU Semi-annual General Meeting, June 18-21. The remaining surveys and interviews were gathered, with the aid of written and verbal follow-up contacts, during July, August and September, 1990. Four respondents completed Survey

Part II and the interview, but failed to return Survey Part I; thus, their responses were not considered in the data analysis. Thirty-four out of a possible 45 athletics directors completed both parts of the survey, and all but one completed the interview, for a useable response rate of 75.5%. A list of the respondents' institutions is presented in Table B-1, Appendix B.

4.3 Operationalization of the Variables

No suitable instruments existed for the specific measure of perceived environmental control over interuniversity athletics, or resource dependence. The development of an appropriate and valid instrument for this study was largely based on the work of Provan (1982) and Skinner and Guiltinan (1986), and the literature on interuniversity athletics. To enhance the author's understanding of interuniversity athletics, preliminary interviews were conducted with 11 athletics directors in the Spring of 1990. The purpose of these interviews was to gain further insight into the organization's interactions with its environment and the structure of funding in interuniversity athletics. Several authors have used this procedure for research preparation (Duncan, 1972; Pfeffer, 1981; Skinner & Guiltinan, 1986). Inquiries were also made about the feasibility of collecting the data required (particularly the information on funding), and the motivation of athletics directors to respond. Many of the suggestions of Berdie, Anderson & Niebuhr (1986) were incorporated into the development and administration of the survey and accompanying interview.

4.3.1 The Dependent Variable: Perceived Environmental Control

Based on the work of Pfeffer (1972), Provan et al. (1980), Provan

(1982), Skinner and Guiltinan (1986), and Provan and Skinner (1989), it was decided to utilize subjective measures of environmental control. Provan's (1980) warning about the use of subjective measures of power - that it is very difficult for the respondent to distinguish potential and enacted power - was heeded in the development of the survey questions. Respondents were instructed to provide a rating of perceived control, as opposed to potential power. During the accompanying interview it was possible to press the respondents to consider, and describe, a particular element's actual control over the organization.

The purpose of the interview was to gain further insight into the nature of perceived environmental control; that is, to better understand the mechanisms of perceived control, and detect fundamental differences and similarities between interuniversity athletics organizations which may not emerge through a survey alone (Jick, 1983; Sieber, 1973). The interviews were semi-structured to promote consistency among respondents, but also to allow them to expand upon their ratings of perceived control, including giving examples of environmental control. These examples are an extrapolation of what Provan (1980) refers to as the objective measure of enacted power, namely, demonstrated ability to affect organizational behaviour. Provan (1978) also conducted interviews in his study of United Way-agency resource dependence and control, for the purpose of enhancing the data collected in a survey of perceived control, and to permit clarification of any survey items for the respondent. An interview which accompanies a survey allows immediate validation of the survey results (Bouchard, 1976; Jick, 1983).

The first step in developing the instrument was to create a list of those environmental elements which have potential control over interuniversity athletics, according to any association they may have in

terms of interest, responsibility or investment in the program. This list was generated from the literature on interuniversity athletics (Inglis, 1988; Mathews, 1974; Rickerd Report, 1985; Taylor, 1986), and from the preliminary interviews. The interuniversity athletics organization, itself, was also included in the list to allow a more comprehensive examination of perceived environmental control at the organization-set level. Following a pilot study, to be described shortly, the final list comprised 15 environmental elements which were perceived to have the potential to control interuniversity athletics. These elements are presented in Table 2.

The second step was to identify indicators of perceived control over the direction of interuniversity athletics. Many of the related studies on environmental control, and Inglis' (1988) work on interuniversity athletics, have looked at control over specific organizational decision areas and/or control in general. Over 40 items were identified that reflect specific decision areas, activities and functions of the interuniversity athletics organization. These items were generated from the literature on interuniversity athletics (Hatfield, Wrenn & Bretting, 1987; Inglis, 1988; Williams & Miller, 1983), sport management (Chelladurai & Haggerty, 1991; Morrow, 1987; Szyszlo, 1984), and environmental control (Provan, 1980, 1982; Skinner & Guiltinan, 1986), and from the preliminary interviews.

To ensure that these decisions, activities and functions were comprehensive indicators of the direction of interuniversity athletics, a conceptual framework which describes the global goals or functions of organizations was sought. Katz and Kahn (1966) prescribe a "theoretical model for the understanding of organizations. . . that of an energic input-output system in which the energic return from the output

Table 2

Elements in the Environment of Canadian Interuniversity Athletics.

	ENVIRONMENTAL ELEMENT	ASSOCIATION WITH INTERUNIVERSITY ATHLETICS
E1	University Central Administration (President/Rector, Senate, Board of Governors, V-P Academic)	Formal administrative and governing body for the university and its programs.
E2	Affiliated Faculty/ Recreation Department	Either, or both, are typically affiliated with the interuniversity athletics organization for governance and/or coordination of programs and staff.
E3	Athletics Board	Governing and/or advisory board for interuniversity athletics, with varying representation from the organization, university and community.
E4	Interuniversity Athletics Organization (Administration, Coaches, Support Staff)	Unit within the university which is responsible for the administration and operation of the interuniversity athletics program.
E5	Student-Athletes	Prime beneficiaries of the interuniversity athletics program.
E6	General Student Body (Undergraduate, Graduate, Students' Council, Ad hoc groups)	Beneficiaries of all university programs, including interuniversity athletics; may provide financial support via activity fees.
E7	Alumni (Individuals, Association)	Former students/athletes who may have an interest, including financial, in interuniversity athletics.
E8	Provincial/Federal Sport Organizations & Ministries	Non-university organizations which share an interest and responsibility with the university for amateur athletics; may be financially involved in the program (e.g., coaching, grants, awards).

table cont'd.

Table 2 cont'd.

ENVIRONMENTAL ELEMENT		ASSOCIATION WITH INTERUNIVERSITY ATHLETICS
E9	Conference	Membership of the regional conference associations comprises degree-granting institutions with interuniversity athletics programs; based on geographic location.
E10	Canadian Interuniversity Athletic Union (CIAU)	Membership comprises conference members.
E11	Corporate Sponsors	May have a marketing interest in the interuniversity athletics program.
E12	Provincial Education Organizations & Ministries	Financial and governing/advisory responsibility for post-secondary education.
E13	Media	Local media (radio, television, print) which have a mandate to cover sports in the community.
E14	Community (Users, Spectators, Service Clubs, Sport Organizations, Municipal Government, School Boards)	A potential source of financial support and revenue for the interuniversity athletics program. May share athletes and coaches, and may compete for community support.
E15	Professional Sport Leagues (e.g., CFL, NHL)	A potential source of financial support for the interuniversity athletics program, and a source of competition for comunity/media/corporate support.

reactivates the system" (p. 16). Their contention that "social organizations are flagrantly open systems in that the input of energies and the conversion of output into further energic input consist of transactions between the organization and its environment" (p. 16), is congruous with the perspective taken in this study. Thus, the following concepts were used to classify the generated items: (a) defining outputs, (b) securing inputs, (c) controlling throughputs, and (d) coordinating with the environment. These categories were expanded to a total of seven organizational activity areas of interuniversity athletics, and were described by their respective sub-activities. An eighth indicator was added as a measure of perceived overall control. These eight items are presented in Table 3.

Instructions for the completion of Survey Part II were developed, paying close attention to the wording so that respondents would understand that a rating of actual control was being requested. The term influence, rather than control, was used because it was perceived to be less threatening to the respondent, was believed to suggest both explicit and implicit attempts, and has been used by several other authors (Pfeffer, 1972; Provan, 1982; Provan et al., 1980; Skinner & Guiltinan, 1986). The following definition, based largely on Provan (1978) was provided in the instructions:

> By influence is meant the extent to which the policies, views or actions of these individuals, groups and organizations have had some impact on each activity area, whether that influence has been exercised explicitly or implicitly, formally or informally. Influence can be exercised over any or all parts and processes of the organizational activity(s). (Survey Part II, p. 1)

The wording of this definition was meant to indicate that the means by

Table 3

Items for the Measurement of Perceived Environmental Control.

ORGANIZATIONAL ACTIVITY	DESCRIPTION
Securing Funds (SF)	Securing funds for the interuniversity athletics program; including acquiring funds from within the university, approval of different types of non-university funding, generating internal revenues, and maintaining those sources and funds.
Hiring Coaches (H)	Hiring coaches and interuniversity athletics administrators; including the establishment of positions and job descriptions, and selection.
Establishing Philosophy (EP)	Establishing the philosophy, goals and policies of the interuniversity athletics organization and program, and enforcing those policies.
Allocating Funds (AF)	Allocating funds in the interuniversity athletics program; including the establishment of each team's league and non-conference program plans, and the addition or deletion of a sport(s) in the program.
Daily Operations (DO)	Daily operations of the interuniversity athletics organization; including internal communication and coordination, student-athlete liaison, coordinating facilities usage, planning and hosting league and non-conference competitions, travel arrangements.
External Communication (EC)	Sports information activities and external communication; including liaison and formal reporting to other programs and organizations within and beyond the university.
Conference and CIAU (CCP) Participation	Participation of the interuniversity athletics organization at the conference and CIAU levels; including voting and participation on committees.
Overall (O)	The overall extent to which each element has influenced the interuniversity athletics organization.

which an environmental element has influenced the interuniversity athletics program, and the point in the decision making process at which influence has been exercised, were not germane to this study. The objective was to not restrict the respondent in considering the extent of environmental influence. It was possible that the mechanisms and timing of perceived control would be tapped in the accompanying interviews.

A 10-point scale was used, ranging from 1 (has not influenced) to 10 (has considerably influenced). This size of scale was chosen because of the considerable number of environmental elements for which the respondent was requested to provide ratings; a large number of points would permit greater distinction in the ratings of the many elements. Further, an even-numbered scale eliminates the opportunity for respondents to settle on the middle point (Presser & Schuman, 1989). Respondents could also indicate if a particular element did not apply to their situation, for example if there was no athletics board at their institution. In some cases, respondents inadvertently indicated that certain elements did not apply, although the interview data strongly contends that their intended meaning was that the elements had not influenced their organization. In these cases, the data were recoded as a rating of 1 (has not influenced). Those elements which were indicated most often by respondents as not being applicable to perceived control over certain activities of their organization, generally received the lowest ratings from the other respondents. In order to accommodate the statistical analyses, perceived control ratings for the athletics board element in those organizations with no board (n=7) were treated as missing values, as were survey item non-responses (total of 17 item non-responses from all respondents), and were assigned the mean rating for

the particular element and activity (Tabachnick & Fidell, 1983).

> Respondents were given the following instructions:
>
> On the rating scale for each activity area, please indicate the extent to which the respective individuals, groups and organizations have influenced your interuniversity athletics department over the past three years (1987-88, 1988-89, and 1989-90) by circling the appropriate number. (Survey Part II, p. 1)

The respondents were asked to consider perceived control over a three year time period in order to avoid measuring the particular presence or absence of influence in the one year for which funding data was collected. Preliminary interviews indicated that providing detailed funding data for a three year period would be too cumbersome for the respondents. It was further assumed that the respective funding structures would not have changed significantly from year to year. Thus, the decision was made to ask the respondents to consider and rate environmental control over a three year period, and the results would then be analyzed with the funding data of one fiscal year. As a precaution, respondents were asked to indicate, on a scale of 1 (funding pattern has changed very little) to 5 (funding pattern has changed very much), with a mid-point of 3 (moderate change), the degree to which the sources and amounts of interuniversity athletics funding had altered over the previous three years (1987-88, 1988-89, 1989-90).

For the pilot study, a draft of Survey Part II was distributed to a panel of athletics administration experts for their comments. This panel comprised nine former athletics directors of Canadian universities, one current athletics director, one assistant athletics coordinator, and the Executive Vice-President of the CIAU, for a total of 12 experts. Former rather than current athletics directors were

contacted in order to avoid any pre-study bias. These experts were asked to comment on the relevance, inclusiveness and clarity of the list of environmental elements and organizational activity areas, and were requested to suggest any that should be added or deleted. They were also asked to comment on the clarity of the instructions. Upon the recommendation of three of the panel members, the provincial education organization and ministries, four community sub-groups (school boards, municipal government, service clubs, sport organizations), and professional sport leagues were added to the list of environmental elements. Also, suggestions from several panel members for simplifying and clarifying the instructions were incorporated into a final draft. Based on the positive feedback and general consensus of the panel, the survey was deemed relevant and valid. Pilot interviews were conducted with one former athletics director and one current assistant athletics coordinator who had completed Survey Part II, in order to gain a sense of the flow and duration of the interviews.

4.3.2 The Independent Variable: Resource Dependence

The independent variable under investigation was the interuniversity athletics organization's relative financial resource dependence on the elements or sources in its environment. An objective measure of relative magnitude is based on the proportion of total resource inputs acquired from each source (Pfeffer, 1972; Salancik, 1979; Tolbert, 1985). The greater the proportion of resources which the organization acquires from one source, the greater will be its dependence on that element relative to other elements (Pfeffer & Salancik, 1978). The criticality, or essentiality, of a resource is another factor in the dependence relationship (Jacobs, 1974; Pfeffer &

Salancik, 1978). It was assumed that the interuniversity athletics organization has a very high "motivational investment" (Emerson, 1962, p. 32) in financial resources, and that they are non-substitutable (Jacobs, 1974). Another factor in the dependence relationship is the availability of the resource from other sources (Emerson, 1962; Jacobs, 1974; Pfeffer & Salancik, 1978). It was further assumed that, due to financial constraint, the interuniversity athletics organization has attempted to maximize the types of sources and amounts of financial resources received from its environment. In other words, it has considered all the available sources of which it is aware.

Net resource dependence was not measured but was inferred in the study. As a service organization, the output of an interuniversity athletics organization is such that it would have been difficult, and beyond the scope of this study, to measure the environment's reciprocal dependence on the organization and its program. It was assumed that the interuniversity athletics organization is more dependent on the environment than the environmental elements are on the organization. Provan (1982), Skinner and Guiltinan (1986), and Provan and Skinner (1989) made similar assumptions. According to the theoretical framework, if the situation is observed wherein there is significant resource dependence but no significant perception of control, then one explanation may be that there is symmetric, or net dependence, with reciprocal power.

To ensure consistency in reporting the resource data, an adapted financial statement - "Statement of Resources" - was developed, providing a list of categories of potential funding sources. This list was developed according to the interuniversity athletics literature (Campbell & Slack, 1986; Janzen, 1986; Rickerd Report, 1985; Taylor,

1986), and preliminary interviews with 10 athletics directors, representing each conference. It was determined that funds are provided by university and non-university sources, and that some may be classified as sources of revenue generated directly by the interuniversity athletics program (e.g., sport camps, gate receipts, user fees, facility rentals, licensing royalties). It was presumed that service-in-kind resources, such as equipment, advertising and promotional items, may reasonably augment the interuniversity athletics budget, thus respondents were instructed to convert these resources into financial terms. The list of potential sources is presented in Table 4.

Facilities were also recognized as a potential service-in-kind resource, provided predominantly but not exclusively by the university. It was presumed that converting the provision of facilities to a dollar figure would skew the financial contribution of the university. Thus, respondents were asked to report the percentage of physical plant costs incurred by the interuniversity athletics program which are covered by the university, and by any source other than the organization itself; these values were considered separately from the other funding data. Physical plant costs covered by the interuniversity athletics organization were considered to be an expense, rather than a resource from the environment.

The Statement of Resources was developed, with instructions, for Survey Part I. Respondents were asked to "report the amount of financial resources received from each relevant funding source during the past fiscal year, 1989-90, by your interuniversity athletics program" (Survey Part I, p. 3). The instructions clarified that the focus was on gross incomes, before expenses. Respondents were asked to provide absolute dollar figures for each relevant source, from which the

Table 4

Potential Sources of Funding as Examined in the Survey of Canadian Interuniversity Athletics Programs.

SOURCE
University General Fund
Student Activity Fees
Alumni Funding (including individual and alumni association donations)
Corporate Sponsorships (funding to the program and to separate sports; including the dollar value of products and services provided)
Sport Canada/National Sport Organizations (funds specifically for the interuniversity athletics program and/or particular sports; for example, salaries, travel grants, regional equalization funds, awards, High Performance Initiative funds, High Performance Sport Centre funds)
Provincial Government/Sport Organizations (funds specifically for the interuniversity athletics program and/or particular sports; for example, salaries, grants, awards)
Internal Revenues (gross incomes which are, at least partially, generated by the interuniversity athletics program; including gate receipts and concessions, sports camp(s), user fees, facility rentals, fundraising, special events such as hosting, licensing royalties and athletic competition guarantees)
Other

proportions of the total financial resources would be derived to determine the relative measures of resource dependence. However, respondents were also invited to furnish the data as percentages if preferred. Both absolute and relative financial data were collected by Provan (1978).

To pilot test Survey Part I, a draft was sent to three athletics directors and three interuniversity athletics financial managers for their comments on the validity and clarity of the Statement of Resources and instructions. Their feedback on the relevance and inclusiveness of the survey items was favourable, and only slight adjustments were necessary to clarify the instructions.

4.3.3 Demographic Variables

The study considered several demographic variables which represent acknowledged differences within the population of interuniversity athletics organizations in Canada, and have been considered in past studies (Campbell & Slack, 1982; Chelladurai & Danylchuk, 1984; Inglis, 1988; Janzen, 1986; Mathews, 1974). During the preliminary interviews, the athletics directors were asked to consider the bases by which interuniversity athletics organizations differ. The purpose was to ascertain in this study whether perceived control and funding varied by these variables. Four variables were selected for their relevance to the dependent and independent variables, their use in past studies, and their support from the experts.

Conference. There are six regional conferences with membership in the CIAU. Since interuniversity athletics organizations in Ontario are members of both the OUAA and OWIAA, these conferences were combined, resulting in a total of five conferences (CWUAA, GPAC, OUAA/OWIAA, QSSF,

AUAA). This information was obtained from the CIAU Directory 1989-1990.

Size of the Institution. The second demographic variable was university size in terms of full-time equivalent (FTE) enrolment. In order to obtain as accurate and consistent data as possible, the Statistics Canada (1990) equation for the calculation of university FTE was used: "Full-time enrolment at unity plus part-time enrolment divided by 3.5" (p. 82). This indicator is meant to apply at the national level only, however there is general agreement from the provinces that 3.5 (as a reflection of full-time course load) is an appropriate ratio (Statistics Canada, 1990). The Statistics Canada document, Universities: Enrolment and Degrees (1988), was utilized for the most recent full and part-time (undergraduate and graduate) enrolment figures at the time of the study, with data available for the 1988-89 school year. The FTE enrolment for each institution was calculated on this basis.

Size of the Interuniversity Athletics Program. Size of program was based on the number of men's and women's sports offered. Respondents were asked to indicate, from a complete list provided in the Survey, which men's and women's sports were offered in their interuniversity athletics program during the 1989-90 academic year.

Administrative Structure. The fourth demographic variable was the administrative structure of the interuniversity athletics organization, in terms of its affiliation with, or independence of, an academic unit. Mathews (1974) was the first to describe interuniversity athletics organizations according to their structural arrangement. He identified five categories, of which the first three represented different degrees of affiliation with physical education, the fourth referred to an independent organization with no relationship to physical education, and

the fifth represented an independent organization where no physical education department was in existence. Inglis (1988) limited her examination of the structure of interuniversity athletics organizations in Ontario to two categories: (1) administrative affiliation with an academic unit, and (2) independence from an academic unit. Although a greater number of categories may better describe the administrative structure of interuniversity athletics organizations in Canada, the current study limited the respondents' choice to one of three: (1) affiliated with an academic unit (e.g., physical education), such that the athletics director answers to the dean/director or faculty/school council on major issues; (2) independent of an academic unit; and (3) other. The third option was intended to represent those institutions where no related academic unit (e.g., physical education) exists.

4.4 Statistical Treatment of the Data

The sample of Canadian interuniversity athletics directors was taken from the conceptual population of all individuals with these particular characteristics. This permitted the use of descriptive and inferential statistics to describe reported resource dependence in their respective organizations and their perceptions of environmental control.

4.4.1 Perceived Environmental Control

Univariate ANOVAs with repeated measures on the environmental elements were run on SPSS^x, permitting the examination of perceived environmental control over the seven organizational activities. The univariate F statistic was used to determine whether the elements' ratings of perceived control over each activity were random, or whether there were systematic differences between the means. In order to

proceed with the analysis, corrections were made for any violations of symmetry, which were verified by Mauchly's test of sphericity (Howell, 1987; SPSS, 1988a). When necessary, the Huynh-Feldt epsilon was used to adjust the degrees of freedom in the numerator and denominator of the F ratio, the significance of which was re-evaluated with the new degrees of freedom (Howell, 1987; SPSS, 1988a). The univariate F test results were used to determine whether there were potentially meaningful differences among the observations of perceived environmental control over each activity. Post hoc Tukey's critical value tests (α=.05) were conducted to further locate any potentially meaningful differences between the environmental elements. Where required, the adjusted degrees of freedom from the preceding analyses were carried through for the calculation of the critical criteria.

Two-way univariate ANOVAs with repeated measures on the environmental elements were run for perceived control by each of the control variables as well. Where necessary, the Huynh-Feldt epsilon was applied to correct for any violation of symmetry. Adjustments were made only to those F ratios which were significant in their uncorrected form, since the corrected results are approximate and reflect a smaller F value (SPSS, 1988b). Post hoc Tukey's tests (α=.05) were also carried out to further examine those interactions which were statistically meaningful. The harmonic mean (Howell, 1987) of the unequal sample sizes for the levels of each control variable was calculated so that the Tukey's critical criterion could be applied.

To gain greater insight into the dynamics of perceived environmental control, taped interviews were conducted with 33 of the respondents. These semi-structured interviews were transcribed in full. The interview data were coded with respect to the elements and

activities being discussed, and according to various themes that emerged from the interviews. The findings of the interviews complement the presentation of results in the next chapter.

4.4.2 Resource Dependence

Considerable variability among the standard deviation values of the sources discouraged the analysis of resource dependence by repeated measures ANOVA. Instead, the Student's t statistic was used to selectively compare the repeated measures (Howell, 1989). A purely descriptive analysis of relative funding, by the demographic variables, was also carried out.

4.4.3 Resource Dependence and Perceived Environmental Control

Spearman rank correlations (r_s) were run on SPSS^x to examine the hypothesized relationship between the interuniversity athletics organization's relative resource dependence on funding sources in the environment, and the perceived control of those sources, or elements, over the organization's activities. This non-parametric statistical test of association was chosen because it is less sensitive to data which do not exhibit a normal distribution, as observed for the highly variable and skewed resource dependence data (Minium, 1978). This type of data is less likely to be represented in a linear relationship between the variables, which is a basic assumption of the Pearson correlation analysis (Roscoe, 1975; Shavelson, 1981). Non-linear relationships were apparent in several of the bivariate scatterplots.

Chapter V

PRESENTATION OF THE RESULTS

This chapter presents the results of the statistical treatment of the data collected in the Survey of Canadian Interuniversity Athletics Programs. A demographic description of the organizations which responded is presented first. This description is followed by the presentation of results which address the research questions: What is the perceived environmental control over interuniversity athletics in Canada?; and, What are the resource dependencies in interuniversity athletics, in terms of relative funding? Both questions are also considered with respect to the four demographic variables, which were used to help explain respondent variation. Finally, the results of the hypothesized relationship between the interuniversity athletics organization's resource dependence on an element in its environment, and the perceived control of that element over the organization are presented.

5.1 A Demographic Description of Canadian Interuniversity Athletics

The 34 Canadian interuniversity athletics organizations for which athletics directors responded to the survey (75.5%) were described according to the four demographic variables: conference, size of institution, size of program, and administrative structure. This information was used in further analyses to determine whether these variables are factors in the perceived degree of environmental control, or the relative funding of interuniversity athletics.

5.1.1 Conference

Table 5 presents the breakdown of respondents from each of the five regional conferences: Canada West Universities Athletic Association (CWUAA), Great Plains Athletic Conference (GPAC), Ontario Universities Athletic Association and Ontario Women's Intercollegiate Athletic Association (OU/OWIAA), Quebec Student Sports Federation (QSSF), and Atlantic Universities Athletic Association (AUAA). The results also show what percentage of the total conference memberships they comprise.

5.1.2 Size of Institution

The full-time equivalent (FTE) enrolment for each institution was calculated by adding the number of full-time students (graduate and undergraduate) to the number of part-time students divided by 3.5 (Statistics Canada, 1990). Three groups were identified which represented natural divisions by the size of FTE enrolments, and resulted in fairly equal sample sizes for each group (see Table 6): Small ($n < 4,500$), Medium ($4,500 \leq n \leq 14,500$), and Large ($n > 14,500$). These groupings are similar to those used by Chelladurai and Danylchuk (1984) and Inglis (1988).

5.1.3 Size of Program

Respondents were asked to indicate, from a complete list, which men's and women's sports were offered by their interuniversity athletics program during the 1989-90 school year. Three groups were identified which represented natural divisions by the combined number of men's and women's sports offered by each program, and resulted in fairly equal sample sizes for each group (see Table 6): Small ($n \leq 11$), Medium ($12 \leq$

Table 5

Description of Respondents, by Conference.

CONFERENCE	RESPONDENTS (n)	CONFERENCE POPULATION	% OF CONFERENCE POPULATION
Canada West Universities Athletic Association (CWUAA)	4	6	66.7
Great Plains Athletic Conference (GPAC)	4	4	100.0
Ontario Universities/ Ontario Women's Intercollegiate Athletic Association (OU/OWIAA)	12	17	70.6
Quebec Student Sports Federation (QSSF)	5	7	71.4
Atlantic Universities Athletic Association (AUAA)	9	11	81.8
Total	34	45	75.5

Table 6

Description of Respondents, by Size of Institution, Size of Program, and Administrative Structure (N=34).

VARIABLE	n	% OF SAMPLE
Size of Institution (Full-time Equivalent)		
Small (n < 4,500)	12	35.3
Medium (4,500 ≤ n ≤ 14,500)	10	29.4
Large (n > 14,500)	12	35.3
Size of Program (# Men's & Women's Sports)		
Small (n ≤ 11)	12	35.3
Medium (12 ≤ n ≤ 16)	11	32.3
Large (n ≥ 17)	11	32.3
Administrative Structure		
Affiliated	15	44.1
Independent	10	29.4
No Related Academic Unit	9	26.4

$n \leq 16$), and Large ($n \geq 17$). These categories are smaller than those used in Inglis' (1988) study of the OU/OWIAA. However, according to the cross-tabulation results in Table C-4, Appendix C, the OU/OWIAA had a substantially greater number of Large programs than any other conference, which suggests that programs in the other conferences reduced the national average in this study. Additional descriptive statistics regarding this variable are presented in Tables C-1 and C-2.

5.1.4 Administrative Structure

Respondents were asked to identify which type of administrative structure most closely describes their interuniversity athletics organization. The results, presented in Table 6, indicate that less than half of the interuniversity athletics organizations in Canada are affiliated with an academic unit. The number of interuniversity athletics organizations which are independent of an academic unit and the number which are housed in institutions with no related unit is very similar.

5.1.5 Additional Descriptive Statistics

In addition to providing information about the preceding demographic variables, the respondents were asked to indicate whether their institution had an athletics board, and to describe the composition of that board. Twenty-seven respondents (79.4%) indicated that there was some type of athletics board within their institution. The relative composition of these boards is described in Table C-3, Appendix C. Appendix C also includes several tables which present the following descriptions of interuniversity athletics programs for which surveys were completed: (a) size of institution, size of program,

administrative structure, and athletics board, by conference (Table C-4), (b) size of program, administrative structure, and athletics board, by size of institution (Table C-5), (c) administrative structure and athletics board, by size of program (Table C-6), and (d) athletics board by administrative structure (Table C-7).

5.2 Perceived Environmental Control over Interuniversity Athletics

Table 7 presents a descriptive matrix of the mean ratings and standard deviation values for perceived control of the environmental elements over each of the seven organizational activities, and overall (columns SF to O). A scale of 1 (no influence) to 10 (considerable influence) was used to rate perceived control.

In order to determine whether the relationships between each element's rating of overall perceived control and perceived control over each activity were sufficiently strong and consistent to warrant the exclusive use of the overall measure, Pearson correlation coefficients were employed. According to the results in Table 8, several of the coefficients surpassed the minimum acceptance criterion of $r \geq .50$, however there was some variation across the elements and activities. Therefore, it was decided that the overall measure offered only a rough approximation, and that the individual activities provided a better profile of perceived environmental control.

In order to examine the perceived environmental control observations more closely, Table 9 presents the ranking of elements (E) within each activity, according to the mean ratings of perceived control (columns). It appears that the interuniversity athletics organization (E4) was consistently perceived to have the highest degree of control over the activities, while the university central administration (E1)

Table 7

Ratings of Perceived Control of Environmental Elements over Activities of the Interuniversity Athletics Organization (N=34).

ELEMENTS	ORGANIZATIONAL ACTIVITIES*							
	SF	H	EP	AF	DO	EC	CCP	O
E1 Univ. Central Admin.	7.82[a]	6.79	7.09	5.06	3.15	4.76	4.91	7.12
	(1.90)[b]	(2.90)	(2.53)	(3.07)	(2.35)	(2.30)	(3.00)	(2.23)
E2 Affiliated Faculty/ Recreation Dept.	3.85	4.41	5.00	3.71	3.94	3.18	2.94	4.58
	(2.94)	(3.13)	(3.37)	(2.97)	(2.92)	(2.56)	(2.78)	(2.86)
E3 Athletics Board	5.00	3.96	6.89	6.04	4.19	4.52	5.26	6.48
	(3.03)	(3.08)	(2.81)	(2.79)	(2.84)	(2.47)	(3.29)	(2.86)
E4 Interuniversity Athletics Organization	7.88	8.35	9.23	8.65	9.41	9.23	9.23	9.21
	(2.21)	(2.03)	(0.78)	(1.77)	(0.78)	(0.85)	(1.33)	(0.95)
E5 Student-Athletes	3.87	3.91	5.35	3.79	4.80	4.76	4.35	5.73
	(2.25)	(2.61)	(2.38)	(2.31)	(2.42)	(2.17)	(2.79)	(2.39)
E6 General Student Body	3.85	1.62	3.12	2.62	2.76	3.68	2.26	3.85
	(2.64)	(1.21)	(2.54)	(2.26)	(2.07)	(2.41)	(1.90)	(2.48)
E7 Alumni	3.67	2.15	2.91	2.21	1.62	4.06	1.85	3.26
	(1.84)	(1.63)	(1.80)	(1.57)	(0.92)	(2.21)	(1.37)	(1.69)
E8 Prov'l./Fed'l. Sport Orgns. & Ministries	3.35	2.26	2.21	2.09	1.44	2.00	1.94	2.71
	(2.63)	(2.21)	(2.00)	(1.78)	(1.13)	(1.58)	(1.56)	(2.12)
E9 Conference	2.42	1.47	5.15	3.47	3.62	5.44	6.47	5.41
	(1.86)	(1.26)	(2.56)	(2.41)	(2.84)	(2.48)	(2.71)	(2.48)
E10 CIAU	2.73	1.68	5.12	3.29	3.32	5.18	5.82	5.21
	(2.12)	(1.61)	(2.68)	(2.41)	(2.55)	(2.48)	(2.97)	(2.51)
E11 Corporate Sponsors	4.68	1.29	1.41	1.88	1.65	3.62	1.82	2.65
	(2.47)	(1.55)	(0.82)	(1.79)	(1.47)	(2.59)	(1.58)	(1.76)
E12 Prov'l. Education Orgns. & Ministries	2.76	1.15	1.76	1.35	1.12	1.47	1.18	1.97
	(2.45)	(0.50)	(1.61)	(1.10)	(0.33)	(0.96)	(0.46)	(1.59)
E13 Media	2.35	1.56	1.47	1.41	1.38	6.68	1.76	3.26
	(2.07)	(1.19)	(0.79)	(1.05)	(1.01)	(2.25)	(1.33)	(2.03)
E14 Community	3.45	1.35	1.65	1.38	1.85	3.85	1.59	2.64
	(2.04)	(0.85)	(1.25)	(0.89)	(1.31)	(2.92)	(1.58)	(2.04)
E15 Pro. Sport Leagues	1.48	1.06	1.15	1.12	1.06	1.61	1.15	1.32
	(1.39)	(0.24)	(0.56)	(0.41)	(0.24)	(1.65)	(0.56)	(1.01)

* SF Secur'g Funds, H Hir'g, EP Estab. Philos., AF Allocat'g Funds, DO Daily Operat'ns, EC Ext. Commun., CCP Conf./CIAU Particip., O Overall

[a] Mean Value, Scale of 1 (low) to 10 (high) [b] Standard Deviation Value

Table 8

Pearson Correlation Coefficients to Examine the Relationship Between each Element's Rating of Perceived Control Overall (O) and over each Organizational Activity (N=34).

ELEMENT	ORGANIZATIONAL ACTIVITIES*						
	SF	H	EP	AF	DO	EC	CCP
E1 Univ. Central Admin.	.33▲	.64	.79	.66	.36	.60	.55
E2 Affiliated Faculty/ Recreation Dept.	.72	.72	.81	.43	.39	.34	.69
E3 Athletics Board	.69	.69	.83	.79	.59	.57	.82
E4 Interuniversity Athletics Organization	.33	.34	.60	.22	.45	.35	.10
E5 Student-Athletes	.56	.66	.63	.53	.79	.67	.76
E6 General Student Body	.43	.49	.85	.67	.60	.57	.61
E7 Alumni	.52	.28	.58	.50	.38	.56	.56
E8 Prov'l./Fed'l. Sport Orgns. & Ministries	.69	.62	.56	.50	.50	.68	.77
E9 Conference	.29	.14	.64	.65	.58	.72	.47
E10 CIAU	.46	.23	.73	.59	.59	.65	.48
E11 Corporate Sponsors	.65	.43	.67	.57	.59	.41	.25
E12 Prov'l. Education Orgns. & Ministries	.69	.46	.52	.27	.06	.21	.09
E13 Media	.64	.33	.32	.30	.17	.20	.16
E14 Community	.54	.43	.71	.61	.20	.66	.73
E15 Pro. Sport Leagues	.77	.17	.51	.20	.04	.75	.45

* SF Secur'g Funds, H Hir'g, EP Estab. Philos., AF Allocat'g Funds, DO Daily Operat'ns, EC Ext. Commun., CCP Conf./CIAU Particip.

▲ For $r \leq .38$, $p < .05$; for $.39 \leq r \leq .49$, $p < .01$; for $r \geq .50$, $p < .001$

Table 9

Ranking of Environmental Elements (E) by Perceived Control over each Organizational Activity (mean values provided), with Univariate F Results and Tukey's post hoc critical criteria (N=34).

	ORGANIZATIONAL ACTIVITIES*						
RANK	SF	H	EP	AF	DO	EC	CCP
1	E4 (7.88)	E4 (8.35)	E4 (9.23)	E4 (8.65)	E4 (9.41)	E4 (9.23)	E4 (9.23)
2	E1 (7.82)	E1 (6.79)	E1 (7.09)	E3 (6.04)	E5 (4.80)	E13 (6.68)	E9 (6.47)
3	E3 (5.00)	E2 (4.41)	E3 (6.89)	E1 (5.06)	E3 (4.19)	E9 (5.44)	E10 (5.82)
4	E11 (4.68)	E3 (3.96)	E5 (5.35)	E5 (3.79)	E2 (3.94)	E10 (5.18)	E3 (5.26)
5	E5 (3.87)	E5 (3.91)	E9 (5.15)	E2 (3.71)	E9 (3.62)	E1 (4.76)	E1 (4.91)
6	E2 (3.85)	E8 (2.26)	E10 (5.12)	E9 (3.47)	E10 (3.32)	E5 (4.76)	E5 (4.35)
7	E6 (3.85)	E7 (2.15)	E2 (5.00)	E10 (3.29)	E1 (3.15)	E3 (4.52)	E2 (2.94)
8	E7 (3.67)	E10 (1.68)	E6 (3.12)	E6 (2.62)	E6 (2.76)	E7 (4.06)	E6 (2.26)
9	E14 (3.45)	E6 (1.62)	E7 (2.91)	E7 (2.21)	E14 (1.85)	E14 (3.85)	E8 (1.94)
10	E8 (3.35)	E13 (1.56)	E8 (2.21)	E8 (2.09)	E11 (1.65)	E6 (3.68)	E7 (1.85)
11	E12 (2.76)	E9 (1.47)	E12 (1.76)	E11 (1.88)	E7 (1.62)	E11 (3.62)	E11 (1.82)
12	E10 (2.73)	E14 (1.35)	E14 (1.65)	E13 (1.41)	E8 (1.44)	E2 (3.18)	E13 (1.76)
13	E9 (2.42)	E11 (1.29)	E13 (1.47)	E14 (1.38)	E13 (1.38)	E8 (2.00)	E14 (1.59)
14	E13 (2.35)	E12 (1.15)	E11 (1.41)	E12 (1.35)	E12 (1.12)	E15 (1.61)	E12 (1.18)
15	E15 (1.48)	E15 (1.06)	E15 (1.15)	E15 (1.12)	E15 (1.06)	E12 (1.47)	E15 (1.15)
F^{obs} ▲	26.42**	50.64**	59.57**	38.73**	52.00**	39.05**	53.23**
Tukey's Critical Criteria (α=.05)	2.05	2.05	2.16	2.05	2.08	1.75	2.24

* SF Secur'g Funds, H Hir'g, EP Estab. Philos., AF Allocat'g Funds, DO Daily Operat'ns, EC Ext. Communic., CCP Conf./CIAU Particip. ---- Critical Breaks

▲ F^{obs} calculated using Huynh-Feldt epsilon to adjust df, for violation of sphericity. ** α=.01

and athletics board (E3) were perceived to have a considerable degree of control over many of the activities. The results further suggest that the student-athletes (E5), conference (E9), and CIAU (E10) were perceived to have greater control over several of the activities than any of the remaining elements.

For descriptive purposes, the following labels may be applied to the respective mean ratings of perceived control: (1.0-3.9) relatively little or no control, (4.0-6.9) moderate control, and (7.0-10.0) considerable control. These labels do not necessarily reflect statistical differences. Table 9 also displays the univariate F test results from the analysis of variance with repeated measures on the environmental elements. To correct for violations of symmetry, the Huynh-Feldt epsilon was used to adjust the degrees of freedom in the numerator and denominator of the F ratio (Howell, 1987; SPSS, 1988a); based on the original df(14, 462) values, the adjusted $df_{within\text{-}subjects}$ values ranged from 7 to 11 (rounded off), and the adjusted df_{error} values ranged from 218 to 354 (rounded off). The findings reveal that there were significant differences among the elements within each organizational activity (α=.01).

To examine these differences further, the corresponding Tukey's critical criterion (α=.05) was applied to each pair of observations within each activity. As expected with a post hoc multiple comparison of means, it was difficult to identify a consistent pattern among the ratings. However, for the purpose of results presentation and discussion, the best pattern of perceived control over each activity was identified by critical levels between the ranked elements. These levels are identified by the broken lines in each column in Table 9. Tables D-1 to D-7, Appendix D, present the pairwise comparisons for the Tukey's

post hoc analyses from which the critical levels were identified.

Selected passages from the supplementary interviews which support the following presentation of empirical results are presented in Tables D-8 to D-13. The respondents' institutions were assigned a random number code to ensure anonymity. A summary of perceived environmental control over interuniversity athletics appears in sub-section 5.2.8.

5.2.1 Securing Funds (SF)

The interuniversity athletics organization (E4) and central administration (E1) were perceived to have significantly greater control over securing funds than any of the other elements (α=.05). The considerable perceived control of the organization was described by its fundamental involvement in requesting and justifying funds for its program. The athletics directors also described the organization as having increased control over the securing of funds via fundraising, from both university and non-university sources (see Table D-8).

The considerable control which central administration was perceived to have over securing funds was described by its role in the formal approval of the amount of university general funds apportioned to the interuniversity athletics organization and/or its approval of the overall amount of the student activity fee which could be collected, and subsequently the percentage of that fee which was allocated to the organization. Even when university funds did not substantially support the interuniversity athletics program, central administration was involved in that activity by way of formal and/or tacit approval for the nature and source of the organization's fundraising efforts, particularly with regard to corporate sponsors (see Table D-8).

A few respondents also described the considerable degree of

negative control which central administration was perceived to have over the organization's securing of funds. This was related to an increased need for the organization to seek additional or alternate sources due to, for example, overhead charged for facilities and university-wide taxes levied on any revenues.

The athletics board (E3) and corporate sponsors (E11) were perceived to have moderate control over securing funds, described by their direct involvement in the approval of budget and provision of funds, respectively. However, they did not differ significantly from most of the remaining elements in their degree of perceived control over this activity.

5.2.2 Hiring (H)

Again, the interuniversity athletics organization (E4) and central administration (E1) were perceived to have significantly greater control over the hiring of coaches and administrators than any of the other elements (α=.05), although the former represents considerable and the latter moderate control. Despite their similar ratings, these two groups were described as being involved in different stages of the hiring process.

According to the interview data, the organization would initiate the process by indicating the need to hire, however the athletics director was restrained from any further action until central administration authorized the establishment, or continuation, of the position and the salary. The organization could then, usually through a designated selection committee, commence with the hiring process of recruiting applicants and selecting an individual to fill that position. Beyond establishing certain employment criteria, central administration

was reported to have little control over the final selection, except to sign the contract and formally offer the position to the chosen candidate (see Table D-9). A few respondents described central administration as having more control over the selection and hiring of the athletics director than of the coaches.

The affiliated faculty/recreation department (E2), athletics board (E3), and student-athletes (E5) comprised a second level of perceived control over hiring, although the latter two elements were perceived to have relatively little control. The moderate perceived control of the affiliated faculty/recreation department (E2) was described by its direct involvement in the development of job descriptions, and representation on the selection committees, when the positions were cross-appointments with interuniversity athletics. Also, if coaching or athletics administration appointments were academic positions, then usually the approval of the dean of the faculty had to be sought. However, there was some variation regarding whether the faculty had to be represented on the selection committee, or whether their involvement was by request of the organization (see Table D-9).

The degree of involvement of the athletics board (E3) and student-athletes (E5) in the hiring process was reportedly varied, although the demographic variables examined in this study could not explain this variation. Respondents noted that the perceived control of the athletics board varied from none, to involvement as a courtesy, to a level of control equivalent to the faculty (see Table D-9). The reported involvement and perceived control of the student-athletes in the hiring process, although varied, was both formal through representation on the selection committee, and informal through input solicited by the athletics director (see Table D-9). Although these two

elements differed significantly from most of the remaining elements, they were perceived to have relatively little control. The remaining elements did not differ significantly with regard to perceived control over hiring.

5.2.3 Establishing Philosophy (EP)

The interuniversity athletics organization (E4) was perceived to have significantly greater control over the establishment of its philosophy, goals and policies, than most of the other elements (α=.05). While it was not significantly distinct from central administration (E1), and both were perceived to have considerable control, the organization was considered as the top level of control over this activity. A second level of perceived control comprised central administration, and the moderate perceived control of the athletics board (E3), student-athletes (E5), conference (E9), CIAU (E10), and affiliated faculty/recreation department (E2).

According to the athletics directors, the considerable degree of perceived control of central administration (E1) was both explicit and implicit in nature. Establishng philosophy was described as either a top-down or bottom-up process. Where there was top-down involvement, central administration was described as clearly indicating its desired direction for interuniversity athletics; when the organization's philosophy was a bottom-up process, central administration would formally approve the philosophy that was passed up. Central administration's implicit control was described by the organization's perceived obligation to function within the guidelines of the university's philosophy (see Table D-10).

The moderate perceived control of the athletics board (E3) was

also described by its formal role in either the bottom-up or top-down process of establishing philosophy. Where the process was bottom-up, the athletics board was typically the first line of discussion and approval of interuniversity athletics philosophy and policy, on its way to central administration. For both processes, the athletics board was described as having explicit and implicit control over ensuring that the philosophy was being preserved. Nevertheless, that perceived control was reportedly varied, ranging from the athletics board's direct involvement in establishing philosophy, to none at all (see Table D-10).

The student-athletes' (E5) moderate perceived control over establishing philosophy was predominately described by their representation on the athletics board, direct input to the athletics director via formal and informal captains' and team meetings, and, to a lesser extent, indirect input via the coaches. In addition, as the perceived prime beneficiaries of the interuniversity athletics program, they were described as having implicit control over program philosophy, such that their best interests were taken into account (see Table D-10).

The conference (E9) and CIAU (E10) were perceived to have moderate control over establishing the philosophy of the interuniversity athletics organization, which was described by the essentiality of the organization to adopt and adhere to their respective philosophies and programs in order to be an active member (see Table D-10). However, two respondents indicated that, although they were influenced by these groups, if their organization's philosophy was in contradiction to that of the conference or CIAU, then they would probably not have been involved in interuniversity athletics.

Finally, the moderate perceived control of the affiliated faculty/recreation department (E2) was primarily described by the

faculty's role in the development and approval of the philosophy of interuniversity athletics, which it passed up to central administration. It was varyingly described by the explicit control of the dean, faculty council and/or faculty representatives on the athletics board. Faculty coaches were described as, at least tacitly, augmenting the affiliated faculty's perceived control over this task by virtue of their dual roles (see Table D-10). Due to its affiliation, the recreation department was reported to have a parallel philosophy to interuniversity athletics, although it was described as having very little influence over the establishment of the organization's philosophy. The remaining elements did not differ significantly in terms of perceived control over this activity.

5.2.4 Allocating Funds (AF)

Again, the interuniversity athletics organization (E4) was perceived to have significantly greater control over the allocation of funds in its program than any other element (α=.05), because of the direct responsibility for its own budgeting. The athletics board (E3) and central administration (E1) constituted a second level of moderate perceived control over this activity.

The perceived control of the athletics board was described by its formal approval of the interuniversity athletics organization's budget, as opposed to any detailed involvement in the actual allocation process (see Table D-11). The control which central administration was perceived to have was not described by any direct involvement in apportioning funds to each sport but was implied by its formal approval of the amount with which the interuniversity athletics organization had to work. This element was also described as having control over the

addition or deletion of a sport when university funding was a major factor in that decision (see Table D-11). The remaining elements did not generally differ from each other in terms of perceived control over allocating funds.

5.2.5 Daily Operations (DO)

The interuniversity athletics organization (E4) was perceived to have significantly greater control than any other element over its daily operations (α=.05), which further reflected its direct responsibility for all aspects of the program, and particularly on a day to day basis. Although the student-athletes (E5) and athletics board (E3) were perceived to have moderate control over this activity, it was not significantly greater than many of the remaining elements.

5.2.6 External Communication (EC)

With respect to this activity, the interuniversity athletics organization (E4), again, was perceived to have significantly greater control than any other element (α=.05). This perception of considerable control was described by their direct responsibility for the sports information and external communication aspects of the program (see Table D-12).

The media (E13) was perceived to have moderate control, and constituted a second level. This control was described by the organization's dependence on the media as a means of keeping in touch with the community, as well as the media's direct involvement in the organization's external communication sub-activities (see Table D-13). Although the conference (E9), CIAU (E10), central administration (E1), student-athletes (E5), athletics board (E3), and alumni (E7) were

perceived to have moderate control over external communication, they did not generally differ from the remaining elements.

5.2.7 Conference and CIAU Participation (CCP)

The interuniversity athletics organization (E4) was also perceived to have significantly greater control over this activity than any other element (α=.05). Again, this considerable perceived control was described by the organization's direct responsibility for representing the institution (see Table D-13). The conference (E9), CIAU (E10), athletics board (E3), central administration (E1), and student-athletes (E5) were perceived to have significantly greater control over the organization's conference and CIAU participation than most of the other environmental elements (α=.05), and comprised a second level of control. The remaining elements did not differ significantly.

The conference (E9) was perceived to have moderate control over the organization's position at the CIAU level, in terms of the tendency of conference members to join forces in presenting a regional vote (see Table D-13). The perceived moderate control of the CIAU (E10) was described by the organization's membership and the commensurate adoption of its policies, rules and regulations, as well as the indirect pressure of the membership to comply (see Table D-13).

The athletics board (E3) was perceived to have moderate control over the interuniversity athletics organization's position at the conference and CIAU levels, in terms of its formal role in the discussion of issues and approval of policy (see Table D-13). The moderate control which central administration (E1) was perceived to have over the organization's position at the conference and CIAU levels was described as explicit, in terms of discussions with the president about

particular issues, and/or implicit, in terms of a perceived obligation to act in accord with the university's philosophy (see Table D-13). Central administration's perceived control was also described by the CIAU requirement for presidential designation of a university representative, typically the athletics director, to its meetings.

Finally, the student-athletes (E5) were perceived to have moderate control, which was described by their involvement as student delegates in several of the conferences, their role on the athletics board, and informal dialogue with the athletics director. They were, again, described as having tacit control over conference and CIAU participation as the perceived raison d'être of the interuniversity athletics program (see Table D-13).

5.2.8 Summary

Table 9 presents the rankings of the 15 environmental elements according to their mean ratings of perceived environmental control over the seven activities of the interuniversity athletics organization. Univariate F analyses revealed that there were significant differences among the elements' ratings for each activity, and post hoc Tukey's tests helped to identify critical breaks in the levels of control. The interview data corroborate these findings and provide further insight into the dynamics of perceived environmental control. Complementary passages are presented in Tables D-8 to D-13, Appendix D.

The interuniversity athletics organization (E4) was perceived to have considerable control over each activity and was consistently rated the highest among the elements. Although the organization comprised the top level of control over each activity, it was not completely autonomous from the control of several other elements.

The university central administration (E1) shared with the organization the top level of perceived control over two activities - securing funds and hiring. Central administration (E1) and the athletics board (E3) were perceived to constitute a second level of moderate perceived control over allocating funds. The affiliated faculty/recreation department (E2), athletics board (E3), and student-athletes (E5) comprised a second level of perceived control over hiring, although the latter two elements were perceived to have relatively little control.

Several environmental elements (central administration E1, athletics board E3, student-athletes E5, conference E9, CIAU E10, and affiliated faculty/recreation department E2) were perceived to have at least moderate control over establishing philosophy, and constituted a second level of control over that activity. These same elements, with the exception of affiliated faculty/recreation department, were also perceived to have moderate control over conference and CIAU participation, comprising a second level of control there.

With regard to daily operations, the interuniversity athletics organization (E4), itself, was perceived to have significantly greater control than any of the other environmental elements. The student-athletes (E5) and athletics board (E3) were perceived to have moderate control, but it was not significantly greater than most of the remaining elements. Finally, the organization also comprised a top level of considerable control over external communication, and was perceived to have significantly greater control than any other element. However, the media (E13) constituted a second level of moderate perceived control. The conference (E9), CIAU (E10), central administration (E1), student-athletes (E5), athletics board (E3), and alumni (E7) were also perceived

to have moderate control over this activity. However, they were not perceived to differ significantly from the remaining elements.

5.3 Perceived Environmental Control over Interuniversity Athletics, by the Demographic Variables

The results of two-way ANOVAs with repeated measures on the environmental elements revealed several significant interaction effects, according to the four demographic variables. The univariate F results presented in Table 10 indicate that a total of nine significant interaction effects were observed, for four of the seven activities. Where indicated, the Huynh-Feldt epsilon was used to correct for violations of symmetry (SPSS, 1988a); the adjusted degrees of freedom are reported in the table. Only the interaction effects are reported, as the results of the within-subjects main effects for the elements within each activity have already been presented in Table 9, Section 5.2. The small sample sizes of the demographic variables' sub-groups discouraged the consideration of between-subjects simple main effects thus, only the within-subjects simple main effects were examined.

A post hoc analysis of simple main effects was conducted by applying the Tukey's critical criterion (α=.05) for each significant interaction to the corresponding cell means. A summary of those simple main effects which were identified as significant is presented in Tables 11 to 14. Again, the identification of a consistent pattern among the ratings was difficult with a post hoc multiple comparison of means, thus general trends are presented.

The results in Table 11 reveal that, for the organizational activity of securing funds, significant simple main effects were observed between the conference variable and perceived control of four

Table 10

Two-way Univariate F Test Results of the Interaction Effect of Environmental Elements and Demographic Variables on Perceived Control over Organizational Activities.

ACTIVITY	SOURCE OF VARIATION	F^{obs}	
Securing Funds (SF)	Elements X Conference	2.28▲**	df(49, 355)[a]
	Elements X Size of Inst.	1.57▲*	df(20, 307)
	Elements X Size of Program	1.25	df(28, 434)
	Elements X Admin. Structure	0.96	df(28, 434)
Hiring (H)	Elements X Conference	1.38▲	df(37, 271)
	Elements X Size of Inst.	1.78▲*	df(17, 264)
	Elements X Size of Program	0.77	df(28, 434)
	Elements X Admin. Structure	2.23▲**	df(17, 259)
Establishing Philosophy (EP)	Elements X Conference	2.08▲**	df(37, 268)
	Elements X Size of Inst.	1.26	df(28, 434)
	Elements X Size of Program	1.20	df(28, 434)
	Elements X Admin. Structure	2.42▲**	df(18, 276)
Allocating Funds (AF)	Elements X Conference	1.58▲*	df(41, 300)
	Elements X Size of Inst.	1.62▲*	df(18, 282)
	Elements X Size of Program	1.76▲*	df(18, 277)
	Elements X Admin. Structure	1.51▲	df(19, 292)
Daily Operations (DO)	Elements X Conference	1.16	df(56, 406)
	Elements X Size of Inst.	1.27	df(28, 434)
	Elements X Size of Program	1.57▲	df(15, 228)
	Elements X Admin. Structure	1.33	df(28, 434)
External Communication (EC)	Elements X Conference	0.96	df(56, 406)
	Elements X Size of Inst.	1.19	df(28, 434)
	Elements X Size of Program	1.18	df(28, 434)
	Elements X Admin. Structure	0.99	df(28, 434)
Conference and CIAU Participation (CCP)	Elements X Conference	1.27	df(56, 406)
	Elements X Size of Inst.	0.46	df(28, 434)
	Elements X Size of Program	1.03	df(28, 434)
	Elements X Admin. Structure	1.61▲	df(14, 225)

▲ P^{obs} calculated using Huynh-Feldt epsilon to adjust df, for violation of sphericity.
** α=.01, * α=.05
[a] Adjusted df rounded off.

Table 11

Summary of Simple Main Effects for Perceived Environmental Control over Securing Funds, by the Conference and Size of Institution Variables (based on Tukey's critical criteria, α=.05).

ELEMENT	Activity: SECURING FUNDS Variable: CONFERENCE	TUKEY'S CRITICAL CRITERIA (α=.05)
Affiliated Faculty/ Recreation Dept. (E2)	CWUAA M=6.50[a] (3.51)[b] GPAC M=6.25 (3.86) OU/OWIAA M=4.75 (2.45) AUAA M=1.78 (0.83) QSSF M=1.40 (0.89)	3.37
Prov'l./Fed'l. Sport Orgns. & Ministries (E8)	GPAC M=7.00 (1.83) QSSF M=4.60 (2.88) CWUAA M=4.50 (1.91) AUAA M=2.56 (2.60) OU/OWIAA M=1.83 (1.34)	3.37
Corporate Sponsors (E11)	GPAC M=6.75 (2.06) CWUAA M=6.50 (2.52) QSSF M=6.00 (2.91) AUAA M=4.11 (1.36) OU/OWIAA M=3.25 (2.22)	3.37
Provincial Education (E12) Orgns. & Ministries	GPAC M=5.50 (3.42) CWUAA M=3.00 (2.71) OU/OWIAA M=2.83 (2.72) QSSF M=2.35 (1.32) AUAA M=1.56 (2.45)	3.37

ELEMENT	Activity: SECURING FUNDS Variable: SIZE OF INSTITUTION	TUKEY'S CRITICAL CRITERIA (α=.05)
General Student Body (E6)	Large M=5.24 (2.87) Medium M=3.50 (2.99) Small M=2.75 (1.36)	2.39

[a] Mean value
[b] Standard Deviation value
[Identifies Significant Differences

Table 12

Summary of Simple Main Effects for Perceived Environmental Control over Hiring, by the Size of Institution and Administrative Structure Variables (based on Tukey's critical criteria, α=.05).

ELEMENT	Activity: HIRING Variable: SIZE OF INSTITUTION	TUKEY'S CRITICAL CRITERIA (α=.05)
Central Administration (E1)	┌Medium M=7.90[a] (2.23)[b] └Small M=7.67 (2.46) └Large M=5.00 (3.10)	2.25

ELEMENT	Activity: HIRING Variable: ADMINISTRATIVE STRUCTURE	TUKEY'S CRITICAL CRITERIA (α=.05)
Affiliated Faculty/ Recreation Dept. (E2)	┌Affiliated M=6.73 (2.68) └Independent M=3.00 (2.21) └No Related Academic Unit M=2.11 (1.96)	2.28

[a] Mean value
[b] Standard Deviation value
[Identifies Significant Differences

Table 13

Summary of Simple Main Effects for Perceived Environmental Control over Establishing Philosophy, by the Conference and Administrative Structure Variables (based on Tukey's critical criteria, α=.05).

Activity: ESTABLISHING PHILOSOPHY		
ELEMENT	Variable: CONFERENCE	TUKEY'S CRITICAL CRITERIA (α=.05)
Affiliated Faculty/ Recreation Dept. (E2)	GPAC M=6.75[a] (3.95)[b] CWUAA M=5.50 (3.70) OU/OWIAA M=5.42 (3.12) AUAA M=5.11 (3.79) QSSF M=2.00 (1.00)	3.57
Prov'l./Fed'l. Sport Orgns. & Ministries (E8)	GPAC M=6.25 (1.50) QSSF M=2.80 (2.68) AUAA M=1.67 (0.87) OU/OWIAA M=1.33 (0.78) CWUAA M=1.25 (0.50)	3.57
Conference (E9)	GPAC M=6.25 (2.99) OU/OWIAA M=5.67 (1.30) AUAA M=5.44 (3.54) CWUAA M=5.25 (1.71) QSSF M=2.40 (1.95)	3.57
CIAU (E10)	GPAC M=7.25 (2.50) CWUAA M=5.50 (2.08) AUAA M=5.33 (3.43) OU/OWIAA M=5.08 (1.93) QSSF M=2.80 (2.49)	3.57

Activity: ESTABLISHING PHILOSOPHY		
ELEMENT	Variable: ADMINISTRATIVE STRUCTURE	TUKEY'S CRITICAL CRITERIA (α=.05)
Affiliated Faculty/ Recreation Dept. (E2)	Affiliated M=7.47 (2.53) Independent M=3.70 (2.54) No Related M=2.33 (2.60) Academic Unit	2.29
CIAU (E10)	Affiliated M=6.33 (2.55) Independent M=4.30 (2.67) No Related M=4.00 (2.29) Academic Unit	2.29

[a] Mean value [b] Standard Deviation value [Identifies Significant Differences

Table 14

Summary of Simple Main Effects for Perceived Environmental Control over Allocating Funds, by the Size of Institution and Size of Program Variables (based on Tukey's critical criteria, α=.05).

ELEMENT	Activity: ALLOCATING FUNDS Variable: SIZE OF INSTITUTION	TUKEY'S CRITICAL CRITERIA (α=.05)
Central Administration (E1)	[Small M=6.83[a] (2.89)[b] [Medium M=4.80 (2.97) [Large M=3.50 (2.57)	2.34

ELEMENT	Activity: ALLOCATING FUNDS Variable: SIZE OF PROGRAM	TUKEY'S CRITICAL CRITERIA (α=.05)
Central Administration (E1)	[Small M=6.58 (3.00) [Medium M=4.73 (3.07) [Large M=3.73 (2.65)	2.35
Student-Athletes (E5)	[Large M=5.36 (2.01) [Medium M=3.45 (2.21) [Small M=2.67 (1.97)	2.35

[a] Mean value
[b] Standard Deviation value
[Identifies Significant Differences

environmental elements (α=.05). With regard to the affiliated faculty/recreation department (E2), the moderate perceived control of this element over interuniversity athletics organizations in the CWUAA and GPAC was significantly greater than its very little perceived control over organizations in the AUAA and QSSF (α=.05). The provincial/federal sport organizations and ministries (E8) in the GPAC were perceived to have considerable control over securing funds, which was significantly greater than the relatively little perceived control in the AUAA and OU/OWIAA (α=.05). The moderate perceived control of the corporate sponsors (E11) in the GPAC was significantly greater than the relatively little perceived control of that element in the OU/OWIAA (α=.05). Finally, provincial education organizations and ministries (E12) were perceived to have moderate control in the GPAC, which was significantly greater than no perceived control in the AUAA (α=.05).

The results in Table 11 also indicate that, for securing funds, significant simple main effects were observed between the size of institution variable and perceived control of the general student body (E6) (α=.05). This element was perceived to have moderate control over securing funds for interuniversity athletics organizations housed in Large institutions, which was significantly greater than its little perceived control over organizations in Small institutions.

With respect to the organizational activity of hiring, the results in Table 12 indicate that significant simple main effects were observed for the size of institution variable and perceived control of the university central administration (E1), and for the administrative structure variable and the affiliated faculty/recreation department (E2) (α=.05). Respondents from Small and Medium-sized institutions perceived central administration to have considerable control over the hiring

process, while those from Large institutions perceived that element to have significantly less, although moderate control (α=.05). Perceived environmental control over hiring also varied by the administrative structure of the interuniversity athletics organization. Respondents from Affiliated structures perceived the affiliated faculty/recreation department to have significantly greater control over this activity than those from Independent or No Related Academic Unit structures (α=.05).

According to the results in Table 13, significant simple main effects were observed for the activity of establishing philosophy, between the conference variable and perceived control of four environmental elements (α=.05). With regard to the affiliated faculty/recreation department (E2), results of the post hoc analyses seem to parallel those for securing funds. This element was perceived to have moderate control over establishing philosophy in organizations in the GPAC, which was significantly greater than its little perceived control over organizations in the QSSF (α=.05). The provincial/federal sport organizations and ministries (E8) were perceived to have moderate control over organizations in the GPAC that was significantly greater than their very little perceived control in the AUAA, OU/OWIAA, and CWUAA (α=.05). Significant simple main effects between the conference variable and perceived control of the conference (E9) and CIAU (E10) over establishing philosophy were also observed. Both the moderate perceived control of the conference and considerable perceived control of the CIAU over this activity in organizations in the GPAC was significantly greater than their little perceived control over organizations in the QSSF (α=.05).

Table 13 also presents observed significant simple main effects, for the activity of establishing philosophy, between the administrative

structure variable and perceived control of the affiliated faculty/recreation department (E2) and CIAU (E10) (α=.05). The affiliated faculty/recreation department was perceived to have considerable control over this activity in Affiliated organizations, which was significantly greater than its little perceived control in Independent organizations and those with No Related Academic Unit (α=.05). The CIAU was perceived to have significantly greater control over establishing philosophy in Affiliated organizations than in those which are Independent or have No Related Academic Unit (α=.05).

Finally, Table 14 presents the observed simple main effects for the significant interactions between perceived environmental control over allocating funds, and the size of institution and size of program variables. Despite a significant interaction for the conference variable, no further significant simple main effects were observed. With regard to the first variable, central administration (E1) was perceived to have significantly greater control over allocating funds in interuniversity athletics organizations housed in Small institutions than those housed in Large institutions (α=.05). With regard to the size of program variable, central administration (E1) was perceived to have moderate control over allocating funds in organizations with Small programs, which was significantly greater than its relatively little perceived control in organizations with Large programs (α=.05). The moderate perceived control of student-athletes (E5) over this activity in organizations with Large programs was significantly greater than its little perceived control in organizations with Small programs (α=.05).

To summarize, eight significant interactions were observed for four of the seven organizational activities, indicating that the demographic variables were able to explain some variation in perceived

environmental control among the respondents; the post hoc analysis of a ninth interaction was not able to locate any significant simple main effects. The size of institution variable was found in three of the eight significant interactions, while the conference and administrative structure variables were each found in two, and size of program in one. Further post hoc analyses were able to locate within-subject simple main effects, identifying differences among the sub-groups of several of the variables for perceived control of central administration (E1) and the affiliated faculty/recreation department (E2). Respondent variation in perceived control of the provincial/federal sport organizations and ministries (E8) and the CIAU (E10) was explained by two of the demographic variables, and one of the variables was able to explain respondent variation in the perceived control of each of the student-athletes (E5), general student body (E6), conference (E9), CIAU (E10), corporate sponsors (E11), and provincial education organizations and ministries (E12) elements.

5.4 Resource Dependence

A description of resource dependence in interuniversity athletics in Canada, in terms of relative funding, is presented in Table 15. (A description of funding from the various sources in absolute terms is provided in Table E-1, Appendix E). It appears that the greatest proportion of funding was from the university general fund, followed closely by the student activity fees, and internal revenues generated by the interuniversity athletics organization, itself. The high standard deviation values indicate that there was a considerable range among the respondents in terms of the percentage of funding from each source. For example, at least one interuniversity athletics organization did not

Table 15

A Description of the Relative Funding (%) of Interuniversity Athletics from Various Sources (N=34).

RANK	SOURCE	MEAN (%)	S.D.	MEDIAN	MIN.	MAX. (%)
1	University General Fund	40.68	31.89	41.93	0	96.32
2	Student Activity Fees	29.98	29.78	18.49	0	79.62
3	Internal Revenues	16.91	14.08	13.18	0	50.00
4	Prov'l. Gov't/Sport Orgns.	4.59	8.77	0.23	0	38.61
5	Corporate Sponsorships	4.41	5.33	2.28	0	20.94
6	Alumni Funding	2.19	3.86	0.65	0	20.08
7	Sport Canada/ Nat'l. Sport Orgns.	1.07	1.99	0.00	0	10.53
8	Other	0.16	0.64	0.00	0	2.99
Total		100.00				

receive any funding from the university general fund, while at least one received over 96% of its budget from that source. The median values in Table 15 give further insight into the skewness of the data, revealing that the relative funding values for all sources except the university general fund are clustered to the left of the respective means. Tables E-2 and E-3, Appendix E, present comprehensive breakdowns of the number of organizations which received certain percentages of funding from the various sources, and provide additional information about the distribution of resource dependence in Canadian interuniversity athletics.

Table 16 presents the results of t-tests to compare the mean values of relative funding from the various sources. Considerable variability among the standard deviation values discouraged a complete pairwise analysis of all the sources. Comparisons between the ranked sources, in descending order, were abandoned when a significant difference was observed at $p<.05$, thus eliminating the problem of comparing sources with notably discrepant standard deviations.

According to the results in Table 16, the difference between relative funding from the university general fund and student activity fees was not significant. However, the university general fund and student activity fees were significantly greater sources of relative funding than internal revenues, at $p<.01$ and $p<.05$, respectively. All three sources provided a significantly greater proportion of the organization's budget than any of the remaining sources, according to a significant difference between funding from internal revenues and the next ranked source, provincial government/sport organizations ($p<.001$).

Each of the remaining sources provided a very small proportion of the funds. T-tests further revealed that there was no difference

Table 16

Results of t-test Comparisons of the Mean Relative Funding from Various Sources (N=34).

SOURCE 1	SOURCE 2	t VALUE
1) University General Fund (M=40.68)	Student Activity Fees (M=29.98)	1.06
University General Fund	Internal Revenues (M=16.91)	3.29**
2) Student Activity Fees (M=29.98)	Internal Revenues (M=16.91)	2.50*
3) Internal Revenues (M=16.91)	Prov'l. Gov't/Sport Organizations (M=4.59)	4.58***
4) Prov'l. Gov't/Sport Organizations (M=4.59)	Corporate Sponsorships (M=4.41)	0.14
Prov'l. Gov't/Sport Organizations	Alumni Funding (M=2.19)	1.40
Prov'l. Gov't/Sport Organizations	Sport Canada/Nat'l. Sport Organizations (M=1.07)	2.47*
Prov'l. Gov't/Sport Organizations	Other (M=0.16)	2.92**
5) Corporate Sponsorships (M=4.41)	Alumni Funding (M=2.19)	1.96
Corporate Sponsorships	Sport Canada/Nat'l. Sport Organizations (M=1.07)	3.87***
6) Alumni Funding (M=2.19)	Sport Canada/Nat'l. Sport Organizations (M=1.07)	1.49
7) Sport Canada/Nat'l. Sport Organizations (M=1.07)	Other (M=0.16)	2.57*

*** $p<.001$, ** $p<.01$, * $p<.05$

between the relative funding from the provincial government/sport organizations and corporate sponsorships, however both were a significantly greater source of funds than Sport Canada/national sport organizations ($p<.05$ and $p<.001$, respectively). Funding from "other" sources was negligible.

A breakdown of funding from internal revenues is presented in Appendix E: Table E-4 presents the mean, standard deviation, minimum and maximum values for each sub-source as a percentage of the total funding from internal revenues, and the mean and standard deviation values of each sub-source as a percentage of total funding. Table E-5 presents these values for absolute funding. Results of t-tests (Table E-6) to compare the means of relative funding from the sub-sources reveal that a significantly greater proportion of the funding from internal revenues came from gate receipts, sports camps, user fees and athletic competition guarantees than from any of the other sub-sources ($p<.01$). Among those four, a significantly greater proportion of funding came from gate receipts than competition guarantees ($p<.001$), however there were no other significant differences among them.

The four demographic variables were used to provide a further, purely descriptive examination of the relative funding of interuniversity athletics. The considerable variability among the sources, and the small sample sizes of the sub-groups precluded a more stringent analysis. The mean and standard deviation values for the sources by each demographic variable are presented in Tables E-7 to E-10, Appendix E. Several demographic differences are apparent for the various funding sources.

According to the values in Table E-7, interuniversity athletics organizations from the AUAA appear to have received a greater proportion

of their funding from the university general fund than the other conferences, particularly the OU/OWIAA and QSSF. Correspondingly, organizations in the OU/OWIAA and QSSF acquired a larger proportion of their funding from student activity fees than the AUAA; organizations in the GPAC also obtained a relatively small amount of funds from this source. Organizations from the AUAA appear to have received a relatively smaller proportion of their budgets from internal revenues and provincial government/sport organizations, while those in the OU/OWIAA received relatively less from provincial government/sport organizations and corporate sponsorships than the other conferences.

Interuniversity athletics organizations in Small and Medium-sized institutions appear to have received a greater proportion of their money from the university general fund than those in Large institutions (see Table E-8), while the latter received relatively more from student activity fees than organizations in Small institutions. The only other apparent difference is that organizations in Large institutions received a greater percentage of their funding from internal revenues and provincial government/sport organizations than those in Small and Medium institutions.

Based on size of program, it appears that organizations with Small programs obtained a relatively larger percentage of their budget from the university general fund, while those with Large programs tended to acquire a greater proportion of their funding from student activity fees (see Table E-9). Organizations with Large programs also appear to have secured relatively less funding from provincial government/sport organizations and corporate sponsorships than those with Small and Medium sized programs. The only apparent difference between the sub-groups of administrative structure was that interuniversity athletics

organizations for which there is No Related Academic Unit received no funding from provincial government/sport organizations, while Affiliated and Independent organizations received some funding from that source (see Table E-10).

To summarize, relative funding for interuniversity athletics appears to have varied primarily by conference, size of institution, and size of program. There were consistently apparent differences among the sub-groups of these demographic variables for the university general fund and student activity fees. A few perceptible sub-group differences were observed for some of the other sources as well.

5.4.1 Additional Observations

Table E-11, Appendix E, presents a description of the relative financial support for physical plant costs incurred by the interuniversity athletics organization. The results indicate that over 85% of these costs were covered by the university, and less than 5% was covered by other sources. Thus, the remaining approximately 10% was borne by the organization itself. University support for physical plant costs ranged from zero to 100%, although the 30 organizations which reported some support had at least 75% of their costs covered. Support from other sources ranged from zero to 81% of physical plant costs, although of the seven organizations reporting some support, six had up to 25% and the other had 81% of its costs covered by other sources.

As shown in Table E-12, Appendix E, 58.8% of the interuniversity athletics organizations which responded had experienced little or very little change in relative funding over the past three years (1987-88, 1988-89, 1989-90). Moderate change was reported by 17.6% of the respondents, and 17.7% said that their relative funding had gone through

much to very much change. On average, the organizations had experienced little change in their relative funding over the three year period (M=2.16, SD=1.32, on a scale of 1 Very Little to 5 Very Much). This finding permitted confidence in the use of financial data for the 1989-90 fiscal year as suitably representative of the preceding two years as well (1987-88 and 1988-89).

5.5 Resource Dependence and Perceived Environmental Control

Spearman rank correlations (r_s) were run on SPSS^x to examine the hypothesized relationship between the interuniversity athletics organization's resource dependence on funding sources in the environment, and the perceived control of those sources, or elements, over the organization's activities. The relationships for these sources are presented in sub-section 5.5.1. A second sub-section (5.5.2) addresses the relationships between the organization's dependence on particular funds and those environmental elements which may not directly contribute the funds, but which have some formal control over their allocation and use; Pfeffer and Salancik (1978) argued that power is also based in the control of valued resources.

Sub-section 5.5.3 presents an exploratory analysis which extends the theoretical relationship between resource dependence and perceived environmental control. This analysis examined the relationships between the interuniversity athletics organization's resource dependence on certain sources of funding and the perceived control of elements which may indirectly effect the procurement of those funds by the organization. The fourth sub-section (5.5.4) presents an a posteriori investigation to determine whether the organization's resource dependence on alternate sources is inversely related to the resource

dependence-based perceived control of particular elements. This relationship corresponds to Blau's (1964) second condition of independence, which argues that when a focal organization obtains needed resources from an alternate source(s) the focal exchange relationship is modified, and therefore resource dependence-based perceived control is reduced. Only those elements observed to have resource dependence-based perceived control were examined.

For descriptive purposes, labels may be applied to the correlation coefficients: ($r_s < .34$) weak, ($.34 \leq r_s \leq .50$) moderate, and ($r_s > .50$) strong. These categories are comparable to the descriptions of Provan (1982) and Provan et al. (1980).

5.5.1 Resource Dependence and Perceived Control of Environmental Sources

University General Fund and University Central Administration. Table 17 presents the correlation coefficients for the relationship between the interuniversity athletics organization's resource dependence on the university general fund and perceived control of central administration, the element which provides that fund. Moderate relationships were found for the activities of securing funds (SF, $r_s=.34$), hiring (H, $r_s=.39$), establishing philosophy (EP, $r_s=.41$), and allocating funds (AF, $r_s=.40$) ($p<.05$). No significant relationships were observed for the three remaining activities.

University General Fund and Provincial Education Organizations/ Ministries. Provincial education ministries are responsible for transferring funds to the universities for their general operations. The correlation coefficients for the relationship between resource

Table 17

Spearman Rank Correlation Coefficients of the Relationship Between Resource Dependence (Source) and Perceived Environmental Control (Element) (N=34).

SOURCE	ENVIRONMENTAL ELEMENT	ORGANIZATIONAL ACTIVITIES*						
		SF	H	EP	AF	DO	EC	CCP
University General Fund	(E1) Central Administration	.34*	.39*	.41*	.40*	.23	.28	.16
	(E12) Provincial Education Organizations & Ministries	-.01	.01	.00	-.14	-.17	.05	-.07
Student Activity Fees	(E6) General Student Body	.35*	.10	.10	.19	.06	.04	.19
Internal Revenues	(E4) Interuniversity Athletics Organization	-.05	.28	-.05	.03	.03	-.14	.15
	(E14) Community	.11	.02	.17	.29°	.11	-.03	.12
• Gate Receipts	(E14) Community	.08	-.04	-.02	-.22	-.16	.11	-.12
• Sports Camps	(E14) Community	.16	.18	.26	.18	.02	.29°	.32°
	(E5) Student-Athletes	.04	.15	.07	-.01	-.01	.20	.27
• User Fees	(E14) Community	-.07	.01	.03	.23	.25	-.13	.01
• Facility Rentals	(E14) Community	.06	.02	.01	.20	.44*	-.09	.08
• Fundraising	(E5) Student-Athletes	.10	-.28	-.28	-.33°	-.09	-.49**	-.23

* SF Secur'g Funds, H Hir'g, EP Estab. Philos., AF Allocat'g Funds, DO Daily Operat'ns, EC Ext. Commun., CCP Conf./CIAU Particip.
** p<.01, * p<.05, ° p<.10

table cont'd.

Table 17 cont'd.

SOURCE	ENVIRONMENTAL ELEMENT	ORGANIZATIONAL ACTIVITIES*						
		SF	H	EP	AF	DO	EC	CCP
Provincial Government/ Sport Organizations	(E8) Provincial/Federal Sport Organizations & Ministries	.65***	.17	.34*	.61***	.23	.08	.19
Corporate Sponsorships	(E11) Corporate Sponsors	.69***	.37*	.53**	.39*	.33°	.48**	.17
Alumni Funding	(E7) Alumni	.20	.15	.07	.20	-.05	.21	-.19
Sport Canada/National Sport Organizations	(E8) Provincial/Federal Sport Organizations & Ministries	.56***	.34*	.19	.36*	.24	.13	.16
Physical Plant Expenses (University)	(E1) Central Administration	.04	.16	.24	.17	.18	.15	-.14

* SF Secur'g Funds, H Hir'g, EP Estab. Philos., AF Allocat'g Funds, DO Daily Operat'ns, EC Ext. Commun., CCP Conf./CIAU Particip.
*** p<.001, ** p<.01, * p<.05, ° p<.10

dependence on the university general fund and perceived control of this element (see Table 17) reveal that none of the relationships were significant.

Student Activity Fees and General Student Body. Table 17 presents the correlation coefficients for the relationship between the organization's resource dependence on this source and perceived control of the students who pay the fees. A moderate relationship for securing funds (SF, r_s=.35) was the only significant coefficient observed ($p<.05$). Perceived control of this element over the remaining activities was not significantly related to the organization's resource dependence on student activity fees.

Internal Revenues and Interuniversity Athletics Organization. Correlation coefficients of the relationship between the organization's dependence on the internal revenues which it generates and its perceived control over the various organizational activities are presented in Table 17. None of the relationships were significant.

Internal Revenues (including Gate Receipts, Sports Camps, User Fees, Facility Rentals) and Community. The community is linked to several internal revenue sub-sources, therefore relationships between the organization's dependence on this element for revenues from gate receipts, sports camps, user fees, and facility rentals, and perceived control of the community were considered; a relationship with total internal revenues was also examined (see Table 17). A weak relationship between the organization's dependence on internal revenues and this element's perceived control over allocating funds (AF, r_s=.29, $p<.10$) was observed. Weak relationships were also found between the organization's dependence on gate receipts and perceived control of the community over external communication (EC, r_s=.29), and conference and

CIAU participation (CCP, r_s=.32), at p<.10. A moderate relationship between the organization's dependence on facility rentals and this element's perceived control over daily operations (DO, r_s=.44, p<.05) was the only other significant relationship observed.

Internal Revenues (Sports Camps, Fundraising) and Student-Athletes. The student-athletes were considered as a sub-source of internal revenues because they may be directly involved in the generation of funds through sports camps and fundraising. The correlation coefficients presented in Table 17 indicate that moderate and weak negative relationships between the organization's dependence on fundraising and the perceived control of student-athletes over external communication (EC, r_s=-.49, p<.01) and allocating funds (AF, r_s=-.33, p<.10), respectively, were observed.

Provincial Government & Sport Organizations/Sport Canada & National Sport Organizations Funding and Provincial & Federal Sport Organizations & Ministries. The provincial government/sport organizations and Sport Canada/national sport organizations were considered as separate sources of funding for interuniversity athletics. They were presented as one element, however, for the rating of perceived control over the organizational activities. The correlation coefficients presented in Table 17 indicate strong relationships between the organization's resource dependence on provincial government/sport organizations and perceived control of the provincial/federal sport organizations and ministries over securing funds (SF, r_s=.65) and allocating funds (AF, r_s=.61) at p<.001. A moderate relationship was observed for establishing philosophy (EP, r_s=.34, p<.05). A strong relationship was also observed between the organization's resource dependence on Sport Canada/national sport organizations and perceived

control of the corresponding element over securing funds (SF, r_s=.56, p<.001), and moderate relationships were found for hiring (H, r_s=.34) and allocating funds (AF, r_s=.36) at p<.05. In addition to the Spearman rank correlations, a regression analysis was conducted to examine the joint relationship between the two sources and perceived control of the provincial/federal sport organizations and ministries. The beta values and adjusted R^2 values represent approximate indices of the relationships between the variables, and are presented in Table 18. The adjusted R^2 values indicate that, together, the sources are significant predictors of the perceived control of the provincial/federal sport organizations and ministries over six of the seven activities, explaining between 19 and 59% of the variance. The beta values reveal that, for each activity, one source is a stronger predictor of perceived control than the other.

Corporate Sponsorships and Corporate Sponsors. Correlation coefficients of the relationship between the organization's dependence on corporate sponsorships and perceived control of those sponsors over the organization are presented in Table 17. The results reveal significant correlations for all but one of the activities. Strong correlations were observed for securing funds (SF, r_s=.69, p<.001) and establishing philosophy (EP, r_s=.53, p<.01), and moderate relationships were found for external communication (EC, r_s=.48, p<.01), allocating funds (AF, r_s=.39, p<.05), and hiring (H, r_s=.37, p<.05). A weaker relationship was observed for daily operations (DO, r_s=.33, p<.10), and no relationship was indicated for conference and CIAU participation (CCP).

Alumni Funding and Alumni. The interuniversity athletics organization's resource dependence on alumni and the perceived control

Table 18

Regression Coefficients and beta values for the Relationships Between Resource Dependence (Provincial Government/Sport Organizations and Sport Canada/National Sport Organizations) and Perceived Control (Provincial/Federal Sport Organizations & Ministries) (N=34).

SOURCE	ENVIRONMENTAL ELEMENT	ORGANIZATIONAL ACTIVITIES*						
		SF	H	EP	AF	DO	EC	CCP
Provincial Government/ Sport Organizations	(E8) Provincial/Federal Sport Organizations & Ministries	.45**	.20	.44**	.66**	.08	.00	.14
Sport Canada/National Sport Organizations		.26	.61***	.30	.17	.75***	.49**	.18
Adjusted R^2 Values		.31***	.47***	.34***	.51***	.59***	.19*	.01

* SF Secur'g Funds, H Hir'g, EP Estab. Philos., AF Allocat'g Funds, DO Daily Operat'ns, EC Ext. Commun., CCP Conf./CIAU Particip.
*** p<.001, ** p<.01, * p<.05

of that element over the activities of the organization were not significantly related. The correlation coefficients are presented in Table 17.

Physical Plant Expenses (Covered by University) and University Central Administration. No relationships were observed between the organization's resource dependence on central administration to cover the costs of physical plant expenses and central administration's perceived control over the organization. The correlation coefficients are presented in Table 17.

To summarize the above findings, significant correlations between perceived control and resource dependence were found for five of the environmental elements/sources. Moderate relationships were indicated between the organization's resource dependence on the university general fund and perceived control of central administration over four of the organization's activities. A moderate relationship was found between the organization's dependence on student activity fees and perceived control of the general student body over securing funds. Moderate to strong relationships were observed between the organization's resource dependence on the provincial government/sport organizations and Sport Canada/national sport organizations, and perceived control of the corresponding provincial/federal sport organizations and ministries over three activities. Finally, moderate to strong relationships were observed between the organization's resource dependence on corporate sponsors and that element's perceived control over six of the seven organizational activities.

5.5.2 Resource Dependence and Perceived Control of Environmental Elements with Some Formal Control over the Resources

There are several environmental elements which have some formal control over the administration of the resources which the interuniversity athletics organization appropriates, although they are not usually the direct source of those funds. The relationships between the perceived control of those elements and the organization's resource dependence on the funds over which they have some control were examined. The organization was presumed to have some formal control over all its resources, and these relationships are presented at the end of the sub-section.

University General Fund and Affiliated Faculty/Recreation Department. If the interuniversity athletics organization's budget must be passed through the affiliated faculty/recreation department (i.e., council), then this element is considered to have some control over the organization's appropriation of resources from the university general fund. Results of the Spearman rank correlation analyses (see Table 19) reveal a moderate relationship between resource dependence on this fund and the affiliated faculty/recreation department's perceived control over establishing philosophy (EP, r_s=.40, $p<.05$) and a weak relationship for hiring (H, r_s=.32, $p<.10$). No other resource dependence-perceived control relationships were found.

University General Fund and Athletics Board. The athletics board may also have some formal control over the administration of the university general fund if the interuniversity athletics organization's budget has to pass through it. The correlation coefficients for this relationship are presented in Table 19. The only significant correlation observed was a moderate relationship between resource

Table 19

Spearman Rank Correlation Coefficients of the Relationship Between Resource Dependence and Perceived Control of Environmental Elements with Some Formal Control over the Resources (N=34).

SOURCE	ENVIRONMENTAL ELEMENT	ORGANIZATIONAL ACTIVITIES*						
		SF	H	EP	AF	DO	EC	CCP
University General Fund	(E2) Affiliated Faculty/ Recreation Department	.04	.32°	.40*	.06	.23	-.08	.17
	(E3) Athletics Board	.23	.47**	.27	.14	.33°	.19	.13
Student Activity Fees	(E1) Central Administration	-.35*	-.16	-.34*	-.34*	-.07	-.22	-.09
	(E2) Affiliated Faculty/ Recreation Department	-.09	-.40*	-.39*	-.31°	-.21	-.09	-.33°
	(E3) Athletics Board	-.06	-.24	.00	.03	-.21	-.06	-.12
Internal Revenues	(E2) Affiliated Faculty/ Recreation Department	.04	-.21	-.38*	.11	-.09	.21	.01
Corporate Sponsorships	(E1) Central Administration	-.02	-.02	.06	.10	.01	.15	.12
Sport Canada/National Sport Organizations	(E10) CIAU	.05	-.01	.17	-.07	-.21	-.13	-.09

* SF Secur'g Funds, H Hir'g, EP Estab. Philos., AF Allocat'g Funds, DO Daily Operat'ns, EC Ext. Commun., CCP Conf./CIAU Particip.
** p<.01, * p<.05, ° p<.10

dependence on this source and the athletics board's perceived control over hiring (H, r_s=.47, p<.01).

Student Activity Fees and University Central Administration. Central administration may be regarded as the collector and manager of the student activity fees, which are gathered in conjunction with students' tuition. It also has final approval over any fee increases. The correlation coefficients for the relationship between the organization's resource dependence on this source and central administration's perceived control are presented in Table 19. Moderate relationships, in the negative direction, were found for the activities of securing funds (SF, r_s=-.35), establishing philosophy (EP, r_s=-.34), and allocating funds (AF, r^s=-.34) (p<.05). No relationships were observed for the remaining activities.

Student Activity Fees and Affiliated Faculty/Recreation Department. If the interuniversity athletics organization's budget must pass through the affiliated faculty/recreation department, then this element is considered to have some control over the organization's appropriation of resources from the student activity fees. The correlation coefficients for this element are presented in Table 19. Moderate, negative relationships between resource dependence on this source and the perceived control of the affiliated faculty/recreation department were observed for the activities of hiring (H, r_s=-.40) and establishing philosophy (EP, r_s=-.39) (p<.05). Negative, but weaker relationships were found for conference and CIAU participation (CCP r_s=-.33) and allocating funds (AF, r_s=-.31) (p<.10).

Student Activity Fees and Athletics Board. Again, if the athletics board is involved in the interuniversity athletics organization's budget process, then this element has some control over

the funds from this source. The coefficients in Table 19 indicate that none of the relationships in this study were significant.

Internal Revenues and Affiliated Faculty/Recreation Department. It can be assumed that the affiliated faculty/recreation department would have at least some control over the facilities which the organization uses to generate revenues from gate receipts, facility rentals and hosting, for example. It may also be the case that the organization and the affiliated faculty/recreation department are required to share the profits from user fees, facility rentals, and any other revenue generating schemes. The results of the Spearman rank correlation analyses, presented in Table 19, reveal a moderate, negative relationship between the organization's resource dependence on internal revenues and the perceived control of the affiliated faculty/recreation department over establishing philosophy (EP, r_s=-.38, $p<.05$). None of the remaining relationships were significant.

Corporate Sponsorships and University Central Administration. The regulations, or general philosophy of the university could restrict the type and amount of corporate sponsorships which the organization may negotiate. Table 19 presents the correlation coefficients, which reveal that none of the relationships were significant.

Sport Canada/National Sport Organizations and CIAU. The CIAU is responsible for channelling Sport Canada funds through to the interuniversity athletics organization (R. Pugh, personal communication, January 1989); funds from the national sport organizations are usually passed directly to the organization. The correlation coefficients for the relationships between the organization's resource dependence on this source and perceived control of the CIAU are presented in Table 19. No significant relationships were apparent.

All Sources and Interuniversity Athletics Organization. The organization is presumed to have some formal control over the resources which it appropriates from each source. The relationships between the organization's resource dependence on each source, with the exception of internal revenues which was already examined, and its perceived control over the various organizational activities are presented in Table 20. Dependence on the provincial government/sport organizations for funds was moderately related to the organization's perceived control over securing funds (SF, r_s=.37), hiring (H, r_s=.35), establishing philosophy (EP, r_s=.43), and daily operations (DO, r_s=.36) at $p<.05$, and weakly related for conference and CIAU participation (CCP, r_s=.32, $p<.10$). The organization's resource dependence on corporate sponsorships was moderately related to its perceived control over establishing philosophy (EP, r_s=.40) and daily operations (DO, r_s=.37) at $p<.05$. Moderate relationships were also observed between the organization's dependence on Sport Canada/national sport organizations for funding and its perceived control over establishing philosophy (EP, r_s=.34), daily operations (DO, r_s=.42) and external communication (EC, r_s=.42) at $p<.05$; a weak relationship was observed for securing funds (SF, r_s=.30, $p<.10$). Only weak relationships were observed between the organization's resource dependence on the university general fund and perceived control over hiring (H, r_s=-.29), and its dependence on "other" sources and perceived control over securing funds (SF, r_s=.32) and hiring (H, r_s=.29) at $p<.10$. There were no significant relationships between the organization's resource dependence on student activity fees, alumni funding, or physical plant costs covered by the university or other sources, and its perceived control over the various organizational activities.

Table 20

Spearman Rank Correlation Coefficients of the Relationship Between Resource Dependence and Perceived Control of the Interuniversity Athletics Organization, which has Formal Control over the Resources (N=34).

SOURCE	ENVIRONMENTAL ELEMENT	ORGANIZATIONAL ACTIVITIES						
		SF	H	EP	AF	DO	EC	CCP
University General Fund	(E4) Interuniversity Athletics Organization	-.13	-.29°	.03	-.01	-.09	.02	-.14
Student Activity Fees		-.05	.04	-.23	.01	-.08	-.05	.00
Physical Plant Expenses (University)		-.18	-.22	-.25	.01	-.16	-.14	-.22
Provincial Government/ Sport Organizations		.37*	.35*	.43*	.17	.36*	.25	.32°
Corporate Sponsorships		.24	.17	.40*	.22	.37*	.24	.24
Alumni Funding		-.09	-.14	.04	.09	.17	.11	.11
Sport Canada/National Sport Organizations		.30°	.22	.34*	.24	.42*	.42*	.08
Other		.32°	.29°	.26	.25	.20	.24	.21
Physical Plant Expenses (Non-university)		.08	.27	.21	-.06	.23	.15	.07

* SF Secur'g Funds, H Hir'g, EP Estab. Philos., AF Allocat'g Funds, DO Daily Operat'ns, EC Ext. Commun., CCP Conf./CIAU Particip.
* p<.05, ° p<.10

To summarize the findings of this sub-section, there were very few significant relationships between the perceived control of those elements which have some formal control over certain resources and resource dependence of the interuniversity athletics organization on those sources. Exceptions were the moderate relationships between resource dependence on the provincial government/sport organizations, corporate sponsors and Sport Canada/national sport organizations, and perceived control of the interuniversity athletics organization. Also, moderate relationships, in the negative direction, between the organization's resource dependence on student activity fees and perceived control of central administration over several activities were observed.

5.5.3 Resource Dependence and Perceived Control of Environmental Elements With an Indirect Effect on Resources

Several environmental elements have the potential to have an indirect impact, either favourable or adverse, on the nature and/or amount of funding which the interuniversity athletics organization is able to procure from various sources. This indirect effect can take several forms. For example, the organization may feel compelled to adhere to an element's rules, regulations, guidelines or philosophy, which may restrict the nature and amount of funding. On the other hand, funding from a particular source may be indirectly enhanced by the organization's association with, and support from, various sectors. Relationships between the organization's resource dependence on a source and perceived control of another element which could indirectly affect the procurement of funds from that source were explored.

Internal Revenues and Media. The media's presentation of the

interuniversity athletics program to the community could significantly affect the community's awareness and support of the program. According to the correlation coefficients presented in Table 21, none of the relationships between the organization's resource dependence on internal revenues and the perceived control of the media were significant.

Internal Revenues and Corporate Sponsors. The corporate sponsors' involvement in the interuniversity athletics program could also increase its profile and positively impact on the organization's ability to generate revenues. A weak relationship was observed between the organization's relative dependence on internal revenues and perceived control of this element over participation in the conference and CIAU (CCP, r_s=.31, $p<.05$). None of the remaining relationships were significant (see Table 21).

Internal Revenues and Conference/CIAU. The conference and CIAU were considered because their policies, regulations and schedules could have an effect on the organization's ability to generate revenues. However, as shown in Table 21, none of the relationships between resource dependence on this source and perceived control of the conference or CIAU were significant.

Corporate Sponsorships and Media. Three of the relationships between the organization's resource dependence on corporate sponsorships and perceived control of the media, which may have some influence on the nature and amount of those sponsorships, were significant (see Table 21). Moderate relationships were observed for the activities of securing funds (SF, r_s=.34) and hiring (H, r_s=.35) ($p<.05$), and a weak relationship was observed for external communication (EC, r_s=.30, $p<.10$).

Corporate Sponsorships and Community. The community's role and

Table 21

Spearman Rank Correlation Coefficients of the Relationship Between Resource Dependence and Perceived Control of Environmental Elements With an Indirect Effect on Resources (N=34).

SOURCE	ENVIRONMENTAL ELEMENT	ORGANIZATIONAL ACTIVITIES*						
		SF	H	EP	AF	DO	EC	CCP
Internal Revenues	(E13) Media	-.16	-.06	.06	.23	.17	.07	.11
	(E11) Corporate Sponsors	-.02	-.23	.14	.08	.28	.08	.31*
	(E9) Conference	.06	.12	-.07	-.05	-.05	-.11	-.18
	(E10) CIAU	.07	-.18	.04	-.07	-.07	.03	-.02
Corporate Sponsorships	(E13) Media	.34*	.35*	.27	.28	.28	.30°	-.04
	(E14) Community	.23	.18	.37*	.25	.09	.35*	.29°
	(E9) Conference	-.04	.03	-.01	-.03	-.39*	-.17	-.11
	(E10) CIAU	.10	.11	.07	.05	-.35*	-.21	-.17
Alumni Funding	(E13) Media	-.02	.00	-.01	.19	.18	.05	-.11
	(E11) Corporate Sponsors	.16	.01	.13	.02	.08	.09	.10

* SF Secur'g Funds, H Hir'g, EP Estab. Philos., AF Allocat'g Funds, DO Daily Operat'ns, EC Ext. Commun., CCP Conf./CIAU Particip.
** p<.01, * p<.05, ° p<.10

interest in the interuniversity athletics program could be a factor in the nature and extent of corporate sponsorships which the organization is able to secure. The relationship between the organization's relative resource dependence on this source and the perceived control of the community is presented in Table 21. Moderate relationships were observed for establishing philosophy (EP, r_s=.37) and external communication (EC, r_s=.35) ($p<.05$), and a weak relationship was found for conference and CIAU participation (CCP, r_s=.29, $p<.10$).

Corporate Sponsorships and Conference. Conference guidelines and regulations may limit the nature of corporate sponsorships into which the interuniversity athletics organization may enter; in their favour, negotiations on behalf of the organizations may lead to conference-wide sponsorships. The relationship between the organization's resource dependence on this source and perceived control of the conference is described in Table 21. A moderate relationship, in the negative direction was observed for daily operations (DO, r_s=-.39, $p<.05$).

Corporate Sponsorships and CIAU. While there are no CIAU rules restricting the nature of corporate sponsorships of the organization, it would be deterred from negotiating any contracts with sponsors that are in competition with CIAU sponsors. On the other hand, the organization's association with the CIAU may enhance the profile of interuniversity athletics in the community and promote sponsorships. Table 21 reveals that only the moderate relationship for the activity of daily operations (DO, r_s=-.35, $p<.05$) was significant.

Alumni Funding and Media. The media can play a significant role in the alumni's financial support of the interuniversity athletics program by promoting its profile. Table 21 presents the correlation coefficients for the relationship between the organization's resource

dependence on alumni and perceived control of the media over the activities of the organization. None of the relationships were significant.

Alumni Funding and Corporate Sponsors. The financial support of corporate sponsors could enhance the financial support by alumni, by increasing the profile of the interuniversity athletics program. The relationship between the organization's resource dependence on alumni and the perceived control of the corporate sponsors is presented in Table 21. No significant relationships were observed.

To summarize this sub-section, very few of the relationships between perceived control of environmental elements which may have an indirect effect on the procurement of resources by the interuniversity athletics organization and the organization's dependence on those resources were significant. However, several weak to moderate, positive relationships between the organization's resource dependence on corporate sponsorships and the perceived control of the media and community were observed. There were also moderate relationships between the organization's resource dependence on corporate sponsorships and the perceived control of both the conference and CIAU over daily operations.

5.5.4 Resource Dependence on Alternate Sources and Perceived Environmental Control

This sub-section examines, a posteriori, the relationships between the organization's resource dependence on alternate sources and the resource dependence-based perceived control of certain elements. Other studies have examined this relationship to determine whether the organization can reduce its dependence on, and therefore control by one source by entering into resource exchange with another (Provan, 1982;

Skinner & Guiltinan, 1986). Since the underlying premise of the relationship is that the perceived control of one element will be affected by modifying the resource dependence relationship upon which that control is based, only those elements observed to have resource dependence-based perceived control were examined in the current study (central administration, provincial/federal sport organizations and ministries, corporate sponsors). To address this premise, relationships between the sources upon which the organization is dependent are considered first.

Relationships Between the Various Sources. The relationships examined in this sub-section may be dependent on an inverse relationship between the relative funding sources, such that an increase in one would mean a decrease in another, thus modifying the original exchange relationship. Table 22 presents the correlation coefficients of the relationships between the various sources on which the organization was dependent for resources. The results indicate strong negative relationships between the organization's resource dependence on the university general fund and student activity fees (r_s=-.77, p<.001) and between the university general fund and internal revenues (r_s=-.64, p<.001). The results also reveal moderate, negative relationships between resource dependence on student activity fees and dependence on corporate sponsorships (r_s=-.50, p<.01), alumni funding (r_s=-.42, p<.05), and Sport Canada/national sport organizations (r_s=-.34, p<.05). A weak relationship between student activity fees and "other" sources was also observed (r_s=-.33, p<.10). The only other significant relationships observed were in the positive direction between the provincial government/sport organizations and corporate sponsorships (r_s=.62, p<.001), provincial government/sport organizations and Sport

Table 22

Spearman Rank Correlation Coefficients of the Relationship Between Sources on Which the Interuniversity Athletics Organization is Dependent (N=34).

SOURCES	1	2	3	4	5	6	7
1 University General Fund							
2 Student Activity Fees	-.77***						
3 Internal Revenues	-.64***	.22					
4 Prov'l. Gov't/Sport Organizations	-.21	-.17	.20				
5 Corporate Sponsorships	.17	-.50**	.04	.62***			
6 Alumni Funding	.30°	-.42*	.01	.11	.41*		
7 Sport Canada/Nat'l. Sport Organizations	.13	-.34*	-.14	.49**	.53***	.24	
8 Other	.21	-.33°	-.07	-.01	.15	-.04	.16

*** p<.001, ** p<.01, * p<.05, ° p<.10

Canada/national sport organizations (r_s=.48, p<.01), corporate sponsorships and Sport Canada/national sport organizations (r_s=.53, p<.001), and corporate sponsorships and alumni funding (r_s=.41, p<.05).

Student Activity Fees and University Central Administration. This relationship was already considered from the perspective of central administration as having some formal control over student activity fees (5.5.2). However, this source could also be considered as alternate funding to the university general fund. The correlation coefficients, presented again in Table 23, indicate that several significant negative relationships were observed. Central administration's perceived control over securing funds (SF, r_s=-.35), establishing philosophy (EP, r_s=-.34), and allocating funds (AF, r_s=-.34) was moderately related to the organization's resource dependence on student activity fees (p<.05).

Internal Revenues and University Central Administration. The relationship between the organization's relative dependence on internal revenues and perceived control of central administration was considered, and the results are presented in Table 23. A weak, negative relationship for the activity of hiring (H, r_s=-.30, p<.10) was the only significant correlation observed.

Remaining Alternate Sources and University Central Administration. The correlation coefficients for the relationships between the remaining sources, as well as physical plant expenses covered by other sources, and perceived control of central administration are presented in Table 23. In general, there were no significant relationships between the organization's resource dependence on any of these alternate sources and perceived control of central administration.

Alternate Sources and Provincial/Federal Sport Organizations and Ministries. The correlation coefficients for the relationships between

Table 23

Spearman Rank Correlation Coefficients of the Relationship Between Resource Dependence on Alternate Sources and Perceived Control of the University Central Administration (N=34).

SOURCE	ENVIRONMENTAL ELEMENT	ORGANIZATIONAL ACTIVITIES*						
		SF	H	EP	AF	DO	EC	CCP
Student Activity Fees	(E1) Central Administration	-.35*	-.16	-.34*	-.34*	-.07	-.22	-.09
Internal Revenues		-.04	-.30°	-.15	-.11	-.14	-.05	-.03
Provincial Government/ Sport Organizations		-.03	-.11	-.05	-.08	-.06	-.04	.09
Corporate Sponsorships		-.02	-.02	.06	.10	.01	.15	.12
Alumni Funding		.22	-.05	.06	.25	-.03	-.05	-.06
Sport Canada/National Sport Organizations		-.18	-.03	-.23	-.31°	-.21	-.02	-.01
Other		-.06	-.16	.15	.16	.00	.21	.22
Physical Plant Expenses (Non-university)		-.12	-.24	-.16	.01	-.11	-.21	-.06

* SF Secur'g Funds, H Hir'g, EP Estab. Philos., AF Allocat'g Funds, DO Daily Operat'ns, EC Ext. Commun., CCP Conf./CIAU Particip.
* $p<.05$ ° $p<.10$

the organization's resource dependence on alternate sources and perceived control of the provincial/federal sport organizations and ministries are presented in Table 24. Moderate negative relationships were observed for student activity fees as an alternate source and this element's perceived control over securing funds (SF, r_s=-.39), hiring (H, r_s=-.36), and establishing philosophy (EP, r_s=-.35) at $p<.05$. Weak negative relationships were also observed for student activity fees and this element's perceived control over allocating funds (AF, r_s=-.32) and external communication (EC, r_s=-.33) at $p<.10$. The only other significant correlations observed were positive relationships between the organization's resource dependence on corporate sponsorships and perceived control of provincial/federal sport organizations and ministries. Moderate relationships were found for securing funds (SF, r_s=.50), hiring (H, r_s=.46), and allocating funds (AF, r_s=.47) at $p<.01$, and establishing philosophy (EP, r_s=.35) at $p<.05$. Weak relationships were observed for the remaining activities of daily operations (DO, r_s=.30), external communication (EC, r_s=.32), and conference and CIAU participation (CCP, r_s=.32) at $p<.10$.

Alternate Sources and Corporate Sponsors. Very few of the relationships between the organization's resource dependence on sources other than corporate sponsorships and perceived control of corporate sponsors were significant (see Table 24). A moderate negative relationship was observed between student activity fees and perceived control of corporate sponsors over establishing philosophy (EP, r_s=-.42, $p<.05$). Strong positive correlations were found for the organization's dependence on both provincial government/sport organizations and Sport Canada/national sport organizations and perceived control of corporate sponsors over securing funds (SF, r_s=.61, $p<.001$ and r_s=.51, $p<.01$,

Table 24

Spearman Rank Correlation Coefficients of the Relationship Between Resource Dependence on Alternate Sources and Perceived Control of the Provincial/Federal Sport Organizations and Ministries, and Corporate Sponsors. (N=34).

SOURCE	ENVIRONMENTAL ELEMENT	ORGANIZATIONAL ACTIVITIES*						
		SF	H	EP	AF	DO	EC	CCP
University General Fund	(E8) Provincial/Federal Sport Organizations & Ministries	.04	.09	.06	-.12	-.28	.11	-.08
Student Activity Fees		-.39*	-.36*	-.35*	-.32°	.02	-.33°	-.22
Internal Revenues		-.07	.03	.12	.24	.17	.02	.20
Alumni Funding		.17	.09	.14	.11	.05	.01	.03
Corporate Sponsorships		.50**	.46**	.35*	.47**	.30°	.32°	.32°
University General Fund	(E11) Corporate Sponsors	-.07	.07	.15	-.14	-.09	.07	.07
Student Activity Fees		-.21	-.10	-.42*	-.02	-.11	-.10	-.09
Internal Revenues		-.02	-.23	.14	.08	.28	.08	.31°
Provincial Government/ Sport Organizations		.61***	.12	.21	.30°	.09	.28	-.01
Alumni Funding		.16	.01	.13	.02	.09	.09	.11
Sport Canada/National Sport Organizations		.51**	.10	.27	.00	-.05	.26	-.05

* SF Secur'g Funds, H Hir'g, EP Estab. Philos., AF Allocat'g Funds, DO Daily Operat'ns, EC Ext. Commun., CCP Conf./CIAU Particip.
** p<.01 * p<.05 ° p<.10

respectively).

To summarize this sub-section, inverse relationships were observed between the organization's resource dependence on the university general fund and student activity fees, university general fund and internal revenues, and student activity fees and three minor sources. Very few of the relationships between the organization's resource dependence on alternate sources and the resource dependence-based perceived control of the elements examined were significant. Exceptions were the significant negative relationships between the organization's resource dependence on student activity fees and perceived control of both central administration and provincial/federal sport organizations and ministries over several activities. Significant positive relationships were also observed between the organization's resource dependence on corporate sponsorships and perceived control of provincial/federal sport organizations and ministries.

Chapter VI

DISCUSSION

This chapter presents a discussion of the results reported in Chapter V. The research questions of perceived environmental control (6.1), resource dependence (6.2), and resource dependence-based perceived environmental control (6.3) are discussed with respect to the results of this study and the relevant literature. Finally, practical implications of the study (6.4), and the outcome of the test of theory (6.5) are discussed.

6.1 Perceived Environmental Control over Interuniversity Athletics in Canada

Completion of the Survey of Canadian Interuniversity Athletics Programs, and an accompanying interview, by athletics directors elicited information about their perceptions of the control of 15 environmental elements over seven basic activities of the interuniversity athletics organization, and overall. The organization itself was also included in those 15 elements. Some caution should be heeded in the discussion of these results, noting the suggestion that respondents may be reluctant to admit the actual extent of perceived environmental control (Pfeffer, 1972; Thompson & Luthans, 1983). Further, the athletics directors may have provided what they felt were socially acceptable responses to the survey and interview, rather than completely candid perceptions of the situation. This is an inherent risk in the collection of any subjective research data.

Beyond these potential weaknesses, the author is confident the interview process ensured that the athletics directors made a clear distinction between potential and enacted power in their ratings of perceived environmental control, especially with regard to implicit control, or that which has a subtle, indirect or diffuse effect on the organization (Provan, 1980; Wrong, 1968). During the interviews, respondents were pressed to consider whether an element which "could" have control, "actually had" control. Thus, the method and results of this study do not support Provan's (1980) contention that there is a weak distinction between subjective measures of potential and enacted power.

A profile of perceived environmental control which considered the seven organizational activities was preferred over the exclusive use of the overall measure in this study. Although strong correlations between the elements' ratings of perceived control overall and over each activity provided support for a single indicator (see Table 8), these relationships were not consistent across the elements and activities. It appears that perceived environmental control is a multi-dimensional phenomenon, which varies across the elements and across the activities of the interuniversity athletics organization.

The Inglis (1988) study of influence in Ontario interuniversity athletics examined the perceived control of the athletics director over several organizational decision areas, as well as the overall perceived leadership of the university president, and overall perceived control of several environmental elements. The results of that study did not lend themselves to a direct comparison of perceived control among the university and non-university elements, nor can they be directly contrasted to the current results. However, general consistencies and

variations between the two works are discussed where appropriate.

The following sub-sections present a discussion of the relative autonomy of the interuniversity athletics organization within its environment, plus a focus on particular environmental elements which were perceived to have at least moderate control over various activities of the organization. Highlights of the perceived environmental control results (see Table 9) are presented in Table 25.

6.1.1 Interuniversity Athletics Organizational Autonomy

The results indicate that the organization was perceived to have a considerable degree of control over all seven of the activities examined. It is not surprising to find that the organization is perceived to have a higher level of control than the elements in its environment, since the members of this organization are "charged with making the decisions and taking the actions on a permanent, regular basis," (Mintzberg, 1983, p. 26). The findings of the current study are consistent with those of Inglis (1988), who reported that the athletics director, as head of the interuniversity athletics organization, perceived him/herself to have a high degree of influence over the administrative, strategic and marketing decisions of the organization.

In contrast to Inglis (1988), however, this study examined the perceived control of the organization as a comprehensive unit, comprising the athletics director, coordinators, staff and coaches. The interview data reveal that the athletics directors themselves seemed to be invariably involved, while interuniversity athletics management committees, and to a lesser degree the coaches, were occasionally described as having some influential involvement in the different activities. Inglis similarly found that the athletics directors

Table 25

Summary Highlights of Perceived Environmental Control over Interuniversity Athletics in Canada (N=34).

ELEMENTS	ORGANIZATIONAL ACTIVITIES*						
	SF	H	EP	AF	DO	EC	CCP
(E4) Interuniversity Athletics Organization	●	●	●	●	●	●	●
(E1) University Central Administration	●	◒	●	◒	○	◒	◒
(E3) Athletics Board	◒	○	◒	◒	◒	◒	◒
(E5) Student-Athletes	○	○	◒	○	◒	◒	◒
(E9) Conference	○	○	◒	○	○	◒	◒
(E10) CIAU	○	○	◒	○	○	◒	◒
(E2) Affiliated Faculty/ Recreation Department	○	◒	◒	○	○	○	○

* SF Secur'g Funds, H Hir'g, EP Estab. Philos., AF Allocat'g Funds, DO Daily Operat'ns, EC Ext. Commun., CCP Conf./CIAU Particip.

● Considerable Perceived Control ◒ Moderate Perceived Control ○ Little Perceived Control

perceived themselves to have significantly greater influence than did the men's or women's athletics coordinators over two of three decision areas. Since the athletics directors appear to have a consistent influence in the organization, one might suggest that a measure of that person's control would be a valid representation of the organization's control. This is probably feasible considering that it is a relatively flat organization. However, some caution should be exercised with regard to misinterpreting the athletics director's personal power for organizational power which may be more extensive in certain contexts. This notion is more clearly represented by the case of the university president and central administration, which is discussed shortly.

The interuniversity athletics organization was perceived to function relatively independent of broad environmental control, particularly with regard to securing funds, hiring, allocating funds, and daily operations. Exceptions to this relative autonomy included the considerable perceived control of central administration over securing funds and moderate perceived control over hiring, as well as the moderate perceived control of the athletics board and central administration over allocating funds. Aside from the organization itself, these elements appear to comprise the only meaningful environmental control over these three activities.

With regard to the remaining activities - establishing philosophy, external communication, and conference and CIAU participation, - there was a moderate to considerable perceived environmental impact on the organization by several elements. The media, conference, CIAU, central administration, student-athletes, athletics board and alumni were perceived to have moderate control over external communication, however the media alone comprised a second level of control over this activity.

Central administration was perceived to have considerable control, and the athletics board, student-athletes, conference, CIAU, and affiliated faculty/recreation department were perceived to have moderate control over establishing philosophy, thus comprising a second level of control over this activity. These same elements, with the exception of the affiliated faculty/recreation department, were also perceived to have moderate control over conference and CIAU participation, and constituted a second level of control over that activity. There were notable similarities in terms of the degree of perceived control of particular elements over establishing philosophy and conference and CIAU participation. A link between these two activities is inferred from the interview data, which suggest that the former represents the development and preservation of the university's position on interuniversity athletics, and the latter represents the organization's endorsement of that position within the conference and CIAU levels of the interuniversity athletics delivery system. Thus, in some cases, perceived control over conference and CIAU participation was by extension of the elements' perceived control over establishing philosophy. It is interesting to note that there was a more extensive perceived environmental influence over these two activities, which reflect the establishment and advocacy of the organization's philosophy on interuniversity athletics, than over securing funds, hiring, allocating funds, and daily operations, which may be described as a reflection of that philosophy.

6.1.2 Perceived Control of Central Administration

Inglis (1988) found a moderate degree of perceived presidential leadership in interuniversity athletics, which parallels the current

findings of moderate to considerable perceived control of central administration over six of the seven organizational activities. The current study, however, examined central administration as a more comprehensive unit, comprising the university president, vice-president, board of governors, and senate. According to the interview data, the athletics directors took into account the roles of the president and vice-president, as individual representatives, and the role of central administration as the legislative body for the university in their ratings of perceived control of this element.

Specific interview references to the president pertained predominately to the activities of establishing philosophy and conference and CIAU participation, and respondents typically described "hands-on" individuals who directly mandated the university's position on interuniversity athletics. However, there were more frequent references to the involvement and influence of central administration, as a unit, than to the president, and as many references to the vice-president, with whom the athletics director was predominately involved, as to the president. An important implication of these findings is that perceived control of central administration over interuniversity athletics appears to be more extensive than that of the president, and consideration of that individual's influence alone may limit one's understanding of the full extent of the element's control. This may explain why the perceived control of central administration in this study is slightly higher than that of the president in the Inglis investigation.

In general, central administration was perceived to have explicit control over some activities of the organization, in terms of formal approval, and implicit control over all the activities, by extension of

that formal approval as well as its legislation of general university policies and procedures. It is interesting to note that central administration was the only element, besides the organization itself, to have any notable perceived control over the "input" activities of securing funds and hiring.

6.1.3 Perceived Control of the Athletics Board

An investigation of the athletics board in the current study revealed several results which are similar to the findings of Inglis (1988) and Mathews (1974). It appears that over three-quarters of Canadian interuniversity athletics organizations continue to be governed by athletics boards, although there was a decrease from 89% in 1974 (Mathews) to 79% in the current study. Despite this reduction, the composition of these boards remained fairly stable. Mathews, and then Inglis, reported that the boards were consistently made up of representatives from central administration, physical education and other faculties, the interuniversity athletics organization, student-athletes, and the general student body. According to the results in Table C-3, Appendix C, these representatives, with the exception of the student-athletes, were consistently reported as members of the athletics boards examined in the current study. That student-athletes were missing from over half of the boards is noteworthy since respondents cited this as a potential forum for their input into interuniversity athletics. Also, there were varying reports of the effectiveness of student-athlete representation. The boards did, however, continue to be consistently represented by faculty, thus providing the medium of academic control for which they were originally established (AUCC, 1966; Inglis, 1988; Mathews, 1974).

Mathews (1974) found that the alumni and board of governors were rarely represented, while Inglis (1988) reported that over half of the boards had alumni, as well as staff representation. Results of the current study indicate that alumni continued to be represented on almost half of the athletics boards, while the board of governors was represented on one-third. The present results also indicate that, as an "other" group, staff were represented on less than one-third of the boards, and the community continued to be rarely represented. Thus, subtle changes in the athletics board representation of these particular groups seem to have occurred.

Inglis (1988) found that 73% of athletics directors perceived the board to have a moderate to high degree of regulatory authority, defined as a controlling influence over the decision making process. Inglis further noted that almost all of the boards in her study were reported to be involved in developing budget, philosophy, and policy for interuniversity athletics. These findings are generally consistent with the results of the current study, which reveal that the athletics board was perceived to have moderate control over comparable activities. The athletics directors reported that the boards were invariably involved in budget approval, however, the interview data suggest that there were substantial variations in perceived control of the board over establishing philosophy, and conference and CIAU participation, ranging from considerable influence to none at all. There were also reported differences in the involvement and influence of the athletics board over the remaining activities, however none of these variations were explained by the demographic variables examined in the current study. These apparent inconsistencies in board effectiveness may explain the relative decrease in the number of organizations with boards since 1974.

6.1.4 Perceived Control of Student-Athletes

Perceived control of the student-athletes over interuniversity athletics in Canada had not been previously investigated although, as a sub-group of the general student body which is the prime beneficiary of the program (Connell, 1986; Dewar, 1986; Inglis & Chelladurai, 1983; Miller, 1982), they may be regarded as an even more direct beneficiary. The student-athletes were specified as conceptually distinct from the general student body in this study, and the respondents generally appear to have considered them as the primary consumers. The findings indicate that student-athletes were perceived to have moderate control over four of the seven organizational activities, including establishing philosophy, conference and CIAU participation, daily operations, and external communication. They were not, however, perceived to have significantly greater control than any of the other elements over the last two activities.

The student-athletes reportedly have several mechanisms of control over interuniversity athletics. Respondents described the potential for direct input to the athletics directors via formal and informal meetings of the athletes, captains and/or teams, and indirect input via the coaches. According to the interview data, however, student-athletes were not necessarily taking advantage of these opportunities. There were several referrals to the student-athletes' formal control via their representation on the athletics board, particularly with regard to establishing philosophy and conference and CIAU participation. Their perceived control over certain organizational activities seems to parallel that of the athletics board. However, although the athletics board was reportedly a valuable forum for student-athlete influence over the program, the results in Table C-3, Appendix C, reveal that they were

represented on less than half of the boards. Therefore, student-athlete input via this forum was occurring in only 30% of the organizations in this study.

To a notable extent, the student-athletes were also described as having control that was subtle and indirect such that, as the prime beneficiaries of the program, the athletics directors would take their best interests into consideration in decision making. An interesting observation, however, was the conflicting survey and interview data regarding perceived control of the student-athletes over allocating funds; the respondents described them as having both formal input via the athletics board, informal control via interactions with the athletics director, and indirect influence via their interest and participation levels in the various sports. Yet, the survey data reveal that they were rated as having relatively little perceived control over this activity. Perhaps any allocation decisions, including the addition or deletion of a sport, are ultimately driven more by funding than by the influence of the prime beneficiaries. This would seem to be the case as those elements which are reportedly involved in developing and approving the budget (interuniversity athletics organization, athletics board), as well as providing a substantial portion of the funds (central administration), comprise the top two levels of perceived control over this activity.

6.1.5 Perceived Control of the Conference and CIAU

The Inglis (1988) investigation of overall perceived control of the conference and CIAU in Ontario interuniversity athletics organizations revealed that the athletics directors perceived these associations to exert a considerable degree of influence over their

programs. In the current study, these elements were perceived to have, at the most, moderate control over three activities of the interuniversity athletics organization: establishing philosophy, external communication, and conference and CIAU participation. The slight discrepancy in results between the two studies cannot be explained by any uniqueness of the Ontario conference which Inglis studied, since post hoc analyses did not reveal any significant simple main effects for the conference variable and perceived control of the conference and CIAU elements. A possible explanation relates to the format of the survey used in the current study, as respondents were asked to provide ratings of perceived control of all the environmental elements for one activity at a time. It is likely that direct comparisons were made among the various elements when assessing their perceived control, and this may explain why the ratings of those elements with secondary perceived control were relatively lower in this study. Inglis' measures of perceived control of non-university elements were separate and different from those of the athletics director, president and athletics board, thus direct comparisons by the respondents were not as likely.

Similar to Inglis' (1988) results, the conference was rated slightly higher than the CIAU for most of the activities in the current study; a finding which is corroborated by the interview data. Of further interest, the conference and CIAU ratings in Inglis' study ranked them the highest among non-university elements. When environmental control over several variables was considered in the current study, these two elements were similarly perceived to have moderate control over more activities than any other non-university element. The observation, however, that some other non-university

elements were also perceived to have moderate control over certain activities supports the contention that perceived environmental control is a multi-dimensional concept, which varies across the elements and the organizational activities.

The findings of this study somewhat support the statement by Miller (1982) that, as rule-making bodies, the conference and national associations "exert direct and sometimes subtle pressures on [interuniversity] sport" (p. 97). Respondents in the current study described the moderate perceived control of these groups over establishing philosophy, and conference and CIAU participation, in terms of a more indirect influence. It was acknowledged that the philosophies, rules and regulations of these organizations "definitely have an influence on what you can and can't do" (5) because, "by virtue of your membership you have to be in line with the philosophies, goals and policies of their particular programs" (32). However, that perceived control was likely tempered by the conviction that, as indicated by a few respondents, they would not belong to an association whose basic philosophy was in contradiction to that of their organization. This is further reflected by the significantly stronger perceived control of the interuniversity athletics organization than the control of these elements over the organization's conference and CIAU participation.

6.1.6 Perceived Control of the Affiliated Faculty/Recreation Department

The primary objective of faculty involvement in interuniversity athletics is to ensure the educational integrity of the program (Grant, 1979; Mathews, 1974; Rickerd, 1985). Both administrative affiliation with an academic unit (AUCC, 1966; Mathews, 1974) and faculty

representation on athletics boards (Grant, 1979; Rickerd, 1985) have been advocated as effective mediums of faculty involvement and control. Inglis (1988) argued that organizations affiliated with an academic unit were not subject to any greater degree of faculty influence than those which are independent of an academic unit. The basis of her argument was that all nine of the independent organizations she examined had boards with faculty representation, thus "formally incorporat[ing] faculty involvement into the governance of athletics on their campuses" (p. 158).

Results of the current study support Inglis' underlying argument that administrative affiliation with an academic unit is not the only means for faculty control. Both physical education-related and other faculty were represented on the majority of athletics boards, which were perceived to have moderate control over six of the seven organizational activities. The athletics board in only one affiliated and one independent organization was not represented by faculty. Thus, a moderate degree of faculty control was perceived in the majority of both affiliated and independent organizations.

However, respondents in several affiliated organizations described the moderate perceived control of the faculty in addition to the board, over establishing philosophy and, to a lesser extent, over hiring. That influence was described by the formal approval of the dean and/or faculty council, and/or the implicit control of faculty coaches. This evidence counters Inglis' (1988) assertion that organizational affiliation with an academic unit is not necessarily a condition for greater faculty control than organizational independence. Additional observations which highlight perceived faculty control beyond the athletics board are revealed in the discussion of demographic variables.

6.1.7 Other Environmental Elements

If one were to describe the elements examined in the current study as either university or non-university, according to their primary affiliation, it can be noted that the general student body was the only university element consistently perceived to have relatively little to no control over the interuniversity athletics organization's activities. The interview data indicate that the athletics directors were able to distinguish perceived control of the student-athletes and the general student body over interuniversity athletics. The consistently, although not significantly, higher ratings of perceived control of the student-athletes, and particularly control that was described as implicit in nature, suggest that the athletics directors tend to give primary consideration to those students who are actually participating in interuniversity athletics, as opposed to an all-encompassing regard for any students who are eligible to participate. Therefore, by distinguishing these two elements in this study, the results shed some light on their respective involvement in the perceived control of interuniversity athletics.

Although the general student body was represented on the majority of athletics boards (undergraduates represented on 81%, graduates represented on 22%; see Table C-3, Appendix C), their perceived control via that forum was apparently muted by the fact that they often represented only one voice of many. Beyond their formal representation on the athletics board, very few examples of explicit student control, or even attempts, were reported by the athletics directors, although they noted that the opportunities existed. The interview data describe the student body as having perhaps its greatest perceived control over the organization's external communications, as an important promotions

and marketing target. However, a higher rating of perceived control may have been diminished by the reported variation in effectiveness of communications with this element. That the student body was not particularly involved or influential in the interuniversity athletics program may be due to a lack of cohesiveness or unified voice, a lack of continuity associated with high student turnover, and/or general disinterest in this particular university program.

The alumni, which may be considered as an arms-length university element, were also perceived to have relatively little to no control over the activities of the interuniversity athletics organization. These findings are consistent with Inglis' (1988) report of low overall perceived influence of the alumni; a rating which was significantly lower than the conference or CIAU. It was suggested that the low rating was due to a lack of alumni organization and affiliation within the institutions in Ontario (Inglis, 1991). The current interview data indicate that there was substantial variation among the respondents with regard to alumni representation on the athletics board, and other formal and informal involvement in interuniversity athletics. However, the variation was not explained by the demographic variables examined in this study. Although there was a reported range in alumni involvement among the respondents, particularly with regard to fundraising, in most cases this element was reported to have very little influence. The alumni's highest rating, of moderate perceived control over external communication, seems to reflect their tangible, and in some cases considerable interest in interuniversity athletics, as well as the athletics directors' interest in pursuing a profitable relationship.

Four non-university elements were perceived to have moderate control over at least one activity of the interuniversity athletics

organization. Both the conference and CIAU were perceived to have moderate control over three activities (establishing philosophy, external communication, and conference and CIAU participation), but relatively little control over the rest. The media was perceived to have moderate control over one activity, external communication, but no control over the remaining activities. A fourth non-university element, corporate sponsors, was perceived to have moderate control over securing funds, according to its direct involvement in that activity. However, it was perceived to have significantly less control than the interuniversity athletics organization and central administration which were ranked above it. Corporate sponsors were further perceived to have no control over the remaining activities, a finding which is consistent with Inglis' (1988) observation that this element was perceived to have significantly lesser influence over interuniversity athletics than any of the other non-university elements which were examined. Although Inglis (1991) speculated that the low rating of perceived influence "could be due to corporate sponsors not contributing. . ." (p. 31), the current study was able to identify that this element did in fact have moderate perceived control over securing funds.

With these exceptions, the media, corporate sponsors and the remaining non-university environmental elements (provincial/federal sport organizations and ministries, provincial education organizations and ministries, community, and professional sport leagues) did not generally differ in their ratings of relatively little to no perceived control over interuniversity athletics in Canada.

6.1.8 Demographic Differences and Perceived Environmental Control

It has been suggested that some of the major problems facing

Canadian interuniversity athletics, including philosophical differences and competitive imbalances, parallel demographic differences among the organizations, such as geographic location (conference affiliation), size of institution, size of interuniversity athletics program, and whether the organization is affiliated with an academic unit (Chelladurai & Danylchuk, 1984; Mathews, 1974; Rickerd, 1985; Semotiuk, 1986; Taylor, 1986). Results of the current study (see Tables 10 to 14) indicate that some variation among the athletics directors' perceptions of environmental control was explained by the conference, size of institution, size of program, and administrative structure variables examined. Although that explained variation was limited to four of the seven activities (securing funds, hiring, establishing philosophy, allocating funds), and only 16 of a possible 420 simple main effects in total were found, some of those differences may have important implications for perceived environmental control over interuniversity athletics, and warrant further discussion.

The conference variable was able to explain some of the variation in the respondents' perceptions of the affiliated faculty/recreation department's control over securing funds and establishing philosophy (see Tables 11 and 13). Recall that the perceived control of this element was primarily attributed to the affiliated faculty as opposed to the affiliated recreation department. According to the descriptive data in Table C-4, Appendix C, then, it seems likely that the significantly greater perceived control of the affiliated faculty/recreation department over securing funds in the CWUAA and GPAC than in the AUAA and QSSF is due to the fact that 75% of the organizations in the former conferences are affiliated with an academic unit, while 55% and 20% of the organizations in the latter conferences, respectively, are

affiliated. Interview data from respondents in the CWUAA and GPAC support this explanation. The same argument might also best explain the significantly greater perceived control of the affiliated faculty/recreation department over establishing philosophy in the GPAC (75% of organizations affiliated with academic unit) than in the QSSF (20% of organizations affiliated). It appears that these differences in perceived control of the affiliated faculty/recreation department may be based more on administrative structure than conference affiliation.

Further respondent variations in the perceived control of the affiliated faculty/recreation department, over establishing philosophy and hiring, were explained by the administrative structure variable (see Tables 12 and 13). This element was perceived to have significantly greater control over affiliated organizations than over those which are independent or have no related academic unit. These observations imply that greater perceived faculty control over interuniversity athletics is associated with academic affiliation.

It is interesting to note here that the breakdown of organizations by administrative structure sub-group in the current study (see Table 6) is consistent with the findings of Campbell and Slack (1982) and Inglis (1988); that is, approximately an even split between interuniversity athletics organizations which are affiliated with an academic unit, and those which are not (independent, no related academic unit). This suggests a continued levelling-off of what Campbell and Slack described as a shift, between 1974 to 1982, from affiliated to non-affiliated organizations. Together, these findings suggest that perceived control of the faculty has been preserved in Canadian interuniversity athletics.

The conference variable was also able to explain some of the respondent variation in the perceived control of provincial/federal

sport organizations and ministries over securing funds and establishing philosophy (see Tables 11 and 13). This element was perceived to have considerable control over securing funds in the GPAC, which was significantly greater than its little perceived control in the AUAA and OU/OWIAA. This variation is probably a reflection of the apparently greater resource dependence of organizations in the GPAC on funds from the corresponding sources - provincial government/sport organizations (11.92%) and Sport Canada/national sport organizations (3.23%) - than organizations in the AUAA (less than 1% from both) and the OU/OWIAA (less than 2% from both) (see Table E-7); demographic variations in funding are discussed in the next section. The interview data and the positive resource dependence-based perceived control results for this element (see Table 17), which are discussed shortly, support this explanation. The same argument might also best explain the significantly greater perceived control of the provincial/federal sport organizations and ministries over establishing philosophy in organizations in the GPAC than in the AUAA, OU/OWIAA and CWUAA (which received just over 8% from both sources).

This reasoning holds for several other significant simple main effects as well. Conference sub-group differences were observed for the perceived control of corporate sponsors over securing funds. The significantly greater perceived control of corporate sponsors over securing funds in the GPAC than in the OU/OWIAA seems to reflect the greater resource dependence of organizations in the former conference on sponsorships (8.60%) than those in the latter (1.25%) (see Table E-7). This explanation is also corroborated by the interview data and the positive resource dependence-based perceived control results for this element (see Table 17). Sub-group differences for the size of

institution variable were observed for the perceived control of the general student body over securing funds (see Table 11). This element was perceived to have moderate control over securing funds in organizations housed in large institutions, which was significantly greater than its perceived control over those in small institutions. It is likely that that control reflects the greater resource dependence of organizations in large institutions on student activity fees (43.43%) than those in small institutions (28.68%) (see Table E-8). Again, a positive resource dependence-based perceived control relationship for the general student body and securing funds supports this explanation (see Table 17).

The size of institution variable was also able to explain some of the respondent variation in the perceived control of central administration over hiring and allocating funds (see Tables 12 and 14). The considerable perceived control of central administration over hiring in organizations housed in small and medium-sized institutions was significantly greater than its moderate perceived control over those in large institutions. It is possible that this variation reflects the apparently greater resource dependence of organizations in small and medium-sized institutions on the university general fund (58.00% and 51.27%, respectively) than those in large institutions (14.26%) (see Table E-8). The positive resource dependence-based perceived control results for central administration support this explanation (see Table 17). It is also possible, however, that small and medium-sized institutions have relatively less complex administrative structures, which create a more direct link between the interuniversity athletics organization and central administration. Central administration may have a greater hands-on involvement in hiring in these institutions. A

similar reasoning may be used to explain the significantly greater perceived control of central administration over allocating funds in organizations housed in small institutions than in large institutions. These explanations are not, however, made evident in the interview data.

Finally, the conference variable was able to explain some respondent variation in perceived control of the conference and CIAU over establishing philosophy (Table 13). These two elements were perceived to have moderate control over this activity. However, they were perceived to have little control over organizations in the QSSF, which was significantly less than the moderate (conference) and considerable (CIAU) perceived control over organizations in the GPAC. A likely explanation is offered by the interview data, which suggest that interuniversity athletics organizations in the QSSF have little allegiance to the conference or CIAU organizations.

Therefore, demographic differences among the interuniversity athletics organizations, according to the conference, size of institution, size of program, and administrative structure variables, were able to explain several variations in perceived environmental control. Although there were few significant results, there are relevant implications for most of these findings. In their study of organizational priorities in Canadian interuniversity athletics, Chelladurai and Danylchuk (1984) found that the athletics directors were homogeneous across the region and size of institution variables in their ratings of athletic priorities. Inglis (1988) reported no effect of administrative structure, size of institution, or size of program on the ratings of athletic priorities by Ontario athletics directors. There is an interesting inconsistency between observed variations in perceived environmental control and observed homogeneity in athletic priorities of

the organization, according to the same demographic variables. These findings suggest that either perceived environmental control is not being manifested in the organization's priorities, or those elements with notable perceived control have similar intentions for interuniversity athletics; this inconsistency is an impetus for further investigation.

6.2 Resource Dependence in Canadian Interuniversity Athletics

Respondents completed a Statement of Resources, reporting the proportion of their organization's budget which was made up from various sources in the environment, including internal revenues (see Table 15). Relative funding from each source represents the organization's dependence on it for financial resources. Results of t-tests between the various sources indicate that the greatest percentages of funding for interuniversity athletics in Canada continued to be secured from the university general fund and/or student activity fees (see Table 16). These findings are comparable to those of Mathews (1974), Campbell and Slack (1982), and Rickerd (1985).

Mathews (1974) reported that approximately 20% of interuniversity athletics organizations received the greatest proportion of their budget from university general funds. Approximately 14% received a substantial portion of their budget from student activity fees, and the rest, or approximately 66% were supported by some combination of the two (Mathews, 1974). The current results (see Table E-2, Appendix E) similarly indicate that 15% (n=5) of the interuniversity athletics organizations received over three-quarters of their budget from university general funds, and 12% (n=4) secured over three-quarters of their funds from student activity fees. Notably, 44% (n=15) of the

organizations secured over half of their budgets from the university general fund, and 27% (n=9) secured over half from student activity fees. A description of combined funding from these sources (see Table E-3) indicates that 56% (n=19) of the interuniversity athletics organizations were funded by a combination of the university general fund and student activity fees, which happened to account for over 50% of their budgets in every case. There were no organizations which received zero funding from both sources. Since approximations were made from Mathews' results, only general comparisons to the current findings should be considered.

The reportedly small degree of change in relative funding experienced by the organizations from 1987-88 to 1989-90 was primarily attributed to a decrease in the proportion of funding from the university general fund, due to absolute cutbacks. Campbell and Slack (1982) noted reductions in the relative funding from both the university general fund and student activity fees between 1977-78 and 1981-82. The findings suggest, then, that relative funding from student activity fees has levelled off in the past decade, while there continues to be a decline in university general fund contributions. The implications for those organizations which secure a notable portion of their budget from this source are program cuts and/or a need to increase funding from other sources.

Those respondents who noted decreases in relative funding reported that their budgets were being supplemented particularly by internal revenues and corporate sponsorships, as well as government and alumni funding. Campbell and Slack (1982) noted that changes in relative funding were generally made up through internal revenues, and this seemed to be the case in the current study as a significantly greater

proportion of funds were secured from internal revenues than any of the remaining sources. Funding from internal revenues tended to be concentrated among four sub-sources: gate receipts, sports camps, user fees and, to a slightly lesser extent, competition guarantees (see Tables E-4 and E-6). However, these sub-sources continued to provide a relatively smaller portion of the total budget for interuniversity athletics, similar to the observations of Janzen (1986), Mathews (1974), and Rickerd (1985).

Despite reported increases, the current results indicate that funding from corporate sponsorships and alumni continued to comprise a relatively smaller portion of the overall budget. In his study, Janzen (1986) reported that most interuniversity athletics organizations received some support from corporate sponsors, although it was relatively insignificant. The current results parallel these findings (see Table E-2), revealing that all but 20% (n=7) of the organizations acquired some funds from corporate sponsors, although 65% (n=22) of those secured less than one-tenth of their budgets from this source. Thus, even though an increase in corporate dollars was frequently reported by respondents who described changes in funding, this source continued to comprise a relatively minor portion of the budget. Alumni support continued to be quite varied, but generally insignificant, across the country; a finding which is comparable to that of Janzen (1986). Just over half of the organizations (53%, n=18) received virtually no funding from alumni, while 44% (n=15) received less than one-tenth of their total budgets from this source. The funding of interuniversity athletics from provincial government/sport organizations and Sport Canada/national sport organizations had not previously been considered. These sources also made up a relatively minor portion of

the overall budget. The findings corroborate the Rickerd Report (1985) statement that non-university funding was, and would continue to be, relatively insignificant in interuniversity athletics.

A purely descriptive analysis of relative funding, with respect to each of the four demographic variables (see Tables E-7 to E-10), helped to explain some variation in the resource dependencies of the interuniversity athletics organizations. Variations for several of the sources, according to conference, size of institution, and size of program were apparent. However, the most striking differences seem to be for the university general fund and student activity fees sources.

Different funding patterns by conference were identified. According to the values in Table E-7, it appears that organizations in the AUAA and GPAC secured a greater proportion of their budget from the university general fund and a correspondingly lesser proportion from student activity fees. In contrast, organizations in the QSSF acquired a larger proportion of their budgets from student activity fees and a lesser proportion from the university general fund. Organizations in the CWUAA secured a greater proportion of their budgets from the university general fund, however they also received a sizable proportion of funds from the student activity fees. The reverse was true for organizations in the OU/OWIAA, which received a greater portion from student activity fees, but a sizable portion from the university general fund as well. This particular finding is consistent with an earlier report that interuniversity athletics organizations in Ontario were predominately funded by a combination of these sources (Rickerd, 1985). That report also stated that these organizations would not secure notable funding from non-university sources, which is supported by the findings of the current study.

Two additional observations with respect to the conference variable are of interest. First, the funding patterns for each of the conferences, with the exception of the OU/OWIAA, comprised primary funding from either the university general fund or student activity fees and secondary funding from internal revenues, thus affirming the relevance of this latter source in interuniversity athletics. Internal revenues were ranked third in the OU/OWIAA. Second, the CWUAA and GPAC were the only conferences to receive tertiary funding from a source other than one of these three main sources. Provincial government/sport organizations were ranked as the third highest source of relative funding in both these conferences.

The apparent differences in funding patterns may have implications for the respective conferences in terms of financial security, and perhaps survival, of member organizations. The university general fund is largely dependent on external funding from provincial education grants, which may be less stable than the collection of student activity fees within the university. If there continues to be a decrease in the proportion of funds secured from the university general fund for interuniversity athletics, those organizations which rely primarily on that source will be increasingly forced to reduce programming and/or procure funds from internal revenues and other currently minor sources. The perceived control implications of various funding patterns are discussed in the following sections.

According to the results in Table E-8, interuniversity athletics organizations in small and medium-sized institutions appear to have secured a greater proportion of their budgets from the university general fund than those in large institutions, which secured a greater proportion from student activity fees. Although organizations in medium

institutions tended to acquire the majority of their funds from the university general fund, they also received a substantial proportion of their budget from student activity fees. These patterns of relative funding are probably the most financially advantageous to all organizations. In a large institution, the organization may benefit from a sizeable student population from which to extract guaranteed activity fees, and is therefore not required to compete with other university departments for scarce funds that originate from the provincial government. In a small institution, where funding was predominately from the university general fund, the organization probably faces competition from fewer university departments for those funds, and is therefore less financially restricted by the smaller student population.

A further observation of interest was the relative dependence of organizations in small and medium institutions on student activity fees as their second highest source of funds, whereas those in large institutions relied secondarily on internal revenues. A possible explanation is that organizations in small and medium institutions may not have the immediate population base or facilities to secure notable revenues from gate receipts, sport camps and user fees. The probability that large institutions have superior athletic facilities may also explain why organizations in those institutions appear to have acquired a greater proportion of their budgets from provincial government/sport organizations than those in small and medium institutions. Grants for shared coaching positions and provincial team development would more likely be allocated to those institutions with better facilities.

The final observations, with regard to resource dependence and the demographic variables, are apparent differences between organizations

with small programs, which secured a greater proportion of their budgets from the university general fund, and those with large programs, which secured relatively more funding from student activity fees (see Table E-9). If one were to presume that funding precedes programming, as suggested by Mohr (1986), then it may be possible to assume that a larger interuniversity athletics program is feasible because of greater financial stability in funding from student activity fees. Alternatively, it may be that organizations which receive the majority of their budget from the students (student activity fees) are committed to offering a broad-based, "participative" athletics program, and those primarily funded by the university (university general fund) tend to be committed to a narrow-based, "elite" program as a vehicle for national recognition (Mohr, 1986).

With regard to the conference, size of institution, and size of program variables, consistent and notable sub-group differences were apparent within the university general fund and student activity fees sources. These variations are probably more striking because these are the primary sources of funding. Variations within the remaining, minor sources were less pronounced and, with a few exceptions, the interuniversity athletics organizations generally appeared to be homogeneous in their patterns and proportions of relative funding from these sources.

Additional resource dependence information from the respondents reveals that a substantial percentage of interuniversity athletics physical plant costs, including the provision, preparation and maintenance of facilities, and all utilities, were covered by the university (see Table E-11). Of the 30 organizations which had at least three-quarters of their physical plant costs covered by the university,

13 had 100% of their costs taken care of by this source. This finding is similar to Janzen's (1986) observation that the majority of organizations had their facilities operation and maintenance costs covered by the university. Only six organizations reported having between five and twenty-five percent of their costs, and one had over 80% of its costs covered by other sources such as faculty, student services, university and non-university rentals, and corporate sponsorships. Thus, in most cases, physical plant costs for the interuniversity athletics program were covered predominately by the university with some compensation from the organization itself.

6.3 Resource Dependence and Perceived Environmental Control in Canadian Interuniversity Athletics

The concepts of resource dependence and power were incorporated into a four cell framework (see Figure 3) for the examination of perceived environmental control from a resource dependence perspective. The main hypothesis of this study is represented by cell 1. That is, a relationship exists between the perceived control of several environmental elements over the interuniversity athletics organization and the organization's relative resource dependence on those elements. The other cells represent, and describe the situations wherein there is resource dependence but no perceived control (cell 2), perceived control but no resource dependence (cell 3), and neither perceived control nor resource dependence (cell 4).

Attempts to position the environmental elements within the appropriate cells of the framework, based on the observed relationships, met with limited success. The implied boundaries are not conducive to arranging, for example within cell 1, significant relationships that are

not based on the same degree of resource dependence and the same degree of perceived control. Each relationship can be described by a cell, but a more direct application is discouraged. Table 26 presents highlights of the resource dependence-based perceived control relationships, including the corollary relationships that were examined, noting the corresponding cell by which each may be best described. The relationships between the organization's resource dependence on alternate sources and resource dependence-based perceived environmental control are not described by the framework.

6.3.1 Resource Dependence-Based Perceived Environmental Control

There is limited support for the main hypothesis, although that support is varied depending on the particular source/element and its perceived control over certain activities of the interuniversity athletics organization (see Table 17). A condition for the hypothesis to be supported was the respondents' acknowledgment of certain elements as the respective sources of funds. In other words, central administration was recognized as the source of the university general fund, the general student body was recognized as the source of student activity fees, alumni were acknowledged as the source of alumni funding, and so on.

Beyond evidence furnished by the interview data, it was assumed that this condition had been met when there was a significant relationship between the element's perceived control over securing funds and the organization's resource dependence on the funds provided by that element. If there was no association between the organization's dependence on a source for funds and the perceived control of the corresponding element over the provision of those funds then, according

Table 26

Summary Highlights of Resource Dependence and Perceived Environmental Control in Canadian Interuniversity Athletics.

RESOURCE DEPENDENCE (SOURCE)	PERCEIVED CONTROL (ELEMENT)	COMMENTS
Resource Dependence-Based Perceived Environmental Control		
University General Fund	Central Administration	Resource dependence-based moderate to considerable perceived control over securing funds, hiring, establishing philosophy, and allocating funds (cell 1).
Student Activity Fees	General Student Body	Resource dependence-based perceived control over securing funds infers potential power, but relatively little perceived control indicates power not enacted over organizational activities (cell 2).
Internal Revenues	Interuniversity Athletics Organization	Considerable perceived control over organizational activities, but resource dependence was not a basis for that control (cell 3).
Provincial Gov't./Sport Organizations	Provincial/Federal Sport Organizations & Ministries	Resource dependence-based perceived control over securing funds, establishing philosophy, and allocating funds (cell 1), but minimal resource dependence and perceived control observed.
Sport Canada/Nat'l. Sport Organizations	Provincial/Federal Sport Organizations & Ministries	Resource dependence-based perceived control over securing funds, hiring, and allocating funds (cell 1), but minimal resource dependence and perceived control observed.
Corporate Sponsorships	Corporate Sponsors	Resource dependence-based perceived control over six of seven activities (cell 1), but minimal resource dependence and perceived control observed.
Alumni Funding	Alumni	No relationship between relatively little perceived control and negligible resource dependence (cell 4).

table cont'd.

Table 26 cont'd.

RESOURCE DEPENDENCE (SOURCE)	PERCEIVED CONTROL (ELEMENT)	COMMENTS
Formal Resource Control and Perceived Environmental Control		
University General Fund/ Student Activity Fees/ Internal Revenues	Affiliated Faculty/ Recreation Department	Moderate perceived control over hiring and establishing philosophy, but formal resource control was not a basis for that control (cell 3).
University General Fund/ Student Activity Fees	Athletics Board	Moderate perceived control over organizational activities, but formal resource control was not a basis for that control (cell 3).
Provincial Gov't./Sport Organizations	Interuniversity Athletics Organization	Considerable perceived control over organizational activities based in formal control over funds from this source (cell 1).
Sport Canada/Nat'l. Sport Organizations	Interuniversity Athletics Organization	Considerable perceived control over organizational activities based in formal control over funds from this source (cell 1).
Indirect Resource Effect and Perceived Environmental Control		
Corporate Sponsorships	Media	Indirect resource effect-based perceived control over securing funds, hiring, external communication (cell 1), but relatively little perceived control and minimal resource dependence.
Alternate Sources and Resource Dependence-Based Perceived Environmental Control		
Student Activity Fees	Central Administration	Resource dependence-based perceived control over securing funds, establishing philosohy, and allocating funds modified by organization's alternate dependence on student activity fees.
Student Activity Fees	Provincial/Federal Sport Organizations & Ministries	Resource dependence-based perceived control over athletics modified by organization's alternate dependence on student activity fees.

to the theoretical framework, resource dependence could not be a basis for control. This requisite condition served to verify the resource dependence-based power potential of a particular element. Significant relationships were found between the perceived control of four environmental elements over securing funds and the organization's resource dependence on the respective funds which they provide: central administration, provincial/federal sport organizations and ministries, corporate sponsors, and the general student body.

The correlation coefficients reveal significant, although moderate relationships between central administration's perceived control over securing funds, hiring, establishing philosophy, and allocating funds (perceived control which ranged from moderate to considerable in degree), and the interuniversity athletics organization's substantial dependence on the university general fund which it provides. The hypothesis is supported for these particular activities and central administration can be described by cell 1, such that power has been enacted and resource dependence-based perceived control is inferred.

The hypothesis is not supported for the remaining activities (although the relationships were positive and approaching significance), even those over which central administration was perceived to have moderate control (external communication, conference and CIAU participation). A possible explanation is based on the observation that, for the most part, perceived environmental control over external communication directly involved only one element - the media - other than the organization itself. The other elements were described as having a less direct involvement in external communication in their roles as, primarily, recipients. One exception to this interpretation was the significant moderate relationship between the perceived control

of corporate sponsors over external communication and the organization's dependence on that source. Respondents described external communication as one of the few activities for which corporate sponsors were directly associated with the organization.

A possible explanation for the lack of relationship between central administration's perceived control over conference and CIAU participation and the organization's dependence on the university general fund is based on the description of that control as an extension of the element's perceived influence over establishing philosophy. Thus, the proposed relationship may be too indirect to be significant. Although central administration's perceived control over allocating funds was also described as an extension of its perceived influence over securing the funds in the first place, the relationship for that activity was probably significant because of the implied link to the provision of funds.

That the perceived control of central administration was only moderately related to the organization's dependence on the university general funds which it provides, suggests that there is an additional bas(es) of influence. It may be that the perceived control of this element is inherent in its role as somewhat of a parent to the interuniversity athletics organization. As a parent organization, central administration legislates responsibility for the interuniversity athletics program to the organization. It reportedly had consistent implicit perceived control and periodic explicit perceived control over the activities of the organization in the current study. It was also the only element, other than the organization itself, to have meaningful perceived control over the input activities of securing funds and hiring.

Strong relationships were observed between perceived control of the provincial/federal sport organizations and ministries over securing funds and the organization's resource dependence on both the provincial government/sport organizations and the Sport Canada/national sport organizations sources; together they explained 31% of the variance in this activity (see Table 18). These significant relationships confirmed the potential for resource dependence-based perceived control. Further significant relationships were found between the element's perceived control over allocating funds and the organization's resource dependence on both sources; a finding which was corroborated by interview descriptions of the provincial/federal sport organizations and ministries specifying the use of its funds. Significant relationships were also revealed between perceived control over establishing philosophy and the organization's resource dependence on provincial government/sport organization funding, and between perceived control over hiring and the organization's resource dependence on Sport Canada/national sport organization funding. No direct explanation of these separate relationships emanates from the interviews, during which respondents actually tended to highlight the perceived control of the provincial rather than the federal component of this element. Together, both sources accounted for a significant amount of the variance in all of the activities, with the exception of conference and CIAU participation. As previously suggested, the relationship for that activity may be too indirect to be significant. Although the provincial/federal sport organizations and ministries had relatively little perceived control over interuniversity athletics, and the organization was only minimally dependent on the provincial government/sport organizations and Sport Canada/national sport

organizations for funding, the hypothesis is supported in this case and the element can be described by cell 1.

A strong relationship was noted between the moderate perceived control of corporate sponsors over securing funds and the organization's resource dependence on that source; a finding which was supported by the interview data. With the potential for resource dependence-based control established, the hypothesis is further supported in terms of significant relationships between the perceived control of corporate sponsors over another five of the seven organizational activities and the organization's resource dependence on corporate sponsorships; no significant relationship was observed for conference and CIAU participation. Although corporate sponsors were perceived to have relatively little to no control over interuniversity athletics, with the exception of securing funds, and constituted a relatively minor portion of the organization's budget, the moderate dependence-control relationships for almost all the activities are noteworthy. The perceived control of corporate sponsors over interuniversity athletics was significantly associated with the organization's resource dependence on the funds they provide, and this element can be described by cell 1.

Finally, a moderate relationship was found between the relatively little perceived control of the general student body over securing funds and the organization's significant resource dependence on student activity fees. Thus, the condition for resource dependence-based perceived control was verified for this element. However, the hypothesis is not supported for any of the remaining activities, over which the students were also perceived to have relatively little to no control. The organization's resource dependence on student activity fees was not associated with a commensurate degree of perceived control

by the acknowledged source of those funds and this element can be described by cell 2, such that power is not enacted but remains as potential. As previously suggested, the paucity of explicit perceived student control may be due to a lack of cohesiveness or unified voice. Individually, students are relatively minor stakeholders and, alone, they may not have the motivation to pressure the interuniversity athletics organization directly, or via their student government. Furthermore, the general student body represents a relatively unstructured, heterogeneous group which may not be able to act as an effective pressure group. High student turnover amplifies these characteristics. It is also possible that the students' resource dependence-based power remains as potential because they are, for the most part, involuntary stakeholders in the organization and may have a certain degree of apathy toward it, or they are generally disinterested in the program offered by interuniversity athletics. It seems likely that the lack of explicit perceived control attempts by the students further inhibits any implicit perceived control over the organization.

Therefore, although the potential for resource dependence-based perceived control was confirmed for four environmental elements, the hypothesis is supported for only three. The perceived control of central administration, provincial/federal sport organizations and ministries, and corporate sponsors over interuniversity athletics was significantly related to the organization's resource dependence on the respective funds which they provide. Although these elements can be described by cell 1, only central administration was perceived to have any substantial control over the organization's activities.

The remaining possible resource dependence-based perceived control relationships do not support the hypothesis. Interestingly, no

significant relationships were observed, nor does there seem to be any pattern, between the interuniversity athletics organization's considerable perceived control over securing funds, or any other activities, and its dependence on the internal revenues which it generates. It seems possible that the organization's perceived control is more strongly associated with its formal responsibility for the program, a point which was stressed in the interview data, than with its ability to generate funds internally. Thus, the interuniversity athletics organization can be described by cell 3, such that power is enacted but resource dependence on internal revenues is not a basis for perceived control.

Two elements were considered as sub-sources of internal revenues - the community and student-athletes - and the relationships between their perceived control over interuniversity athletics and the organization's dependence on them for resources were examined. Although the community was described in the interviews as a source of revenues from gate receipts, user fees, sports camps, and facility rentals, no significant relationships were observed for its perceived control over securing funds. There was no significant relationship between perceived control of the community over securing funds and the organization's dependence on total internal revenues either. Therefore, the condition for resource dependence-based perceived control was not verified. There does not seem to be any pattern emerging, and the few observed significant relationships are likely due to chance. A possible explanation for the non-significant findings is that the community does not provide a unified voice when it comes to influencing the organization. As with the general study body, the various community members comprise a relatively unstructured, heterogeneous group which

may not be able to effectively pressure the organization. It is further possible that the perceived control of a specific sub-group(s) within the community was diluted in the current study by considering it together with other sub-groups. This element was perceived to have relatively little to no control over interuniversity athletics and it can be described by cell 4, such that no inferences about resource dependence-based perceived control can be made.

The student-athletes were considered as possibly having perceived control that was based in the organization's dependence on them for helping to generate revenues through sports camps and fundraising. However their, albeit relatively little, perceived control over securing funds was not significantly related to their role in generating internal revenues for the organization. Despite the moderate perceived control of the student-athletes over several activities (establishing philosophy, daily operations, external communication, and conference and CIAU participation), resource dependence was not a significant basis for that control, and this element can be described by cell 3. It is likely that the student-athletes' perceived control is based in their formal representation on the athletics board, as well as their implicit influence over interuniversity athletics as the perceived prime beneficiary of the program. There does, however, seem to be a pattern of negative relationships emerging between perceived control of student-athletes and the organization's resource dependence on fundraising. These are likely secondary to some other relationship which is not readily apparent in this study.

No significant relationships were found between the perceived control of alumni over securing funds, or any other activities, and the organization's dependence on that source. This finding was supported by

the interview data which described the athletics directors' positive attitude toward any financial involvement of the alumni, but indicated their resistance to any commensurate control attempts. It appears that the athletics directors are actively managing any potential control relationship with alumni. Based on its relatively little perceived control over interuniversity athletics, and the minor contribution it makes to the organization's budget, alumni can be described by cell 4, such that no inferences about resource dependence-based perceived control can be made.

Although a few respondents described the perceived control of the provincial education organizations and ministries over securing funds, in terms of affecting the amount of the university general fund from which the university is able to fund interuniversity athletics, no significant relationships were found between its very little perceived control over this activity and the organization's dependence on those funds. In other words, the athletics directors did not generally acknowledge this element as a source upon which the organization was significantly dependent for funds. This may be because it is beyond the organization's immediate environment, and any relationship is indirect via central administration. Thus, provincial education organizations and ministries can also be described by cell 4.

None of the relationships between central administration's perceived control over the interuniversity athletics organization's activities and the organization's substantial dependence on the university to cover its physical plant costs were significant. It is possible that the organization perceives this support as a given, and not as a source upon which it is directly, or even consciously dependent for its operations. In this case, central administration can be

described by cell 3, such that power is enacted but the organization does not recognize the university's physical plant support as a basis for control.

Therefore, there is limited support for the hypothesized relationship between resource dependence and perceived control, with significant relationships for central administration, provincial/federal sport organizations and ministries, and corporate sponsors only. The potential for resource dependence-based perceived control was verified for the general student body. Resource dependence cannot be inferred as a basis for perceived control of the other environmental elements examined.

6.3.2 Formal Resource Control and Perceived Environmental Control

Pfeffer and Salancik (1978) argued that there is power based simply in the control of resources, regardless of whether the controller actually possesses or provides those resources. Therefore, possible relationships between the perceived control of those elements which have some formal control over the administration of funds for interuniversity athletics, but which do not directly provide the funds, and the organization's resource dependence on those funds were examined (see Tables 19 and 20). The requisite condition for resource dependence-based perceived control was considered, such that the respondents had to acknowledge the elements as having some control over the respective funds. Hence, significant relationships for securing funds and/or allocating funds, both of which concern resource administration, were considered. However, for most of the elements examined, none of the relationships between perceived control over these activities and the organization's dependence on the funds over which they have some control

were significant, precluding further dependence-control relationships for the other organizational activities. The highlights are summarized in Table 26.

The affiliated faculty/recreation department's, albeit relatively little perceived control over securing funds and allocating funds was described by its formal involvement in budget preparation and/or approval. However, the relationship between that control and the organization's dependence on the university general fund or student activity fees was not significant (see Table 19). Therefore, formal control over these resources was not a basis for the perceived control of this element, and it can be described by cell 3 for its moderate perceived control over the activities of hiring and establishing philosophy. Perceived control is more likely based in the affiliated faculty/recreation department's administrative affiliation with the organization. This point is supported by the observed differences in perceived control of this element over hiring and establishing philosophy in organizations which are affiliated with, versus those which are independent of, an academic unit.

There are two possible explanations for the significant positive relationships which were observed between the organization's dependence on the university general fund and the moderate perceived control of the affiliated faculty/recreation department over hiring (albeit a weak relationship) and establishing philosophy. Although formal resource control as a basis of perceived control was ruled out in this case, it is possible that these relationships are secondary to the resource dependence-based perceived control relationship between the university general fund and central administration. That is, when resources are acquired from the university general fund, central administration's

control extends down through the affiliated faculty; most likely through the dean, whom respondents described as having direct influence.

It is also possible that the observed significant relationships were driven by those organizations which were more dependent on the university general fund, and which are also affiliated with an academic unit, since the affiliated faculty/recreation department had greater perceived control over those organizations, particularly with regard to hiring and establishing philosophy (see Tables 12 and 13). The demographic variations for funding and perceived control are useful in explaining this further. According to the data in Table C-4, Appendix C and Table E-7, Appendix E, organizations in the AUAA were substantially dependent on the university general fund (75.00%), and over half are affiliated with an academic unit. Organizations in the CWUAA and GPAC were also notably dependent on this source (41.20% and 49.07%, respectively), and 75% from each conference are affiliated. It is possible, then, that several of these particular organizations were driving the relationships.

Further to that argument, the significant negative relationships between the organization's dependence on student activity fees and perceived control of the affiliated faculty/recreation department over hiring and establishing philosophy were possibly driven by those same organizations, since they were relatively less dependent on student activity fees; an explanation which is supported by the demographic data (see Table E-7) and the significant negative relationship between resource dependence on the university general fund and student activity fees (see Table 22). The significant negative relationship between internal revenues and perceived control of the affiliated faculty/recreation department over establishing philosophy can probably

be explained in the same manner, such that, at least the organizations in the AUAA were less dependent on internal revenues (see Table E-7), and a significant negative relationship between resource dependence on the university general fund and this source was observed (see Table 22).

The athletics board was perceived to have moderate control over the activities of securing funds and allocating funds, which was described by its role in budget approval. However, the relationship between that control and the organization's dependence on the university general fund or student activity fees was not significant (see Table 19). It may be that the board's perceived control is based in its formal role in budget approval rather than direct control over a particular source. Therefore, formal resource control of these sources could not be a significant basis for the moderate perceived control of this element over six of the seven organizational activities, and it may be described by cell 3. The athletics board's perceived control may be based in its legislated responsibility for developing and approving the budget and philosophy of the interuniversity athletics program. Of interest, there appears to be a pattern of significant or near-significant relationships for several of the activities, including securing funds. However, no further conclusions can be reached at this point.

Significant resource control-based relationships were observed between the perceived control of central administration over several activities, including securing funds and allocating funds, and the organization's resource dependence on student activity fees (see Table 19). However, although central administration was described as having some control over the approval and collection of student activity fees, these moderate relationships were in the negative direction. They

suggest that central administration's perceived control over securing funds, establishing philosophy, and allocating funds varied inversely with relative funding from student activity fees. Since relative funding from student activity fees was inversely related to the university general fund (see Table 22), it is not unexpected that an inverse relationship between student activity fees and perceived control of central administration would be observed. The results imply that, although part of central administration's perceived control over securing funds was described by its role in student activity fee approval, collection and distribution, the provision of university general funds is a more meaningful basis of control for this element.

Although the relationship was in the negative direction, central administration's moderate perceived control over hiring was not significantly associated with the organization's resource dependence on student activity fees. This finding implies that perceived control over this activity is not as vulnerable to modifications in the funding pattern. Respondents described central administration's formal role in the hiring process as part of a university-wide policy, which further suggests that it may be less affected by the organization's funding pattern.

With regard to the interuniversity athletics organization's formal control over those sources upon which it was dependent, the condition of acknowledged resource control was met for the provincial government/sport organizations, Sport Canada/national sport organizations, and "other" sources. The relationship between the organization's perceived control over securing funds and its resource dependence on the latter two sources was weak, however a pattern of resource dependence-based perceived control relationships seems to be

emerging for the remaining activities. There also appears to be a pattern of near-significant resource dependence-based perceived control relationships for the corporate sponsorships source. However, these results are inconclusive. Nevertheless, the considerable perceived control of the organization was significantly based in its formal control over, in particular, the provincial government/sport organizations, Sport Canada/national sport organizations, and "other" sources, and it can be described by cell 1.

These findings imply that the organization accrues perceived control over particular activities with relative funding from these sources. This implication is supported by the interview data which indicate that the athletics directors perceived their organizations to have control over securing funds by virtue of their role in fundraising from non-university sources. The situation parallels what strategic contingency theorists describe as the accrual of power associated with reducing an organization's financial uncertainty (Jacobs, 1974; Pfeffer & Leong, 1977; Provan et al., 1980; Salancik & Pfeffer, 1974). It is somewhat surprising, then, that the organization does not have any perceived control associated with generating internal revenues, which would reduce financial uncertainty.

Further to these observations, recall that significant relationships were found between the organization's dependence on provincial government/sport organizations and Sport Canada/national sport organizations, and perceived control of the corresponding provincial/federal sport organizations and ministries over interuniversity athletics; the resource dependence-based perceived control of corporate sponsors was also verified. Together, these findings suggest that, with resource dependence on these non-university

sources, there are counter implications for perceived environmental control over the organization. Nevertheless, the corresponding elements were generally perceived to have relatively little to no influence; with the exception of organizations in the GPAC conference which were dependent on the provincial government/sport organizations as a secondary source of relative funding, and which perceived the corresponding element to have considerable control over securing funds and establishing philosophy. It appears that the provincial government/sport organizations, and to a lesser extent Sport Canada/national sport organizations, "other" sources, and corporate sponsorships, are the only sources for which the organization's resource dependence is a factor in its perceived control.

A weak relationship, in the negative direction, between the organization's formal resource control over the university general fund upon which it was dependent and its perceived control over hiring was also observed. Although formal resource control over this source was not verified as a basis for control, this significant correlation may be secondary to the resource dependence-based perceived control relationship between the university general fund and central administration. This latter relationship indicated that central administration's perceived control over hiring was significantly based in relative funding from this source. It is possible, then, that the athletics directors perceive a relative loss of organizational control over this activity in relation to central administration's formal role in hiring coaches and administrators; a role which reportedly includes the occasional direct involvement of the university president and/or vice-president. In other words, where an organization is relatively more dependent on the university general fund, central administration

has greater perceived control over hiring, and the interuniversity athletics organization has relatively lesser perceived control over this activity.

Two other non-significant resource control relationships warrant discussion. Although the CIAU is one of the main channels for Sport Canada funding to the interuniversity athletics organizations, it was perceived to have very little control over securing funds and the athletics directors did not significantly associate this element with any of the funds received from that source (see Table 19). Thus, control over a resource upon which the organization was dependent was not a basis for the CIAU's moderate perceived control over establishing philosophy, external communication, and conference and CIAU participation, and it can be described by cell 3 for its influence over those activities. It is more likely that, as suggested by Inglis (1991), perceived control of the CIAU is based in its jurisdiction over the rules and regulations of interuniversity athletics at the national level.

Central administration was described as having at least implicit perceived control over the organization's funding from corporate sponsors, in terms of approval of the source. However, its perceived control over securing funds was not significantly related to the organization's dependence on that source (see Table 19). Central administration's considerable perceived control over securing funds was more strongly related to the organization's dependence on university general funds. Thus, the perceived control of central administration over interuniversity athletics could not be further explained by its formal approval of a source upon which the organization is dependent. Central administration can be described by cell 3 with regard to

corporate sponsorships.

Therefore, with the exception of the interuniversity athletics organization, very few of the possible formal resource control relationships were significant, likely because the elements examined were not acknowledged as having direct control over particular sources. Formal resource control cannot be inferred as a basis of perceived control in these cases, and other bases, such as legislated responsibility or administrative affiliation with the interuniversity athletics organization, are suggested.

6.3.3 Indirect Resource Effect and Perceived Environmental Control

An exploratory extension of the theoretical association between resource dependence and perceived control led to an examination of the potential relationship between the interuniversity athletics organization's resource dependence on a source and the perceived control of an element which may indirectly effect the procurement of funds from that source (see Table 21). The effect of the media, conference policy, and CIAU scheduling on the generation of internal revenues and corporate sponsorships, are examples of the relationships examined. The highlights are presented in Table 26.

A significant relationship between the organization's dependence on a particular source and an element's perceived control over securing funds from that source was a requisite condition for further dependence-control relationships. This relationship verified the element's role, although indirect, in relative funding from the source. Only one such relationship was observed, between perceived control of the media and resource dependence of the organization on corporate sponsors. This particular association was noted in the interview data, and the

significant relationship verified this element's potential for resource dependence-based perceived control. Further significant relationships were found for the media's perceived control over hiring, and external communication (although a weak relationship). There also seems to be a pattern of significant relationships emerging for all but one of the remaining activities, although the results are inconclusive. The media was perceived to have very little control over the organizational activities, with the exception of external communication, and the organization was minimally dependent on corporate sponsorships; nevertheless, it can be described by cell 1, such that resource dependence-based perceived control is inferred.

None of the other indirect resource effect relationships were significant, even though the media's effect on the generation of internal revenues via community support was noted in the interview data. This may be explained by the lack of direct relationship between the community and the organization's dependence on any of the internal revenues sub-sources. There appears to be a pattern of relationships which are approaching significance between perceived control of the community and the organization's dependence on corporate sponsorships. The current findings offered no further insights into the basis of perceived environmental control. The conference and CIAU, which were perceived to have moderate control over establishing philosophy, external communication, and conference and CIAU participation, can be described by cell 3, such that power is enacted but indirect resource control is not a basis. The remaining elements can be described by cell 4, such that no inferences about resource dependence-based perceived control can be made.

6.3.4 Alternate Source Dependence and Perceived Environmental Control

The purpose for examining this relationship was to consider whether the interuniversity athletics organization's dependence on alternate sources was inversely related to the resource dependence-based perceived control of certain elements, namely central administration, provincial/federal sport organizations and ministries, and corporate sponsors. This modification is theoretically conditional upon a negative relationship between relative funding from the source upon which perceived control is based and relative funding from an alternate source. The correlation coefficients presented in Table 22 reveal negative relationships between several pairs of funding sources, indicating that the organization's dependence on the two particular sources varied indirectly. These results have to be interpreted with some caution since the funding data represent relative portions of the organization's total budget.

It is not surprising, therefore, that the two primary sources of funding - the university general fund and student activity fees - were significantly related in the negative direction. The university general fund was also significantly related in the negative direction to internal revenues, which was found to be a relevant secondary source. In support of this finding, respondents described the need to increase internal revenues in order to compensate for reported reductions in relative funding from the university general fund.

It was surprising to find no significant relationship between student activity fees and internal revenues. The levelling off of reductions in relative funding from student activity fees, implied by the results of this study, and the reported increase in funding from internal revenues, may explain why no significant relationship between

these relevant sources was observed. Significant, negative relationships were observed between student activity fees and three minor sources - corporate sponsorships, alumni funding, and Sport Canada/national sport organizations. These findings suggest that those organizations which secure relatively more funding from student activity fees are relatively less dependent on these non-university funding sources. This may be a reflection of the stability of this primary funding source.

The only other significant relationships were strong positive correlations between the organization's resource dependence on the provincial government/sport organizations, corporate sponsorships, and Sport Canada/national sport organizations, and a moderate relationship between the organization's resource dependence on corporate sponsorships and alumni funding. That these sources vary together suggests that an organization which secures non-university funding from one of these sources, secures funds from the others as well. This may be related to an organization's intent and ability to do so.

The correlation coefficients presented in Table 23 indicate that the only significant relationships observed between the organization's dependence on alternate sources and perceived control of central administration, were with regard to student activity fees. These relationships were previously discussed in sub-section 6.3.2, which presented the relationship between the organization's dependence on student activity fees, over which central administration was described as having some formal control, and perceived control of that element over the organization's activities. The results suggest that the organization's dependence on student activity fees as an alternate source significantly modified relative funding from the university

general fund, and therefore the resource dependence-based perceived control of central administration.

Significant negative relationships were observed between the organization's dependence on student activity fees, as an alternate source, and the perceived control of provincial/federal sport organizations and ministries over five of the seven organizational activities (see Table 24). A significant negative relationship between relative funding from student activity fees and Sport Canada/national sport organizations, which this element provides, suggests that the negative dependence-control relationships are based in the modification of relative funding from the Sport Canada/national sport organizations. In other words, where an organization secures a greater proportion of its budget from student activity fees, it is likely to secure less from Sport Canada/national sport organizations, and so the provincial/federal sport organizations and ministries have relatively less perceived control over the organization.

Interestingly, significant positive relationships were observed between the organization's dependence on corporate sponsorships, as an alternate source, and the perceived control of provincial/federal sport organizations and ministries over all seven organizational activities, although three of the relationships were weak (see Table 24). It is likely that these relationships are based in the strong positive relationships between relative funding from corporate sponsorships and both the provincial government/sport organizations and Sport Canada/national sport organizations. In other words, where an organization secures a greater proportion of its budget from corporate sponsors it also secures a greater proportion from these two sources, and so there is greater perceived control of the provincial/federal

sport organizations and ministries, which is significantly based in the provision of those funds. In this case, the organization's dependence on an alternate source is associated with greater perceived environmental control.

Strong positive relationships were also observed between resource dependence on provincial government/sport organizations and Sport Canada/national sport organizations, as alternate sources, and perceived control of corporate sponsors over securing funds (see Table 24). These are most likely based in the direct relationships between these two sources and corporate sponsorships. It is interesting, however, that a significant relationship was observed for the corporate sponsors' perceived control over securing funds only, since the resource dependence-based perceived control of this element was verified for six of the seven organizational activities. Nevertheless, there appears to be a pattern of significant, or near-significant relationships for both sources, which seems to parallel the stronger resource dependence-based perceived control relationships of the corporate sponsors reported earlier (see Table 17).

In summary, the resource dependence-based perceived control of certain elements was generally not inversely affected by modifications to the pattern of resource dependence upon which it was based. Negative relationships were observed between the organization's resource dependence on student activity fees, as an alternate source to the university general fund, and perceived control of central administration. Negative relationships were also found between the organization's dependence on student activity fees, as an alternate to Sport Canada/national sport organization funding, and perceived control of the provincial/federal sport organizations and ministries. In a few

cases, the organization's dependence on alternate sources appears to be associated with greater resource dependence-based perceived control of certain elements.

6.4 Summary and Practical Implications

Financial constraint is a phenomenon facing all interuniversity athletics organizations in Canada. Several possibilities for dealing with this problem are suggested from the results of the current study. The implications of these funding alternatives for perceived environmental control over the organizations are discussed.

The interuniversity athletics program continued to be predominately supported by the university general fund and/or student activity fees, although Canadian athletics directors reported a slight decrease over the past few years in the proportion of funds received from the former source. According to the results of this study, such a reduction was associated with a relative decrease in the perceived control of central administration over interuniversity athletics, as suggested by the observed moderate relationships for the activities of securing funds, hiring, establishing philosophy, and allocating funds. It may be that when central administration is less financially committed to interuniversity athletics, it is generally less involved in the organization and consequently is perceived to relinquish some control. However, the organization's resource dependence on the university general fund accounted for only part of this element's perceived control, and it seems likely that its role as somewhat of a parent to the interuniversity athletics organization means that it would retain some perceived control regardless of the organization's funding pattern.

The results imply that previously reported reductions in funding

from student activity fees (Campbell & Slack, 1982) have levelled off. This may be a critical source in the future for several reasons. First, there may be greater stability associated with fees collected from students versus university general funding based on provincial grants. Second, there was no significant perceived environmental control associated with funding from this source. Although the general student body was acknowledged as having some control over the organization's ability to secure student activity fees, that perceived control did not extend to any of the other activities, and the organization was able to operate relatively autonomously with regard to this element. However, the athletics directors should be aware of the students' potential for control, which is based in their provision of funds.

Internal revenues were the next largest source of relative funding, and one which organizations reportedly turned to for additional funds. Increased funding from internal revenues may be the most appropriate alternative to reductions in the primary funding sources and/or increased program costs. There are several sub-sources available to be tapped, and there were no perceived environmental control consequences associated with dependence on them. Neither the organization's perceived control, nor that of the community or student-athletes as sub-sources, were associated with the generation of internal revenues. As discussed, the considerable perceived control of the organization over its own activities is probably primarily based in its formal, legislated responsibility for the interuniversity athletics program. The community's relatively little perceived control over interuniversity athletics may be due to an inability to approach the organization as an organized, effective pressure group. It is also possible, however, that the current study was not able to tap the

perceived control of specific sub-groups within the community, such as spectators, and groups which rent facilities. Athletics directors may need to be aware of more specific influences which are based in the provision of internal revenues.

The involvement of student-athletes in fundraising was noted in the interviews, however it was not a significant basis for their moderate perceived control over establishing philosophy, daily operations, external communication, and conference and CIAU participation. Rather, that perceived control is probably jointly based in their formal representation on the athletics board, where that opportunity is being availed, as well as their implicit control over the program as the perceived prime beneficiaries.

If non-university sources such as provincial government/sport organizations, Sport Canada/national sport organizations, and corporate sponsorships are considered for counterbalancing reductions in funding from the primary sources and/or increased program costs, it should be done with caution. Although the relative funding and perceived control of each of these sources was minimal, there was perceived control associated with the funds they provided. Thus, it seems the reported concerns of Canadian athletics administrators are somewhat justified, and these funding alternatives warrant monitoring. In particular, athletics directors may wish to monitor the resource dependence-based perceived control of the provincial/federal sport organizations and ministries over organizations in the GPAC, since they appear to be more dependent on the corresponding provincial government/sport organizations and Sport Canada/national sport organizations sources than those in the other conferences. Furthermore, this element was perceived to have greater control over securing funds and establishing philosophy in

organizations in the GPAC than in most of the other conferences.

Funding of interuniversity athletics by alumni was also considered in the current study, and was found to be minimal. However, according to the interview data, it is a source which the athletics directors are keen to tap in the near future. The results suggest that this can be done while maintaining relative autonomy from the alumni, as no resource dependence-based perceived control relationships were observed. It seems that the athletics directors have any perceived influence attempts by the alumni under control and, although they value (potential) alumni funding, they may have already managed to restrain any perceived control that could be associated with increased funding.

Results of the current study indicate that the moderate perceived control of the athletics board over six of the seven organizational activities had no association with its formal control of the university general fund or student activity fees upon which the organization was notably dependent. This element's influence is more likely based in its legislated responsibility for certain aspects of the interuniversity athletics program and will persist regardless of the organization's resource dependencies. Those organizations currently without an athletics board, as well as those with reportedly ineffective boards, should be aware of the perceived control potential of this element, particularly as a forum for the involvement of faculty, the general student body, student-athletes, and other valued representatives.

The moderate perceived control of the affiliated faculty/recreation department over the organizational activities of hiring and establishing philosophy was also independent of the formal control which it has over the university general fund or student activity fees. Rather, it seems likely that this element's influence,

which is primarily attributed to the faculty component, is based in its administrative affiliation with the organization. This point is supported by the observed differences in perceived control of the affiliated faculty/recreation department over these activities in organization which are affiliated with, versus those which are independent of, an academic unit. The current study reveals that, with regard to hiring and establishing philosophy, there was perceived faculty control in affiliated organizations which was in addition to that of the faculty representative(s) on the athletics board. The noted lull in the administrative shift of organizations from academic affiliation to academic independence implies that faculty control via this medium is continuing in Canadian interuniversity athletics.

The current results also show that the moderate perceived control of the conference and the CIAU over the organizational activities of establishing and advocating philosophy was unrelated to the organization's dependence on sources over which these elements had some formal and/or indirect control. Rather, that influence is likely inherent in their membership relations with the interuniversity athletics organization and will continue as long as the organization chooses to be affiliated. It is notable, then, that these elements were perceived to have very little control over establishing philosophy in organizations in the QSSF. There may be important implications for the future of interuniversity athletics in that region if the organizations have little allegiance with these coordinative bodies.

Another observation of interest was the broader perceived environmental control over the organizational activities of establishing philosophy and conference and CIAU participation versus securing funds, hiring, allocating funds, and daily operations. The first two describe

the development and endorsement of the philosophy of interuniversity athletics, while the latter activities represent the operationalization of that philosophy. In addition to the organization itself, central administration, the athletics board, student-athletes, the conference, the CIAU, and the affiliated faculty/recreation department were perceived to have at least moderate control over establishing philosophy. These same elements, with the exception of the affiliated faculty/recreation department, were also perceived to have moderate control over conference and CIAU participation, which was described as an extension of their control over establishing philosophy. In contrast, the current results indicate that the organization had relative autonomy within its environment with regard to securing funds, hiring, allocating funds, and daily operations, with notable perceived control by central administration and the athletics board only. The situation described is one of environmental impact of several university and non-university elements on shaping the direction of interuniversity athletics, and relative operational autonomy of the organization, with input from a legislated advisory board and from the parent organization. Again, out of these elements only the perceived control of central administration was significantly based in the organization's dependence on it for resources.

Several variations in perceived environmental control were explained by the demographic variables considered in this study, and have been discussed. An apparent inconsistency between these demographic variations and observed homogeneity in athletic priorities across the same demographic variables (Chelladurai & Danylchuk, 1984; Inglis, 1988) was revealed. This observation prompts an investigation of the intentions of those elements with moderate to considerable

perceived control, to determine whether the organization's priorities reflect that control.

The observed demographic variations in resource dependence have several implications for perceived environmental control. Those concerning the apparently greater resource dependence of organizations in the GPAC on provincial government/sport organizations and Sport Canada/national sport organizations have already been discussed. The most notable variations in resource dependence pertain to the primary sources - the university general fund and student activity fees. There appear to be considerable differences between the organizations, by conference, size of institution and size of program, with regard to relative funding from these sources. The apparent demographic differences suggest possible financial implications for organizational survival, related to the stability of both primary sources as well as the potentiality for supplementary funding from secondary sources such as internal revenues and government. For example, as discussed earlier, the university general fund may be a less stable funding source, and some organizations which have to compensate for reduced funding may be limited in their ability to secure internal revenues or government funds.

However, the perceived control implications of these variations in relative funding may be less critical. Central administration's moderate to considerable perceived control was not entirely based in the organization's dependence on the university general funds which it provides. Also, with the exception of greater perceived control over hiring and allocating funds in small institutions, the organizations were generally homogeneous with regard to the perceived control of this element. In other words, even though central administration had

substantial financial responsibility for some organizations, it had perceived control over them all. There are no implications associated with the variations in relative funding from student activity fees, since the general student body had no significant perceived control based in the organization's resource dependence on that source.

6.5 Test of Theory: Outcome and Implications

The four cells of the theoretical framework, developed in the current study (see Figure 3), were used to describe the observed relationships between perceived environmental control and resource dependence. The description of these relationships was facilitated by matching the resource dependence and perceived control profiles of each element to the cell descriptors. However, the descriptors for cell 1 are apparently limiting, since the current findings suggest that resource dependence-based perceived control is not restricted by the degree of resource dependence or perceived control, as the descriptors imply. Three environmental elements were observed to have resource dependence-based perceived control (provincial/federal sport organizations and ministries, corporate sponsors, media), as indicated by the significant correlations, even though the focal organization was not notably dependent on them for resources, nor were they perceived to have even moderate control over the organization's activities. Instead, this particular cell should represent a continuum of resource dependence and perceived control.

Emerson's (1962) power-dependence theory is represented by both cells 1 and 2, which imply that at least the potential for control is based in resource dependence; cell 1 represents the enactment of power, or resource dependence-based perceived control (main hypothesis), and

cell 2 the situation where resource dependence-based power is not enacted but remains as potential. Cell 2 describes, then, the requisite condition for further resource dependence-based perceived control, which was verified in the current study by a significant positive relationship between an element's perceived control over the organizational activity of securing funds and the organization's dependence on that element/source for funding. In other words, a particular element is acknowledged as having perceived control that is associated with the source it provides, or over which it has formal control or an indirect effect, and upon which the organization is dependent.

Determination of this relationship was facilitated by a distinct rating of perceived control over securing funds, versus an overall measure of perceived control. The current study suggests that perceived environmental control is a multi-dimensional phenomenon, varying across the elements and the organizational activities, which can be better described by a profile of ratings than by a single overall measure for each element. Certainly, richer data may be generated by measuring perceived control over several organizational activities than by considering only an overall measure. The use of interviews was valuable for further explaining the ratings for each activity, and enabled respondents to report specific examples of perceived control.

Although Provan (1980) recommended the objective measurement of enacted power, or control, the position taken in the current study was that a subjective examination of control was the relevant measure of environmental impact, since it revealed control of which the organization was aware and which was manifested within the organization. The alternative, objective measurement of control (Provan, 1980) limits the study to behaviour which is directly measurable, such as

organizational response to a particular demand. Provan also warned against the subjective measurement of control, arguing that it cannot be distinguished from potential power; in other words, respondents are not able to differentiate between control which has occurred and which may occur. An attempt was made, in the current study, to compensate for any ambiguity between potential power and enacted power by encouraging respondents to report, and describe through the interviews, environmental control which has occurred. The outcome was successful in its attempt to corroborate the subjective ratings of control with more tangible evidence of that perceived control. Further to the investigation of perceived environmental control, it was unnecessary to distinguish whether perceived control was the outcome of implicit or explicit control attempts since the study was concerned with the empirical effect only.

The current study advocates the examination of perceived environmental control at the organization-set, rather than the dyadic or organization-supplier level. At the former level, it is possible to measure the perceived control of an element relative to the perceived control of other pertinent elements in an organization's environment, thereby presenting a more relevant picture. For the sake of consistency, it is appropriate at the organization-set level to consider the perceived control of organizations/units/groups as opposed to the perceived control of particular individuals in the environment. The findings of the current study suggest that by measuring perceived control of a unit, such as central administration, it is possible to transcend the power of any one individual, such as the university president, in that unit. Instances of the greater perceived control of a unit than the perceived control of an individual within that unit were

noted in the study. However, these observations seem to vary by organizational activity. In other words, the individual's (in this case, the president's) power was manifested over some, but not all activities. With regard to the inclusiveness of a particular element, however, it was previously noted in this discussion that the categorization of the community element may have been too broad to tap the more specific, and perhaps relevant perceived control of smaller community sub-groups.

As recommended by Provan (1980), an objective measure of potential power, in the form of resource dependence, was employed in the current study. However, the more elaborate measure of net dependence between a focal organization and its supplier was not used in this study. It may be possible to utilize such a measure if more is known about the magnitude and nature of the exchange relationships between the interuniversity athletics organization and its environment, including the environment's dependence on the organization. At the least, resource dependence research at the organization-set level demands consideration of the relative magnitude of funding from each of the focal organization's suppliers, rather than a measure of relative funding from the primary supplier and another measure simply of the availability of alternate sources. Although objective data is valuable, the findings of the current study suggest that the subjective measure of resource dependence facilitates verification of the organization's resource dependence on a source, and therefore the resource dependence-based power or potential for control. Based on the earlier contention that the subjective measurement of a phenomenon reveals the respondents' awareness of that phenomenon, it seems appropriate to consider perceived resource dependence, or that which is acknowledged by the focal

organization, as the lone measure of dependence. It may be more appropriate to collect subjective ratings or rankings of dependence on less tangible resources.

The power-dependence theory assumes that symmetric or mutual dependence, and therefore reciprocal power, is inherent in any social relationship (Emerson, 1962). According to this assumption, then, resource dependence and perceived control can never be perfectly correlated (Skinner & Guiltinan, 1986). This has implications for the magnitude of the coefficients, and may explain why the highest correlation values observed in resource dependence-perceived control studies are relatively lower than what may be typically considered as strong relationships.

According to the results of this study, support for the hypothesized relationship between perceived control and resource dependence varies according to particular sources and their perceived control over certain organizational activities. The results seem to parallel those of previous studies (Provan, 1982; Salancik, 1979; Skinner & Guiltinan, 1986), and together they suggest that resource dependence-based perceived control is context specific. There seems to be weak to moderate support for the hypothesized relationship in situations where the focal organization is dependent on a parent-like organization for financial resources; for example, member agencies and the United Way (Provan, 1982), and interuniversity athletics organizations and central administration in the current study. The lower correlation coefficients imply that there are additional bases of perceived control, and several have been suggested. Thus, despite a financial relationship between the focal and parent-like organizations, other, possibly more meaningful bases of control exist.

In contrast, when the focal organization is relatively dependent on an external source, such as a primary consumer (Salancik, 1979), a dealer's supplier (Skinner & Guiltinan, 1986), or non-university funding of interuniversity athletics in the current study, strong relationships between that dependence and perceived control of the source are observed. Thus, the resource dependence-based perceived control relationship may be more readily apparent in situations where the associations between a focal organization and elements in its environment or organization-set are predominately financial in nature, and may be less strong where other kinds of relationships can be presumed. Further research in these organizational contexts is required to support or refute these inferences.

There was limited evidence from the current study to indicate that perceived environmental control was based in the formal control of resources upon which the organization was dependent. It seems that the direct provision of funds is a stronger basis of perceived control. One noteworthy exception, as previously discussed, was the observed significant relationship between perceived control of the interuniversity athletics organization and its formal control over funds from several non-university sources. This relationship reflects the accrual of power based on the reduction of organizational uncertainty, in this case financial insecurity, and it parallels the positive findings of previous power-dependence studies which have taken a strategic contingency perspective (Pfeffer & Leong, 1977; Salancik & Pfeffer, 1974).

Generally, respondents in this study did not perceive certain elements to have resource dependence-based potential power according to any indirect effect they may have over certain sources upon which the

organization is dependent. Again, the direct provision of funds is likely a stronger basis of perceived control. One exception was the significant relationship between the indirect effect of media on corporate sponsorships and its perceived control over several activities. Although this element was perceived to have little control and the organization was minimally dependent on corporate sponsorships, the findings suggest that this exploratory relationship is relevant, and warrants further examination.

It is possible that the relationships based on either formal control over, or an indirect effect on resources are too circuitous to be strongly detected by the analysis used in the current study. Skinner and Guiltinan (1986) suggested the use of path analysis to tap indirect relationships that may be masked by correlation and regression. They did not, however, find substantially stronger relationships using this technique. Rather, the examination of alternative bases of perceived control, alone and in combination, may help to clarify the meaning of several unexplained results in the current study.

The current study provided some support for the theoretical inverse relationship between a focal organization's resource dependence on alternate sources and perceived control of those elements with resource dependence-based perceived control. Since this relationship is based on modification of the focal organization's resource dependence on a supplier, and thus the perceived control of that supplier over the organization, resource dependence-based perceived control is a requisite condition for the use of alternate sources as a strategy for coping with environmental influence. Significant negative relationships, which would support Blau's (1964) second condition of organizational independence, were found only for the organization's alternate

dependence on student activity fees, which was a primary source. The inverse modification of resource dependence via secondary and minor sources was not a factor in the resource dependence-based perceived control relationships examined. Therefore, it seems that the relative magnitude of the alternate funding sources, rather than just the number of sources (Provan, 1982) or their degree of availability (Pfeffer, 1972), is a relevant consideration.

The weak to moderate alternate resource dependence relationships observed in Provan's (1982) work, and for central administration in the current study, reflect the resource dependence-based perceived control relationships upon which they were originally based. This is not surprising since it is suggested in both studies that perceived control of the parent-like organization is only partially based in resource dependence; therefore, modifying the resource dependence relationship would not be expected to have a notable effect. However, Skinner and Guiltinan (1986) found strong support for the resource dependence-based perceived control of a supplier, but only weak support for the inverse relationship between the dealer's dependence on alternate sources and supplier control. These findings suggest that this may not be a strong, or easily observed, relationship in any context.

Despite the limited support for this theoretical relationship here, other findings in the current study suggest that there may be important ancillary implications associated with alternate funding. Blau's (1964) second condition of organizational independence does not directly account for the possibility that there may, in turn, be further resource dependence-based perceived control associated with the organization's dependence on an alternate source. A condition was identified wherein the interuniversity athletics organization was

perceived to have control over its own activities based in its formal control over securing funds from the various sources upon which it is dependent. Although the organization seems to accrue power in relation to funding from particular sources, the resource dependence-based perceived control of the corresponding elements should be noted. In other words, perceived control of the organization and these other elements was directly related to the organization's dependence on them for funding. This observation suggests that there may be further implications that are not addressed by the basic theoretical relationship, yet should be considered in any investigation, explanation, or strategic management of resource dependence-based perceived control.

Chapter VII

CONCLUSIONS AND RECOMMENDATIONS

The current study employed the Emerson (1962) power-dependence theory of social relationships, and its subsequent adaptation to the investigation of organization-environment relations (Jacobs, 1974; Pfeffer & Salancik, 1978; Thompson, 1967), to examine perceived environmental control over interuniversity athletics from a resource dependence perspective. The development of a four-cell theoretical framework facilitated the examination of the hypothesized relationship between perceived environmental control over the organization and the organization's relative resource dependence on its environment.

Athletics directors from 34 (75.5%) interuniversity athletics organizations in Canada completed the Survey of Canadian Interuniversity Athletics Program, developed for this study. The survey, and an accompanying interview, generated data which described the organization's resource dependence on various sources in the environment, in terms of relative funding, and perceptions of the control of various environmental elements over basic activities of the organization.

The results of Spearman rank correlation analyses reveal varied support for the resource dependence-based perceived control hypothesis. Of those elements with moderate to considerable perceived control over the organization, only central administration was found to have perceived control that was significantly based in the organization's dependence on the university general fund which it provides. The

considerable perceived control of the interuniversity athletics organization over its own activities was not significantly based in its ability to generate internal revenues. Nor was the moderate perceived control of the athletics board and the affiliated faculty/recreation department significantly related to any formal control of these elements over the organization's primary resources, in terms of budget development and approval. These findings imply that some other bas(es) of perceived control exists. From a power-dependence perspective, other types of organization-environment dependencies, such as legitimacy, affiliation, or information should be explored. Future studies should also consider that perceived environmental control may not necessarily be based in organizational dependence. Rather, control may have its basis, additionally or otherwise, in factors such as formal authority or tradition. An empirical examination of other bases may also help to explain the moderate perceived control of the student-athletes, conference, and CIAU over particular activities of the organization.

Although the organization was notably dependent on student activity fees, the general student body was not perceived to have any control that was commensurate with that dependence. The resource dependence-based power potential of this element was verified, however that power was not perceived to be enacted over the organization's activities. This finding, which has not previously been reported in the literature, is of obvious practical interest to the interuniversity athletics organization. There are several possible explanations for this phenomenon, including the students' inability to exert pressure and/or general disinterest in the program. An investigation into the nature of the students' role and involvement within the university in general, and with interuniversity athletics in particular, may help to

explain their lack of perceived control. The outcome of such a study would also provide further insight into the general understanding of the organization-environment situation where there is substantial resource dependence without commensurate perceived control.

The resource dependence-based perceived control hypothesis was supported by significant relationships between the organization's resource dependence on several non-university sources - provincial government/sport organizations, Sport Canada/national sport organizations, and corporate sponsorships - and the perceived control of the corresponding elements over several of the organization's activities. However, in contrast to the relationship for central administration and the university general fund (where there was notable perceived control and substantial resource dependence), these significant relationships were based on minimal resource dependence and relatively little perceived control. Therefore, the implied boundaries of cell 1 of the theoretical framework were adapted to accommodate these ranges. These findings imply that, unless minimal levels of resource dependence and perceived control are specified, the theoretical resource dependence-perceived control relationship should not be restricted by the magnitude of dependence and control. The relationships in this study highlight important implications for potential non-university perceived control over interuniversity athletics in relation to increased funding from these sources.

Several implications for perceived control emanate from the current findings. It is suggested that some funding sources may be more appealing to the organization than others, depending on whether or not perceived control was found to be based in funding from these sources. In an attempt to maintain relative autonomy, it may be most advantageous

for organizations to seek funding from student activity fees, internal revenues, and alumni, as there was no perceived control associated with funding from these sources. The current findings contribute, then, to an understanding of the relative magnitude and basis of perceived environmental control over interuniversity athletics. This understanding is a critical step in the study and implementation of strategies for managing that control.

Further implications for perceived environmental control relate to the specific intentions which particular elements have for interuniversity athletics. Specifically, the intentions of those elements with resource dependence-based perceived control, and those elements with moderate to considerable perceived control over the organization should be examined. The outcome of such a study would provide a more complete picture of perceived environmental control, and would be useful in contemplating the management of that control.

This study also contributes to an understanding of the basic Emerson (1962) power-dependence theory at the organization-set level of analysis. The current findings suggest that the power-dependence relationship is quite complex such that perceived control, which varies across the organization-set and over particular indicators, may be based in multiple resources, which also vary across the organization-set. While it is useful to isolate and investigate perceived environmental control in relation to one particular resource dependence, any one resource alone may not be a significant basis of control. The consideration of multiple dependencies would have to account, however, for the relative importance of each resource in the power-dependence equation. Future studies which examine the power-dependence relationship should consider organization-environment interdependencies

in the exchange relationship. Besides financial interdependence, which has been addressed in a few studies, there has been very little investigative consideration of the environment's dependence on the focal organization. Such an investigation would enhance the understanding of the power-dependence relationship between an organization and its environment. It would also facilitate the consideration of management strategies, in terms of highlighting means by which the organization could manipulate the power-dependence relationship by increasing its countervailing power. Possible means of measuring environmental dependence should be explored.

In the current investigation at the organization-set level, resource dependence and perceived control associated with a particular element were examined relative to other pertinent elements in the focal organization's task environment. Studies at this level of analysis are able to generate a more comprehensive and realistic profile of the organization's relationship with its environment generally, and with relevant elements specifically. In line with the recommendations previously noted in this study, the examination of power-dependence relationships at the organization-set level should consider multiple dependencies, as well as organization-environment interdependencies. Subsequently, the use of multiple regression and linear structural relations techniques could be considered for the analysis of these relationships. Investigations at the even more complex interorganizational network level can begin to address the impact of various organization-environment interdependencies on each other.

Finally, this study provides particular insight into the examination of perceived control. Careful steps were taken to ensure that a valid measure of perceived control, or power which has been

enacted, was collected versus perceived power which remains as potential. It is critical to differentiate between power and control, in the design of the study and the measurement of that phenomenon. Whether power or control is in fact measured can affect the nature and outcome of a study, since one represents a potential for behaviour and the other is an empirical manifestation of that behaviour. In the interest of promoting consistency in power and control research, these variables should be distinguished in the design, and reporting of a study. The multi-dimensional nature of perceived control, such that it varies across environmental elements and across different aspects of an organization, was also suggested by the results of this study. This multi-dimensionality should be considered as another important factor in the comprehensive description of complex organization-environment relationships.

Appendix A

SURVEY OF CANADIAN INTERUNIVERSITY ATHLETICS PROGRAMS

SURVEY OF CANADIAN INTERUNIVERSITY ATHLETICS PROGRAMS

Introduction

Interuniversity athletics programs within Canadian universities rely upon a variety of sources for financial support. My doctoral research at the University of Ottawa, under the direction of Dr. Daniel Soucie, plans to address the combined issue of funding and control. I will examine funding patterns in Canadian interuniversity athletics programs, and determine whether the individuals, groups and organizations which provide funding have control over the direction of the varsity programs; in other words, whether there is 'power in the purse'.

The study comprises two parts. Part I involves the collection of funding data, as well as some general descriptive information. The format of a "Statement of Resources" will generate some very useful information for a cross-Canada study and for your organization. High priority in this research project will be given to providing you with a summary report of this information by early October.

Part II focuses on the extent to which your interuniversity athletics program is controlled internally, and by individuals, groups and organizations beyond the department itself. I request that you complete Part II before our scheduled personal/phone interview, at which time we can discuss some of the responses.

The study is interested in the unique funding and control situation within each institution's interuniversity athletics program. This information will be kept strictly confidential and will only be used in combination with other results for a cross-Canada analysis. Every attempt will be made to ensure that data is not traceable to a particular institution.

CONSENT FORM

I agree to participate in the following study on funding and control in Canadian interuniversity athletics programs. I have read the foregoing description and understand the requirements involved. If I have any questions I may contact the researcher, **Alison Armstrong, at the Faculty of Physical Education, University of Western Ontario, London, Ont., N6A 3K7, (519) 679-2111 Ext. 8362.** I understand that the information I provide will be kept confidential.

Name:_____

Position:_____

University:_____

Signature:_____

Survey Part I

INTERUNIVERSITY ATHLETICS PROGRAM GENERAL INFORMATION

This study is concerned with the interuniversity athletics program at your institution. Your program may be one unit within a larger academic department, and/or it may be closely associated with the campus recreation program. As you complete the survey, please refer only to the interuniversity (intercollegiate/varsity) athletics program.

A. Preliminary Information

This section addresses some of the characteristics which may distinguish one interuniversity athletics program from another. This information is important for description and analysis. Please answer each question.

1. Please check the sports offered by your interuniversity athletics program during the past school year, 1989-90.

Sport	Men	Women	Sport	Men	Women
Badminton	___	___	Rugby	___	___
Basketball	___	___	Alpine Skiing	___	___
Cross Country	___	___	Nordic Skiing	___	___
Curling	___	___	Soccer	___	___
Diving	___	___	Squash	___	___
Fencing	___	___	Swimming	___	___
Field Hockey	___	___	Synchronized Swimming	___	___
Figure Skating	___	___	Tennis	___	___
Football	___	___	Track & Field	___	___
Golf	___	___	Volleyball	___	___
Gymnastics	___	___	Waterpolo	___	___
Ice Hockey	___	___	Wrestling	___	___
Rowing	___	___			

2. Please check which type of administrative structure most closely resembles that of your interuniversity athletics program. Any further description or documentation that you would care to provide would be very helpful.

__ i) The interuniversity athletics program is affiliated with a physical education/human kinetics/kinesiology/etc. academic unit. That is, the interuniversity athletics program answers to the dean/director or to the faculty/school council on major issues.

__ ii) The interuniversity athletics program is independent of a physical education/human kinetics/kinesiology/etc. academic unit. That is, no major decisions are required to pass through a dean/director or faculty/school council.

__ iii) Other (Please describe)_____

_____

_____

_____

_____

_____

3. Does your interuniversity athletics program have an athletics board/committee?

Yes __
No __

If yes, what is the general composition of that board? Indicate the number of representatives from each group:

__ Faculty

__ Central Administration

__ Board of Governors

__ Senate

__ Alumni

__ Students

__ Student-Athletes

__ Graduate Students

__ Interuniversity Athletics Management (Director, Coordinators)

__ Other:_____

Survey Part I

INTERUNIVERSITY ATHLETICS PROGRAM
STATEMENT OF RESOURCES

B. Statement of Resources

This section addresses the financial inputs to your interuniversity athletics program. Please note that the study is not concerned with how the money is spent, nor with net income. The focus is on gross incomes from the respective sources which are relevant to your program.

There are three questions in this section.

1. The several categories listed in the Statement of Resources (p. 5) represent potential sources of funding. Examine the complete list and descriptions carefully. You will see that some sources are grouped together. If one or more of your funding sources is not included in this list, please add it.

   Please report the amount of financial resources received from each relevant funding source during the past fiscal year, 1989-90, by your interuniversity athletics program.

   All information will be kept confidential. The information generated in this Statement of Resources will be of value for your interuniversity athletics program records. If it is preferred, please feel free to provide the data as percentages of the total financial resources.

(A summary report of the data collected in this Canada-wide study will be provided to you in early October, 1990.)

N.B. Some interuniversity athletics programs have budgets which are distinct from any other recreation or academic program. In those cases, it should not be too difficult to identify the total amounts of financial support to the interuniversity athletics program from each relevant source. Some interpretation may be required to adapt your current financial data to the general categories listed.

Some programs do not have distinct interuniversity athletics budgets. This may be the situation if, for example, the program is closely associated with a recreation or academic program and the financial resources for the combined programs are lumped together. In this case, some further adaptations of your financial data may be required. *If this describes your program, please refer to the detailed instructions on the next page.*

Detailed Instructions for Programs Without Distinct Budgets

1. Based on a combined Statement of Expenses for all the programs, determine the total expenses incurred by the interuniversity athletics program alone.

   You will need to include in this figure administrative costs, such as salaries for the interuniversity athletics program. These latter costs may be calculated by determining (or estimating) the percentage workload for interuniversity athletics and then calculating the program's respective administrative costs.

2. Determine what percentage of the total Expenses are incurred by the interuniversity athletics program.

   For example, it may be determined that interuniversity athletics program expenses, including salary and administration costs, total $500,000. If the total Expenses for the combined programs is $2,000,000, then the interuniversity athletics program incurs 25% of the total Expenses.

3. Based on the amount of financial resources received from each of the source categories for the combined programs, use the calculated percentage of interuniversity athletics program expenses to report a corresponding amount of funding from each source for interuniversity athletics. This will be an appropriate extrapolation.

   For example, if the interuniversity athletics program incurs 25% of the total Expenses, then report 25% (in dollars) of the total amount of financial resources provided by each source for the combined programs.

If you require further clarification of these instructions, or of any part of the survey, please do not hesitate to call me at the University of Western Ontario:

Alison Armstrong
(519) 679-2111 Ext. 8362

STATEMENT OF RESOURCES, 1989-90

(Gross Incomes)

SOURCE		AMOUNT
1. **University General Fund:**		_____
2. **Student Activity Fees:**		_____
3. **Alumni:**	Including individual and alumni association donations and bequests	_____
4. **Corporate Sponsorships:**	Funding to the program and to separate sports; also include the dollar value of products and services provided	_____
5. **Sport Canada/National Sport Organizations:**	Funds specifically for the interuniversity athletics program and separate sports; for example, salaries, travel grants, regional equalization funds, awards, High Performance Initiative funds, High Performance Sport Centre funds)	_____
6. **Provincial Government (Sport and Recreation)/Provincial Sport Organizations:**	Funds specifically for the interuniversity athletics program and separate sports; for example, salaries, grants, awards)	_____
7. **Internal Revenues**	Gross incomes which are, at least partially, generated by the interuniversity athletics program; record the amount which is received into the program's budget.	
	Gate Receipts, Concessions	_____
	(Summer) Sports Camp(s)	_____
	User Fees (including faculty, staff, students, alumni and public; daily/member passes; locker and equipment rental, reservations, and program fees)	_____
	Facility Rentals	_____
	Fundraising (for example, lotteries, raffles, dinners, etc.)	_____
	Special Events (for example, hosting international and all-star tournaments, recreation days, etc.)	_____
	Licensing Royalties	_____
	Athletic Competition Guarantees	_____
	Other:	_____
Total Internal Revenues:		_____
8. **Other:**	_____	_____
	_____	_____
	_____	_____

2. Please indicate what <u>percentage</u> of your interuniversity athletics program's "physical plant" costs are covered directly by the University, or other source(s).

(Physical plant costs include the provision, preparation and maintenance of facilities, and all utilities, required for the interuniversity athletic program's operations and any revenue producing ventures such as a sports camp, hosting, rentals and user revenues. The interuniversity athletics program may be required to pay "chargebacks" to the University, it may pay a token amount for the operation of special events/programs, or it may pay for access to facilities during non-regular hours, for example. Please consider these against the total percentage of costs covered by the University.)

The University covers _____% of the total physical plant costs for the interuniversity athletics program.

Another source (other than the interuniversity athletics department) _____ _____ covers _____% of the total physical plant costs for the program.

3. Please indicate the extent to which the funding pattern for the interuniversity athletics program at your institution, which you have presented in the Statement of Resources, has <u>changed over the last three years, 1987-88, 1988-89, 1989-90</u> (for example, the types of major sources and amounts provided from each, sponsorship dollars, alumni donations).

1	2	3	4	5
Funding Pattern Has Changed Very Little		Moderate Change		Funding Pattern Has Changed Very Much

Please explain:

Survey Part II

INSTRUCTIONS TO RESPONDENT

The purpose of this survey is to determine the extent to which your interuniversity athletics program is controlled internally, by the corresponding department, and the extent to which it has been influenced by certain other individuals, groups and organizations with whom it interacts.

The seven items on the following pages have been identified as the main organizational activity areas of interuniversity athletics programs in universities across Canada. As you go through the survey, please read through each item carefully and orient yourself to the nature of that activity area within your interuniversity athletics department.

The seven organizational activity areas are very general, encompassing several sub-activities. *For the purpose of this survey, you are asked to consider the total extent of influence each individual, group and organization, including the department itself, has had over each general activity area.* An eighth question asks you to consider the overall influence of each.

1. By influence is meant the extent to which the policies, views or actions of these individuals, groups and organizations have had some impact on each activity area, whether that influence has been exercised explicitly or implicitly, formally or informally. Influence can be exercised over any or all parts and processes of the organizational activity(s).

2. You should take into consideration such things as the *number of sub-activities*, and the *relative importance of each sub-activity*, over which each individual, group and organization has had some influence. You should also consider the *frequency of influence*. The result will be a relative rating of the extent of influence over the particular activity.

To Do: On the rating scale for each activity area, please indicate the extent to which the respective individuals, groups and organizations have influenced your interuniversity athletics department over the past three years (*1987-88, 1988-89, and 1989-90)* by circling the appropriate number. If an individual, group or organization listed is not applicable to your interuniversity athletics program, please circle "Does Not Apply".

Has Not Influenced									**Has Considerably Influenced**	**Does Not Apply**
1	2	3	4	5	6	7	8	9	10	X

1. *Securing funds for the interuniversity athletics program.*

This general activity area includes acquiring funds from within the university (such as general funds and student activity fees), the approval of different types of funding sources, soliciting funds from various sources (such as corporate sponsors, alumni, government, etc.), generating funds through department activities (such as sport camps, raffles, gate receipts, income from facility rentals and user fees, etc.), and maintaining those sources and funds.

	Has Not Influenced 1 2 3 4 5 6 7 8 9 10 Has Considerably Influenced	Does Not Apply X
University Central Administration (President/Rector, Senate, Board of Governors, V-P Academic)	1 2 3 4 5 6 7 8 9 10	X
Affiliated Faculty and/or Campus Recreation	1 2 3 4 5 6 7 8 9 10	X
Athletics Board/Committee	1 2 3 4 5 6 7 8 9 10	X
Interuniversity Athletics Department (Administration, Coaches, Support Staff)	1 2 3 4 5 6 7 8 9 10	X
Student-athletes	1 2 3 4 5 6 7 8 9 10	X
Students (Undergraduate, Graduate, Students' Council, Ad hoc groups)	1 2 3 4 5 6 7 8 9 10	X
Alumni (Individuals, Association)	1 2 3 4 5 6 7 8 9 10	X
Provincial and Federal Sport Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Regional Conference Association (AUAA, QSSF, OWIAA, OUAA, GPAC, CWUAA)	1 2 3 4 5 6 7 8 9 10	X
CIAU	1 2 3 4 5 6 7 8 9 10	X
Corporate Sponsors	1 2 3 4 5 6 7 8 9 10	X
Provincial Education Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Media	1 2 3 4 5 6 7 8 9 10	X
Community (Users, Spectators, Service Clubs, Sport Organizations, Municipal Government, School Boards)	1 2 3 4 5 6 7 8 9 10	X
Professional Sport Leagues (e.g. CFL, NHL)	1 2 3 4 5 6 7 8 9 10	X

2. *Hiring coaches and interuniversity athletics administrators.*

This general activity area includes the establishment of positions and job descriptions for, and the hiring of, full-time and part-time coaches of major sports and minor sports, and interuniversity athletics administrators.

	Has Not Influenced 1 2 3 4 5 6 7 8 9 10 Has Considerably Influenced	Does Not Apply
University Central Administration (President/Rector, Senate, Board of Governors, V-P Academic)	1 2 3 4 5 6 7 8 9 10	X
Affiliated Faculty and/or Campus Recreation	1 2 3 4 5 6 7 8 9 10	X
Athletics Board/Committee	1 2 3 4 5 6 7 8 9 10	X
Interuniversity Athletics Department (Administration, Coaches, Support Staff)	1 2 3 4 5 6 7 8 9 10	X
Student-athletes	1 2 3 4 5 6 7 8 9 10	X
Students (Undergraduate, Graduate, Students' Council, Ad hoc groups)	1 2 3 4 5 6 7 8 9 10	X
Alumni (Individuals, Association)	1 2 3 4 5 6 7 8 9 10	X
Provincial and Federal Sport Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Regional Conference Association (AUAA, QSSF, OWIAA, OUAA, GPAC, CWUAA)	1 2 3 4 5 6 7 8 9 10	X
CIAU	1 2 3 4 5 6 7 8 9 10	X
Corporate Sponsors	1 2 3 4 5 6 7 8 9 10	X
Provincial Education Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Media	1 2 3 4 5 6 7 8 9 10	X
Community (Users, Spectators, Service Clubs, Sport Organizations, Municipal Government, School Boards)	1 2 3 4 5 6 7 8 9 10	X
Professional Sport Leagues (e.g. CFL, NHL)	1 2 3 4 5 6 7 8 9 10	X

3. *Establishing the philosophy, goals and policies of the interuniversity athletics department/program, and enforcing those policies.*

	Has Not Influenced 1 2 3 4 5 6 7 8 9 10 Has Considerably Influenced	Does Not Apply X
University Central Administration (President/Rector, Senate, Board of Governors, V-P Academic)	1 2 3 4 5 6 7 8 9 10	X
Affiliated Faculty and/or Campus Recreation	1 2 3 4 5 6 7 8 9 10	X
Athletics Board/Committee	1 2 3 4 5 6 7 8 9 10	X
Interuniversity Athletics Department (Administration, Coaches, Support Staff)	1 2 3 4 5 6 7 8 9 10	X
Student-athletes	1 2 3 4 5 6 7 8 9 10	X
Students (Undergraduate, Graduate, Students' Council, Ad hoc groups)	1 2 3 4 5 6 7 8 9 10	X
Alumni (Individuals, Association)	1 2 3 4 5 6 7 8 9 10	X
Provincial and Federal Sport Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Regional Conference Association (AUAA, QSSF, OWIAA, OUAA, GPAC, CWUAA)	1 2 3 4 5 6 7 8 9 10	X
CIAU	1 2 3 4 5 6 7 8 9 10	X
Corporate Sponsors	1 2 3 4 5 6 7 8 9 10	X
Provincial Education Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Media	1 2 3 4 5 6 7 8 9 10	X
Community (Users, Spectators, Service Clubs, Sport Organizations, Municipal Government, School Boards)	1 2 3 4 5 6 7 8 9 10	X
Professional Sport Leagues (e.g. CFL, NH[illegible])	2 3 4 5 6 7 8 9 10	X

4. *Allocating funds in the interuniversity athletics department.*

This general activity area includes the establishment of each team's league and non-Conference program plans. The allocation of funds also includes the addition or deletion of a sport(s) to the interuniversity athletics program.

	Has Not Influenced 1 2 3 4 5 6 7 8 9 10 Has Considerably Influenced	Does Not Apply X
University Central Administration (President/Rector, Senate, Board of Governors, V-P Academic)	1 2 3 4 5 6 7 8 9 10	X
Affiliated Faculty and/or Campus Recreation	1 2 3 4 5 6 7 8 9 10	X
Athletics Board/Committee	1 2 3 4 5 6 7 8 9 10	X
Interuniversity Athletics Department (Administration, Coaches, Support Staff)	1 2 3 4 5 6 7 8 9 10	X
Student-athletes	1 2 3 4 5 6 7 8 9 10	X
Students (Undergraduate, Graduate, Students' Council, Ad hoc groups)	1 2 3 4 5 6 7 8 9 10	X
Alumni (Individuals, Association)	1 2 3 4 5 6 7 8 9 10	X
Provincial and Federal Sport Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Regional Conference Association (AUAA, QSSF, OWIAA, OUAA, GPAC, CWUAA)	1 2 3 4 5 6 7 8 9 10	X
CIAU	1 2 3 4 5 6 7 8 9 10	X
Corporate Sponsors	1 2 3 4 5 6 7 8 9 10	X
Provincial Education Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Media	1 2 3 4 5 6 7 8 9 10	X
Community (Users, Spectators, Service Clubs, Sport Organizations, Municipal Government, School Boards)	1 2 3 4 5 6 7 8 9 10	X
Professional Sport Leagues (e.g. CFL, NHL)	1 2 3 4 5 6 7 8 9 10	X

5. *Day-to-day operations of the interuniversity athletics department.*

This general activity area includes the following activities:

- internal communication and coordination between interuniversity athletics administration, coaches and support staff
- student-athlete liaison (e.g., concerns, eligibility, disciplinary matters)
- coordinating facilities usage for practices, league and non-Conference competitions, and revenue-generating activities
- planning and hosting league and non-Conference games, tournaments, and championships
- travel arrangements for league and non-Conference competition

	Has Not Influenced 1 2 3 4 5 6 7 8 9 10 **Has Considerably Influenced**	**Does Not Apply** X
University Central Administration (President/Rector, Senate, Board of Governors, V-P Academic)	1 2 3 4 5 6 7 8 9 10	X
Affiliated Faculty and/or Campus Recreation	1 2 3 4 5 6 7 8 9 10	X
Athletics Board/Committee	1 2 3 4 5 6 7 8 9 10	X
Interuniversity Athletics Department (Administration, Coaches, Support Staff)	1 2 3 4 5 6 7 8 9 10	X
Student-athletes	1 2 3 4 5 6 7 8 9 10	X
Students (Undergraduate, Graduate, Students' Council, Ad hoc groups)	1 2 3 4 5 6 7 8 9 10	X
Alumni (Individuals, Association)	1 2 3 4 5 6 7 8 9 10	X
Provincial and Federal Sport Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Regional Conference Association (AUAA, QSSF, OWIAA, OUAA, GPAC, CWUAA)	1 2 3 4 5 6 7 8 9 10	X
CIAU	1 2 3 4 5 6 7 8 9 10	X
Corporate Sponsors	1 2 3 4 5 6 7 8 9 10	X
Provincial Education Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Media	1 2 3 4 5 6 7 8 9 10	X
Community (Users, Spectators, Service Clubs, Sport Organizations, Municipal Government, School Boards)	1 2 3 4 5 6 7 8 9 10	X
Professional Sport Leagues (e.g. CFL, NHL)	1 2 3 4 5 6 7 8 9 10	X

6. *Sports information activities and external communication.*

This general activity area includes both liaison and formal reporting to other programs or organizations within and beyond the university. It also includes promotions and public relations activities.

	Has Not Influenced 1 2 3 4 5 6 7 8 9 Has Considerably Influenced 10	Does Not Apply X
University Central Administration (President/Rector, Senate, Board of Governors, V-P Academic)	1 2 3 4 5 6 7 8 9 10	X
Affiliated Faculty and/or Campus Recreation	1 2 3 4 5 6 7 8 9 10	X
Athletics Board/Committee	1 2 3 4 5 6 7 8 9 10	X
Interuniversity Athletics Department (Administration, Coaches, Support Staff)	1 2 3 4 5 6 7 8 9 10	X
Student-athletes	1 2 3 4 5 6 7 8 9 10	X
Students (Undergraduate, Graduate, Students' Council, Ad hoc groups)	1 2 3 4 5 6 7 8 9 10	X
Alumni (Individuals, Association)	1 2 3 4 5 6 7 8 9 10	X
Provincial and Federal Sport Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Regional Conference Association (AUAA, QSSF, OWIAA, OUAA, GPAC, CWUAA)	1 2 3 4 5 6 7 8 9 10	X
CIAU	1 2 3 4 5 6 7 8 9 10	X
Corporate Sponsors	1 2 3 4 5 6 7 8 9 10	X
Provincial Education Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Media	1 2 3 4 5 6 7 8 9 10	X
Community (Users, Spectators, Service Clubs, Sport Organizations, Municipal Government, School Boards)	1 2 3 4 5 6 7 8 9 10	X
Professional Sport Leagues (e.g. CFL, NHL)	1 2 3 4 5 6 7 8 9 10	X

7. *Participation of the interuniversity athletics department at the respective Conference and CIAU levels.*

Representation at these levels includes voting and participation on committees.

	Has Not Influenced 1 2 3 4 5 6 7 8 9 10 Has Considerably Influenced	Does Not Apply
University Central Administration (President/Rector, Senate, Board of Governors, V-P Academic)	1 2 3 4 5 6 7 8 9 10	X
Affiliated Faculty and/or Campus Recreation	1 2 3 4 5 6 7 8 9 10	X
Athletics Board/Committee	1 2 3 4 5 6 7 8 9 10	X
Interuniversity Athletics Department (Administration, Coaches, Support Staff)	1 2 3 4 5 6 7 8 9 10	X
Student-athletes	1 2 3 4 5 6 7 8 9 10	X
Students (Undergraduate, Graduate, Students' Council, Ad hoc groups)	1 2 3 4 5 6 7 8 9 10	X
Alumni (Individuals, Association)	1 2 3 4 5 6 7 8 9 10	X
Provincial and Federal Sport Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Regional Conference Association (AUAA, QSSF, OWIAA, OUAA, GPAC, CWUAA)	1 2 3 4 5 6 7 8 9 10	X
CIAU	1 2 3 4 5 6 7 8 9 10	X
Corporate Sponsors	1 2 3 4 5 6 7 8 9 10	X
Provincial Education Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Media	1 2 3 4 5 6 7 8 9 10	X
Community (Users, Spectators, Service Clubs, Sport Organizations, Municipal Government, School Boards)	1 2 3 4 5 6 7 8 9 10	X
Professional Sport Leagues (e.g. CFL, NHL)	1 2 3 4 5 6 7 8 9 10	X

8. *Overall, please indicate the extent to which each individual, group and organization has influenced your interuniversity athletics department.*

	Has Not Influenced 1 2 3 4 5 6 7 8 9 Has Considerably Influenced 10	Does Not Apply X
University Central Administration (President/Rector, Senate, Board of Governors, V-P Academic)	1 2 3 4 5 6 7 8 9 10	X
Affiliated Faculty and/or Campus Recreation	1 2 3 4 5 6 7 8 9 10	X
Athletics Board/Committee	1 2 3 4 5 6 7 8 9 10	X
Interuniversity Athletics Department (Administration, Coaches, Support Staff)	1 2 3 4 5 6 7 8 9 10	X
Student-athletes	1 2 3 4 5 6 7 8 9 10	X
Students (Undergraduate, Graduate, Students' Council, Ad hoc groups)	1 2 3 4 5 6 7 8 9 10	X
Alumni (Individuals, Association)	1 2 3 4 5 6 7 8 9 10	X
Provincial and Federal Sport Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Regional Conference Association (AUAA, QSSF, OWIAA, OUAA, GPAC, CWUAA)	1 2 3 4 5 6 7 8 9 10	X
CIAU	1 2 3 4 5 6 7 8 9 10	X
Corporate Sponsors	1 2 3 4 5 6 7 8 9 10	X
Provincial Education Organizations and Ministries	1 2 3 4 5 6 7 8 9 10	X
Media	1 2 3 4 5 6 7 8 9 10	X
Community (Users, Spectators, Service Clubs, Sport Organizations, Municipal Government, School Boards)	1 2 3 4 5 6 7 8 9 10	X
Professional Sport Leagues (e.g. CFL, NHL)	1 2 3 4 5 6 7 8 9 10	X

Appendix B

LIST OF RESPONDENTS' INSTITUTIONS

Table B-1

List of Respondents' Institutions (N=34).

Acadia University
University of Alberta
Bishop's University
Brandon University
Brock University
University of Calgary
Carleton University
Concordia University
University of Guelph
Lakehead University
Université Laval
University of Lethbridge
University of Manitoba
McGill University
Memorial University of Newfoundland
Université de Moncton
Université de Montréal
Mount Allison University
University of New Brunswick
University of Prince Edward Island
Queen's University
University of Regina
Royal Military College
Saint Mary's University
University of Saskatchewan
St. Francis Xavier University
St. Thomas University
Trent University
University of Waterloo
University of Western Ontario
Wilfrid Laurier University
University of Windsor
University of Winnipeg
York University

Appendix C

DESCRIPTIVE STATISTICS PERTAINING TO THE DEMOGRAPHIC VARIABLES

TABLE C-1

Descriptive Statistics for the Size of Interuniversity Athletics Programs (N=34).

VARIABLE	MEAN	S.D.	MIN.	MAX.
# Combined Sports	16.5	10.14	3	43
# Men's Sports	8.9	5.30	2	22
# Women's Sports	7.6	4.93	1	21

TABLE C-2

Description of the Number of Interuniversity Athletics Organizations Offering Each Sport (N=34).

SPORT	Male	% Sample	Female	% Sample
Badminton	8	23.5	8	23.5
Basketball	29	85.3	29	85.3
Cross Country	20	58.8	20	58.8
Curling	11	32.4	10	29.4
Diving	3	8.8	3	8.8
Fencing	9	26.5	8	23.5
Field Hockey	-	-	17	50.0
Figure Skating	-	-	6	17.6
Football	19	55.9	-	-
Golf	10	29.4	1	2.9
Gymnastics	7	20.6	6	17.6
Ice Hockey	26	76.5	8	23.5
Rowing	7	20.6	7	23.5
Rugby	14	41.2	4	11.8
Alpine Skiing	9	26.5	9	26.5
Nordic Skiing	7	20.6	7	20.6
Soccer	26	76.5	22	64.7
Squash	9	26.5	7	20.6
Swimming	21	61.8	21	61.8
Synchronized Swimming	-	-	6	17.6
Tennis	5	14.7	7	20.6
Track & Field	18	52.9	18	52.9
Volleyball	23	67.6	31	91.2
Waterpolo	6	17.6	4	11.8
Wrestling	16	47.1	-	-

Table C-3

Frequency of Representatives on Athletics Boards in Canadian Interuniversity Athletics Organizations.

REPRESENTATIVES	n	% OF ORGANIZATIONS WITH BOARDS (n=27)	% OF SAMPLE (N=34)
Faculty	25	92.6	73.5
Central Administration	17	63.0	50.0
Board of Governors	9	33.3	26.5
Senate	4	14.8	11.8
Alumni	13	48.1	38.2
Students	22	81.5	64.7
Student-Athletes	13	48.1	38.2
Graduate Students	6	22.2	17.6
Interuniversity Athletics Management	24	88.9	70.6
Ex-Officio	6	22.2	17.6
Other	8	29.6	23.5

Table C-4

Cross-tabulation Analysis of Size of Institution, Size of Program, Administrative Structure, and Athletics Board, by Conference.

CONFERENCE	SIZE OF INSTITUTION			TOTAL
	Small (n<4,500)	Medium (4,500≤n≤14,500)	Large (n>14,500)	
Canada West Universities Athletic Association (CWUAA)	1	0	3	4
Great Plains Athletic Conference (GPAC)	2	1	1	4
Ontario Universities/ Ontario Women's Intercollegiate Athletic Association (OU/OWIAA)	3	5	4	12
Quebec Student Sports Federation (QSSF)	1	0	4	5
Atlantic Universities Athletic Association (AUAA)	5	4	0	9
Total	12	10	12	34

CONFERENCE	SIZE OF PROGRAM			TOTAL
	Small (n≤11)	Medium (12≤n≤16)	Large (n≥17)	
CWUAA	1	3	0	4
GPAC	3	1	0	4
OU/OWIAA	0	2	10	12
QSSF	2	2	1	5
AUAA	6	3	0	9
Total	12	11	11	34

table cont'd.

Table C-4 cont'd.

CONFERENCE	ADMINISTRATIVE STRUCTURE			TOTAL
	Affiliated	Independent	No Related Academic Unit	
CWUAA	3	1	0	4
GPAC	3	1	0	4
OU/OWIAA	3	5	4	12
QSSF	1	0	4	5
AUAA	5	4	0	9
Total	15	11	8	34

CONFERENCE	ATHLETICS BOARD		TOTAL
	Yes	No	
CWUAA	4	0	4
GPAC	4	0	4
OU/OWIAA	10	2	12
QSSF	3	2	5
AUAA	6	3	9
Total	27	7	34

Table C-5

Cross-tabulation Analysis of Size of Program, Administrative Structure, and Athletics Board, by Size of Institution.

SIZE OF INSTITUTION	SIZE OF PROGRAM			TOTAL
	Small (n≤11)	Medium (12≤n≤16)	Large (n≥17)	
Small (n<4,500)	8	2	2	12
Medium (4,500≤n n≤14,500)	3	2	5	10
Large (n>14,500)	1	7	4	12
Total	12	11	11	34

SIZE OF INSTITUTION	ADMINISTRATIVE STRUCTURE			TOTAL
	Affiliated	Independent	No Related Academic Unit	
Small (n<4,500)	2	4	6	12
Medium (4,500≤n n≤14,500)	7	1	2	10
Large (n>14,500)	6	5	1	12
Total	15	10	9	34

SIZE OF INSTITUTION	ATHLETICS BOARD		TOTAL
	Yes	No	
Small (n<4,500)	10	2	12
Medium (4,500≤n n≤14,500)	7	3	10
Large (n>14,500)	10	2	12
Total	27	7	34

Table C-6

Cross-tabulation Analysis of Administrative Structure and Athletics Board, by Size of Program.

SIZE OF PROGRAM	ADMINISTRATIVE STRUCTURE			TOTAL
	Affiliated	Independent	No Related Academic Unit	
Small (n≤11)	3	4	5	12
Medium (12≤n≤16)	7	3	1	11
Large (n≥17)	5	3	3	11
Total	15	10	9	34

SIZE OF PROGRAM	ATHLETICS BOARD		TOTAL
	Yes	No	
Small (n≤11)	10	2	12
Medium (12≤n≤16)	7	4	11
Large (n≥17)	10	1	11
Total	27	7	34

Table C-7

Cross-tabulation Analysis of Athletics Board by Administrative Structure.

ADMINISTRATIVE STRUCTURE	ATHLETICS BOARD		TOTAL
	Yes	No	
Affiliated	11	4	15
Independent	7	3	10
No Related Academic Unit	9	0	9
Total	27	7	34

Appendix D

PERCEIVED ENVIRONMENTAL CONTROL: SUPPLEMENTARY TABLES

Table D-1

Pairwise Differences Between Elements for Perceived Control over Securing Funds (Tukey's critical criterion = 2.05, α=.05) (N=34).

ELEMENTS (Rank-ordered by Rating of Perceived Control)	E4 (7.88)	E1 (7.82)	E3 (5.00)	E11 (4.68)	E5 (3.87)	E2 (3.85)	E6 (3.85)	E7 (3.67)	E14 (3.45)	E8 (3.35)	E12 (2.76)	E10 (2.73)	E9 (2.42)	E13 (2.35)	E15 (1.48)
E4 (7.88)		.06	2.88*	3.20*	4.01*	4.03*	4.03*	4.21*	4.43*	4.53*	5.12*	5.15*	5.46*	5.53*	6.40*
E1 (7.82)			2.82*	3.14*	3.95*	3.97*	3.97*	4.15*	4.37*	4.47*	5.06*	5.09*	5.40*	5.47*	6.34*
E3 (5.00)				.32	1.13	1.15	1.15	1.33	1.55	1.65	2.24*	2.27*	2.58*	2.65*	3.52*
E11 (4.68)					.81	.83	.83	1.01	1.23	1.33	1.92	1.95	2.26*	2.33*	3.20*
E5 (3.87)						.02	.02	.20	.42	.52	1.11	1.14	1.45	1.52	2.39*
E2 (3.85)							.00	.20	.40	.50	1.09	1.12	1.43	1.50	2.37*
E6 (3.85)								.20	.40	.50	1.09	1.12	1.43	1.50	2.37*
E7 (3.67)									.22	.32	.91	.94	1.25	1.35	2.19*
E14 (3.45)										.10	.69	.72	1.03	1.10	1.97
E8 (3.35)											.59	.62	.93	1.00	1.87
E12 (2.76)												.03	.34	.41	1.28
E10 (2.73)													.31	.38	1.25
E9 (2.42)														.07	.94
E13 (2.35)															.87

Table D-2

Pairwise Differences Between Elements for Perceived Control over Hiring (Tukey's critical criterion = 2.05, α=.05) (N=34).

ELEMENTS (Rank-ordered by Rating of Perceived Control)

	E4 (8.35)	E1 (6.79)	E2 (4.41)	E3 (3.96)	E5 (3.91)	E8 (2.26)	E7 (2.15)	E10 (1.68)	E6 (1.62)	E13 (1.56)	E9 (1.47)	E14 (1.35)	E11 (1.29)	E12 (1.15)	E15 (1.06)
E4 (8.35)		1.56	3.94*	4.39*	4.44*	6.09*	6.20*	6.67*	6.73*	6.79*	6.88*	7.00*	7.06*	7.20*	7.29*
E1 (6.79)			2.38*	2.83*	2.88*	4.53*	4.64*	5.11*	5.17*	5.23*	5.32*	5.44*	5.50*	5.64*	5.73*
E2 (4.41)				.45	.50	2.15*	2.26*	2.73*	2.79*	2.85*	2.94*	3.06*	3.12*	3.26*	3.35*
E3 (3.96)					.05	1.70	1.81	2.28*	2.34*	2.40*	2.49*	2.61*	2.67*	2.81*	2.90*
E5 (3.91)						1.65	1.76	2.23*	2.29*	2.35*	2.44*	2.56*	2.62*	2.76*	2.85*
E8 (2.26)							.11	.58	.64	.70	.79	.91	.97	1.11	1.20
E7 (2.15)								.47	.53	.59	.68	.80	.86	1.00	1.09
E10 (1.68)									.06	.12	.21	.33	.39	.53	.62
E6 (1.62)										.06	.15	.27	.33	.47	.56
E13 (1.56)											.09	.21	.27	.41	.50
E9 (1.47)												.12	.18	.32	.41
E14 (1.35)													.06	.20	.29
E11 (1.29)														.14	.23
E12 (1.15)															.09

Table D-3

Pairwise Differences Between Elements for Perceived Control over Establishing Philosophy (Tukey's critical criterion = 2.16, α=.05) (N=34).

ELEMENTS (Rank-ordered by Rating of Perceived Control)	E4 (9.23)	E1 (7.09)	E3 (6.89)	E5 (5.35)	E9 (5.15)	E10 (5.12)	E2 (5.00)	E6 (3.12)	E7 (2.91)	E8 (2.21)	E12 (1.76)	E14 (1.65)	E13 (1.47)	E12 (1.41)	E15 (1.15)
E4 (9.23)		2.14	2.34*	3.88*	4.08*	4.11*	4.23*	6.11*	6.32*	7.02*	7.47*	7.58*	7.76*	7.82*	8.08*
E1 (7.09)			.20	1.74	1.94	1.97	2.09	3.97*	4.18*	4.88*	5.33*	5.44*	5.62*	5.68*	5.94*
E3 (6.89)				1.54	1.74	1.77	1.89	3.77*	3.98*	4.68*	5.13*	5.24*	5.42*	6.48*	5.74*
E5 (5.35)					.20	.23	.35	2.23*	2.44*	3.14*	3.59*	3.70*	3.88*	3.94*	4.20*
E9 (5.15)						.03	.15	2.03*	2.24*	2.94*	3.39*	3.50*	3.68*	3.74*	4.00*
E10 (5.12)							.12	2.00	2.21*	2.91*	3.36*	3.47*	3.65*	3.71*	3.97*
E2 (5.00)								1.88	2.09	2.79*	3.24*	3.35*	3.53*	3.59*	3.85*
E6 (3.12)									.21	.91	1.36	1.47	1.65	1.71	1.97
E7 (2.91)										.70	1.15	1.26	1.44	1.50	1.76
E8 (2.21)											.45	.56	.74	.80	1.06
E12 (1.76)												.11	.29	.35	.61
E14 (1.65)													.18	.24	.50
E13 (1.47)														.06	.32
E11 (1.41)															.26

Table D-4

Pairwise Differences Between Elements for Perceived Control over Allocating Funds (Tukey's critical criterion = 2.05, α=.05) (N=34).

ELEMENTS (Rank-ordered by Rating of Perceived Control)	E4 (8.65)	E3 (6.04)	E1 (5.06)	E5 (3.79)	E2 (3.71)	E9 (3.47)	E10 (3.29)	E6 (2.62)	E7 (2.21)	E8 (2.09)	E11 (1.88)	E13 (1.41)	E14 (1.38)	E12 (1.35)	E15 (1.12)
E4 (9.23)		2.61*	3.59*	4.86*	4.94*	5.18*	5.36*	6.09*	6.44*	6.56*	6.77*	7.24*	7.27*	7.30*	7.53*
E3 (6.04)			.98	2.25*	2.33*	2.57*	2.75*	3.42*	3.83*	3.95*	4.21*	4.63*	4.66*	4.69*	4.92*
E1 (5.06)				1.27	1.35	1.59	1.77	2.44*	2.85*	2.97*	3.18*	3.65*	3.68*	3.71*	3.94*
E5 (3.79)					.08	.32	.50	1.17	1.58*	1.70*	1.91*	2.38*	2.41*	2.44*	2.67*
E2 (3.71)						.24	.42	1.09	1.50	1.62	1.83	2.30*	2.33*	2.36*	2.59*
E9 (3.47)							.16	.85	1.26	1.38	1.59	2.06*	2.09*	2.12*	2.35*
E10 (3.29)								.67	1.08	1.20	1.41	2.15*	2.18*	2.21*	2.17*
E6 (2.62)									.41	.53	.74	1.21	1.24	1.27	1.50
E7 (2.21)										.12	.33	.80	.83	.86	1.01
E8 (2.09)											.21	.68	.71	.74	.97
E11 (1.88)												.47	.50	.53	.76
E13 (1.41)													.03	.06	.29
E14 (1.38)														.03	.26
E15 (1.12)															.23

Table D-5

Pairwise Differences Between Elements for Perceived Control over Daily Operations (Tukey's critical criterion = 2.08, α=.05) (N=34).

ELEMENTS (Rank-ordered by Rating of Perceived Control)	E4 (9.41)	E5 (4.80)	E3 (4.19)	E2 (3.94)	E9 (3.62)	E10 (3.32)	E1 (3.15)	E6 (2.76)	E14 (1.85)	E11 (1.65)	E7 (1.62)	E8 (1.44)	E13 (1.38)	E12 (1.12)	E15 (1.06)
E4 (9.41)		4.61*	5.22*	5.47*	5.79*	6.09*	6.26*	6.65*	7.56*	7.76*	7.79*	7.97*	8.03*	8.29*	8.35*
E5 (4.80)			.61	.86	1.18	1.48	1.65	2.04	2.95*	3.15*	3.18*	3.36*	3.42*	3.68*	3.74*
E3 (4.19)				.25	.57	.87	1.04	1.43	2.34*	2.54*	2.57*	2.75*	2.81*	3.07*	3.13*
E2 (3.94)					.32	.62	.79	1.18	2.09*	2.29*	2.32*	2.50*	2.56*	2.82*	2.88*
E9 (3.62)						.30	.47	.86	1.77	1.97	2.00	2.18*	2.24*	2.50*	2.56*
E10 (3.32)							.17	.56	1.47	1.67	1.70	1.88	1.94	2.20*	2.26*
E1 (3.15)								.39	1.30	1.50	1.53	1.71	1.77	2.03	2.09*
E6 (2.76)									.91	1.11	1.14	1.32	1.38	1.64	1.70
E14 (1.85)										.20	.23	.39	.47	.73	.79
E11 (1.65)											.03	.19	.27	.53	.59
E7 (1.62)												.16	.24	.50	.56
E8 (1.44)													.06	.34	.40
E13 (1.38)														.28	.34
E12 (1.12)															.06

Table D-6

Pairwise Differences Between Elements for Perceived Control over External Communication (Tukey's critical criterion = 1.75, α=.05) (N=34).

ELEMENTS (Rank-ordered by Rating of Perceived Control)	E4 (9.23)	E13 (6.68)	E9 (5.44)	E10 (5.18)	E1 (4.76)	E5 (4.76)	E3 (4.52)	E7 (4.06)	E14 (3.85)	E6 (3.68)	E11 (3.62)	E2 (3.18)	E8 (2.00)	E15 (1.61)	E12 (1.47)
E4 (9.23)		2.55*	3.79*	4.10*	4.47*	4.47*	4.71*	5.17*	5.38*	5.55*	5.61*	6.05*	7.23*	7.62*	7.76*
E13 (6.68)			1.24	1.50	1.92*	1.92*	2.16*	2.62*	2.83*	3.00*	3.06*	3.50*	4.68*	5.07*	5.21*
E9 (5.44)				.26	.68	.68	.92	1.38	1.49	1.66	1.72	2.26*	3.44*	3.83*	3.97*
E10 (5.18)					.42	.42	.66	1.12	1.23	1.40	1.46	2.00*	3.18*	3.57*	3.71*
E1 (4.76)						.00	.24	.70	.91	1.08	1.14	1.58	2.76*	3.15*	3.29*
E5 (4.76)							.24	.70	.91	1.08	1.14	1.58	2.76*	3.15*	3.29*
E3 (4.52)								.46	.67	.84	.90	1.34	2.52*	2.91	3.05*
E7 (4.06)									.21	.38	.44	.88	2.06*	2.45*	2.59*
E14 (3.85)										.17	.23	.67	1.85*	2.24*	2.38*
E6 (3.68)											.06	.50	1.68	2.07*	2.21*
E11 (3.62)												.44	1.62	2.01*	2.15*
E2 (3.18)													1.18	1.57	1.71
E8 (2.00)														.39	.53
E12 (1.47)															.14

Table D-7

Pairwise Differences Between Elements for Perceived Control over Conference and CIAU Participation (Tukey's critical criterion = 2.24, α=.05) (N=34).

ELEMENTS (Rank-ordered by Rating of Perceived Control)

	E4 (9.23)	E9 (6.47)	E10 (5.82)	E3 (5.26)	E1 (4.91)	E5 (4.35)	E2 (2.94)	E6 (2.26)	E8 (1.94)	E7 (1.85)	E11 (1.82)	E13 (1.76)	E14 (1.59)	E12 (1.18)	E15 (1.15)
E4 (9.23)		2.76*	3.41*	3.97*	4.32*	4.88*	6.29*	6.97*	7.29*	7.38*	7.41*	7.47*	7.64*	8.05*	8.08*
E9 (6.47)			.65	1.21	1.56	2.12	3.53*	4.21*	4.53*	4.62*	4.65*	4.71*	4.85*	5.29*	5.32*
E10 (5.82)				.56	.91	1.47	2.88*	3.56*	3.88*	3.97*	4.00*	4.06*	4.23*	4.64*	4.67*
E3 (5.26)					.35	.91	2.32*	3.00*	3.32*	3.41*	3.44*	3.50*	3.67*	4.08*	4.11*
E1 (4.91)						.56	1.97	2.65*	2.97*	3.06*	3.09*	3.15*	3.32*	3.73*	3.76*
E5 (4.35)							1.41	2.09	2.41*	2.50*	2.53*	2.59*	2.76*	3.17*	3.20*
E2 (2.94)								.68	1.00	1.09	1.12	1.18	1.35	1.76	1.79
E6 (2.26)									.32	.41	.44	.50	.67	1.08	1.11
E8 (1.94)										.09	.12	.18	.35	.76	.79
E7 (1.85)											.03	.09	.26	.67	.70
E11 (1.82)												.06	.23	.64	.67
E13 (1.76)													.17	.58	.61
E14 (1.59)														.41	.44
E12 (1.18)															.03

Table D-8

Supporting Interview Data for Perceived Environmental Control over Securing Funds (SF).

Re. Interuniversity Athletics Organization (E4)

"We've been given a lot more responsibility recently because our budgets have been frozen at the 1988 level. . . anything else we want to do we have to raise the funds for." (33)

"We have made some conscious decisions as a department to have to go out and raise funds. . . We just got through very tough budget times in the last couple of years, and especially the last six months, where we've had to really, again, increase our sponsorship dollars and those kinds of things." (28)

"We've had to be more proactive in supporting ourselves." (01)

"Approximately 50% is from student athletic fees, and the rest is what we raise. . . the staff are really the people who go out and raise the income." (34)

Re. University Central Administration (E1)

"Well, just because we're funded largely through the university. . . and so obviously they determine whether we get the money or not." (27)

"That's [central administration] where our base budgeting comes from, and they determine how much money they're going to give me." (21)

"They're [central administration] the ones who establish the fee." (09)

"What happens is the central administration collects a student fee, for all student services on campus. It is then their responsibility to allocate it out. They collect a package of money for all these fees, and then based on their determination they give so much here, so much here, so much there. So that's why they are absolutely essential." (11)

"The say that they [central administration] have is that they are the ones who have to decide what the student service fee is going to be or can be. . . If we require additional monies in our budget makeup. . . we have to go to the central administration and they have to agree to allow us to raise student services fees." (12)

"Well, because we're so heavily dependent upon fundraising, we must get permission from the vice-president administration's office. . . to go out and raise those funds and the methods in which we do it. So, if they did not pass the legislation or give us permission to do it, then we wouldn't be able to do anything. So, they don't actually participate in it, but they're the one that says what's permitted, what isn't." (22)

"They [central administration] don't want us running dog races or horse races to raise money, or paramutual betting or anything like that." (15)

Table D-9

Supporting Interview Data for Perceived Environmental Control over Hiring (H).

Re. Interuniversity Athletics Organization (E4) and University Central Administration (E1)

"We have to go through both the vice-president academic and the vice-president non-academic for job descriptions and salary, and all of those things related to hiring. . . Without the administrative approval, we don't do anything." (15)

"They [central administration] have to finalize all job descriptions, all money allocations. . . But they don't necessarily sit in on the interview or selection process. That's why its not a 10." (21)

"We go out and we advertise, but it's his [vice-president academic] funding that brings the guy in, or gal in. . . comes out of his office as far as financing goes. The final contract is sent to the vice-president of academics and he offers the individual the opportunity to work for the university under these terms. So, we do all the selecting, we do the advertising, they basically say 'Yes, we approve the job. You've accepted that person, we'll send him the contract and he falls under the agreement of our university'." (04)

Re. Affiliated Faculty/Recreation Department (E2)

"In essence, right now if there is a position on our faculty that involves a coaching position, a group of five people called the assessment committee sit down to hire that person. So we've got a person that represents the graduate and the undergraduate program, the intramural program and the athletic program, a faculty rep. and whatever. These people all sit down and to some degree its fair game because the graduate guy wants somebody who is going to fit into his graduate program; the undergraduate guy wants a slice of this person, etc., etc. So, but, its the faculty that hires this person, its not the athletic department." (04)

"The dean is the head of the faculty, so would have that authority. Recreation and Athletics does not report to faculty council, but anyone hired in Recreation and Athletics is given an academic appointment, so there is that influence there." (22)

"Depending on the position, we will put a search committee together. But there is no mandate to say the faculty has to have so much say in it. Generally we try over time to include a couple of faculty in it. . . But there is no procedure that says they must have X amount of input into it." (11)

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table cont'd.

Table D-9 cont'd.

Re. Athletics Board (E3)

"Athletic board are involved almost as a matter of courtesy. One of the members may sit on a selection committee." (01)

Re. Student-Athletes (E5)

"Most of the positions, particularly if they're in coaching, we usually try and have an athlete on the committee. So they are one of five." (09)

"We may, from a reference point, talk to students, but we have not had a survey selection." (07)

"Well, they don't actually have direct say; they don't say '[athletics director], this is the guy over that one'. But we will get some feedback from the students, that they want a coach that is more interested in something. . . you sense from talking to the students the kind of coach that they would like to see. To that extent, I sensitize myself as to what their expectations are; I use that to guide me, but they don't have a right to say 'well, yes, or no,' or '[athletics director], you should take our recommendations'." (15)

Table D-10

Supporting Interview Data for Perceived Environmental Control over Establishing Philosophy (EP).

Re. University Central Administration (E1)

"When I took over six years ago as athletic director, my mandate was very, very clear. The boss, the chief executive officer, says 'I want to do this; I want you to do this'." (23)

". . . they told us a couple of years ago that we have to do things for the students. And so all of our new objectives and goals of our program are more or less set on what they gave us, what they told us." (16)

"There are obviously a lot of university policies. In fact, a massive two documents which we have to follow with a lot of things. That has an impact specifically on our department." (28)

"The president's office establishes the philosophy and goals of the university as a whole. We act in accordance of the university's philosophy and guidelines; we could not do something that would contravene or be contrary to the university's philosophy. . . We'd hear about it if it was in opposition to it." (22)

". . . not a direct hands-on, but in that we try to fit with what they [central administration] establish as the goals of the university." (06)

Re. Athletics Board (E3)

"They're policy-making. They recommend policy to the board of directors. Most of the time I would make a recommendation on policy and they would discuss it, usually approve it, then pass it on to the board of regents." (13)

"They would be the one who determine the philosophy, and so on. . . this athletic advisory board were grouped basically to address that issue and other issues." (19)

"The athletics advisory board or council, they, any philosophy or policy that we were going to put forward as being general to the department or specific to the university, would go through those bodies. . . they do certainly have a role in the direction of our program." (10)

"The athletics recreation council must approve all procedures that we follow. Not the nuts and bolts, but things like, if we run a broad-based program, are we after excellence or not." (11)

Re. Student-Athletes (E5)

"They [student-athletes] sit on the athletic board. . . they're views are very much listened to, and they're usually active." (01)

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table cont'd.

Table D-10 cont'd.

Re. Student-Athletes (E5) cont'd.

"We'll have a senior member of each team meet with myself. . . on the issues that come up. . . certainly nothing organized. . . But they have had some influence. If there's something going on in terms of something we're planning on doing, they'll either come and talk to us or we'll go and talk to them." (18)

"Its because of their [student-athletes] expectations, we have to meet those to a certain extent, or they're going to be disappointed. So, I feel that there is an influence there; an indirect one." (09)

"It would not be direct or tangible, but I think the method of operation that we're trying to adopt is we want to be responsive to them. So its an idea of listening to them, talking to them, attempting to gauge their satisfaction, their wants. . . So I guess decision making is still at our level, but if we're not talking to the students then we're remiss. And I would like to think, yes they have significant impact, although they're not sitting in the room making the decision." (31)

Re. Conference (E9) and CIAU (E10)

"By virtue of your membership, you have to be in line with the philosophies, goals and policies of their [conference, CIAU] particular programs." (29)

"As far as philosophy is concerned, I'm going to have to go high on that because we do have very high standards in the conference. We have a very excellent operations manual. And I would say that the CIAU is the same." (30)

"Well, the rules and regulations that are set in place definitely have an influence on what you can and can't do. And what you can and can't do shape the philosophy." (05)

Re. Affiliated Faculty/Recreation Department (E2)

"Our faculty will sit down and establish the philosophy, goals and objectives. . . I have to have a pool from my faculty council before I can walk out and say this is our philosophy, this is the goals and objectives of the athletic department." (04)

"Essentially our faculty goes back to the administration and says this is what our philosophy of running an athletics program is and how we choose to operate. And in the past the university's always supported that, I think, because our faculty has a philosophy that is in concert with that of the institution." ((03)

"Myself and a number of coaches are members of the faculty. That may not be a very direct influence, but they're certainly influential since we're sharing the main facility, we're sharing equipment, we're sharing personalities." (09)

Table D-11

Supporting Interview Data for Perceived Environmental Control over Allocating Funds (AF).

Re. Athletics Board (E3)

"It [athletics board] primarily reviews our budget area and guides me on the general allocation. When the budget goes forward, they're usually asking where the money's being spent. They keep a sense of it, to what the students and faculty seem to think that we should be spending the money on. They approve it but, in effect, their approval is a recommendation to the president that that's what we want to spend." (15)

"They [athletics board] approve the final budget in policy. They make sure I'm following the policy as outlined; they don't tell me how to spend the money." (21)

Re. University Central Administration (E1)

"I guess they [central administration] have an influence predominantly on the overall amount. We have the influence on where we divide those amounts. They don't have any input on whether we spend $20,000 or $10,000 on basketball. Their influence is whether we get the $10,000 or $20,000. . . And our department basically allocates that; we don't have to justify why one activity costs more money than another activity." (09)

"They [central administration] just give us a general budget, and we spread it out. They do influence us on the overall, but not [each sport]; its really up to us. . . The only influence they have is allowing a certain amount." ((24)

"If we were trying to drop a sport where there was a fair amount of flak, and it was getting to the administration, they might say 'Why are you dropping this?', or something to that effect. We've also, on occasion, been able to go over and resurrect a sport that was in danger of being dropped with the addition of new monies." ((05)

Table D-12

Supporting Interview Data for Perceived Environmental Control over External Communication (EC).

Re. Interuniversity Athletics Organization (E4)

"Our links to the media, our links with the external community, external organizations, our department does that." (11)

"I don't send them [central administration] up what our press releases are. Its basically my responsibility to make sure that nothing that goes out embarrasses the university and tarnishes our image." (04)

"We have sports information and the interuniversity athletics department is directly responsible for that. We feel that is a very important aspect of our program. . . is to liaise with the sports community." (27)

Re. Media (E13)

"Now media, you know, they're very much involved in it, and its quite obvious that we're looking for radio and t.v. coverage, newspaper coverage within our own community. So, they have a big influence on it." (04)

"We do it [corresponding with corporate sponsors] through the media, if the media pick it up." (30)

"Mainly the media is our greatest method of contacting the community." (03)

"We have a sports information director who keeps in constant communication with the media. . . And any special events that we have, our awards banquet, and things like that, they are definitely invited to it. So we try to make an effort to keep a close liaison with the media." (10)

Table D-13

Supporting Interview Data for Perceived Environmental Control over Conference and CIAU Participation (CCP).

Re. Interuniversity Athletics Organization (E4)

"Obviously I'm the one that's carrying the banner here, but when I go to the meetings I know I have the support of, first of all, my three coordinators, because we talk about these things, and department council, and then the president." (05)

Re. Conference (E9)

"First we vote as an institution, and second we vote as a league. Our league has a great deal of influence on. . . and we vote on things that we necessarily ourselves are not involved in." (09)

Re. CIAU (E10)

"The CIAU, you know, we're involved with them in terms of our administration, as far as the eligibility rules. . ." (04)

"Well, I suppose the CIAU is made up of its member institutions, and I think that those member institutions influence us here." (34)

Re. Athletics Board (E3)

"We discuss any implications that it would have on the athletics program. Any bylaws, or any motions that would come forth, I have to take that to the athletics board, because they may have financial or other implications that I can't make that decision on my own." (21)

"After the [conference] and the CIAU meeting I have to report what went on. And they usually have certain hats they want me to take. I, for example, feel there are certain things I could not do arbitrarily by myself. . . I don't think that they're looking over my shoulder or giving great direction. I think I have to interpret what I think they feel. But I wouldn't be, I wouldn't say that I feel impeded in any way by the advisory." (19)

Re. University Central Administration (E1)

"Any major things that happen at the conference or CIAU level, again, are bounced off the president. He's informed of any issues that are occurring. And if he's adamant about something, that's the way the decision we come to the CIAU meeting with. Even though it may not be our personal one as the voting delegates, if he's adamant about it, that's the way it is." (18)

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table cont'd.

Table D-13 cont'd.

Re. University Central Administration (E1) cont'd.

"If there's something that seems to be controversial coming up at CIAU or [conference], I will raise this with the president and have a chat with him about it. And if he's well-informed then he can better help me do my job. And on some of these things we need a university position and not just the department of athletics' position." (06)

"Well, if we have a contentious issue coming up, then I want to run something by them [central administration]. I want them to tell me how they want me to vote. I'll tell them how I think I should vote, and most of the time its in agreement. But on certain things they might say 'We want this,' and then I would do that." (34)

"I think through experience dealing with the administration we know, indirectly we know what their reaction would be in relation to our philosophy and policies. So they don't have any direct influence. . ." (09)

"I think if we did anything inconsistent with the basic philosophy of [institution], then they would have a very profound influence over what we are doing. Basically, I have a great deal of latitude in representing [institution], as long as I'm consistent with the parameters that are outlined." (11)

Re. Student-Athletes (E5)

"When we go to [conference], those two students [athletes] come with us. They vote on the issues." (28)

"We have vote sheets that come out from the [conference]. . . we have athlete input on the vote sheet. We've been fairly diligent, any time the vote sheets come in, that myself or the coaches, we'll discuss the issues with the athletes. . . it may support what we think, or it may have a bearing on our ultimate final task." (31)

"I think that its probably reflected, once again, through their participation and involvement with the standing advisory committee. . . and the [conference] and its program of trying to encourage each institution to send a student representative. . ." (29)

"We're running an athletic program for students, so you have to be cognizant of their requirements academically, relative to increasing schedules too much, putting championships during breaks when we know exams are going to be going on, and all those things. So, I think . . . they certainly would have to be at the back of our minds all the time." (09)

"I think our sole existence is for the students and the student-athlete, and we're always trying to look out for their concerns. . . Its not so much direct, but it is implied." (23)

Appendix E

RESOURCE DEPENDENCE: SUPPLEMENTARY TABLES

Table E-1

Descriptive Statistics for Absolute Funding ($) from Various Sources (rounded to the nearest dollar) (N=34).

RANK	SOURCE	MEAN ($)	S.D.	MIN.	MAX. ($)
1	Student Activity Fees	272,628	372,243	0	1,251,000
2	University General Fund	258,231	225,276	0	700,000
3	Internal Revenues	138,363	148,447	0	567,000
4	Corporate Sponsorships	34,135	51,997	0	280,000
5	Prov. Gov't/Sport Orgns.	26,011	42,963	0	16,436
6	Alumni Funding	17,179	36,957	0	210,000
7	Sport Canada/ Nat'l. Sport Orgns.	8,897	19,331	0	100,000
8	Other	1,397	6,941	0	40,000

Table E-2

Breakdown of Relative Funding (%) from Various Sources by Number of Institutions (N=34).

SOURCE	RELATIVE FUNDING (%)	n	% OF SAMPLE	CUM. %
University General Fund	0	7	20.6	20.6
(M=40.68, SD=31.89, Med.=41.93)	1 - 25	7	20.6	41.2
	26 - 50	5	14.8	56.0
	51 - 75	10	29.4	85.4
	76 - 93	5	14.8	100.2[a]
Student Activity Fees	0	8	23.5	23.5
(M=29.98, SD=29.78, Med.=18.49)	1 - 25	10	29.4	52.9
	26 - 50	7	20.6	73.5
	51 - 75	5	14.8	88.3
	76 - 80	4	11.8	100.1
Internal Revenues	0	2	5.9	5.9
(M=16.91, SD=14.08, Med.=13.18)	1 - 10	13	38.2	44.1
	11 - 30	13	38.2	82.4
	31 - 50	6	17.6	100.0
Provincial Government/	< 1	21	61.8	61.8
Sport Organizations	1 - 10	6	17.6	79.4
(M=4.59, SD=8.77, Med.=0.23)	11 - 20	5	14.8	94.2
	21 - 39	2	5.8	100.0
Corporate Sponsorships	< 1	7	20.6	20.6
(M=4.41, SD=5.33, Med.=2.28)	1 - 10	22	64.7	85.3
	11 - 21	5	14.8	100.1
Alumni Funding	< 1	18	52.9	52.9
(M=2.19, SD=3.86, Med.=0.65)	1 - 10	15	44.2	97.1
	11 - 20	1	2.9	100.0
Sport Canada/National	< 1	21	61.8	61.8
Sport Organizations	1 - 10	12	35.3	97.1
(M=1.07, SD=1.99, Med.=0.00)	10 - 11	1	2.9	100.0
Other	0	32	94.1	94.1
(M=0.16, SD=0.64, Med.=0.00)	1 - 3	2	5.8	99.9

[a] Value may be greater/less than 100% due to rounding.

Table E-3

Breakdown of Combined Relative Funding (%) from the University General Fund and Student Activity Fees by Number of Institutions (N=34).

UNIVERSITY GENERAL FUND (%)	STUDENT ACTIVITY FEES (%)	n
0	0	0
0	1 - 25	1
0	26 - 50	1
0	51 - 75	2
0	> 75	3
1 - 25	0	1
1 - 25	1 - 25	0
1 - 25	26 - 50	2▲
1 - 25	51 - 75	3▲
1 - 25	> 75	1▲
26 - 50	0	1
26 - 50	1 - 25	1▲
26 - 50	26 - 50	3▲
26 - 50	51 - 75	0
51 - 75	0	3
51 - 75	1 - 25	6▲
51 - 75	26 - 50	1▲
> 75	0	3
> 75	1 - 25	2▲
Total		34

▲ Indicates combined funding.

Table E-4

Descriptive Statistics for the Breakdown of Relative Funding (%) from Internal Revenues.

RANK	SOURCE	% of INTERNAL REVENUES (N=32)				% TOTAL FUNDING (N=34)	
		Mean	S.D.	Min.	Max.	Mean	S.D.
1	Gate Receipts	30.27	23.24	0	88.24	3.57	3.13
2	Sports Camp(s)	17.61	21.37	0	67.77	3.52	5.72
3	User Fees	16.44	22.61	0	100.00	3.07	4.86
4	Athletic Competition Guarantees	8.92	8.81	0	39.76	0.93	0.78
5	Other	2.73	6.08	0	21.93	0.66	1.68
6	Hosting Special Events	1.37	2.75	0	10.54	0.31	0.83
7	Facility Rentals	1.08	1.68	0	5.44	0.25	0.48
8	Fundraising	1.08	1.82	0	6.98	0.22	0.62
9	Licensing Royalties	0.77	2.26	0	11.53	0.13	0.46
Total		100.00					

Table E-5

Descriptive Statistics for the Breakdown of Absolute Funding ($) from Internal Revenues (rounded to the nearest dollar) (N=32).

RANK	SOURCE	MEAN ($)	S.D.	MIN.	MAX. ($)
1	Sports Camps	36,645	80,870	0	377,300
2	Gate Receipts	28,544	34,504	0	158,700
3	User Fees	26,304	43,982	0	152,000
4	Competition Guarantees	7,424	7,749	0	27,000
5	Other	4,629	11,263	0	37,000
6	Special Events	2,256	6,482	0	35,000
7	Facility Rentals	1,568	2,737	0	12,900
8	Fundraising	1,546	4,179	0	21,000
9	Licensing Royalties	1,238	4,000	0	19,450

Table E-6

Results of t-test Comparisons of the Mean Relative Funding (%) from the Sub-Sources of Internal Revenues (N=32).

SOURCE 1	SOURCE 2	t VALUE
1) Gate Receipts (M=30.27)	Sports Camps (M=17.61)	2.10*
Gate Receipts	User Fees (M=16.47)	1.94
Gate Receipts	Athletic Competition Guarantees (M=8.87)	6.05***
2) Sports Camps (M=17.61)	User Fees (M=16.47)	0.19
Sports Camps	Athletic Competition Guarantees (M=8.92)	1.98
Sports Camps	Other (M=2.73)	3.85***
3) User Fees (M=16.44)	Athletic Competition Guarantees (M=8.92)	1.54
User Fees	Other (M=2.73)	3.18**
4) Athletic Competition Guarantees (M=8.92)	Other (M=2.73)	3.08**
5) Other (M=2.73)	Special Events (M=1.37)	1.07
Other	Facility Rentals (M=1.08)	1.40
Other	Fundraising (M=1.08)	1.55
Other	Licensing Royalties (M=0.77)	2.02
6) Special Events (M=1.37)	Facility Rentals (M=1.08)	0.55
Special Events	Fundraising (M=1.08)	0.47
Special Events	Licensing Royalties (M=0.77)	0.88
7) Facility Rentals (M=1.08)	Fundraising (M=1.08)	0.01
Facility Rentals	Licensing Royalties (M=0.77)	0.57
8) Fundraising (M=1.08)	Licensing Royalties (M=0.77)	0.60

*** $p<.001$, ** $p<.01$, * $p<.05$

Table E-7

Lescriptive Statistics for the Relative Funding (%) of Interuniversity Athletics, by Conference.

CONFERENCE	SOURCES							
	University General Fund	Student Activity Fees	Internal Revenues	Prov. Gov't./ Sport Orgns.	Corporate Sponsorships	Alumni Funding	Sport Canada/Nat'l. Sport Orgns.	Other
Canada West Universities Athletic Assoc. (CWUAA, n=4)	(1)[a] 41.20[b] (23.15)[c]	(3) 18.44 (15.24)	(2) 21.85 (11.39)	(5) 6.38 (6.80)	(4) 8.10 (8.63)	(7) 1.48 (0.73)	(6) 1.80 (0.50)	(8) 0.75 (1.50)
Great Plains Athletic Conference (GPAC, n=4)	(1) 49.07 (17.14)	(7) 0.55 (1.11)	(2) 22.12 (14.48)	(3) 11.92 (3.31)	(4) 8.60 (5.53)	(5) 3.44 (3.01)	(6) 3.23 (4.97)	(8) 0.00 (0.00)
Ontario Universities/ Ontario Women's Intercollegiate Athletic Assoc. (OU/OWIAA, n=12)	(2) 25.97 (29.76)	(1) 52.56 (23.37)	(3) 17.37 (16.56)	(5) 1.25 (3.17)	(4) 1.75 (2.09)	(6) 0.66 (1.12)	(7) 0.47 (1.00)	(8) 0.00 (0.00)
Quebec Student Sports Federation (QSSF, n=5)	(4) 6.44 (14.39)	(1) 50.56 (33.89)	(2) 22.73 (17.68)	(3) 13.52 (18.04)	(5) 5.26 (7.92)	(7) 0.65 (1.25)	(6) 0.85 (1.40)	(8) 0.00 (0.00)
Atlantic Universities Athletic Assoc. (AUAA, n=9)	(1) 75.00 (11.61)	(3) 6.68 (10.47)	(2) 8.56 (5.57)	(8) 0.00 (0.00)	(5) 3.95 (3.68)	(4) 4.84 (6.45)	(6) 0.72 (1.14)	(7) 0.25 (0.79)

[a] Within-subgroup Ranking, [b] Mean Value, [c] Standard Deviation Value

Table E-8

Descriptive Statistics for the Relative Funding (%) of Interuniversity Athletics, by Size of Institution.

SIZE OF INSTITUTION	SOURCES							
	University General Fund	Student Activity Fees	Internal Revenues	Prov. Gov't./ Sport Orgns.	Corporate Sponsorships	Alumni Funding	Sport Canada/Nat'l. Sport Orgns.	Other
Small (n=12)	(1)[a]	(2)	(3)	(5)	(6)	(4)	(7)	(8)
	58.00[b]	17.64	15.35	2.89	2.20	3.18	0.39	0.00
	(29.87)[c]	(23.62)	(13.55)	(4.79)	(1.90)	(5.79)	(0.79)	(0.00)
Medium (n=10)	(1)	(2)	(3)	(6)	(4)	(5)	(7)	(8)
	51.27	28.68	10.38	1.46	4.67	2.44	0.86	0.24
	(29.60)	(29.88)	(11.17)	(4.04)	(5.34)	(2.97)	(1.12)	(0.75)
Large (n=12)	(3)	(1)	(2)	(4)	(5)	(7)	(6)	(8)
	14.26	43.43	23.92	8.87	6.38	0.97	1.94	0.25
	(15.60)	(31.78)	(14.63)	(12.73)	(6.97)	(1.14)	(2.97)	(0.86)

[a] Within-subgroup Ranking, [b] Mean Value, [c] Standard Deviation Value

Table E-9

Descriptive Statistics for the Relative Funding (%) of Interuniversity Athletics, by Size of Program.

SIZE OF PROGRAM	SOURCES							
	University General Fund	Student Activity Fees	Internal Revenues	Prov. Gov't./ Sport Orgns.	Corporate Sponsorships	Alumni Funding	Sport Canada/Nat'l. Sport Orgns.	Other
Small (n=12)	(1)[a]	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	57.29[b]	12.82	12.16	6.26	6.07	4.11	0.94	0.00
	(21.69)[c]	(21.80)	(8.06)	(11.35)	(6.26)	(5.63)	(1.34)	(0.00)
Medium (n=11)	(1)	(3)	(2)	(4)	(5)	(7)	(6)	(8)
	40.21	21.72	22.45	6.86	5.15	1.42	1.69	0.49
	(36.18)	(26.62)	(16.78)	(9.14)	(5.89)	(2.39)	(3.05)	(1.09)
Large (n=11)	(2)	(1)	(3)	(7)	(4)	(5)	(6)	(8)
	22.73	56.98	16.56	0.47	1.82	0.86	0.61	0.00
	(28.91)	(21.64)	(15.49)	(0.71)	(2.18)	(1.31)	(1.04)	(0.00)

[a] Within-subgroup Ranking, [b] Mean Value, [c] Standard Deviation Value

Table E-10

Descriptive Statistics for the Relative Funding (%) of Interuniversity Athletics, by Administrative Structure.

ADMINISTRATIVE STRUCTURE	SOURCES							
	University General Fund	Student Activity Fees	Internal Revenues	Prov. Gov't./ Sport Orgns.	Corporate Sponsorships	Alumni Funding	Sport Canada/Nat'l. Sport Orgns.	Other
Affiliated (n=15)	(1)[a]	(2)	(3)	(6)	(5)	(4)	(7)	(8)
	42.05[b]	26.58	15.85	5.12	5.74	2.34	1.94	0.36
	(29.62)[c]	(30.31)	(13.14)	(6.41)	(5.73)	(2.79)	(2.64)	(0.95)
Independent (n=10)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	37.69	30.95	16.56	7.89	4.42	1.41	0.70	0.00
	(33.10)	(32.28)	(14.34)	(13.57	(5.48)	(1.69)	(1.08)	(0.00)
No Related Academic Unit (n=9)	(1)	(2)	(3)	(7)	(5)	(4)	(6)	(7)
	41.36	34.60	19.07	0.00	2.15	2.78	0.04	0.00
	(37.43)	(28.90)	(16.62)	(0.00)	(4.11)	(6.60)	(0.13)	(0.00)

[a] Within-subgroup Ranking, [b] Mean Value, [c] Standard Deviation Value

TABLE E-11

Description of Relative Financial Support (%) for Physical Plant Costs of the Interuniversity Athletics Program (N=33).

SOURCE	MEAN (%)	S.D.	MIN. (%)	MAX. (%)
University	85.36	28.47	0	100.00
Other	4.73	14.89	0	81.00
Interuniversity Athletics Org'n.	9.91			
Total	100.00			

TABLE E-12

Description of the Extent of Change in Relative Funding over Three Years (1987-88, 1988-89, 1989-90) (N=32).

EXTENT OF CHANGE	n	% OF RESPONDENTS
1 Very Little	15	44.1
2	5	14.7
3 Moderate	6	17.6
4	4	11.8
5 Very Much	2	5.9
Total	32	100.0
(M=2.16, SD=1.32)		

REFERENCES

Aiken, M., & Hage, J. (1968). Organizational interdependence and intraorganizational structure. American Sociological Review, 33, 912-930.

Aldrich, H. (1976). Resource dependence and interorganizational relations. Administration and Society, 7, 419-454.

Aldrich, H., & Pfeffer, J. (1976). Environments of organizations. In A. Inkeles (Ed.), Annual review of sociology (vol. 2, pp. 79-105). Palo Alto, CA: Annual Reviews.

Association of Universities and Colleges of Canada, Standing Committee for Physical Education and Athletics [AUCC]. (1966). Physical education and athletics in Canadian universities and colleges, A statement of recommended policies and standards. Toronto: Canadian Association for Health, Physical Education and Recreation.

Atwell, R. H. (1988, January 20). NCAA Forum. NCAA News, p. 7.

Bacharach, S. B., & Lawler, E. J. (1980). Power and politics in organizations. San Francisco: Josey-Bass.

Benson, J. K. (1975). The interorganizational network as a political economy. Administrative Science Quarterly, 20, 229-249.

Berdie, D. R., Anderson, J. F., & Niebuhr, M. A. (1986). Questionnaires: Design and use (2nd ed.). Metuchen, NJ: Scarecrow Press.

Bierstedt, R. (1950). An analysis of social power. American Sociological Review, 15, 730-738.

Blau, P. M. (1964). Exchange and power in social life. New York: John Wiley.

Bouchard, T. J., Jr. (1976). Unobtrusive measures: An inventory of uses. Sociological Methods and Research, 4, 267-300.

Campbell, L., & Slack, T. (1982). Trends in Canadian intercollegiate athletic programs. A paper presented at the 1982 Canadian Association for Health, Physical Education, and Recreation Conference, Montreal, June 21.

Canadian Interuniversity Athletic Union [CIAU]. (1989). CIAU: Future directions. Report of the planning conference, June, Mississauga, Ontario.

Chelladurai, P., & Danylchuk, K. E. (1984). Operative goals of intercollegiate athletics: Perceptions of athletic administrators. Canadian Journal of Applied Sports Sciences, 9(1), 33-41.

Chelladurai, P., & Haggerty, T. (1991). Differentiation in national sport organizations in Canada. Canadian Journal of Sport Sciences, 16(2), 117-125.

Child, J. (1972). Organizational structure, environment and performance: The role of strategic choice. Sociology, 6(1), 1-22.

CIAU directory 1989-1990. Ottawa: Minister of State, Fitness and Amateur Sport.

Connell, G. E. (1986). The role and place of university athletics in a large Canadian university. In A. W. Taylor (Ed.), The role of interuniversity athletics: A Canadian perspective (pp. 19-24). London, Ontario: Sports Dynamics.

Cook, K. S. (1977). Exchange and power in networks of interorganizational relations. The Sociological Quarterly, 18, 62-82.

Copp, D. (1986). Panel discussion. In A. W. Taylor (Ed.), The role of interuniversity athletics: A Canadian perspective (p. 54). London,

Ontario: Sports Dynamics.

Council of Ontario Universities. (1987, April 16). Memo from executive director.

Dill, W. R. (1958). Environment as an influence on managerial autonomy. Administrative Science Quarterly, 2, 409-443.

Duncan, R. B. (1972). Characteristics of organizational environments and perceived environmental uncertainty. Administrative Science Quarterly, 17, 313-327.

Emerson, R. M. (1962). Power-dependence relations. American Sociological Review, 27, 31-41.

Emery, F. E., & Trist, E. L. (1965). The causal texture of organizational environments. Human Relations, 18, 21-32.

Etzioni, A. (1961). A comparative analysis of complex organizations. New York: The Free Press.

Evan, W. M. (1966). The organization-set: Toward a theory of interorganizational relations. In J. D. Thompson (Ed.), Approaches to organizational design (pp. 173-191). Pittsburgh, PA: University of Pittsburgh Press.

Fennell, M. L., & Alexander, J. A. (1987). Organizational boundary spanning in institutionalized environments. Academy of Management Journal, 30, 456-476.

French, J. R. P., & Raven, B. (1959). The bases of social power. In D. Cartwright (Ed.), Studies in social power (pp. 150-167). Ann Arbor, MI: Institute for Social Research.

Frey, J. H. (1977). An organizational analysis of university-environment relations. Washington: University Press of America.

Frey, J. H. (1985). Boosterism, scarce resources, and institutional control: The future of American intercollegiate athletics. In D.

Chu, J. O. Segrave & B. J. Becker (Eds.), Sport and higher education (pp. 115-129). Champaign, IL: Human Kinetics.

Galbraith, J. K. (1967). The new industrial state. New York: Signet Books.

Goodman, P. S., & Pennings, J. M. (1977). New perspectives on organizational effectiveness. San Francisco: Josey-Bass.

Grant, C. H. B. (1979). Institutional autonomy and intercollegiate athletics. Educational Record, 60, 409-419.

Hall, R. H. (1987). Organizations: Structures, processes, and outcomes (4th ed.). Englewood Cliffs, NJ: Prentice-Hall.

Hall, R. H., Clark, J. P., Giordano, P. C., Johnson, P. V., & Van Roekel, M. (1977). Patterns of interorganizational relationships. Administrative Science Quarterly, 22, 457-474.

Hasenfeld, Y., & English, R. (1974). Human service organizations. Ann Arbor, MI: University of Michigan Press.

Hatfield, B. D., Wrenn, J. P., & Bretting, M. M. (1987). Comparison of job responsibilities of intercollegiate athletic directors and professional sport general managers. Journal of Sport Management, 1(2), 129-145.

Hickson, D. J., Hinings, C. R., Lee, C. A., Schneck, R. E., & Pennings, J. M. (1971). A strategic contigencies theory of intraorganizational power. Administrative Science Quarterly, 16, 216-229.

Hinings, C. R., Hickson, D. J., Pennings, J. M., & Schneck, R. E. (1974). Structural conditions of intraorganizational power. Administrative Science Quarterly, 19, 22-24.

Howell, D. C. (1987). Statistical methods for psychology (2nd ed.). Boston: Duxbury Press.

Howell, D. C. (1989). Fundamental statistics for the behavioural sciences (2nd ed.). Boston: PWS-Kent.

Hoy, W. K., & Miskel, C. G. (1987). Educational administration (3rd ed.). New York: Random House.

Inglis, S. (1988). The governance of interuniversity athletics. Doctoral dissertation, The Ohio State University, Columbus. Ann Arbor, MI: University Microfilms International.

Inglis, S. (1991). Influence in and around interuniversity athletics. Journal of Sport Management, 5(1), 18-33.

Jackson, R. (1986). The effect of international sport on Canadian interuniversity athletics. In A. W. Taylor (Ed.), The role of interuniversity athletics: A Canadian perspective (pp. 39-41). London, Ontario: Sports Dynamics.

Jacobs, D. (1974). Dependence and vulnerability: An exchange approach to the control of organizations. Administrative Science Quarterly, 19, 45-59.

Janzen, H. (1986). Who pays the shot? In A. W. Taylor (Ed.), The role of interuniversity athletics: A Canadian perspective (pp. 91-94). London, Ontario: Sports Dynamics.

Jick, T. D. (1983). Mixing qualitative and quantitative methods: Triangulation in action. In J. Van Maanen (Ed.), Qualitative methodology (pp. 135-148). Beverly Hills: Sage.

Kast, F. E., & Rosenzweig, J. E. (Eds.). (1985). Organization and management. New York: McGraw-Hill

Katz, D., & Kahn, R. L. (1966). The social psychology of organizations. New York: John Wiley.

Keyes, M. (1986) The effect of external factors on athletics from an academic perspective. In A. W. Taylor (Ed.), The role of

interuniversity athletics: A Canadian perspective (pp. 43-47). London, Ontario: Sports Dynamics.

Kjeldsen, E. K. M. (1982). Community interests and intercollegiate athletics. In J. Frey (Ed.), The governance of intercollegiate athletics (pp. 196-209). West Point, NY: Leisure Press.

Labelle, H. (1980). A comparative study of influence and power in educational administration. Unpublished doctoral dissertation, University of Ottawa.

Litwak, E., & Hylton, L. J. (1962). Interorganizational analysis: A hypothesis on coordinating agencies. Administrative Science Quarterly, 6, 395-420.

Lawrence, P. R., & Lorsch, J. W. (1967). Organization and environment. Cambridge, MA: Harvard University Press.

Lucas, J. A., & Smith, R. A. (1978). Saga of American sport. Philadelphia, PA: Lea & Febiger.

Macintosh, D. (1986) Intercollegiate athletics in Canadian universities: An historical perspective. In A. W. Taylor (Ed.), The role of interuniversity athletics: A Canadian perspective (pp. 3-7). London, Ontario: Sports Dynamics.

Macintosh, D. (1987). Sport and politics in Canada. Kingston, Ontario: McGill-Queen's University Press.

Mathews, A. W. (1974). Athletics in Canadian universities. Ottawa: Association of Universities and Colleges of Canada.

Mechanic, D. (1962). Sources of power in lower participants in complex organizations. Administrative Science Quarterly, 7, 349-364.

Miller, F. L. (1982). The athletic director and the governance of sport. In J. Frey, (Ed.), The governance of intercollegiate athletics (pp. 91-104). West Point, NY: Leisure Press.

Mindlin, S. E., & Aldrich, H. (1975). Interorganizational dependence: A review of the concept and a reexamination of the findings of the Aston Group. Administrative Science Quarterly, 20, 382-392.

Minium, E. W. (1978). Statistical Reasoning in Psychology and Education (2nd ed). New York: John Wiley & Sons.

Mintzberg, H. (1983). Power in and around organizations. Englewood Cliffs, NJ: Prentice-Hall.

Mohr, L. E. (1986). Funding interuniversity athletics in Canada: A student's perspective. In A. W. Taylor (Ed.), The role of interunviersity athletics: A Canadian perspective (pp. 95-103). London, Ontario: Sports Dynamics.

Moriarty, D., & Holman-Prpich, M. (1987). Canadian interuniversity athletics: A model and method for analyzing conflict and change. Journal of Sport Management, 1(1), 57-73.

Morrow, W. W. (1987). The structure and processes of Synchro Canada. Unpublished master's thesis, The University of Western Ontario, London.

Muth, R. (1984). Toward an integrative theory of power and educational organizations. Educational Administration Quarterly, 20, 25-42.

Ontario Universities Athletic Association [OUAA]. (1988, February 9). Memo from executive committee.

Ouellet, J-G. (1986). The role of athletics in a Quebec university. In A. W. Taylor (Ed.), The role of interuniversity athletics: A Canadian perspective (pp. 29-32). London, Ontario: Sports Dynamics.

Pederson, G. (1988, December). Panel Discussion of the Toward 2000 Task Force Report. CIAU Annual General Meeting, Ottawa.

Pfeffer, J. (1972). Interorganizational influence and managerial

attitudes. Academy of Management Journal, 15, 317-330.

Pfeffer, J. (1981). Power in organizations. Marshfield, MA: Pitman.

Pfeffer, J., & Leong, A. (1977). Resource allocations in United Funds: Examination of power and dependence. Social Forces. 55, 775-790.

Pfeffer, J., & Salancik, G. (1978). The external control of organizations: A resource dependence perspective. New York: Harper & Row.

Presser, S. & Schuman, H. (1989). The measurement of a middle position in attitude surveys. In E. Singer & S. Presser (Eds.), Survey research methods (pp. 108-123). Chicago, IL: University of Chicago Press.

Provan, K. G. (1978). Interorganizational power and organization-environment interaction: A study of the power relationship between the United Way of Buffalo and Erie County and its affiliated agencies. Doctoral dissertation, State University of New York at Buffalo. Ann Arbor, MI: University Microfilms International.

Provan, K. G. (1980). Recognizing, measuring, and interpreting the potential/enacted power distinction in organizational research. Academy of Management Review, 5, 549-559.

Provan, K. G. (1982). Interorganizational linkages and influence over decision making. Academy of Management Journal, 25, 443-451.

Provan, K. G., Beyer, J. M., & Kruytbosch, C. (1980). Environmental linkages and power in resource-dependence relations between organizations. Administrative Science Quarterly, 25, 200-225.

Provan, K. G., & Skinner, S. J. (1989). Interorganizational dependence and control as predictors of opportunism in dealer-supplier relations. Academy of Management Journal, 32, 202-212.

Pugh, D. S., Hickson, D. J., Hinings, C. R., & Turner, C. (1969). The

context of organization structures. Administrative Science Quarterly, 14, 91-114.

(Rickerd Report) Report of the Special Committee on Intercollegiate Athletics. (1985). Toronto: Council of Ontario Universities.

Roscoe, J. T. (1975). Fundamental research statistics for the behavioural sciences (2nd ed.). New York: Holt, Rinehart and Winston.

Rus, V. (1978). The external and internal influences affecting industrial enterprises. In L. Karpik (Ed.), Organization and environment (pp. 323-342). Beverly Hills, CA: Sage.

Sack, A. L. (1982). Cui bono? Contradictions in college sports and athletes' rights. In J. Frey (Ed.), The governance of intercollegiate athletics (pp. 80-90). West Point, NY: Leisure Press.

Salancik, G. R. (1979). Interorganizational dependence and responsiveness to affirmative action: The case of women and defense contractors. Academy of Management Journal, 22, 375-394.

Salancik, G. R., & Pfeffer, J. (1974). The bases and use of power in organizational decision making: The case of a university. Administrative Science Quarterly, 19, 453-473.

Salancik, G., & Pfeffer, J. (1983). Who gets power - and how they hold on to it: A strategic-contingency model of power. In R. W. Allen & L. W. Porter (Eds.), Organizational influence processes (pp. 52-71). Glenview, IL: Scott, Foresman & Company.

Scott, W. R. (1987). Organizations: Rational, natural, and open systems (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Semotiuk, D. (1986). Internal factors affecting elite sport in Canadian universities. In A. W. Taylor (Ed.), The role of interuniversity

athletics: A Canadian perspective (pp. 59-76). London, Ontario: Sports Dynamics.

Shavelson, R. J. (1981). Statistical reasoning for the behavioral sciences. Boston: Allyn and Bacon.

Sieber, S. D. (1973). The integration of fieldwork and survey methods. American Journal of Sociology, 78, 1335-1359.

Sigelman, L., & Carter, R. (1982). Win one for the giver? Alumni giving and big-time college sports. In J. Frey (Ed.), The governance of intercollegiate athletics (pp. 210-220). West Point, NY: Leisure Press.

Skinner, S. J., & Guiltinan, J. P. (1986). Extra-network linkages, dependence, and power. Social Forces, 64, 702-713.

Slack, T., & Kikulis, L. M.(1989). The sociological study of sport organizations: Some observations on the situation in Canada. International Review for Sociology of Sport, 24, 179-198.

Smith, G. J. (1981). Turning point for Canadian intercollegiate athletes. Coaching Review, 4(21), 14-16.

SPSS-X User's Guide (3rd ed.). (1988a). Chicago, IL: SPSS Inc.

SPSS-X Advanced Statistics Guide (2nd ed.). (1988b). Chicago, IL: SPSS Inc.

Statistics Canada. (1988). Universities: Enrolment and degrees. Ottawa: Ministry of Supply and Services.

Statistics Canada. (1990). University financial trend analysis. Ottawa: Ministry of Supply and Services.

Szyszlo, M. (1984). Model of effectiveness for national sport governing bodies: Perceptions of their administrators. Unpublished master's thesis, The University of Western Ontario, London.

Tabachnik, B. G., & Fidell, L. S. (1983). Using multivariate statistics.

New York: Harper and Row.

Taylor, A. W. (Ed.). (1986). The role of interuniversity athletics: A Canadian perspective. Proceedings of a conference sponsored by the Canadian Council of University Physical Education Administrators, London, Ontario: Sports Dynamics.

Tedeschi, J. (1974). Perspectives on social power. Chicago, IL: Aldine.

Thompson, J. D. (1967). Organizations in action. New York: McGraw-Hill.

Thompson, K. R., & Luthans, F. (1983). A behavioral interpretation of power. In R. W. Allen & L. W. Porter (Eds.), Organizational influence processes (pp. 72-86). Glenview, IL: Scott, Foresman and Company.

Thompson, J. D., & McEwen, J. W. (1958). Organizational goals and environment. American Sociological Review, 23, 23-31.

Tolbert, P. S. (1985). Institutional environments and resource dependence: Sources of administrative structure in institutions of higher education. Administrative Science Quarterly, 30, 1-13.

Weber, M. (1947). The theory of social and economic organization. New York: Free Press of Glencoe.

Williams, J. M., & Miller, D. M. (1983). Intercollegiate athletic administration: Preparation patterns. Research Quarterly for Exercise and Sport, 54, 398-406.

Wrong, D. H. (1968). Some problems in defining social power. American Journal of Sociology, 73, 673-681.

Yuchtman, E., & Seashore, S. E. (1967). A system resource approach to organizational effectiveness. American Sociological Review. 32, 891-903.