GEOGRAPHIC DIMENSIONS OF CENTRAL ADMINISTRATIVE OFFICES IN THE AUSTRALIAN ECONOMY

Dissertation for the Degree of Ph. D.

MICHIGAN STATE UNIVERSITY
EDWARD LOUIS MYLES

1973

This is to certify that the

thesis entitled

GEOGRAPHIC DIMENSIONS OF CENTRAL
ADMINISTRATIVE OFFICES IN THE
AUSTRALIAN ECONOMY

presented by

Edward Louis Myles

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Geography

Major professor

Date 9/7/73

O-7639

ABSTRACT

GEOGRAPHIC DIMENSIONS OF CENTRAL ADMINISTRATIVE OFFICES IN THE AUSTRALIAN ECONOMY

By

Edward Louis Myles

Top level central administrative offices are not equally distributed among Australia's major cities. Since the Commonwealth of Australia was founded in 1901, political union has forged a cohesive nation-state with a strong federal system of government focusing on the national capital of Canberra. Complementing this political growth has been the concentration of head offices and the centralization of economic decision-making in the private sector. Central direction of national economic activity as measured by central administrative offices has accrued to Sydney and Melbourne at the expense of Adelaide, Brisbane, Perth, and Hobart.

This geographic study seeks answers to two related questions through an analysis of the centralization of the decision-making function in head offices of corporations and government organizations. First, what comparative roles do the major Australian cities have in producing regions of national dominance? Secondly, does Australia have a centrally directed economy, or do the former multiple colonial economies remain essentially spatially autonomous? The study measures the roles of Australian cities as decision-making centers based upon the presence

of central administrative offices in each city. The functional region of each city is determined from the spatial distribution of company and government establishments and employees linked to these central offices. The cities and their associated regions of influence are compared and contrasted to show the relative dominance of each. The analysis of the cities and their nodal regions is used to evaluate whether or not Australia has a centralized or fragmented economy.

Data on some 900 of the largest private corporations and government organizations in Australia are employed to investigate the concentration of central administrative offices. The locations of these offices, which control $46,000 million in assets and 2,000,000 employees, are used to measure which cities qualify as decision-making centers. The distribution of the varied establishments of the firms together with the location of government employees constitute the nodal regions for these decision-making centers. The evaluation of the geographic pattern of metropolitan dominance in the Australian economy is based upon the existence of nationwide regions and centers versus those of less than national extent and impact.

It is concluded from this geographic analysis of central administrative offices that Australia has three decision-making centers with nationwide economic importance and nodal regions. They are Sydney, Melbourne, and Canberra. These three have 54 per cent of the 910 company central administrative offices which in turn control 70 per cent of the $46,000 million assets and 69 per cent of 2,000,000 employees. Sydney is the most important center based on its strength in number of head offices, 262, and control through them of $13,000 million

assets and 496,000 employees. Strength in the tertiary sector of the economy results in Sydney, as opposed to Melbourne, being considered as the "Financial Center" of Australia. Melbourne's importance lies more in head office dominance in the manufacturing sector rather than through tertiary assets and employees. Federal Government offices and Parliament account for Canberra's national importance. Adelaide, Brisbane, Perth, and Hobart, and all other cities and towns are individually very weak and collectively have their greatest strength mainly in control of a sizeable work force. The economies of these cities and their states are substantially controlled from Sydney, Melbourne, and Canberra, or from overseas. Approximately one-quarter of the 910 companies and their assets and employees are foreign controlled.

The geographic pattern is one of conterminous nationwide nodal regions within which economic activity is directed from central administrative offices in Sydney, Melbourne, and Canberra. This pattern and the absence of any less-than-national decision-making regions substantiate the conclusion that Australia has a centrally directed economy. The metropolitan dominance of that pattern derives from the concentration of central administrative offices and top level decision-making in Sydney and Melbourne for the private sector and in Canberra for much of the government sector.

GEOGRAPHIC DIMENSIONS OF CENTRAL ADMINISTRATIVE OFFICES IN THE AUSTRALIAN ECONOMY

By

Edward Louis Myles

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Geography

1973

To the Australians who made the study fun,
And the American taxpayers who paid for it.

ACKNOWLEDGMENTS

This study owes much to the many Australians who willingly told this author about themselves, their nation, and the geography of their economy. Crucial to the final format of this study was the work of Mr. R. O. Block of the Development Finance Corporation and editor of the Delfin Digests. Many other businessmen and government personnel gave of their time and knowledge, providing substance and meaning to the statistical data that are at the core of this study.

This dissertation is the product of many people. I wish to express my thanks and appreciation to:

Dr. John W. Morris for his encouragement to continue in the field of geography when other endeavors beckoned.

Dr. Allen Philbrick who provided the initial inspiration to apply his principles of areal functional organization in a geographic analysis of the Australian economy.

My brother, Mr. Vale Myles, who encouraged and supported the research in a very tangible way from beginning to end. Without this interest and concern the project may never have reached fruition.

The American taxpayers who, through their government, supported the field research with a Fulbright Fellowship; and the subsequent period of writing with veteran's educational benefits, and a National Science Foundation Science Faculty Fellowship.

Mr. John Morgan in Sydney, Mr. and Mrs. Donald Hewitt in Perth, Mr. and Mrs. Doug Christie, and Miss Merlyn Christie in Melbourne for their hospitality and contributions to my understanding of the Australian way of life.

Mr. Kenneth Myles, Mr. George Myles and Mrs. Beverly Myles Furman, my brothers and sister, for their continued encouragement, comments and assistance during the several stages of the dissertation.

Miss Carolyn Davis for assistance in data compilation.

Dr. Stanley Brunn for his intellectual stimulation, interest in and strong direction of the final version of the dissertation.

Dr. Lawrence Sommers for his continued faith in me and long service on my committee.

Dr. Clarence Vinge who also served on my committee from the beginning and gave useful guidance and constructive comments.

Dr. Michael Chubb for his comments on the final draft.

Mrs. Paula Haughey for her wide ranging efforts and many services during the production of the dissertation.

And to my wife, Cathy Wrotenbery Myles, for seeing the dissertation through with me.

TABLE OF CONTENTS

Page

LIST OF TABLES viii

LIST OF FIGURES xi

Chapter

I. INTRODUCTION 1

The Problem
The Purposes of the Dissertation
Literature Survey
Method of Analysis
Dissertation Outline

II. DEFINITIONS AND MEASUREMENT DATA 17

Definitions
Data Sources
Measurement Data
Introduction to Aggregate Data
The TOP 128 Delfin Companies Ranked by Assets
Delfin Major Employers

III. SYDNEY: A MODERN DECISION-MAKING CENTER 39

The Corporate Sector in Sydney
Foreign Controlled Companies with Head Offices in Sydney
Economic Decision-Making by the Government Sector in Sydney
Comparisons of Measures Under Three Interpretations
The Spatial Impact of Sydney

IV. MELBOURNE: COMPETITOR FOR HEAD OFFICE DECISION-MAKING . 82

The Corporate Sector in Melbourne
Multi-National Firms with Head Offices for Australia in Melbourne
The Government Sector in Melbourne
Comparisons of Interpretations of Melbourne's Decision-Making Function
Melbourne's Spatial Impact

V. CANBERRA: THE IMPACT OF THE NATIONAL CAPITAL 120

Development and the Private Sector
Canberra's Decision-Making Role Under a Broad Interpretation
A Strict Interpretation of Canberra's Decision-Making Role
Canberra's Spatial Impact

VI. CENTRAL OFFICES IN OTHER CAPITALS AND CITIES 139

Adelaide
Brisbane
Perth
Hobart
The Spatial Impact of the Smaller Capital Cities
Delfin Companies in Non-Capital Cities and Towns

VII. FOREIGN COMPANIES IN THE AUSTRALIAN ECONOMY 170

Companies and Industries
Nations Represented
Spatial Impact of Foreign Controlled Companies

VIII. COMPARATIVE METROPOLITAN DOMINANCE IN THE AUSTRALIAN ECONOMY 186

Companies, Assets, and Employees
Overall Comparisons of Spatial Impact
A Centrally Directed National Economy
The "Financial Center" of Australia

IX. CONCLUSIONS 208

Conclusions
Basis for Other Studies
Value to Applied Geography
Value to Economic and Urban Geography
Postulations

LIST OF REFERENCES 222

LIST OF TABLES

Table		Page
1.	Industry groups: Number of companies, assets, and employees by group	26
2.	Number of Delfin companies operating in number of states	28
3.	Number of total establishments of Delfin companies in each state	29
4.	TOP 128 Delfin companies by assets rank	31
5.	Summary of TOP 128 Delfin companies	34
6.	Delfin Major Employers	37
7.	Delfin companies with Sydney head offices: Head offices, assets, and employees by industry sector	43
8.	Industry groups with strong or weak representation in Sydney by companies and/or assets	45
9.	Sydney based companies by assets echelons	48
10.	Sydney based Major Employers	53
11.	Commonwealth Government organizations with head offices in Sydney in 1966	63
12.	Sydney private domestic companies and state statutory authorities operating in number of states	70
13.	Assets by areas of operations of Sydney based companies	72
14.	The distribution of processing establishments controlled from Sydney	74
15.	The number of processing establishments in each state and percentage of state units controlled from Sydney	76

Table		Page

16. The number of total establishments in each state and the percentage of state units controlled from Sydney 80

17. Delfin companies with Melbourne head offices; head offices, assets, and employees by industry sector . . 86

18. Industry groups with strong or weak representation in Melbourne by companies and/or assets 88

19. Melbourne based companies by assets echelons 90

20. Melbourne based Major Employers 95

21. Commonwealth Government organizations with head offices in Melbourne in 1966 101

22. Melbourne private domestic companies and state statutory authorities operating in number of states 109

23. Assets by areas of operations of Melbourne based companies 111

24. The distribution of processing establishments controlled from Melbourne 112

25. The number of processing establishments in each state and percentage of state units controlled from Melbourne 114

26. The number of total establishments in each state and the percentage of state units controlled from Melbourne 117

27. Canberra Delfin companies 122

28. Commonwealth Government departments and instrumentalities with head offices in Canberra in 1966 125

29. Other Commonwealth Government organizations with head offices in Canberra 127

30. Comparative measures of Adelaide, Brisbane, Perth, and Hobart 141

31. Adelaide based companies ranked by assets 143

32. Brisbane based companies ranked by assets 148

Table		Page
33.	Perth based companies ranked by assets	153
34.	Hobart based companies ranked by assets	156
35.	Area of operations of companies with head offices in smaller capitals	159
36.	Processing and total Delfin establishments controlled from smaller capitals	160
37.	Percentage of home state processing and total establishments controlled from state capitals	161
38.	Control of Delfin total establishments in states of smaller capitals	163
39.	Non-capital city Delfin companies	165
40.	Delfin foreign controlled companies	170
41.	Foreign control of industry groups	172
42.	Foreign nations with Delfin companies operating in Australia	175
43.	Foreign controlled Delfin companies by area of operations	177
44.	Distribution of Delfin establishments controlled by foreign companies	181
45.	Summary of 910 Delfin companies and assets by area of operations	195

LIST OF FIGURES

Figure		Page
1.	Australian states and capital cities	2
2.	Sydney central office district	40
3.	Sydney government buildings	61
4.	Comparisons of broad, moderate, and strict interpretations for Sydney	67
5.	Distribution of Delfin processing and total establishments controlled from Sydney	75
6.	The percentage of each state's Delfin processing establishments controlled from Sydney	77
7.	The percentage of each state's total Delfin establishments controlled from Sydney	79
8.	Melbourne central business district	84
9.	Sydney and Melbourne companies and assets in TOP 128	92
10.	Delfin company employees controlled from Sydney and Melbourne	93
11.	Comparisons of broad, moderate, and strict interpretations for Melbourne	106
12.	Distribution of Delfin processing and total establishments controlled from Melbourne	113
13.	The percentage of each state's Delfin processing establishments controlled from Melbourne	115
14.	The percentage of each state's total Delfin establishments controlled from Melbourne	118
15.	Canberra, the capital of Australia	121
16.	Location of head office control of 413,600 Commonwealth Government employees	128

Figure		Page

17. Comparisons of broad and strict interpretations for Canberra 132

18. Commonwealth civilian employees by state, 1966 135

19. Commonwealth and State Government civilian employees by state, 1966 136

20. Locations of head offices of 907 Delfin Digest companies 140

21. Adelaide, capital of South Australia 146

22. Brisbane, capital of Queensland 146

23. Perth, capital of Western Australia 152

24. Hobart, capital of Tasmania 152

25. The percentages of Delfin companies' total establishments in own state controlled from smaller capital cities 162

26. The percentage of each state's Delfin processing establishments controlled by foreign companies 182

27. The percentage of each state's total Delfin establishments controlled by foreign companies 184

28. Location of ultimate control of 910 companies and government organizations 188

29. Location of control of $46,000 million assets of 910 major companies and government organizations . . . 189

30. Control of segments of the Australian work force in 1966 191

31. Location of control of 2,000,000 employees of 910 major companies and government organizations 193

32. The percentage of each state's Delfin processing establishments controlled from Sydney and Melbourne together 197

33. The percentage of each state's total Delfin establishments controlled from Sydney and Melbourne together 199

Figure Page

34. Wholesale centers and tributary nodal regions 202

35. Transshipment centers and their tributary nodal regions 203

CHAPTER I

INTRODUCTION

The Problem

Prior to federation in 1901 the colonial forerunners of the present Australian states had functioned for over a hundred years as separate political colonies of the British Empire. Their economies were just as provincial as their politics, little unified for the common good. In the years since the Commonwealth of Australia was founded in 1901, political union has forged a cohesive nation-state with a strong federal system of government. Robinson states in his essay, "Sixty Years of Federation in Australia":

> In the relationships between the states collectively and the Commonwealth, and in the emergence of an Australian "nation," we meet the core of the problem. The two are bound up in a process of constitutional and political change marked by the increasing centralization of power. For Australia as a whole this change has been far more significant than the progress within individual states. Geographically, its influence has been to override state identity in order to produce uniformity in the economic, political, and administrative fields. It has not destroyed state identity, but it has succeeded in relegating the states to a secondary role; as a corollary, it has strengthened the centralist tendencies within each state (Robinson, 1961, 11).

The political and economic foci of the former colonies have become the six state capitals of today (Figure 1).

Since federation, the states have transferred specific parts of their political power and decision-making function to Canberra, the

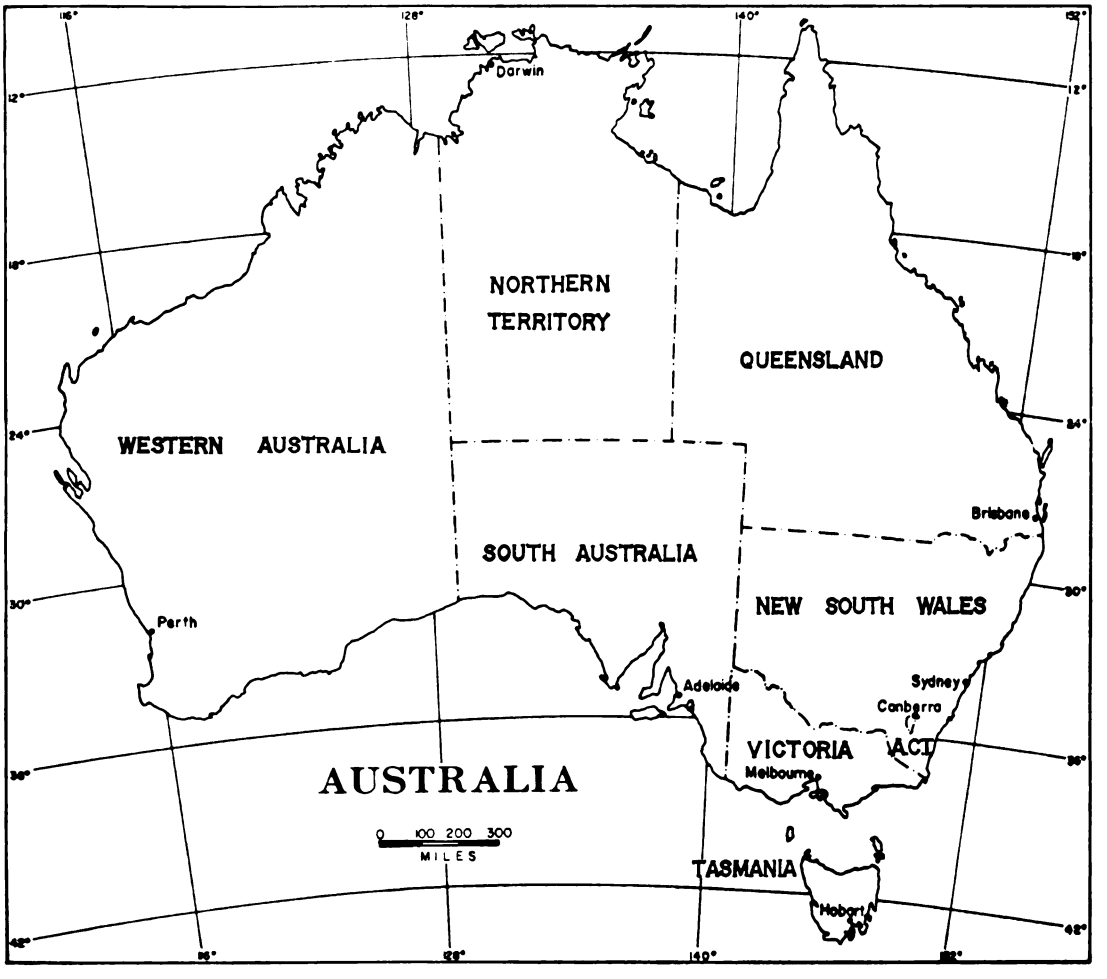


Figure 1. Australian states and capital cities. Canberra is the national capital in the Australian Capital Territory (A.C.T.).

seat of the Commonwealth Government. The central Government now has such economically important powers as taxation, external trade, regulation of the basic wage, and immigration. The former colonial capitals are now the seats of state level political power and serve as the main centers for Commonwealth branch offices for each state.

In the private sector of the economy, and on a less formal basis, there has been a centralizing of decision-making and power at the national level. Historically, top level decision-making and control of national economic activity has been accruing to both Sydney and Melbourne at the expense of the other state capitals. Such centralization has been documented by corporate mergers in banking, other finance, mining, retail trade, and in various divisions of manufacturing (Bushnell, 1961).

This geographic study seeks answers to two related problems through the analysis of the spatial concentration of the decision-making function in central administrative offices of corporations and governmental organizations.[1] First, what comparative roles do the major Australian cities have as decision-making centers in producing regions of national dominance? Conversely, do the state capitals foster the retention of provincially separate economic regions of less than nationwide extent? Secondly, does Australia have a centrally directed economy, or do the former multiple colonial economies remain essentially spatially autonomous?

---

[1]Central administrative office is synonymous with head office. The terms are used interchangeably in this study. Central administrative office is abbreviated as CAO.

A considerable number of Australians still believe their nation does not have a centralized economy.[1] This research attempts to clarify the soundness of that notion. It also gives a more precise measure of the economic role of each capital city. Many people speak of Melbourne as the "Financial Capital" of Australia. Just how appropriate that title is, or whether it more aptly fits Sydney, shall be investigated.

The Purposes of the Dissertation

This dissertation has two purposes:

1. It will assess and compare the present day roles of the major Australian cities as economic decision-making centers based upon the presence of central administrative offices. Australia's capital cities will be classified and then analyzed within an urban centered

---

[1]During the field work in Australia in 1963-64 various conversations and discussions with a wide variety of people led to the conclusion that not all Australians think they have a centralized economy. For example: Mr. Don Hewitt, Manager of a Perth timber company, believed Western Australia to be essentially isolated from the east and must develop on its own efforts. Mr. H. H. Hopkins, Alderman for Townsville, Queensland, and Chairman of the People the North Committee, was working for the creation of a separate state of the north. He felt the State Government in Brisbane was not working hard enough for development in northern Queensland because it was too concerned with southern Queensland. An American economist, Dr. Alex Koezod, was met in Canberra near the end of his six weeks investigation of Australia. He had tentatively concluded that Australia still has a colonial style economy focusing on the several state capitals. These attitudes still prevail among some persons. In 1973, a prominent Western Australian businessman, Mr. Lang Hancock, "has urged West Australians to consider seceding from Eastern Australia. Mr. Hancock said in Perth that Western Australia would be better off trading with Japan under a favored nation agreement" (Australian Weekly News, January 18, 1973).

hierarchical system of regions based on the structure and principles of areal functional organization developed by Philbrick (1957). Economic nodal regions focusing on these central cities will be delineated to show the extent and nature of their spatial impact. The decision-making establishments, to be defined in Chapter II, together with the corporate and governmental organizations which they control, will be used to measure and classify cities as decision-making centers. Their nodal regions will be delimited using the tangible and intangible linkages which connect the establishments in central cities with branch units in other cities of lower functional order.

2. The second purpose is to portray the spatial patterns of the economic structure as a measure of the centralized direction of the nation's economy. The cities classified as decision-making centers, together with their nodal regions of national or less than national extent, are the basis for the spatial patterns of national metropolitan dominance or continuing provincialism. These purposes and method of analysis have received limited attention in the geographic literature.

Literature Survey

Smith (1965) and Duncan *et al*. (1960) have criticized some urban classification systems on the basis that these categorizations have been made for the sake of classifying, with little further purpose evident. This present study classifies cities in an urban hierarchy based upon the presence of CAO's in which top level decision-making occurs. The cities are nodes in a hierarchy of regions which may culminate in one national region. The analysis of the cities and

their regions is used to portray the presence or absence of a centrally directed national economy focusing upon one or more national centers.

Philbrick's system of cities and regions for the United States infers a relation between nodal regions and national dominance. However, that study stopped short of a detailed analysis of the higher order functions. The definitions, measurement, and clarification of the highest order function of top level decision-making used in this present study are largely of my own thinking. Gottman (1964) in his studies of Megalopolis repeatedly expressed the importance and dominance of the cities in Megalopolis as centers of economic decision-making, finance, power, influence, and mass communications for the entire United States. But the role of large corporations was not measured or assessed with any great detail. In a later study, Gottman (1970) argues for further investigation of the "Quaternary Sector" of the economy. However, in this article he is more concerned with the linkages among quaternary establishments and people within cities than between cities. The Rand McNally Commercial Atlas (1972) has contained a hierarchy of urban business centers for the United States for a number of years wherein a unique rating of "4A" is reserved for New York City and the premier national business center. The considerable resources of this publishing house have not, as yet, been utilized to document the linkages of New York and other major cities as national centers of decision-making.

Starkey (1969) has stressed the regional importance of urban places and uses Philbrick's map to illustrate the urban hierarchy of the eastern half of the United States. However, he does not elaborate

on the idea, and thus leaves the synthesis of national cohesiveness undone. Thoman (1968) refers to a hierarchy of central places in the United States and the United Kingdom and speaks of a single highest order financial, administrative, and cultural center for these and other countries. The documentation of such centers is left undone. In her wide ranging study of the world's cities, Beaujeu-Garnier (1967) devotes a chapter to spheres of influence of cities and builds a case for several levels of cities and differing zones and types of influence focused thereon. Similarly, Dickinson (1964) and Duncan et al. (1960) have analyzed in some detail the connections between major cities and large regional hinterlands. Duncan uses correspondent banks and financial transfers to document linkages, rather than the control of corporate units from head offices. Borchert (1972) has similarly examined metropolitan dominance in the United States.

However, it is suggested that geographers have not, as yet, come to grips with the highest order city or nation-wide regions of influence dominated by "national" centers. Even the classic study by Jefferson on Primate Cities (1939) is more concerned with the size of the city rather than its uniqueness of function and nodality for the nation. Most central place studies have dwelt upon hierarchies of the retail function, with higher order centers providing more specialized retail services to a more widely dispersed and less frequent clientele, and not through lower order places or establishments. At best they usually go no higher than the wholesale function. Philbrick's system and the additions in this study, specifically the CAO's as decision-making establishments and their associated organizations, add a

different dimension to the basic body of most central place studies.

The key corporate head office establishments and function of decision-making used in this study are now receiving some attention from geographers e.g. Cowan (1969), Morgan (1961), Keuning (1960), McNee (1960), Ullman (1958). However, the quantity of research is small considering the very great importance of corporations in and upon cities, and most particularly their roles as decision-making centers. The work of Goodwin (1965) on United States management centers is particularly relevant to this present study. He deals with a classification of American cities based upon the locations of corporate head offices. National and regional centers of industrial and financial importance are determined. Furthermore, he too discussed the lack of precedence for such research: "In the literature on the classification of cities, little or no attention has been given to management per se or to management centers" (Goodwin, 1965, 1). A direct sequel to Goodwin's work was a study of Australia by Johnston (1966). Location quotients were determined from head office locations, assets, and factory sites, as compared with metropolitan populations for the state capitals.[1] He was not concerned, however, with testing the notion of a centrally directed economy. Nor, did he include the role of the national and state governments. In an earlier article by Robinson, already cited above (1961), he concluded that a strong

---

[1]Johnston's study, as well as this present analysis, show that for Australia, population of urban centers is not a reliable indicator of the number or importance of CAO's likely to be found in a particular city.

political union had been created. However, he was inclined towards the idea of state oriented and dominated economies, not yet strongly unified into a national economy. "These feelings find expression . . . in the state railway systems, geared to distribute goods in economic regions largely conterminous with the states themselves . . ." (1961, 1).

Krumme (1969), McNee (1960), and Gottman (1970) all make cases for more work on the enterprise and its component parts, both as they are influenced by and have influence upon geographic patterns of distribution of economic activity. This study of corporate head offices as indicators of Australia's decision-making centers and national economic regions is addressed to that need.

A third body of literature that has some relevance to this research is concerned with the people who own, control, and otherwise influence the top levels of economic activity. Wheelwright's Anatomy of Australian Manufacturing Industry (1967) precisely details 300 Australian manufacturing firms by analyzing who owns and controls this major sector of the economy. The study was done from an economist's point of view, being little concerned with the geography of where the people and the establishments of corporate power were located, except as to whether they were foreign or domestic. Two other Australian studies, The Controllers (Rolfe, 1967) and The Sixty Rich Families Who Own Australia (Campbell, 1963) are much more personal and political, and less company oriented than is Wheelwright's work. They similarly lack much spatial analysis, although noting that the key decision-making personnel are concentrated in Australia's capital cities. A

much wider ranging study is Sampson's Anatomy of Britain (1962) which concerns itself with a dissection of the many component parts of the British "Establishment." Lundberg's The Rich and the Super-Rich (1968) is an American counterpart. All of these works have one common thread, the explicit or implicit assertion that a nation, be it Australia, the United Kingdom, or the United States, has a small number of highly influencial decision makers who guide the economic destiny of the country. Karmel and Brunt (1963) in The Structure of the Australian Economy sum up this viewpoint:

> There is no doubt that there is a very great concentration of economic power in Australia, although no comprehensive index can be calculated. We do not know the number of firms in Australia, let alone their size"[1] (1963, 55).

Secondly, these studies are primarily economic, sociological, or political in nature, with limited geographical perspective. This present study examines the geographic concentration and ramifications of the location of such decision makers in Australia. The persons as such are not studied. Rather, the establishments in which they work, the CAO's, are subject to analysis together with the corporate and governmental organizations which are the embodiment and extension of the decision-making function.

It is in view of the limited number of studies on the geography of decision-making and CAO's and their impact on the pattern of a nation's economy that has whetted this author's curiosity about

---

[1]It should be noted that that study was published in 1963, the first year of the four yearly listings of Australia's largest companies done by R. O. Block, and culminating in the 1967 Delfin Digest (Block and Seldon, 1967), the principal source of data for this research.

the subject. The above mentioned economic and social studies have further pointed to the need for a complementary geographic analysis.

Method of Analysis

It would be an impossible task to determine and to measure the origin, routes, nodes, frequency, and destinations of all the decisions that are made in the daily economic routine of a nation such as Australia. Even to examine a similar geography of only the major decisions that had widespread economic impact would be nearly as impossible. It is equally difficult to separate the geographic and economic importance of political and social decisions of government bodies. This study does not attempt to perform any of these tasks. Rather, it substitutes for the actual decisions the head office establishments in corporate and governmental frameworks wherein decisions originate. Also included are the intermediate and lower level establishments through which decisions are disseminated and implemented. The repeated flow of decisions among establishments within a corporation result in an institutionalizing of the function. The establishments, as surrogates for the ever changing personnel and the actual decisions, provide a permanence that is more amenable to geographic analysis. The intangible inter-establishment linkages of ownership, and the implied management chains-of-command and communications can be used to evaluate a network of interconnected cities and regions.

When large numbers of significant decision-making and management establishments become concentrated in a city through time, that city may be categorized as a decision-making center. The

surrounding area which is linked by these establishments and function to the central city becomes its nodal region. The patterns of such nodal regions may encompass all, or only part, of a given nation. If it can be shown cartographically that one or more centers are the nodes for nationwide regions of the decision-making function, then it seems a logical conclusion that there exists a centralized economic structure, focused upon and directed and coordinated from one or more national centers. However, if it is shown that no decision-making center or region is of a nationwide importance or extent, but instead there are several centers and regions of approximately statewide extent, then it is fair to conclude that Australia's economy is still provincial in character. A centralized economic structure would be the complement of the existing strong political structure which has evolved since 1901 and which is centrally dominated from Canberra.

Three hypotheses are to be examined.

1. It is hypothesized that the urban functional hierarchy of Australian cities culminates in a decision-making center, or centers, having nationwide economic dominance through the concentration of central administrative offices.

The center, or centers, are to be determined by the number and quality of corporate and governmental head offices present in each city. Philbrick's areal functional organization suggests that only one center will emerge. There appears the possibility that more than one national city may exist in Australia (Johnston, 1966, 52). The other

possibility is for no truly national center, only cities of less than national importance existing.

To measure the importance of decision-making centers, data on some 900 of the largest private corporations and government statutory authorities are used. The head office establishments of these enterprises are enumerated for each city. The assets controlled by these head offices are similarly totaled. Numbers of employees, which are available for about four-fifths of the 900 companies, are a third measure. Assets and employees give weighted importance to the number of companies. The analysis in the following chapters will show that a composite exposition of all three measures provides a clearer understanding of the decision-making or central administrative function than any one measure by itself.

The 900 companies represent a broad cross section of Australian industrial, financial, and commercial life. They include domestic, foreign, private, government, local, and nationally operating firms. In addition, Commonwealth and State Government departments and agencies are included because many have important economic roles. Their inclusion will give proper credit to the growing importance of Canberra, not only as the seat of political power, but because of its role in economic decision-making.

2. It is hypothesized that Australian capital cities are the nodal points of a hierarchy of functional regions culminating in a nationwide economic region coextensive with the national political boundaries.

The spatial distribution of the establishments of the 900 firms, and the locations of government employees, are used to measure the extent of areal impact and, thus, the nodal regions of the decision-making centers. The firms are classified as: those operating nationally; ones which operate in only four, three, or two states; and those operating in only one state or locally. The number of companies in these areal groupings are enumerated for each city. Assets of these various areal groupings of companies are determined.

Commonwealth Government departments and agencies are not all headquartered in Canberra. Not all of them operate nationally, nor are all of equal economic importance. Their location and areal impact will be mapped and evaluated through the location of federal employees. The state level of government will similarly be measured.

3. It is hypothesized from the concentration of head offices and their spatial impact that Australia has a centrally directed national economy.

This is to be assessed from the spatial patterns of nodal regions resulting from the centralization of CAO's and the decision-making function in national versus less than national centers.

In summary, the analysis includes the following:

1. Define and measure the role of Australian cities as decision-making centers based upon the presence of head office establishments exercising this function.

2. Determine and map the functional nodal regions of each city based upon the spatial distribution of company establishments and

government employees as indicators of the institutionalized linkages of the decision-making function.

3. Compare and contrast the cities and their associated regions of influence to show the relative strength of each.

4. Use the analysis of the cities and their regions to evaluate whether or not Australia has a centralized or fragmented economy. This evaluation is based upon whether nationwide regions and national centers are found to exist versus only areas and cities of less than national extent and impact being determined.

Dissertation Outline

The geographic analysis of Australian decision-making centers and their contributions to a centralized economy is organized into nine chapters. This introduction is followed by a chapter containing definitions of terms and the sources, uses, and interpretations of data and terms. Summary data on companies and an introduction to some of Australia's largest business enterprises are included. Chapters III and IV, respectively, analyze central administrative offices and the decision-making function present in Sydney and Melbourne. A number of comparisons of these two cities are made. Nodal regions are established for the two cities. Chapter V examines Canberra's role as the center for governmental economic decision-making and the spatial impact thereof. Australia's other four state capitals, Adelaide, Brisbane, Perth, and Hobart, are measured and assessed in Chapter VI. The minor presence of head offices in other cities and towns is also examined. The portion of economic control assignable

to foreign companies is documented in Chapter VII. In the next chapter overall comparisons of Australia's capital cities are drawn and the hypothesis of a centralized economy is examined. Conclusions, postulations, and applications of the study are made in Chapter IX.

CHAPTER II

DEFINITIONS AND MEASUREMENT DATA

Definitions

A decision-making center is a city wherein numerous major decisions are being continuously made. They are made at the very top levels of administration and have national or wide regional impact. The caliber of these decisions is such that they affect major industries, work forces, large segments of production and consumption, and significant portions of a nation's population. The nature, importance, and repetitive patterns of these top level decisions result in highly organized frameworks which have been developed for their creation, communication, and implementation. Such frameworks are given substance and continuity in the form of corporations, often with nationwide operations. Other frameworks appear as government organizations. Top level decision-makers have given physical presence and permanence to their function at the apex of corporate frameworks by erecting head office buildings in which to carry on the process.

This study is concerned with decisions having an economic importance, rather than those of a social or political nature. It is concerned with decisions made at the highest levels, not with the mundane variety. For example, the decision of the Broken Hill Proprietary Company to diversify into offshore oil exploration is the magnitude

of decisions of concern in determining decision-making centers. Not of concern is the individual consumer deciding to buy or not to buy some commodity. Various aspects of the decision-making function are: corporate policies, operational decisions, future planning, capital investments, employment, and corporate goals. Decision-making is policy formulation and differs from management, which is concerned with execution of those policies. However, as mentioned in Chapter I, the actual decisions would be impossible to analyze in the aggregate. Much more amenable to geographic analysis are the establishments in which such decisions are made, namely, the central administrative offices of companies and government organizations. This study uses these head office establishments together with their associated organizational frameworks through which decisions are implemented as the means to classify cities as decision-making centers.

For this study an economic decision-making center such as Sydney is defined as a city which has a large proportion of the head offices of a nation's major companies and/or central offices of government departments and agencies that have major economic importance.[1] An absolute number of such head offices can not be given for the definition because it would depend on the total number of companies surveyed. These centers are further defined by having a functional nodal region beyond the metropolitan area linked to it by the decision-making function through multi-establishment organizations directed

---

[1]A decision-making center is a city identified by the concentration of the policy formulation function as contrasted to a lower order management center characterized by the policy execution function.

from CAO's. A basic principle of areal functional organization is that the establishments and focal places of one hierarchical level have linkages to establishments in other places of lower functional order (Philbrick, 1957, 336).

Of importance to the measurement of the decision-making function as expressed by CAO's is the interpretation of what is meant by the "top level" of decision-making. This research employs three different interpretations in various parts of the analysis so that the reader may see the effect such interpretations have on the relative strengths of the decision-making function in various cities. The location of top level decision-making and control of assets are interpreted in three different ways with varying degrees of strictness in defining what is ultimate control. The three ways are:

1. Strict Interpretation. A city's decision-making importance is measured by its head office control of private domestic and State Government assets only. The very top level of decision-making for the Federal Government and ultimate control of federal assets are deemed to be made and held by Parliament and the ministers. Thus, all importance of Federal Government decision-making is assigned to Canberra, even though the head offices of some departments and semi-autonomous statutory authorities are located elsewhere. Ultimate control of all foreign companies and their assets is assigned to the overseas central administrative offices of the parent firm. The assets and decision-making are

not counted with Australian city totals, even though their management offices for Australian operations are in Sydney, Melbourne, or other Australian cities.

2. Moderate Interpretation. Federal Government top level decision-making and control of assets are deemed to be located at head offices of departments and semi-autonomous authorities rather than made and controlled by Parliament in Canberra. The decision-making importance of a city includes, and is thus measured by, its head office control of private domestic, State, and Federal Government assets. Control of foreign assets remains overseas as in a Strict Interpretation.

3. Broad Interpretation. The measurement of a city's top level decision-making and assets control under this interpretation places these functions in the head offices of private domestic, State, and Federal enterprises and departments. Added to these CAO's are the Australian management offices of foreign companies in that city.

Data Sources

This study concerns only the continent of Australia and its island state of Tasmania. It does not include any overseas territories or Papua-New Guinea. It is concerned with the stage of economic development in the middle 1960's based upon field work in 1963-1964 and subsequent materials that pertain to 1963-1967. It will not concern itself with any historical detail and, thus, past trends.

Field work included the collection and study of data on Australia's economic structure at all levels and the establishments and linkages which make up the tangible evidences of that structure.[1] Annual reports and informational brochures of companies and government agencies provide a wealth of detail on individual corporate and governmental decisional frameworks. Government documents and statistical reports provide aggregate summaries of economic activity. Newspapers, especially the Australian Financial Review, are invaluable sources of data on company activities and establishments, be they head offices, factories, or branch outlets. Company and government maps portray some of the geography of enterprises for Australia. Numerous conversations and interviews were held with a broad spectrum of people both in private business and in government positions. These ranged from corporate presidents and top government administrators through middle management, to local wholesalers, retailers, and transport workers. Observations and notes were made of the tangible, visible evidences of corporate and governmental organizations and their imputed linkages to central offices.[2]

---

[1]The field work was conducted from January, 1963 to June, 1964. It included a trip by car and airplane of some 30,000 miles around the perimeter and into the heart of the continent, including a short time in Tasmania. Data was gathered in all six state capitals, in Canberra, in many of the smaller cities and towns, and at mines and ranches.

[2]From these experiences, conversations, notes, and data, this author has constructed an interpretation of the nodal centers and regions of Australia's lower functional orders, below that of the decision-making function. That work is beyond the purpose of this present study but provides the underlying hierarchy of lower order centers and regions.

For the function of top level decision-making, tables of companies grouped by the locations of head offices and by areal extent of operations have been constructed from data in the 1967 Delfin Digest (Block and Seldon, 1967).[1] The tables show numbers of company head offices, assets, number of employees, and distribution of establishments for some 900 enterprises. The firms listed in the Delfin Digest include almost all of Australia's big business, whether private, government, domestic, or foreign. However, it is a data source published for the financial community by the Development Finance Corporation, one of Australia's leading investment banking houses. The data needed considerable reworking before they could be utilized for a geographical analysis of the location of control and decision-making for companies, assets, employees, and establishments.

Supplementing the Digest data is information from the Universal Business Directories, company annual reports, Australian telephone directories, The Business Who's Who of Australia, 1970-1971, and the excellent economic studies by Wheelwright, Rolfe, and Karmel

---

[1]Before this author had the opportunity to summarize the data collected on individual companies much of the work was done in a series of publications edited by R. O. Block of the Development Finance Corporation. It was published in various formats. The first, in 1963, was a series of tables and articles in the Australian Financial Review reprinted as the Australian Financial Review's Directory of the Top 800 Australian Companies. In 1964, The Australian published A Directory of the Top 1,000 Companies, Australia and N. Z. The Development Finance Corporation published the first Delfin Digest in 1965 and a new edition in 1967 providing details on some 900 Australian companies for fiscal year 1966. No subsequent directory of such comprehensive nature has been published to date, hence the reliance on mid 1960 data for this study.

The Development Finance Corporation provided through these various publications a record of the Australian business community comparable in many respects to the Fortune Directory published in the United States.

and Brunt mentioned earlier. However, the year and a half spent in Australia enhanced this author's understanding of the geographic organization of the Australian economy that could not be gained from published materials alone.

Measurement Data

Australia's decision-making centers are identified on the basis of the 1967 Delfin Digest lists of 907 of the nation's largest companies. These will henceforth be referred to as the "Delfin Companies." (That nomenclature should not be construed to mean the firms are subsidiaries of the Development Finance Corporation.) The Digest provides raw data for three measures which are used to classify and compare major Australian cities. The measures are:

1. The number and location of central administrative offices.
2. Company assets (in 1966 Australian dollars).[1]
3. The number of employees (disclosed for 85 per cent of the listed companies).

In addition to the forty-five semi-autonomous government statutory authorities included in the Delfin tables, such as the Commonwealth Banking Corporation and the various state railways, the location and economic importance of Commonwealth and State Government departments and other selected agencies, are analyzed for their contribution to each city's role as a decision-making center. Of special note in this

---

[1]Currency conversion rate in 1966: A$1.00 = US$1.12.

latter group are the Postmaster-General's Department and the Reserve Bank of Australia. Various interpretations of the location of top level decision-making will show that Canberra is not the only city to benefit from Commonwealth head offices.

Decisions made in head offices are implemented through complex corporate and governmental management structures. Nodal regions are created when linkages develop between spatially diffused places and some central point. When decisions are made in CAO's and then pass down through management structures and establishments, they create a beaded form of linkage that holds a great corporation together. All the establishments of one company are linked directly or through intermediate units to the central office by control and ownership. The spatial pattern of these units constitutes the nodal region for that company. Taken in aggregate, the separate regions for many companies with head offices in one city make up the nodal region for decision-making centered there.

Unfortunately for this spatial analysis, the distribution of assets and employment by states or otherwise, are not available in the Digest or elsewhere. However, it does have information on establishments by state for individual companies. Federal employment is also available by state. Since this analysis seeks to measure metropolitan dominance nationally versus something less than nationally, the data aggregated at the state level are sufficient for this analysis. Delfin data and other information on the locations of the companies' various branch offices and processing and distribution establishments are used to show the spatial impact of the decision-making function

emanating from each city. The nodal regions for this function are measured by:

1. The number of Delfin companies with head offices in each city which operate nationally; or, regionally in two to four states; or, only within one state and/or locally.
2. The number of processing establishments in each state controlled from each city by Delfin firms.
3. The total establishments of the Delfin companies located in each state controlled from each city. Included in the term "total establishments" are the above mentioned processing units plus all distribution and branch office establishments.

For Canberra, Delfin companies and establishments are too few to measure its spatial importance which is largely expressed through Federal departments and agencies, so that the measurement criteria used is:

4. Federal civilian employees located in each state.

Introduction to Aggregate Data

The following tables summarize and illustrate the types of useful data from the Delfin Digest that are employed in this study. The information pertains to all 907 companies including those headquartered in non-capital cities and towns. Some companies and small sub-groups in the original source have been reclassified or combined into different categories resulting in the thirty-six industry groups in Table 1. The manufacturing sector has twenty industry groups

Table 1. Industry groups: number of companies, assets, and employees by group.

Industry Groups	# Co's	Assets		Employees	
		$M	%	#	%
Primary Iron & Steel	7	1,073	2.6	62,981	4.8
Primary Non-Ferrous Metals	13	820	2.0	27,213	2.1
Farm, Construction, & Other Equipment	14	153	.4	7,897	.6
Motor Vehicle Assembly	9	698	1.7	47,192	3.6
Other Transportation Equip	26	285	.7	36,875	2.8
Heavy General Engineering	15	150	.4	14,049	1.1
Metal Bldg Supplies & Equip	20	202	.5	21,204	1.6
Electric Mach, Equip, & Supplies	39	597	1.4	63,326	4.8
Other Fabricated Metal Products	41	441	1.1	42,855	3.2
Building Materials	46	628	1.5	41,263	3.1
MANUFACTURING - DURABLE GOODS	230	5,047	12.2	364,855	27.6
Petroleum Refining & Marketing	13	1,554	3.8	28,034	2.1
Industrial Chemicals	21	623	1.5	21,923	1.7
Other Chems, Fert, Pharmc, Soap	35	347	.8	20,076	1.5
Rubber & Plastic Products	9	293	.7	27,944	2.1
Food & Drink	82	1,280	3.1	82,535	6.2
Alcoholics, Tobacco, Malt	18	598	1.4	21,304	1.6
Textile Mills & Apparel Prods.	38	446	1.1	48,225	3.6
Pulp, Paper, Newspapers	29	600	1.5	39,316	3.0
Packaging	14	357	.9	30,690	2.3
Misc. Products	11	118	.3	10,265	.8
MANUFACTURING - NON-DURABLE GOODS	270	6,215	15.1	330,312	25.0
TOTAL ALL MANUFACTURING SECTOR	500	11,262	27.3	695,167	52.6
Mining	25	732	1.8	20,810	1.6
Agricultural and Pastoral Production and Distribution	14	295	.7	23,033	1.7
Wool Selling Brokers & Agents	16	606	1.5	18,795	1.4
Building & Construction	25	312	.8	25,812	2.0
Banks, Trading & Saving	15	13,675	33.1	74,241	5.6
Investment Banks, Money Market	10	477	1.2	516	-
Other Finance	35	1,828	4.4	6,845	.5
Insurance, Life & Non-Life	47	4,498	10.9	32,780	2.5
Railways, Government	7	1,844	4.5	126,678	9.6
Other Transportation	23	665	1.6	56,654	4.3
Utilities, Elec, Gas & Comm.	20	2,764	6.7	62,067	4.7
Retail Trade	50	1,092	2.6	118,692	9.0
Vehicle Distribution	25	191	.5	15,066	1.1
Wholesale Distribution	50	504	1.2	31,973	2.4
Other Goods & Services	25	228	.6	9,456	.7
Investment & Holding Co's.	20	290	.7	3,080	.2
PRIMARY - TERTIARY SECTOR	470	30,001	72.7	626,498	47.4
TOTAL ALL DELFIN COMPANIES	907	41,263	100.0	1,321,665	100.0

Source: Compiled from 1967 Delfin Digest.

equally divided between durable and non-durable goods. The combined primary-tertiary sector is composed of three primary groups and thirteen from the tertiary sector.[1] The number of firms in each group varies from a high of eighty-two in food and drink processing to a low of seven for both the primary iron and steel group and the government railways category. These three groups demonstrate the need to use more than one measurement criteria such as number of companies or assets as the only measure of a city's importance. The $1,000 million[2] assets of the seven primary iron and steel companies compare very favorably with the $1,280 million assets of the far more numerous companies in the food and drink group. Similarly, the $1,800 million of just the seven government railways are half again as much as those of the eighty-two food and drink companies. On the other hand, the group comprised of the fifteen trading and savings banks dominates all others with $13,700 million which is one-third of all Delfin assets.

The number of employees disclosed by 771 of the Delfin companies is 1,300,000. Two groups have over 100,000 each or about

---

[1]The primary sector includes the industry groups of mining; agricultural and pastoral production and distribution; and wool selling brokers and agents. These three are combined with the thirteen groups of the tertiary sector because of the considerable activities of the mining, agricultural, and wool broker companies in finance, investments, transportation, wholesaling, retail and/or other tertiary activities. The combination facilitates discussion in later chapters.

[2]This form of expressing money is necessary because the term "billion" has different meanings in Australia and the United States. In Australia a billion equals one million million, after the British format. In the U. S. a billion is only one thousand million, which is derived from French usage. Thus, the expression $1,000 million equals $1 billion in American terminology.

9 per cent of the total disclosed. They are the seven government railways and the fifty firms in retail trade. About half of the Delfin employees are in manufacturing and the other half are in primary-tertiary industries. Compared with this, assets are only about one quarter and three quarters in these respective sectors. The 907 firms together represent approximately 27 per cent of the overall Australian work force of 4,800,000 (Yearbook of Australia, Australia Commonwealth Bureau of Census and Statistics, 1968, 1151). No total is available for assets of all Australian companies so a similar comparison cannot be made with the Delfin list assets.

In a spatial context, about one-half of the Delfin companies operate nationally; that is, they have one or more establishments in all six states. Another quarter operate only within a single state or locally (Table 2).

Table 2. Number of Delfin companies operating in number of states.

Location of Establishments	Number of Companies	Percentage of Companies
National	415	46%
in 5 States	22	3%
in 4 States	57	6%
in 3 States	75	8%
in 2 States	111	12%
in 1 State or Local	227	25%
Total	907	100%

Source: Compiled from 1967 Delfin Digest.

The total of all processing and other establishments represented by the Delfin Digest sample of Australian firms is over 23,000. They are distributed by states as follows:

Table 3. Number of total establishments of Delfin companies in each state.

State	Total	Processing	Distribution and Offices
New South Wales	7,879	1,539	6,340
Victoria	6,280	1,268	5,012
South Australia	2,646	433	2,213
Queensland	3,252	551	2,701
Western Australia	1,963	327	1,636
Tasmania	975	167	808
Northern Territory	134	29	105
A.C.T.	285	37	248
Total	23,414	4,351	19,063

Source: Compiled from 1967 Delfin Digest.

The fourth measure, federal employees controlled ultimately from Canberra, concerns 278,000 civilian employees but excludes 121,000 military. The latter's distribution by state is not available. However, each branch of the military does maintain bases and personnel in every state and territory. For comparisons with the federal civilian employees, a half-million state employees are included in the chapter on comparisons of the various cities.

It can be seen from these introductory listings and the totals that the Delfin Digest is an extensive reference that includes a major segment of Australia's economic community. The spatial ramifications of the companies warrant geographic analysis. It is this top segment of companies that is most likely to create a nationwide economic decision-making structure if, in fact, one has evolved since federation. In this study the very largest Australian enterprises, measured by assets and/or number of employees, are included as well as many medium and even relatively small firms, viz., those having as little as $2 - 4 million in assets.

The TOP 128 Delfin Companies Ranked by Assets[1]

The TOP 128 largest Delfin companies, those having $50 million or more in assets, are listed and ranked in Table 4. Although they constitute only 14 per cent of the Delfin firms, they control almost 80 per cent of those assets, $32,000 million in total. Near the very top of this list are the corporate and governmental financial giants of the Australian business world.

---

[1]These largest companies are collectively identified as the "TOP 128" and will be referred to by that nomenclature for ease of identification throughout the dissertation. Most of these enterprises are well known to Australians and to many foreign businessmen. The 1967 Delfin Digest does not rank the companies by assets. Rather, it places them alphabetically into industry groups. It does rank the top 200 by shareholders' funds. Earlier editions ranked the companies in various industry groups by shareholders' funds also. The TOP 128 companies are listed here for individual comparisons and for later reference. The figure of 128 is arrived at by the arbitrary decision of including those companies having $50 million in assets. This figure includes most of Australia's well known larger firms.

Table 4. TOP 128 Delfin companies by assets rank.

	Company	Assets $ m.	Industry Group	HQ City		Govt S.A.	Foreign Control
	First Echelon > $300 m.						
1.	Commonwealth Banking Corp.	3,698	Banking	S		Comm	
2.	Bank of New South Wales	2,640	Banking	S			
3.	Aust. & New Zealand Bank	1,874	Banking		M		UK
4.	Aust. Mutual Provident Soc.	1,315	Insurance	S			
5.	Nat'l. Bank of Australasia	1,157	Banking		M		
6.	State Savings Bank Victoria	973	Banking		M	Vict	
7.	State Electricity Comm. Vic.	878	Utility		M	Vict	
8.	Broken Hill Proprietary Co.	870	Prmy Iron		M		
9.	Comel Banking Co. of Sydney	835	Banking	S			
10.	Commercial Bank of Australia	778	Banking		M		
11.	NSW Dept. of Railways	716	Railways	S		NSW	
12.	English Scottish & Aust Bank	604	Banking		M		UK
13.	Electricity Comm. of NSW	565	Utility	S		NSW	
14.	Mutual Life and Citizens Assurance Co.	553	Insurance	S			
15.	Victorian Railways	424	Railways		M	Vict	
16.	Aust. Temperance & General Mutual Life Assurance Soc	422	Insurance		M		
17.	National Mutual Life Association of Australasia	412	Insurance		M		
18.	Savings Bank of South Aust.	371	Banking		A	SA	
19.	Colonial Mutual Life Assurance Society	368	Insurance		M		
20.	I.C.I.A.N.Z. Ltd.	364	Indl Chem		M		UK
21.	Shell Australian Securities	313	Petr Ref		M		UK
22.	Rural Bank of NSW	309	Banking	S		NSW	
23.	Colonial Sugar Refining Co.	303	Food	S			
	First Echelon Sub-Total	20,741		S	9		
				M	13		
				A	1		
	Second Echelon $100-299 m.						
24.	Conzinc Riotinto of Aust.	299	Mining		M		UK
25.	Hydro-Electric Comm. Tasm.	290	Utility		H	Tasm	
26.	General Motors-Holden's	268	Motor Veh		M		US
27.	Australian Guarantee Corp.	267	Other Fin	S			
28.	Queensland Dept of Railways	252	Railways		B	Qld	
29.	Electricity Trust of So Aust	247	Utility		A	SA	
30.	I.A.C. (Holdings)	229	Other Fin	S			
31.	British Petroleum Co of Aust	207	Petr Ref		M		UK
32.	Dalgety & New Zealand Loan	200	Woolbrkr	S			UK
33.	W. Aust. Gov. Railways	191	Railways		P	WA	
34.	Ampol Petroleum	184	Petr Ref	S			
35.	Woolworths	182	Retail	S			
36.	Govt Insurance Office of NSW	178	Insurance	S		NSW	
37.	Mount Isa Mines	175	Prmy NoFe		B		US
38.	Mobil Oil Australia	174	Petr Ref		M		US
39.	British Tobacco Co (Aust)	174	Tobacco	S			UK
40.	City Mutual Life Assurance	173	Insurance	S			
41.	So Electric Auth. of Qld.	167	Utility		B	Qld	
42.	Myer Emporium	167	Retail		M		
43.	Qantas Empire Airways	163	Transport	S		Comm	
44.	Australian Consolidated Ind	162	Packaging		M		
45.	Prudential Assurance Co.	161	Insurance	S			UK
46.	Custom Credit Corp.	161	Other Fin	S			
47.	Ford Motor Co of Australia	156	Motor Veh		M		US
48.	Elder Smith Goldsbrough Mort	153	Woolbrkr		A		
49.	South Australian Railway	152	Railways		A	SA	
50.	General Motors Acceptance Corporation (Australia)	146	Other Fin		M		US
51.	C.J. Coles & Co.	146	Retail		M		
52.	State Govt Insurance Offices	143	Insurance		B	Qld	
53.	Australian Paper Mfgrs	133	Pulp Paper		M		
54.	Comcl & General Acceptance	131	Other Fin	S			
55.	Bank of Adelaide	130	Banking		A		
56.	Sydney County Council	126	Utility	S		Sdy	
57.	Alcoa of Australia	125	Pmry NoFe		M		US
58.	Ansett Transport Industries	120	Transport		M		
59.	H. C. Sleigh	115	Petr Dist		M		
60.	Comalco Industries	114	Pmry NoFe		M		US
61.	State Bank of South Aust.	114	Banking		A	SA	
62.	Rural & Industries Bank of Western Australia	109	Banking	S			
63.	Boral Ltd.	109	Petr Ref	S			
64.	Gas & Fuel Corp. of Victoria	198	Utility		M	Vict	
65.	State Electricity Comm. WA	107	Utility		P	WA	

Table 4. Continued.

Company	Assets $ m.	Industry Group	HQ City	Govt S.A.	Foreign Control
66. Dunlop Rubber Australia	106	Rubber	M		
67. Australian Oil Refining	105	Petr Ref	S		US
68. Carlton & United Breweries	104	Beer	M		
69. Queensland Alumina	104	Pmry NoFe	Glad		US
70. ESANDA	103	Other Fin	M		UK
Second Echelon Sub-Total	7,629				
I & II Echelons Cumulative	28,370				
Third Echelon $50-99 m.					
71. Metal Manufacturers	99.0	Prmy NoFe	S		UK
72. Caltex Oil (Australia)	98.5	Petr Ref	S		US
73. Choiseul Plantations (Hold.)	98.2	Agri Prod	S		
74. A.P.A. Holdings	95.3	Investm	S		
75. John Lysaght (Australia)	91.9	Prmy Iron	S		UK
76. Australian United Corp.	90.6	Inv Bankg	M		
77. South British Insurance Co.	88.6	Insurance	NZ		NZ
78. David Jones	88.0	Retail	S		
79. Commonwealth Railways	87.2	Railways	M	Comm	
80. Capel Court Securities	87.0	Money Mkt	M		
81. Australian Gas Light Co.	86.6	Utility	S		
82. Esso Standard Oil (Aust.)	85.8	Petr Ref	S		US
83. Tubemakers of Australia	83.6	Prmy Iron	S		UK
84. Finance Corp of Australia	82.2	Other Fin	A		
85. Associated Securities	78.2	Other Fin	S		
86. Tooth & Co.	77.1	Beer	S		
87. General Credits Holdings	76.4	Other Fin	M		
88. Chrysler Australia	76.1	Motor Veh	A		US
89. Consolidated Goldfields Aust	75.7	Mining	S		UK
90. Felt & Textiles of Aust	73.5	Textiles	M		
91. Unilever Australia (Holdings)	68.5	Other Chem	S		UK
92. Repco	68.3	Trans Equi	M		
93. Amoco Australia	68.3	Petr Ref	S		US
94. Mercantile Credits	67.6	Other Fin	S		HK
95. E.Z. Industries	66.2	Prmy NoFe	M		
96. W. R. Carpenter Holdings	66.1	Agri Prod	S		
97. Electronic Industries	65.2	Elec Mach	M		Neth
98. Australian National Airlines	65.2	Transport	M	Comm	
99. North Broken Hill	64.6	Mining	M		
100. Int'l. Harvester Co. of Aust.	62.8	Motor Veh	M		US
101. Olympic Consolidated Ind.	62.1	Rubber	M		
102. Lombard Australia	61.8	Other Fin	S		UK
103. New Zealand Insurance Co.	60.8	Insurance	NZ		NZ
104. Broken Hill South	60.3	Mining	M		
105. McPhersons	59.2	Fabr Metal	M		
106. John Fairfax	58.7	Paper NP	S		
107. Waltons	57.8	Retail	S		
108. Australian Estates Co.	57.6	Woolbrkr	M		UK
109. Aust Coastal Shipping Comm.	56.8	Transport	M	Comm	
110. Goodyear Tyre & Rubber (Aust)	56.7	Rubber	S		US
111. George Weston Foods	56.5	Food	S		UK
112. Mutual Acceptance Co.	55.4	Other Fin	S		UK
113. L.J. Hooker Investment Corp	55.3	Bldg Const	S		
114. Commercial Union Assurance Co. of Australia	54.7	Insurance	M		UK
115. New Broken Hill Consolidated	54.5	Mining	M		UK
116. Associated Pulp & Paper Mills	54.3	Pulp Paper	M		
117. British Motor Corp (Aust.)	54.2	Motor Veh	S		UK
118. Broken Hill Assoc. Smelters	53.4	Prmy NoFe	M		UK
119. Grace Bros. Holdings	53.1	Retail	S		
120. Development Finance Corp.	52.3	Inv Bankg	S		
121. Alliance Holdings	50.9	Other Fin	S		
122. Lend Lease Corp.	50.8	Bldg Const	S		
123. Petroleum Refineries (Aust)	50.3	Petr Ref	M		US
124. Clyde Industries	50.2	Fabr Metal	S		
125. Blue Metal Industries	50.2	Bldg Mtrl	S		
126. Trans City	50.1	Money Mkt	S		
127. Commonwealth Industrial Gases	50.1	Indl Chem	S		UK
128. Humes	50.0	Bldg. Mtrl	M		
Third Echelon Sub-Total	3,921				
I, II & III Echelons Cumulative	32,291				

The TOP 128 are divided into three Echelons[1] based on ranges of assets. There are an additional two Echelons for companies having smaller assets. These five ranks and their range of assets are:

First Echelon: $300 million and greater.
(The largest enterprise has $3,700 million)

Second Echelon: $100 million to $299 million.

Third Echelon: $ 50 million to $ 99 million.

Fourth Echelon: $ 30 million to $ 49 million.

Fifth Echelon: Less than $30 million in assets.
(The smallest firm has $1.9 million)

In the First Echelon is a mere handful of twenty-three companies. These giants give distinction to this exclusive Echelon because they collectively control over one-half of the total Delfin assets, or more than all the 884 other companies combined!

Locations of the head offices of the TOP 128 firms give some introductory clues about the relative importance of Australia's capital cities (Table 5). Sydney and Melbourne are nearly equal in numbers of companies, and overshadow all other state capitals (Table 5, Part A). Only one head office is in a non-capital Australian city, and it is foreign controlled. Two others, both New Zealand insurance firms, operate through branch offices controlled directly from Auckland. Canberra does not have a single headquarters, government or private, among the Delfin TOP 128.

---

[1]The term "Echelon" is used to distinguish companies grouped by assets size from other categorizations such as industrial groups or employment size groups.

Table [illegible] Summary of TOP 100 Debtor Companies.

	Total	Sydney	Melbourne	[illegible]

Table 5. Summary of TOP 128 Delfin companies.

	Total	Sydney	Melbourne	Adelaide	Brisbane	Perth	Hobart	Other
PART A. Number of TOP 128 Company Head Offices in Each City								
Number of Companies	128	56	53	8	4	3	1	3
Foreign Controlled	- 44	-19	-20	-1	-1	-	-	-3
Domestic Companies	84	37	33	7	3	3	1	0
Government Controlled	- 25	- 7	- 7	-4	-3	-3	-1	-
Private Domestic Co.	59	30	26	3	0	0	0	0
PART B. Assets of TOP 128 Companies Headquartered in Each City ($'000)								
Total Combined Assets	32,291	15,669	13,609	1,325	737	407	290	253
Foreign Controlled	- 7,365	- 1,714	- 5,147	- 76	-175	-	-	-253
Domestic Controlled	24,926	13,955	8,462	1,249	562	407	290	-
Government Controlled	-10,491	- 5,755	- 2,592	- 884	-562	-407	-290	-
Private Domestic Co.	14,435	8,200	5,870	365	-	-	-	-
PART C. Assets of 907 Delfin Companies Controlled from Each City by Assets Echelon ($'000)								
I $300 m. or more	20,741	10,934	9,437	371	-	-	-	-
II $100m to $299m	+ 7,629	+ 2,542	+ 2,752	+ 796	737	407	290	104
Cum. over $100m	28,371	13,477	12,189	1,167	737	407	290	104
III $50m to $99m	+ 3,921	+ 2,193	+ 1,420	158	-	-	-	+149
Cum. TOP 128	32,291	15,669	13,609	1,325	737	407	290	253
IV $30m to $49m	1,838	976	609	105	-	32	44	71
V less than $30m	7,134	3,381	2,204	450	316	210	91	482
907 Companies' Assets	41,263	20,026	16,422	1,881	1,053	649	426	806

Source: Compiled from 1967 Delfin Digest.

If the forty-four foreign controlled firms are subtracted and all federal and state enterprises are also removed so that just private domestic firms remain, Sydney and Melbourne reign supreme in the private sector. Sydney has thirty head offices, Melbourne has twenty-six, and Adelaide three; there are none elsewhere.

In terms of assets, these two cities also dominate the TOP 128 list, again very roughly as equals (Table 5, Part B). A further introductory clue is added to the geographic analysis and interpretations of the relative importance of these two cities if one subtracts foreign controlled from total assets. Sydney is clearly dominant with $14,000 million in domestic assets compared to Melbourne's $8,500 million.

Part C of Table 5 summarizes all 907 Delfin firms in the five assets Echelons. Brisbane, Perth, and Hobart do not have any head offices in the First and Third Echelons. Their representatives in the Second and Fourth are almost exclusively through state owned railroads, utilities, and banks. In contrast, Sydney is broadly represented, having more assets than all other cities combined in the First, Third, and Fourth levels. The totals of all assets for the full complement of companies will be examined in more detail in succeeding chapters.

Delfin Major Employers

The Delfin companies have a wide range in their numbers of employees. Broken Hill Proprietary and the NSW Government Railways top the list with work forces of 48,000 and 46,000 respectively. The

smallest number of employees listed in the Digest is for Argo Investments with two, followed by another investment firm, Cuming Smith and Company, which has three. The Digest does not rank the companies by size of work forces. This study ranks those having disclosed employment of 4,000 or more and will refer to these firms as "Major Employers" throughout the dissertation (Table 6).[1] This table includes only about half of the companies from the TOP 128 list. Large assets do not necessarily correlate with large employment. The presence of six Fourth Echelon firms, plus three from the Fifth Echelon, is noted. On the other hand, six of the First Echelon companies do not qualify as Major Employers although four of them are close with 3,000 or more employees.

Melbourne is headquarters for about half of these companies and just over half the employees on this list. Sydney has twenty-six Major Employers controlling 260,000 workers. As with assets of the TOP 128, Melbourne and Sydney are dominant, but in reverse rank. Only eight Major Employers are headquartered elsewhere. Three of them are

---

[1]The somewhat arbitrary figure of 4,000 is used for "Major Employers" because these sixty-eight companies control just over one-half of the total Delfin employees. In comparison, it took only a third this many companies (those in the First Echelon) to control half of all assets.

Of the TOP 128 companies only ten did not disclose employment in the 1967 Digest. Grace Brothers listed 4,200 in the 1965 edition and that figure is used in Table 6. The nature of the businesses of the nine other companies precludes all but Tooth and Company from possibly being included as Major Employers. Tooth and Company is a closely held firm and is one of the few major Australian companies that does not disclose employment. However, on the basis of a comparison of its assets with other big brewery firms, it is believed that Tooth has less than 4,000 employees.

Table 6. Delfin Major Employers.

Rank	Company	Number of Employees	HQ City	Govt or Foreign	Assets Echelon
1.	Broken Hill Proprietary Co	48,191	M		I
2.	NSW Dept. of Railways	46,156	S	NSW	I
3.	Victorian Railways	28,254	M	Vict	I
4.	Queensland Dept. of Railways	25,620	Br	Qld	II
5.	Woolworths	25,500	S		II
6.	State Electricity Comm. Vict	22,477	M	Vict	I
7.	Myer Emporium	21,200	M		II
8.	G.J. Coles and Co	21,000	M		II
9.	General Motors-Holden's	20,958	M	US	II
10.	Commonwealth Banking Corp	18,270	S	Comm	I
11.	Australian Consolidated Ind	16,000	M		II
12.	Bank of New South Wales	13,500	S		I
13.	Dunlop Rubber Australia	13,000	M		II
14.	David Jones	11,900	S		III
15.	W. Australian Govt. Railways	11,764	Pe	W.A.	II
16.	I.C.I.A.N.Z. Ltd.	11,000	M	UK	I
17.	Ansett Transport Industries	10,343	M		II
18.	Choiseul Plantations (Hold)	10,000	S		III
19.	British Tobacco Co (Aust)	9,561	S	UK	II
20.	Qantas Empire Airways	9,546	S	Comm	II
21.	Aust. & New Zealand Bank	9,536	M	UK	I
22.	South Australian Railways	9,179	Ad	S.A.	II
23.	Colonial Sugar Refining Co	9,030	S		I
24.	W. R. Carpenter Holdings	8,460	S		III
25.	Tubemakers of Australia	8,200	S	UK	III
26.	Ford Motor Co of Australia	7,850	M	US	II
27.	Repco	7,772	M		III
28.	Electricity Comm. of NSW	7,771	S	NSW	I
29.	Felt & Textiles of Australia	7,710	M		III
30.	George Weston Foods	7,500	S	UK	III
31.	Nat'l. Bank of Australasia	7,111	M		I
32.	Metal Manufacturers	7,000	S	UK	III
33.	Sydney County Council	6,803	S	NSW	II
34.	Metro. Transport Services Syd.	6,616	S	NSW	V
35.	Shell Australian Securities	6,315	M	UK	I
36.	Australian National Airlines	6,263	M	Comm	III
37.	Olympic Consolidated Ind	6,200	M		III
38.	Humes	5,983	M		III
39.	Electronic Industries	5,976	M	Neth	III
40.	McPhersons	5,938	M		III
41.	Commercial Bank of Australia	5,861	M		I
42.	Electricity Trust of So. Aust.	5,810	Ad	S.A.	II
43.	Australian Paper Manufacturers	5,800	M		II
44.	Amalgamated Wireless (A'asia)	5,600	S		IV
45.	Chrysler Australia	5,520	Ad	US	III
46.	H. C. Sleigh	5,505	M		II
47.	John Lysaght (Australia)	5,477	S	UK	III
48.	Unilever Aust. (Holdings)	5,440	S	UK	III
49.	Aust. Mutual Provident Soc	5,300	S		I
50.	Email	5,250	S		IV
51.	Waltons	4,950	S		III
52.	Elder Smith Goldsbrough Mort	4,921	Ad		II
53.	English Scottish & Aust Bank	4,841	M	UK	I
54.	Philips Industries	4,824	S	Neth	IV
55.	Comc'l Banking Co. of Sydney	4,799	S		I
56.	Melb. & Metro Tramways Board	4,614	M	Melb	V
57.	Assoc. Pulp & Paper Mills	4,580	M		III
58.	British Motor Corp. (Aust.)	4,500	S	UK	III
59.	Conzinc Riotinto of Aust.	4,470	M	UK	II
60.	Cox Brothers (Australia)	4,389	M		IV
61.	James Hardie Asbestos	4,200	S		IV
62.	Prestige	4,200	M		V
63.	Grace Bros. Holdings	4,200	S		III
64.	Mount Isa Mines	4,122	Br	US	II
65.	British Petroleum Co of Aust	4,027	M	UK	II
66.	Int'l. Harvester Co. of Aust.	4,011	M	US	III
67.	State Saving Bank of Victoria	4,001	M	Vict	I
68.	News	4,000	Ad		IV
	TOTAL	676,665			

Summary: 260,353 by 27 Sydney Companies
345,376 by 33 Melbourne Companies
29,430 by 5 Adelaide Companies
27,742 by 2 Brisbane Companies
11,764 by 1 Perth Company

Source: Compiled from 1967 Delfin Digest.

state owned railways in Queensland, Western Australia, and South Australia; another is the Electricity Trust of South Australia. None of these large employers are headquartered in Tasmania or in any non-capital cities or towns.

In analyzing over 900 companies instead of just the TOP 128, or just the 68 Major Employers, this study attempts to expose much more completely the finer details of the geography of decision-making centers in Australia. Many smaller companies are included because they, too, shed light on the various cities' roles and on the question of economic cohesiveness. In the following chapters the analysis focuses on the head offices, decision-making function, and spatial impact of each state capital, Canberra, and foreign enterprises.

CHAPTER III

SYDNEY: A MODERN DECISION-MAKING CENTER

The first English settlement in Australia was established at Sydney Cove on the shores of Port Jackson in 1788. This fledgling community has grown in the ensuing 185 years to become Australia's largest metropolitan area. Over 2.5 million persons are spread inland from the waters of Port Jackson and Botany Bay to the very edges of the Blue Mountains. Wealth, power, and prestige have accrued to many persons who have chosen Sydney as the place to make their fortunes. The city skyline is dominated by the tall buildings of the central business district that house the corporate head offices so important to the direction of the nation's economy (Figure 2).

As capital of the mother colony of New South Wales, Sydney has always served as a nodal point for political and economic decision makers who influenced a large portion of the continent. Often as competitive rivals and sometimes as partners, Sydney based bankers, merchants, industrialists, and politicians set about creating a nerve center from which to direct the economic activities of their city, the state, and the nation.

Victoria, Queensland, South Australia, the Northern Territory and, most recently, the Australian Capital Territory, have all been created from the former area of New South Wales. As the other colonies

Figure 2. Sydney Central Office District. The AMP Building and Goldfields House flank Sydney Cove to the north of the cluster of tall buildings. Martin Place, with a number of bank head offices is the southern margin of the district.

A	AMP Society
G	Goldfields House
CBC	Commonwealth Banking Corp.
BN	Bank of New South Wales
CBS	Commercial Banking Co. of Sydney
RB	Rural Bank of New South Wales
RBA	Reserve Bank of Australia
MLC	Mutual Life & Citizens
C	Colonial Sugar Refining Co.
R	NSW Dept. of Railways
E	Electricity Commission of NSW
SO	State office building
CC	Commonwealth Center (Gov't. offices)
AS	Australia Square
SE	Sydney Stock Exchange

(Photo courtesy of Australian News and Information Bureau.)

came into being with their own capitals, Sydney's area of political and economic dominance shrank. However, being the initial city and colonial capital gave Sydney an unrivaled size and economic importance for many decades. Melbourne is the only metropolitan area that approaches Sydney's population size in recent years. During the late 1800's Melbourne was larger, but this ended in 1902. Within New South Wales no other city approaches Sydney's population of 2,500,000 or its economic importance. Newcastle (234,000) and Wollongong (162,000) rank a distant second and third and are the only other urban areas with over 100,000 population in the state. Even Canberra in the Australian Capital Territory, which is completely surrounded by New South Wales, had only 92,000 persons in 1966 (Yearbook of Australia, 1968, 125).

The hypothesis that the urban functional hierarchy of Australian cities culminates in a decision-making center or centers having nationwide importance is applied to Sydney to determine if it qualifies as a decision-making center. The number of head offices of major corporate and government enterprises located in Sydney and the assets and employees controlled from these key offices are used to assess the presence of the decision-making function in this city. The analysis starts with a broad interpretation of the location of top level decision-making, as defined in Chapter II. It will proceed to a moderate and then a strict interpretation illustrating how the removal of foreign and Commonwealth Government enterprises diminishes to some extent this function in Sydney. Regardless of interpretation, Sydney's role relative to other cities in Australia is not seriously impaired.

The Corporate Sector in Sydney

Numbers of Head Offices and Assets in Industry Groups

Nearly half (46 per cent) of Australia's largest companies have head offices in Sydney (Table 7, Column C). This represents double the city's share of central offices when compared with its metropolitan population which was 22 per cent of all Australians in 1966. The manufacturing and the primary-tertiary sectors had about the same percentage of companies for their shares of the list. Wealth in the form of corporate assets of these companies has also accrued to Sydney. Big and little firms have $20,000 million, very close to half of all Delfin assets. The distribution of these assets within the manufacturing and primary-tertiary sectors is considerably different than the number of head offices. Sydney has an overall majority of primary-tertiary assets but is respectively 10 and 20 percentage points weaker in the non-durable and durable goods manufacturing sub-sectors (Table 7, Column E). These percentages are contrasted to the more nearly equal distribution of head offices in these sub-sectors. Employment statistics (Column G) more closely reflect sector shares of head offices than assets. It is worth noting that the relative percentages of sector assets are not based on equal amounts of total assets. Thus, Sydney's 52 per cent of primary-tertiary assets results in control of $15,700 million. This approaches four times the actual amount of manufacturing assets of $4,300 million.

At the industry group level rather than sector level there is considerable variation from the sector averages of both numbers of head

Table 7. Delfin Companies with Sydney head offices: head offices, assets, and employees by industry sectors.

Industry Sector	Total Delfin Co's	Head Offices in Sydney		Assets Controlled from Sydney		Employees Controlled from Sydney	
		Number	Percentage of Sector	$ Million	Percentage of Sector	Number	Percentage of Sector
	A	B	C	D	E	F	G
Manufacturing							
Durable Goods	230	100	43%	$ 1,637	32.4%	144,000	39.4%
Non-Durable Goods	270	118	44%	$ 2,654	42.7%	132,000	40.0%
All Manufacturing	500	218	43%	$ 4,291	38.1%	276,000	39.7%
Primary-Tertiary	407	197	48%	$15,735	52.4%	284,000	45.3%
Total Sydney	907	415	46%	$20,026	48.5%	560,000	42.4%

Source: Compiled from 1967 Delfin Digest.

offices and assets. Table 8, Part A shows Sydney has strong percentage of assets in eleven industry groups. Conversely, this city has weak representation in head offices and/or assets among a dozen other industry groups (Table 8, Part B). Sydney's strengths lie in the tertiary groups of banking; insurance; other finance which includes hire purchase,[1] home loan societies, mortgage finance, and leasing; investment and holding companies, and other goods and services which include hotels, theaters, broadcasting, and miscellaneous services. Other groups with considerable financial components in their activities are also strongly represented here. They are building and construction which includes the property developers; agricultural and pastoral production and distribution with its rural lending component; and, from manufacturing, the alcoholics, tobacco group which in Australia is important because of investments and real estate held by breweries. Only four manufacturing groups are represented, including the above alcoholics, tobacco group. Of all the strongly represented groups, three are important for their actual amounts of assets as well as their relative shares. The trading and savings banks ($7,500 million), insurance ($2,800 million), and other finance ($1,300 million) are the only Delfin groups having over $1,000 million assets. Together, these three control about 58 per cent of all Sydney based assets.

A third of the industry groups are weakly represented by head offices and/or assets in Sydney (Table 8, Part B). The smallest

---

[1]Hire purchase companies are equivalent to consumer installment credit companies or bank consumer credit cards such as Bank Americard or Master Charge in the U. S.

Table 8. Industry groups with strong or weak representation in Sydney by companies and/or assets.

Group	Proportion of Companies	Percentage of Group Assets
PART A. Strong Representation		
Electric Machinery, Equipment and Supplies	24/39	68%
Petroleum Refining & Marketing	8/13	45%
Other Chemicals	24/35	70%
Alcoholics, Tobacco, & Malt	7/18	60%
Agricultural and Pastoral Production and Distribution	9/14	80%
Building & Construction	16/25	77%
Banks, Trading & Saving	4/15	55%
Other Finance	25/35	72%
Insurance, Life & Non-Life	27/47	62%
Other Goods & Services	19/25	82%
Investment & Holding Co's	10/20	74%
PART B. Weak Representation		
Primary Iron & Steel	4/7	18%
Primary Non-Ferrous Metals	5/13	20%
Farm, Const. & Other Equip	3/14	23%
Motor Vehicle Assembly	2/9	9%
Metal Bldg. Supplies & Equip	7/20	22%
Industrial Chemicals	9/21	23%
Rubber & Plastics Products	1/9	19%
Textile Mills & Apparel Prods.	12/38	28%
Mining	8/25	21%
Wool Selling Brokers & Agents	5/16	47%
Railways, Government	1/7	39%
Utilities, Elec, Gas, & Comm	6/20	30%

Source: Compiled from 1967 Delfin Digest.

percentage of assets is found in the motor vehicle assembly group which, in Australia, is dominated by foreign companies. Only one small overseas firm has chosen Sydney for its head office and major production site. Similarly, only one rubber company, also foreign controlled, is here. The one-in-seven proportion of government railways is to be expected considering Australia's state ownership of railroads (the seventh being owned by the Commonwealth Government).

Sydney has 22 per cent of the nation's population. The percentage of assets in eight of the weakly represented groups is less than or approximately equal to the city's share of the Australian population. The smallest percentages in the assets column are associated with five durable goods manufacturing groups. Together with industrial-chemicals and rubber and plastics from the non-durable sub-sector, and mining from the primary sector, they can be considered as "heavy industries." All have smaller shares of group assets than the three tertiary groups which are classed as weakly represented because they have small proportions of their company head offices in Sydney. Most of the utilities, like the railways, are State Government enterprises, resulting in a geographic dispersal of head offices in each state capital. In the following chapter it will be seen that Melbourne has a reversal of strongly and weakly represented industry groups, with strength in manufacturing and weakness in tertiary groups.

Companies Large and Small

The 415 firms with head offices in Sydney include the first, second, and fourth largest Delfin enterprises when ranked by assets

(Table 9). They are: The Federal Government owned Commonwealth Banking Corporation; the Bank of New South Wales (Bank of NSW),[1] which is the oldest and largest private bank; and the Australian Mutual Provident Society (AMP), the largest life assurance house in Australia. Table 9 identifies Sydney's twenty-four largest companies; that is, those having assets greater than $100 million. Only summary totals are shown for the Third, Fourth, and Fifth Echelons. It is readily apparent that Sydney enterprises are dominated by the top twenty-four firms whose combined assets of $13,477 million are two-thirds of the assets of all 415 companies. The assets of the top-placed Commonwealth Banking Corporation alone are more than the combined assets of all 334 companies in the Fifth Echelon. The Delfin lists contain the mighty as well as the not so mighty.

In addition to the Commonwealth Banking Corporation, the Bank of NSW, and the AMP, the First Echelon of nine companies includes one other private and one state owned bank; another private life assurance mutual; and two State Government authorities--the NSW Department of Railways and the Electricity Commission of NSW. The Colonial Sugar Refining Company (CSR) is the only manufacturer. All are Australian owned and controlled. The banks, insurance, and capital intensive utility and transportation authorities would be expected to head such a list ranked by assets. These types of economic activities are also well represented among the fifteen firms in the Second Echelon. In

---

[1]Companies well known in Australia by their initials will be referred to in this study by those initials following first introduction.

Table 9. Sydney based companies by assets echelons.

Echelon and Company Name	Co's in Echelon	Assets $ M.	Industry Group	Gov't or For'n	No. of Empls.
I Echelon > $300 M.	Rank in TOP 128				
Commonwealth Banking Corp	1	3,698	Banking	Commw	18,270
Bank of New South Wales	2	2,640	Banking		13,500
Aust. Mutual Provident Soc	4	1,315	Life Ins		5,000
Comcl Banking Co. of Sydney	9	835	Banking		4,799
NSW Dept of Railways	11	716	Railways	NSW	46,156
Electricity Comm'n of NSW	13	565	Utility	NSW	7,771
Mutual Life & Citizens	14	553	Life Ins		3,508
Rural Bank of NSW	22	309	Banking	NSW	3,308
Colonial Sugar Refining Co	23	303	Food		9,030
Sub Total > $300 M	9/23	10,934			112,404
II Echelon $100-299 M.					
Australian Guarantee Corp.	27	267	Other Fin		1,348
I.A.C. (Holdings)	30	229	Other Fin		1,182
Dalgety & New Zealand Loan	32	200	Wool Brkr	UK	3,500
Ampol Petroleum	34	184	Petr Ref		2,575
Woolworth Ltd	35	182	Retail		25,500
Govt Insurance Office of NSW	36	178	Insurance	NSW	953
British Tobacco Co	39	174	Tobacco	UK	9,561
City Mutual Life Assurance	40	173	Life Ins		431
Qantas Empire Airways	43	163	Transport	Commw	9,546
Prudential Assurance Co	45	161	Life Ins	UK	n/a
Custom Credit Corp	46	161	Other Fin		685
Comcl & General Acceptance	54	131	Other Fin		420
Sydney County Council	56	126	Utility	NSW	6,803
Boral Ltd	63	109	Petr Ref		2,967
Australian Oil Refining	67	105	Petr Ref	US	n/a
Sub Total $100-299 M	15/47	2,543			65,467
Cumulative > $100 M.	24/70	13,477			117,871
III Echelon $50-99 M.	32/58	2,193			105,753
Cumulative > $50 M.	56/128	15,669			283,624
IV Echelon $30-49 M.	25/48	976			55,729
V Echelon < $30 M.	334/731	3,381			220,532
Total Sydney Companies	415/907	20,026			559,885

Source: Compiled from 1967 Delfin Digest.

addition, manufacturing is represented by British Tobacco, which dominates cigarette production and distribution, and three capital intensive companies in petroleum refining and marketing, i.e., Ampol, Boral, and Australian Oil Refining. Dalgety-New Zealand Loan, the leading wool selling broker, and Woolworths, one of Australia's two largest variety chain stores, complete the list of industries represented by the top twenty-four companies. Dalgety-New Zealand Loan, British Tobacco, Prudential Assurance (all United Kingdom), and the Australian Oil Refining Company (United States) are the only very large foreign firms with Sydney head offices. Their $640 million assets are relatively small compared to the $5,755 million controlled by the seven Commonwealth and State Government authorities, and the $7,081 million by the thirteen top private domestic Australian firms.

In this elite group of twenty-four companies, only five are manufacturers. The Colonial Sugar Refining Company is the most important being the second largest domestic manufacturing corporation in Australia. Its primary activities are the growing, milling, refining, and marketing of sugar in Australia, New Zealand, and Fiji. It has also strongly diversified into building materials, chemicals, mining, and, in addition, has one of Australia's largest investment portfolios. Its size and importance as a manufacturer, not only to Sydney but within Australia, is reflected in its rank of twenty-third among Australia's TOP 128 companies. The only other manufacturers in the First Echelon are the Broken Hill Proprietary Company (BHP),[1] and the United Kingdom

---

[1]Among world corporations, the Broken Hill Proprietary Company and the Colonial Sugar Refining Company are the only two Australian

controlled Imperial Chemical Industries of Australian and New Zealand (ICIANZ) and Shell Securities. These three have their Australian head offices in Melbourne.

Extending this analysis to the Delfin middle-sized companies in Sydney, those having assets of $50 to $99 million, we find an additional thirty-two headquarters in Sydney controlling an added $2,193 million.[1] An increasing diversity of economic activity is represented in twenty industry groups. Twelve companies in manufacturing include repeats in petroleum refining, and alcoholics and tobacco. The latter has Tooth and Company, Sydney's major brewery. New groups in primary-tertiary are: mining, with Consolidated Goldfields; two companies in agricultural production; two in building and construction; a holding company; and one investment bank, Development Finance Corporation--publishers of the Delfin Digest. Six additional firms in other finance, another utility, and three more retailers are added to the groups already listed for the top two Echelons. In summary, Sydney is headquarters for fifty-six of the Delfin TOP 128 large and medium size companies. The industry spread is broad but not complete as twenty-five of the thirty-six industry groups have the head office of at least one of these larger firms in Sydney.

---

firms included in the Fortune magazine directory of "The 200 Largest Industrial Companies Outside the U. S." In 1966 BHP ranked 55th, and CSR was 101, based upon estimated sales (Fortune, Sept., 1967). The 1966 ranking is used to be comparable with other data in this research paper.

[1]These Third Echelon companies are named and ranked in the last section of Table 4, The TOP 128 Delfin Companies.

There are 359 smaller Delfin companies with head offices in Sydney. It is their number and industry diversity rather than large size that lend support to the city's decision-making role. Although on the tag end of assets in the Delfin list, they are certainly large enough in the total Australian corporate picture to have importance within their industry for Sydney, the state, and in many cases the nation. Only three groups have no Fourth and Fifth Echelon firms, but all of these--the government railways, banks, and rubber and plastics--have one or more large enterprises with a Sydney head office. All other industry groups have at least one smaller company, with food and drink having the most, thirty. Although small in assets, these firms as well as the larger ones have another importance in the total number of persons they employ.

Headquarters for a Half-Million Employees

A work force of 560,000 persons is controlled from Sydney's 415 head offices. They constitute 42 per cent of all the employees of the Delfin companies. This can be compared with the 46 per cent of head offices and 48 per cent of assets based in Sydney (see Table 7). The half million employees are about 12 per cent of the total Australian work force of 4,800,000. Although many of the Delfin company employees work in the Sydney metropolitan area, many others work throughout New South Wales and in all other states and capital cities. This dispersed employment is particularly true for these 415 larger companies. The great bulk of Australia's small businesses which do not appear on the Delfin list are more likely to be local or statewide in their employment patterns rather than national.

Sydney's share of employees in the Delfin manufacturing sector almost duplicates her share of assets. However, the 45 per cent of primary-tertiary employment is considerably less than the 52 per cent of assets in this sector (see Table 7). When the actual figures are examined manufacturing has only 8,000 less employees than are in primary-tertiary, a difference that might be removed if all Delfin company employment figures were disclosed.

The New South Wales government railways stands out as the premier employer headquartered in Sydney. Its staff of 46,000 constitutes very nearly 1 per cent of the total Australian work force. Only Melbourne's Broken Hill Proprietary Company has a somewhat larger number of employees. Other Delfin Major Employers headquartered in Sydney are listed in Table 10.

Large employment is not necessarily directly equated with control of large assets. Some industry groups, such as banking, insurance, petroleum refining and industrial chemicals are capital intensive. The manufacture of electrical machinery and equipment, textiles, and retailing and transportation tend to be more labor intensive. Most of Sydney's First Echelon companies rank near the top of Table 10. However, the AMP and the Commercial Banking Company of Sydney are near the bottom, below a number of less wealthy firms including the Fifth Echelon Sydney Metropolitan Transport Service, which has assets of only $16 million. Even with these anomalies and others, Sydney's fifty-six head offices from the TOP 128 (see Table 9) control just half of the disclosed Delfin employees headquartered here. This leaves the other half distributed

Table 10. Sydney based Major Employers (Delfin companies with more than 4,000 employees).

	Company	No. of Empl.	Rank in 68 Co's > 4,000	Mfg	Assets Size
1.	NSW Dept. of Railways	46,156	2		I
2.	Woolworths	25,500	5		II
3.	Commonwealth Banking Corp	18,270	10		I
4.	Bank of New South Wales	13,500	12		I
5.	David Jones	11,900	14		III
6.	Choiseul Plantations	10,000	18		III
7.	British Tobacco Co (Aust)	9,561	19	M	II
8.	Qantas Empire Airways	9,546	20		II
9.	Colonial Sugar Refining Co	9,030	23	M	I
10.	W. R. Carpenter Holdings	8,460	24		III
11.	Tubemakers of Australia	8,200	25	M	III
12.	Electricity Comm. of NSW	7,771	28		I
13.	George Weston Foods	7,500	30	M	III
14.	Metal Manufacturers	7,000	32	M	III
15.	Sydney County Council	6,803	33		II
16.	Metro Transport Services	6,616	34		V
17.	Amalgamated Wireless A'asia	5,600	44	M	IV
18.	John Lysaght (Australia)	5,477	47	M	III
19.	Unilever Aust (Holdings)	5,440	48	M	III
20.	Aust. Mutual Provident Soc	5,300	49		I
21.	Email	5,250	50	M	IV
22.	Waltons	4,950	51		III
23.	Philips Industries Holdings	4,824	54	M	IV
24.	Comcl Banking Co of Sydney	4,799	55		I
25.	British Motor Corp (Aust)	4,500	58	M	III
26.	J. Hardie Asbestos	4,200	61	M	IV
27.	Grace Brothers Holdings	4,200	63		III
	Total	260,353		12 MFG	

Source: Compiled from 1967 Delfin Digest.

among 359 smaller firms which in aggregate make these lesser companies also important to the assessment of Sydney's role.

The decision-making function as evidenced by the head offices of Delfin companies, has a commanding presence in Sydney. All three measures, number of companies, assets, and employees, show percentages approximately double the metropolitan area's proportion of the Australian population. Whether looking at the very wealthy and large employers or at the many smaller businesses, Sydney is well represented in most industrial groups. Her mix of industry group assets is equally broad, but strongly biased towards the tertiary and primary sectors.

The foregoing analysis has been made under the assumptions of a broad interpretation of the location of top level decision-making. The following assessment of foreign firms operating through Sydney will show the effects of a moderate interpretation, wherein foreign controlled firms, assets, and employees are subtracted from the overall Delfin company measures.

Foreign Controlled Companies with Head Offices in Sydney

Sydney has been a base for non-Australian companies since its inception as a British colony in the late 17th Century. When the several British colonies on the continent joined into the politically autonomous Commonwealth of Australia in 1901, British firms were solidly entrenched in most sectors of the economy. It is a profound tribute to the Australians that they have created a strong domestically controlled economy while at the same time not nationalizing or "booting out" foreign enterprise. Australia continues to encourage such investment

in the development of her resources and to meet demands that cannot be satisfied by domestic firms or capital. Most recently large overseas companies have brought into production the huge iron ore deposits of northwestern Australia, the Bass Strait oil fields, and the Queensland bauxite and coal deposits. Continued expansion occurs in the automobile assembly, petroleum refining, and chemical industries, all of which are foreign dominated. There is a growing concern among Australian politicians, businessmen, and financiers that such foreign enterprises have greater Australian management and financial participation.

Wheelwright's Anatomy of Australian Manufacturing Industry (1967) is a solidly detailed analysis of the ownership and control of 300 major manufacturers operating in Australia. A substantial part of his analysis was concerned with the extent of foreign decision-making control as well as ownership of these firms. This present study of Delfin companies is less detailed but more comprehensive, based upon 500 manufacturing companies, and 407 others in primary and tertiary industries, and includes 47 government statutory authorities. The Delfin Digest (1967, 34 and 36) itself devotes attention to the question of foreign control and gives summaries by industry groups for Australia, the United Kingdom, the United States, and other countries. It does not show foreign control summaries for Australian cities.

Under a moderate interpretation foreign control means that the ultimate decision-making power rests outside Australia. It is not ascertainable for any given firm how much of this top responsibility there may have been delegated to a domestic Australian board of directors and management. It is known that the head offices for Australian

operations of these firms do have certain amounts of autonomy, some far more than others. To measure each city's importance as a decision-making center under a moderate interpretation, foreign controlled companies operating through domestic head offices in a city are subtracted from that city's total. At best, this is an unrefined correction, probably excessively reducing the amount of important decision and policy-making that actually takes place in each city. Any error is thus on the conservative side, reducing each city's decision-making importance more than it should be. However, the fact remains that the ultimate power does rest overseas.

There are no foreign firms in the First Echelon operating through Sydney (see Table 9). In the Second Echelon Dalgety and New Zealand Loan ranks first in foreign company assets controlled through Sydney. It is one of the oldest United Kingdom companies operating here and the leader in the wool selling broker group. It is a major force in the rural areas of the economy, acting as agents for wool and livestock selling as well as being an important supplier of stock and station needs. Not the least of its varied roles is as a lender of rural credit. Dalgety employs 3,500 in Australia. Only three other Sydney based foreign companies have greater than $100 million assets. British Tobacco (UK) and the Australian Oil Refining Company (US) are strong in the manufacturing sector. Prudential Assurance is a major force in the life assurance business although ranking fourth behind three domestic firms headquartered here. Neither Prudential nor Australian Oil Refinery disclosed employees, but it is estimated that each have between 500 and 1,000. The combined assets of $640 million

for these foreign companies in the top two Echelons are only about 5 per cent of the top twenty-four Sydney headquartered firms.

Another thirteen foreign companies are in the Third Echelon of medium-sized companies. Their combined assets are just short of $1,000 million. They include Metal Manufacturers, John Lysaght, and Tubemakers of Australia, all United Kingdom primary metal producers and marketers. American petroleum refiners and marketers, Caltex, Esso, and Amoco are among the eleven manufacturers. Others are Unilever Australia, George Weston Foods, British Motor Corporation, and Commonwealth Industrial Gases, all British; and Goodyear Tyre and Rubber, an American firm. Consolidated Goldfields Australia (UK) is the big mining house in Sydney.[1] It is the only mining company, foreign or domestic, in the top four Echelons. Lombard Australia (UK) is the only other concern in the primary-tertiary sector and is active in the other finance, hire purchase sub-groups. There are eight foreign Major Employers in Sydney (see Table 10). Most are among these Third Echelon companies.

Considering all 150 foreign firms operating through Sydney, manufacturing is represented better than two-to-one in both headquarters and assets over the primary-tertiary sector. All manufacturing groups have at least one such head office. Farm, construction, and other equipment with four, industrial chemicals with nine, and rubber and

---

[1]This multinational firm occupied its Australian head offices in the new Goldfields House in 1965. This impressive and highly visible structure overlooks Sydney Cove and is complementary to the AMP building at the east end of Circular Quay (see Figure 2).

plastics with one, have only foreign firms headquartered in Sydney. Three other groups have a predominance of overseas companies; electrical machinery with 15 of 24; petroleum refining with 6 of 8; and other chemicals, especially the pharmaceutical sub-group, with 21 of 24. When measured by assets twelve of the twenty manufacturing industries are substantially more than 50 per cent foreign controlled. Only the mining and wool selling brokers groups in the primary-tertiary sector are so dominated--by the already mentioned Consolidated Goldfields and Dalgety and New Zealand Loan.

In the manufacturing sector exactly one half of the Sydney headquartered firms are foreign. They also control one-half of the sector assets and about half the workers. Contrasted with this is the very weak presence of foreign companies in the primary-tertiary sector. They number 41 of 197 Sydney firms, have one-fifteenth of the assets, and just 12 per cent of the employees.

It is important to note that these 150 enterprises are not all controlled from one nation, let alone just one other city. This, in part, dilutes the effect of foreign control through competitive factors. The United Kingdom and the United States each have seventy companies with Australian head offices in Sydney. Because of older and broader representation, especially in insurance, wool-brokering, primary metals, electrical machinery, tobacco, mining, and motor vehicle assembly, British firms have $1,900 million to the American's $1,000 million assets. The latter have invested relatively more in petroleum refining, pharmaceuticals, farm and construction equipment, rubber tires, and packaging. The British employ 100,000 compared to

44,000 by Americans. Five Swiss firms, and one each for Canada, France, Sweden, the Netherlands, and Hong Kong, make up the ten remaining foreign operations. The largest of these, only a Third Echelon company with $68 million, is the hire purchase firm, Mercantile Credits. It is 40 per cent owned by the Hong Kong and Shanghai Banking Corporation.

The total influence of foreigners operating through Sydney is substantial but not dominant. They represent 36 per cent of the city's Delfin companies, only 16 per cent of assets, and 28 per cent of employees. By subtracting their totals from Sydney's overall statistics, we arrive at an adjusted measure of domestic decision-making headquartered here.

	Head Offices	Assets Millions	Employees
Total Sydney	415	$20,026	560,000
Foreign Controlled	- 150	- 3,230	- 158,500
Sydney Domestic	265	$16,796	401,500

The bottom line represents Sydney's strength under a moderate interpretation of the location of top level decision-making. The measures include Commonwealth Government enterprises in the Delfin lists which have head offices in Sydney. Governmental economic decision-making located in Sydney is amenable to both moderate and strict interpretations.

Economic Decision-Making by the Government Sector in Sydney

Commonwealth Organizations

Sydney plays a role as an economic decision-making center for various levels of government as well as for the corporate sector. It

is the capital of New South Wales, the most populous state. In addition, a number of Commonwealth Government instrumentalities have their head offices here. Two very important economic components of the central government now located in Sydney grew out of the Commonwealth Bank of Australia established in 1911. These keystones in the economic structure of the nation are the Reserve Bank of Australia and the Commonwealth Banking Corporation. The Reserve Bank was created in 1959, acquiring the central bank function, the Note Issue Department, and the Rural Credits Department of the former Commonwealth Bank. The trading, savings, and development bank roles were organized as separate banks under the new Commonwealth Banking Corporation, a statutory authority created in that same year. The reason these descendants of the original Commonwealth Bank are in Sydney today is because its first governor was the former chairman of the Bank of New South Wales, who did not desire to leave Sydney and, thus, the bank became established here. The Reserve Bank occupied its new head office building in 1971 (Figure 3).

It has already been seen that the Commonwealth Banking Corporation is the largest enterprise on the entire Delfin list. The Reserve Bank was not included in the list because of its non-corporate governmental nature. If inserted, its assets of $2,335 million in 1966 (Yearbook of Australia, 1968, 643) would rank third, just below the $2,640 million of the privately owned Bank of New South Wales. Assigned to Sydney in a moderate interpretation, the Reserve Bank assets would replace nearly three-fourths of the foreign controlled assets lost under such an interpretation. Impressive as this amount is, the true measure of the economic decision-making importance of the Reserve

Figure 3. Sydney Government Buildings.

Commonwealth

RBA Reserve Bank of Australia head office.
Q Qantas Empire Airways head office.
CC Commonwealth Center (Gov't. offices).

State

P New South Wales Parliament House
SO Site of State office building (See Figure 3).
RB Rural Bank of New South Wales.

(Photo courtesy of Australian News and Information Bureau.)

Bank is in its statement of general function (Yearbook of Australia, 1968, 641).

> It is the duty of the Board, within the limits of its power, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia and that the powers of the Bank under this act, the Banking Act 1959, and regulations under that act are exercised in such a manner as, in the opinion of the Board, will best contribute to
>
> (a) the stability of the currency of Australia;
> (b) the maintenance of full employment in Australia; and
> (c) the economic prosperity and welfare of the people of Australia.

Two other Commonwealth statutory authorities, of eight listed in the Delfin Digest, are headquartered in Sydney. Both are more important internationally than internally. They are Qantas Empire Airways (Figure 3), the government overseas airline, and the Overseas Telecommunications Commission.

No central office of any department of the Commonwealth has been located in Sydney as contrasted to Melbourne, which was the temporary seat of government and still retains some department head offices, as will be seen in the following chapter. A number of other organizations of the central government do have headquarters in Sydney, including the above mentioned banks, Qantas, and the Overseas Telecommunications Commission (Table 11). The Australian Stevedoring Industry Authority and the Australian Meat Board have strong economic importance through regulatory activities over their respective industries. The Australian Broadcasting Commission is responsible for the national radio and television networks, which operate in competition with private broadcasters throughout Australia. It is a major force in the communications of cultural, social, political, and economic attitudes and

Table 11. Commonwealth government organizations with head offices in Sydney in 1966.

	Employees[a] 1966-67	Minister Responsible
Ministerial Departments		
None		
Other Organizations		
Reserve Bank of Australia	2,901	Treasurer
Commonwealth Banking Corporation	19,309	Treasurer
Qantas Empire Airways	8,492	Civil Aviation
Australian Broadcasting Comm'n	5,033	Postmaster-General
Overseas Telecommunications Comm	1,304	
Commonwealth Hostels Ltd	2,519	Labour and Nat'l Service
Australian Stevedoring Industry Authority	n/a	"
Coal Industry Tribunal	n/a	"
Australian Atomic Energy Comm'n	1,092	National Development
Joint Coal Board	n/a	
Australian Meat Board	n/a	Primary Industry
Australian Egg Board	n/a	
Australian Honey Board	n/a	"
Australian Shipbuilding Board	n/a	Shipping & Transport
Export Payments Insurance Corp	n/a	Trade & Indus
Commw. Film Censureship Board	n/a	Customs & Excise
Total	40,650	

[a]Employees are those listed under the Public Service Act.

Source: Commonwealth of Australia Directory, 1966, and employment from Australia in Facts and Figures, No. 99, Sept., 1968.

ideas. The Australian Atomic Energy Commission, Joint Coal Board, Shipbuilding Board, and other regulatory boards are of relatively moderate economic importance.

Under a moderate interpretation, the head offices of the two government banks with their huge assets, central policy function, and important departments and divisions, are the principal avenues through which Sydney's role as a decision-making center is enhanced by elements of the central government. However, under a strict interpretation, the ultimate control of the assets of these banks and other Commonwealth organizations and the ultimate top level decision-making are assigned to Parliament. It is the paramount Commonwealth Government decision-making body. Thus, these measures of the function are subtracted from Sydney and assigned to Canberra. A strict interpretation leaves Sydney with only private domestic companies and State Government enterprises. After assessing State Government organizations, a summary of the three measures, head offices, assets, and employees will be contrasted for the three different interpretations.

New South Wales State Enterprises, Employees, and Policy Making

As the capital of New South Wales, economic decisions made in Sydney by the State Parliament and various departments, agencies, and boards directly affect 4.3 million New South Welshmen, 37 per cent of the national population (see Figure 3). Nine State statutory authorities had large enough assets to be included in the Delfin list. The Department of Railways is the largest. Second is the Electricity Commission, the principal producer of electricity. The rural bank and

government insurance offices, like the railways, are important throughout the state, especially the rural sectors. Of more limited importance in assets, employees, and spatially, are the State Mines Control Authority, a major coal producer with mines near Wollongong, the State Brickworks with its one plant in Sydney, and the Metropolitan Transport Services which provide bus services in Sydney and Newcastle. The Sydney County Council and St. George County Council are primarily electricity distributors in parts of the Sydney metropolitan area.

With the exception of statutory authorities, figures on assets are not generally available on any comparable basis for State Government organizations. However, employment statistics are available in the Yearbook of Australia. In 1967 there were 202,000 employees on New South Wales State payrolls, 46,000 of whom worked for the railways. The other 156,000 were in a wide variety of economic activities and social services including public works, transportation, utilities, factories, mining, education, health, and police, as well as the central administrative employees. The total of 202,000 is 4 per cent of the Australian work force, which makes the New South Wales Government the second largest employer in Australia. It is second only to the Commonwealth Government's 291,000 civilian employees.

In view of Australia's relatively small population of 11,500,000 in 1966, it is important to note that some aspects of economic activity have centered at the state level and have not become exclusive to the central government or fragmented at the local level. In terms of assets, employment, and economic importance, the state railway systems stand out. Electricity production, main roads, public

works, savings banking, hospitals, police, and all levels of education are other important state activities. The states also engage rather extensively in housing, mainly through financial and administrative support, rather than as actual builder or employer.

The prior separate colonial economic structures, the huge areal size of the nation, and strong state loyalties, all work towards continued economic importance for state governments. The top level state decision-makers and their head offices are almost exclusively in Sydney. The work force and assets which they control are all within New South Wales. State Government decision-making is added to that of the domestic private sector in all interpretations of the location of this top most function.

Comparisons of Measures Under Three Interpretations

Having detailed the measures of decision-making in Sydney, the summary data are here compared under three interpretations. The reader can see and judge for himself the effects of excluding foreign companies from Sydney (Figure 4). A moderate interpretation reduces head offices from 416 under a broad interpretation to 266, or only 29 per cent of 910 total companies. A further subtraction of the four Commonwealth enterprises headquartered here has only a minor effect on the number of head offices but reduces assets by $6,236 million, from 41.5 per cent to 28 per cent under a strict interpretation. The employees measure is based on the 2,000,000 workers of the Delfin companies and all Federal and State Government employees. A broad interpretation gives Sydney 34 per cent (701,600), whereas a moderate interpretation

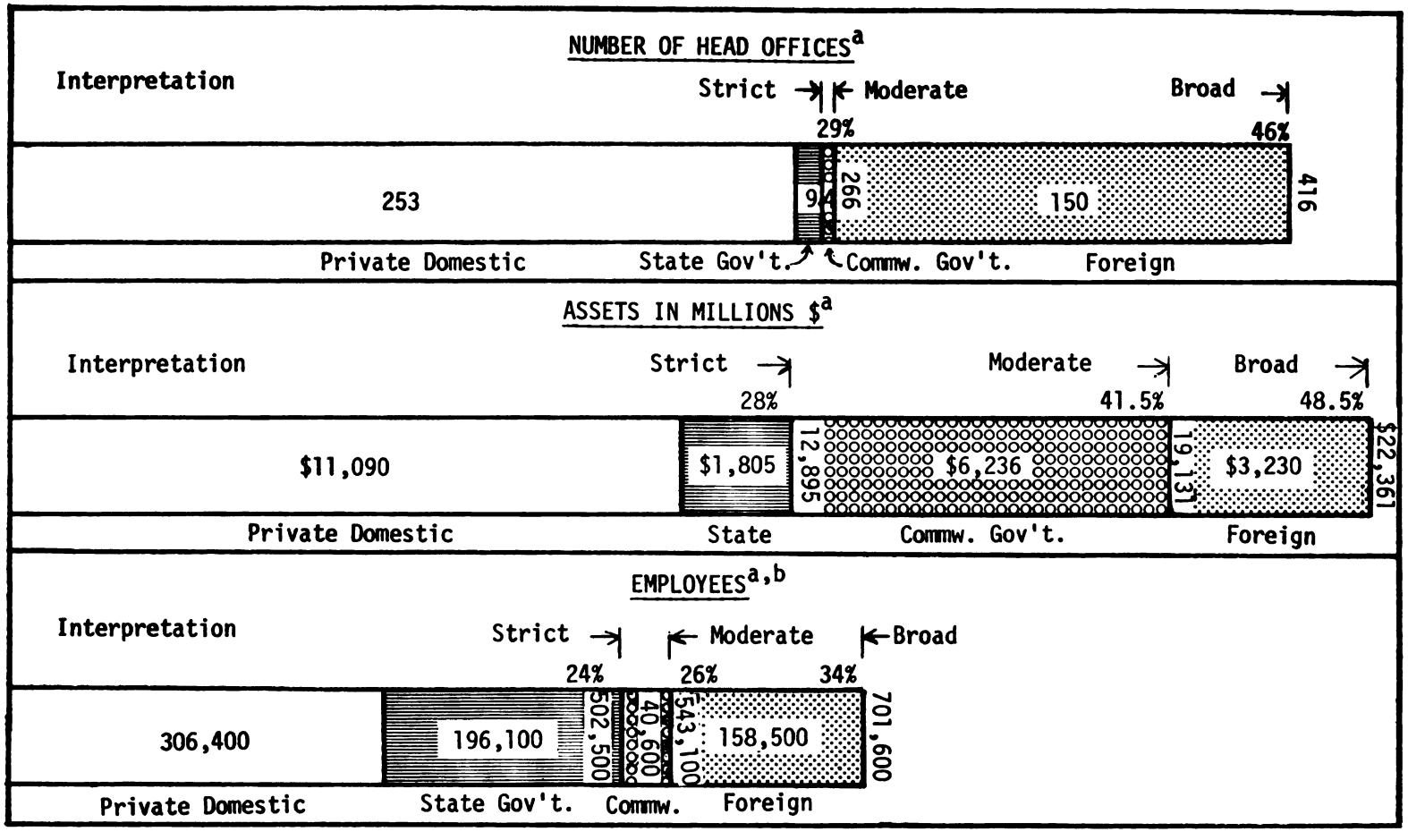


Figure 4. Comparisons of broad, moderate, and strict interpretations for Sydney.

[a]Includes Sydney Delfin companies and the Reserve Bank of Australia.

[b]Includes Sydney Delfin companies, all NSW State Government employees, and all Commonwealth Government employees controlled through Sydney head offices.

Source: Compiled from 1967 Delfin Digest and 1968 Yearbook of Australia.

reduces this to 26 per cent and strict to 24 per cent, which includes a very large State Government component of 196,100. Even in the strictist interpretation, Sydney's strength attributable to private domestic companies and the State Government is formidable. In 1966 the Sydney Metropolitan Area had 22 per cent of the Australian population. Closest to this figure is the 24 per cent in the employment measure under a strict interpretation. The other two measures, at 28 per cent each, are well ahead of the population figure. Assets are more strongly influenced than the other two measures when Commonwealth enterprises headquartered in Sydney are added. The Reserve Bank data are included in both the moderate and broad interpretations. Foreign companies contribute much more to the number of head offices and employees in Sydney than does the central government. Under a broad interpretation, the city has roughly half the assets and head offices and a third of the employees.

Regardless of which interpretation is used, it is concluded that Sydney has a strong decision-making role in the Australian economy. This is based on the high proportions of head offices here and the assets and employees controlled from these most central of establishments. Before concluding whether or not the city is a decision-making center, its nodal region for this function must be determined. Performing decision-making for a wide region beyond the metropolitan area is essential to the definition of such a center.

The Spatial Impact of Sydney

Sydney is the oldest city in Australia. Companies headquartered here have had in many cases the longest time to branch out as

multi-establishment firms with statewide and interstate units. The city was an early center for wealth which accrued to it both from overseas investment through Sydney as well as profits generated by local firms. This wealth has been reinvested in companies for expansion, which often meant opening up branch distribution units and, later, processing units in other state capitals and cities.

The spatial impact and, hence, the nodal region for Sydney is indicated by the number of Delfin companies operating nationally, regionally, or locally. The distribution by states of the Delfin company processing establishments and total Delfin establishments more precisely measure Sydney's nodal region for decision-making. The analysis is done under a strict interpretation, i.e., excluding foreign and Commonwealth establishments controlled through Sydney. This results in delimiting Sydney's minimum nodal region.

Number of Companies

The Delfin Digest identifies 253 private domestic companies and 9 state and local statutory authorities with headquarters in Sydney. Of these, 125 are classified as national companies (Table 12). Most firms have establishments in all six states. "National" companies include thirty-two which have units in only five states but which market or otherwise operate through agents and representatives in all states. In thirty instances the state not having a Sydney company unit is Tasmania. Also grouped with the "national" companies are seven others which operate in only five states plus the Australian Capital Territory and/or the Northern Territory, but not in one of the other states. Again, Tasmania or Western Australia is usually not represented.

Table 12. Sydney private domestic companies and state statutory authorities operating in number of states.

Establishments in	Total Number of Companies	Companies in TOP 128	Smaller Companies
6 States	86	19	67
5 States & Market Nationally	32	4	28
5 States	7	1	6
Total National	125	24	101
4 States	14	1	13
3 States	22	1	21
2 States	29	1	28
Multi-State Reg'l.	65	3	62
1 State and Local	72	8	64
TOTAL SYDNEY	262	35	227

Source: Compiled from 1967 Delfin Digest.

Companies from all assets Echelons operate nationally as well as regionally and locally. Sydney has 35 firms among the TOP 128. Of these, 24 have national operations including; the two big private banks, Bank of New South Wales and the Commercial Banking Company of Sydney; three life assurance companies, the Australian Mutual Provident Society, Mutual Life and Citizens, and City Mutual Life; and nine firms in the other finance group. David Jones department stores and Woolworth's chain of variety stores are in retail. Others are W. R. Carpenter in agriculture and diversified investments, John Fairfax publishers, and Hooker Investments and Lend Lease Corporation representing building and real estate. The Colonial Sugar Refining Company, Ampol, Boral, and Clyde Industries are prominent national manufacturers. These companies, together with the 101 in the lower Echelons, are drawn from almost all of the industry groups.

Only three multi-state regional companies are in the top Echelon. Waltons and Grace Brothers department store chains operate in four and three states respectively, Blue Metal Industries provides building materials in New South Wales and Victoria. Smaller firms are much more prevalent among the companies which operate in two to four states. In many cases they have their head offices and principal production facilities only in Sydney (and sometimes processing in Melbourne) and just distribution or branch office establishments in New South Wales, Victoria, and either Queensland or South Australia. Branches are most frequently missing in Tasmania and Western Australia. Firms from the TOP 128 operating only within New South Wales or locally include five State Government authorities: the NSW Railways, the Electricity

Commission, Rural Bank, State Insurance Offices, and the Sydney County Council. Choiseul Plantations, whose main activities are in the Solomon Islands, has only its head office in Sydney. The Australian Gas Light Company serves the Sydney metropolitan area. Tooth and Company sells its beer statewide through a number of company controlled or owned hotels. More of the smaller companies operate nationally than either regionally or only within the state.

It is not possible to determine the distribution of assets by states of Delfin companies having their head offices in Sydney. However, the aggregate assets can be given for those firms operating nationally versus regionally, or only in one state and locally. When the assets are grouped in this manner, the national firms have the largest share (Table 13).

Table 13. Assets by areas of operations of Sydney based companies.

Area of Operation	Number of Companies	Assets $m.	Percentage of Assets
National	125	$ 9,334	72+%
4, 3, or 2 States	65	821	6+%
1 State or Local	72	2,740	21+%
Total	262	$12,895	100 %

Source: Compiled from 1967 Delfin Digest.

It is apparent from both numbers of companies and their assets that nationally operating companies are much more important in Sydney than

are regional ones. Companies having activities only in New South Wales or, more restrictively, only in Sydney, make up about one-fifth of the assets. The three-quarters of Sydney's assets controlled by nationally important companies should be kept in mind during the analysis of the distribution of establishments.

Processing Establishments

The number of processing and other establishments in each state is given for most of the companies in the Delfin Digest. In the case of a few companies information from annual reports, Universal Business Directories, telephone directories, and field observations is used to determine locations of establishments not given in the Digest. Processing establishments are particularly important to this analysis because they are often the key units of companies which market nationwide. Such establishments include a wide variety of production and processing facilities; factories of every description from the great steel mills to small local bottling plants; mines, sawmills, sheep stations, wheat farms, and fish processing plants. Regardless of size, each is counted as a single establishment. Although quite different items are being grouped together, roughly the same relative mixture is being grouped for each of the capital cities. The numbers of processing establishments and their distributions among the states are what is important.

There are two ways of analyzing the distribution of establishments whose corporate head offices are in Sydney. The first is to look at the number and proportion of establishments controlled from Sydney

and examine their distribution among the several states. The second way is to look at the number and percentage of establishments in each state that are controlled from Sydney.

About a third of all Delfin processing units are controlled from Sydney, 1,571 of 4,351. Over half of these are located in New South Wales, as would be expected (Table 14).

Table 14. The distribution of processing establishments controlled from Sydney.

Location of Establishments	Number of Units	Percentage of Sydney Units
New South Wales	857	54.6%
Victoria	275	17.5%
South Australia	112	7.1%
Queensland	185	11.8%
Western Australia	80	5.1%
Tasmania	25	1.6%
Northern Territory	11	.7%
A. C. T.	26	1.7%
Sydney Total	1,571	100.0%
Delfin Total	4,351	

Source: Compiled from 1967 Delfin Digest.

Sydney companies also carry on production in all other states and territories with the strongest showing in Victoria and Queensland (Figure 5).

A different picture is gained from examining the percentage of each state's Delfin establishments that is controlled by Sydney based

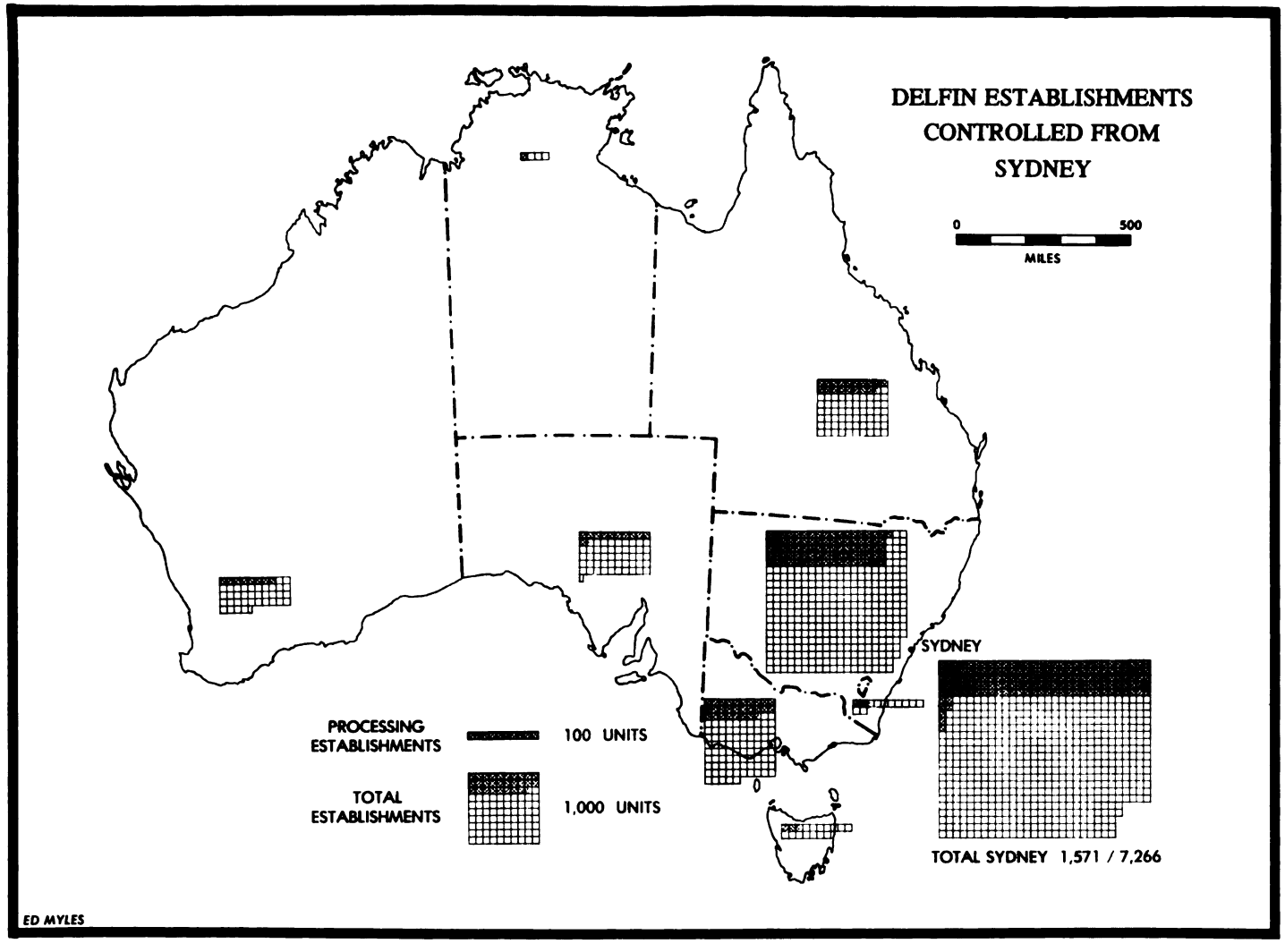


Figure 5. Distribution of Delfin processing total establishments controlled from Sydney.

Source: Compiled from 1967 Delfin Digest, Universal Business Directories, and telephone directories.

firms. Because there are widely different numbers of such facilities in each state, this viewpoint gives a better measure of the city's relative spatial impact (Figure 6). Sydney controls over half of all processing establishments in New South Wales, and controls from 15 to 70 per cent of such establishments in the other states and territories (Table 15).

Table 15. The number of processing establishments in each state and percentage of state units controlled from Sydney.

State	Processing Units	Controlled from Sydney	Percentage of State Units
New South Wales	1,539	857	55.7%
Victoria	1,268	275	21.7%
South Australia	433	112	25.9%
Queensland	551	185	33.6%
Western Australia	327	80	24.5%
Tasmania	167	25	15.0%
Northern Territory	29	11	37.9%
A. C. T.	37	26	70.3%
Total	4,351	1,571	36.1%

Source: Compiled from 1967 Delfin Digest.

The relative impact of Sydney companies is strongest in the Australian Capital Territory, New South Wales, the Northern Territory, and Queensland. In terms of numbers of establishments, the impact is greatest in the home state of New South Wales by a substantial margin, followed by a large number of units in Victoria. The percentage of

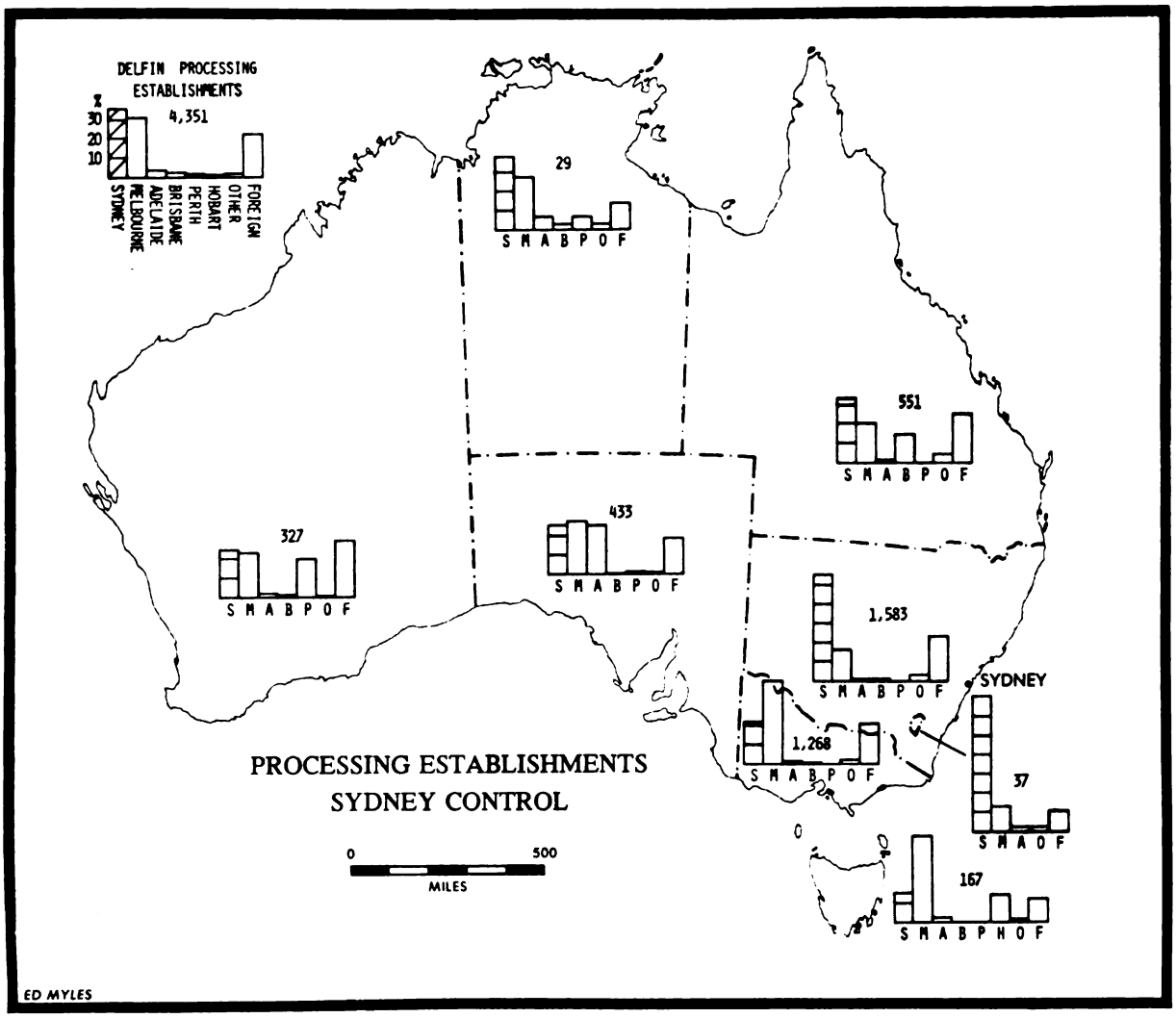


Figure 6. The percentage of each state's Delfin processing establishments controlled from Sydney.

Source: Compiled from 1967 Delfin Digest, Universal Business Directories, and telephone directories.

establishments in each state that is controlled from Sydney is greater in most cases than the proportion of units controlled from the capital cities of other states (Figure 6). The major exception is Melbourne's dominance in Victoria. In Queensland, for example, Sydney firms have more than twice the number of processing establishments than do Brisbane based firms.

Total Number of Establishments

The total number of Delfin establishments includes distribution and office units as well as the preceding processing units. Again, a great variety of other economic activities and their associated establishments are grouped together. Retail stores, warehouses, transportation facilities, offices of all kinds including the central administrative offices of companies, are all included. The largest department stores and the smallest branch offices are in the mix.

Sydney is headquarters for over 7,000 establishments nationwide. Although this aggregate figure is more than four times the number of processing units along, the relative spatial distribution by states is in nearly the same proportions (see Figure 5).

There are greater variations in the shares of each states' total establishments controlled from Sydney when compared with the same figures for processing units along (compare Tables 15 and 16 and Figures 6 and 7). Each of the percentages for total units is less than for processing units except for Tasmania. The total for all Sydney units is 31 per cent, whereas processing units accounted for 36 per cent of the national total. Thus, Sydney has control over a greater share of

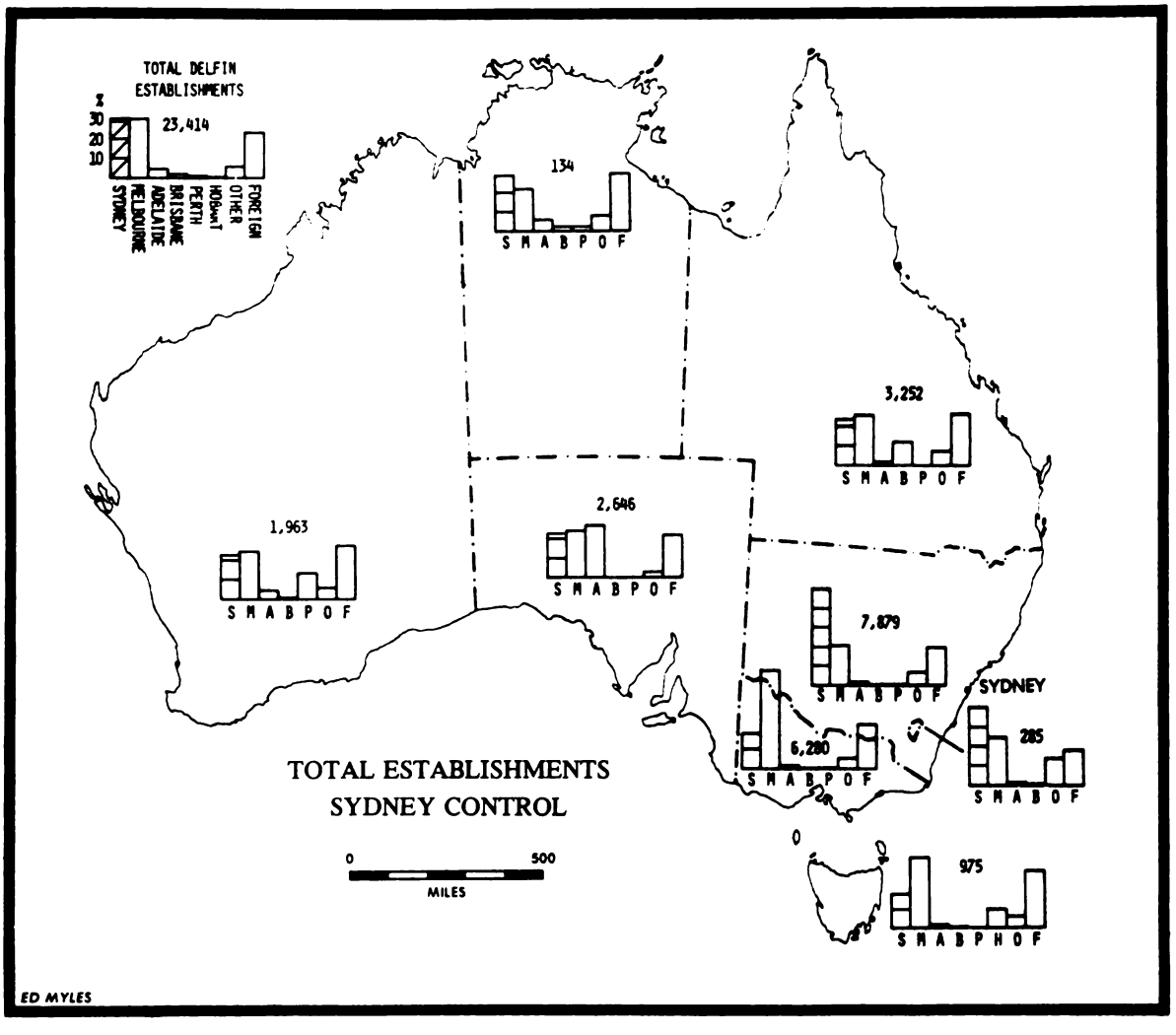


Figure 7. The percentage of each state's total Delfin establishments controlled from Sydney.

Source: Compiled from 1967 Delfin Digest, Universal Business Directories, and telephone directories.

Table 16. The number of total establishments in each state and the percentage of state units controlled from Sydney.

State	Total Units	Controlled from Sydney	Percentage of State Units
New South Wales	7,879	3,936	50.0%
Victoria	6,280	1,150	18.3%
South Australia	2,646	605	22.9%
Queensland	3,252	802	24.7%
Western Australia	1,963	445	22.7%
Tasmania	975	172	17.6%
Northern Territory	134	39	29.1%
A. C. T.	285	117	41.1%
Total	23,414	7,266	31.0%

Source: Compiled from 1967 Delfin Digest.

the key processing establishments than it does of the more inclusive group of all Delfin establishments.

The above data indicated that Sydney has a nationwide nodal region. Corporate CAO's in the city are linked by the decision-making function to a large number of processing and other establishments throughout Australia. The size and number of nationally operating companies headquartered in Sydney strengthens its broad areal impact because they control so many of the key major processing units. The city's role in New South Wales is pronounced as the companies control half of all the Delfin establishments in the state. This dominance is not the case for the capital cities in other states except for Melbourne in Victoria.

It is concluded from these data that Sydney is a decision-making center as hypothesized. There is the strong presence of the key central administrative offices in the city and they, in turn, operate throughout a nodal region of nationwide extent. Thus, Sydney is a national decision-making center. This conclusion is arrived at under a strict interpretation of the location of top level decision-making. It would be even more warranted under moderate and broad interpretations. However, the data also indicate that Sydney does not completely dominate the Australian scene. The percentages of companies, assets, employees, and establishments are such that other cities have an opportunity to rival Sydney's role. Melbourne does just that.

CHAPTER IV

MELBOURNE: COMPETITOR FOR HEAD OFFICE LOCATION

Melbourne is the principal rival of Sydney for the location of central administrative offices and economic decision-making in Australia. The rivalry commenced from its days as a port of entry for the Victorian goldfields rush of the 1850's. Momentum increased through the latter part of the nineteenth century until Melbourne exceeded Sydney in size and attraction for people and corporations having economic power. Sydney regained its position of most populous city in 1902, but there has been strong economic competition between these two cities ever since.

> . . . . but its wider influence, like that of Sydney, extends to the State boundary and beyond. From the time of the gold rushes, when a vast influx of capital and population marked a new era, the city has been the financial and administrative centre for many of Australia's larger industrial, commercial, pastoral and mining organizations. Such factors, while not accounting for all of Melbourne's greatness, have undoubtedly added to its prestige. (Robinson, 1960, 133)

Unlike the result in many other nations, where a single large primate city has emerged, Melbourne has succeeded in staying close to Sydney in population size. It had 2,250,000 persons at the 1966 census, only a quarter million less than Sydney. Both are far larger than any other Australian city, the metropolitan populations of third and fourth ranked Adelaide and Brisbane being about 725,000 (Yearbook of Australia, 1968, 125).

At the time of federation in 1901, Melbourne politicians, businessmen, and others of influence succeeded in having their city named as temporary capital of the Commonwealth until the permanent site could be chosen and a new capital built. Although they were not strong enough to have Melbourne selected as the permanent seat of government, their strength was sufficient to deny this privilege to their rivals in Sydney or any other state capital. Thus, the stage was set even then for competition for economic leadership between Sydney and Melbourne. The latter had the temporary advantage of being the interim seat of national government. Conservative merchants, daring mining entrepreneurs, politicians, statesmen, and other leaders have since created a nerve center for the guidance of Melbourne, Victorian, and Australian economic activities (Figure 8).

Melbourne completely dominates the small state of Victoria having two-thirds of its population. Geelong, with only 92,000, is the second largest urban area. It is just fifty miles southwest of the metropolis. Melbourne has for many years had strong connections with the southern part of New South Wales. The Riverina is closer to this city than to Sydney and is connected by the Victorian broad gauge railroads that extend across the Murray River border. Melbourne also has strong economic ties with the northern ports of Tasmania which are less oriented to Hobart lying at the southern end of this small island state. The wealth from her own rich resources as well as other states have made Victoria's capital a center for decision-making by private domestic and foreign firms and government organizations.

Figure 8. Melbourne central business district. Exhibition Hall, the former temporary Parliament House for the Commonwealth Government, is in the right middle ground. The financial and office district has been along Collins St. but is now expanding into other parts of the city.

S	Shell Australia
B	Broken Hill Proprietary Company
NML	Site of new National Mutual Life Ass'n.
SE	State Electricity Commission (Victoria).
ICI	Imperial Chemical Industries of Australia and New Zealand.
CC	Commonwealth Center (Gov't. offices).
EH	Exhibition Hall
C	Collins House

(Photo courtesy of Australian News and Information Bureau.)

As was done for Sydney, the analysis of Melbourne's CAO's and decision-making role starts with a broad interpretation, including foreign and Commonwealth enterprises. Then, the substantial effect of foreign firms is subtracted under a moderate interpretation. The positive effect of the Commonwealth Government operating through Melbourne head offices is examined under this interpretation before being subtracted under a strict interpretation.

The Corporate Sector in Melbourne

Headquarters and Assets in Industry Groups

An even third of Australia's major enterprises have their head offices in this southern capital city (Table 17, Column C). All statistics on head office totals are less than for Sydney which are all in the 43-48 per cent range (See Table 7 for Sydney). The manufacturing sector of the Delfin list is more strongly represented in Melbourne than is the primary and tertiary. Melbourne's metropolitan area has 19 per cent of the Australian population. The percentage of manufacturing head offices is double the population figure, while the primary and tertiary share is only half again as large.

The best evidence of Melbourne's economic significance becomes most apparent in the assets columns (Table 17, Columns D and E). Half of all the assets of Australia's top manufacturing firms are controlled from here as is an even higher percentage of the durable goods sub-sector. Although just over a third of the primary and tertiary sector is controlled from this city, its $10,769 million are nearly double the actual manufacturing assets.

Table 17. Delfin companies with Melbourne head offices: head offices, assets, and employees by industry sector.

Industry Sector	Total Delfin Co's	Head Offices in Melbourne		Assets Controlled from Melbourne		Employees Controlled from Melbourne	
		Number	Percentage of Sector	$ Million	Percentage of Sector	Number	Percentage of Sector
	A	B	C	D	E	F	G
Manufacturing							
Durable Goods	230	87	38%	$ 2,743	54.3%	178,210	48.8%
Non-Durable Goods	270	101	38%	$ 2,910	46.8%	158,307	47.9%
All Manufacturing	500	188	38%	$ 5,653	50.2%	336,517	48.4%
Primary-Tertiary	407	116	29%	$10,769	35.9%	227,923	36.4%
Total Melbourne	907	304	34%	$16,422	39.8%	564,440	42.7%

Source: Compiled from 1967 Delfin Digest.

Melbourne has a very strong share of companies in the motor vehicle assembly and rubber and plastics groups. It also has about half the companies in four other manufacturing groups: metal building supplies, other fabricated metals, industrial chemicals, and textile mills, plus half the investment banking and money market operators (Table 18, Part A). Like Sydney, Melbourne has 60 per cent or more of the assets in nine industries. But there is an almost complete reversal of sector dominance by the two cities. The latter is strongly entrenched in manufacturing while the former is more oriented towards the tertiary industries. They split the primary groups with Melbourne strongest in mining and Sydney in agriculture, and to a less extent, wool brokering. Although percentages of assets or companies do not draw attention to them, there are three other groups which must be mentioned as being important in Melbourne because of their actual amount of capital. They are: banks with $5,385 million, insurance with $1,407 million, and utilities with $1,016 million.

A definite weakness in industry group leadership is evidenced for the primary and tertiary sector (Table 18, Part B). Melbourne is weakest in agricultural and pastoral production and distribution measures, having $22 million, or just 7 per cent of group assets. The other groups have proportions of companies or assets which are below or roughly equal to the metropolitan share of population. Only three of these groups are from the manufacturing sector.

Table 18. Industry groups with strong or weak representation in Melbourne by companies and/or assets.

Group	Proportion of Companies	Percentage of Group Assets
PART A. Strong Representation		
Primary Iron & Steel	2/7	81%
Motor Vehicle Assembly	6/9	80%
Metal Bldg Supplies & Equip	10/20	69%
Other Fabricated Metal Prods	20/41	45%
Industrial Chemicals	10/21	73%
Rubber & Plastic Products	7/9	74%
Textile Mills & Apparel Prods	21/38	62%
Packaging	6/14	70%
Mining	9/25	73%
Investment Banks, Money Market	5/10	60%
PART B. Weak Representation		
Heavy General Engineering	4/15	31%
Other Chems, Fert, Pharmc	6/35	12%
Food and Drink	25/82	23%
Agricultural & Pastoral Prod	2/14	7%
Wool Selling Brokers & Agents	3/16	12%
Building & Construction	7/25	16%
Other Finance	4/35	18%
Railways, Government	2/7	28%
Utilities, Elec, Gas, & Comm	3/20	37%
Vehicle Distribution	6/25	18%
Other Goods & Services	5/25	22%
Investment & Holding Co's	8/20	22%

Source: Compiled from 1967 Delfin Digest.

Big Companies, Abbreviated Names

The thirty-one companies that are listed in the top Echelons of assets for Melbourne more strongly represent the manufacturing sector than was true for their counterparts in Sydney (Table 19 and see Table 9 for Sydney). Many of these giants are well known to Australians by their initials. The Broken Hill Proprietary Company (BHP) is the nation's iron and steel monopoly and leads the list of all industrials (see Figure 8). Imperial Chemical Industries of Australia and New Zealand (ICIANZ) and Shell Australia Securities, are the respective leaders in the industrial chemicals and petroleum refining and marketing groups. Important as these top manufacturers are, the banks, insurance firms, and two state owned authorities dominate the First Echelon. Manufacturers are better represented in the next Echelon. Several are industry leaders including General Motors-Holden's (GM-H) and Ford Motor Company of Australia in motor vehicle assembly; Australian Consolidated Industries (ACI) in packaging; Australian Paper Manufacturers (APM) in pump and paper; Alcoa and Comalco in aluminium refining; Dunlop in rubber and plastics; and Carlton and United Breweries (C & UB). Three more petroleum refiners, British Petroleum (BP), Mobil Oil, and H. C. Sleigh, complete the list of big manufacturers. Australia's largest mining house, Conzinc Riotinto of Australia (CRA), heads the Second Echelon in assets.

No Commonwealth Government statutory authorities are found among the large companies headquartered in Melbourne. Four State Government entities are, however, including the largest utility in Australia, the State Electricity Commission of Victoria; and the largest state

Table 19. Melbourne based companies by assets echelons.

Echelon and Company Name	Co's in Echelon	Assets $ M.	Industry Group	Gov't For'n	No. of Empl.
I Echelon > $300 M.	Rank in TOP 128				
Aust. & New Zealand Bank	3	1,874	Banking	UK	9,536
Nat'l Bank of Australasia	5	1,157	Banking		7,111
State Savings Bank Victoria	6	979	Banking	Vict	4,001
State Electricity Comm'n	7	878	Utility	Vict	22,477
Broken Hill Proprietary Co	8	870	Prmy Iron		48,191
Commercial Bank of Aust	10	778	Banking		5,861
English, Scottish & Aust Bank	12	604	Banking	UK	4,841
Victorian Railways	15	424	Railways	Vict	28,254
Aust. Temperance & General	16	422	Insurance		1,737
Nat'l Mutual Life Ass'n	17	412	Insurance		3,000
Colonial Mutual Life Society	19	368	Insurance		3,851
I.C.I.A.N.Z. Ltd.	20	364	Indl Chem	UK	11,000
Shell Aust. Securities	21	313	Petr Ref	UK	6,315
Sub Total > $300 M.	13/23	9,437			156,175
II Echelon $100-299 M.					
Conzinc Riotinto of Aust	24	299	Mining	UK	4,470
General Motors-Holden's	26	268	Motor Veh	US	20,958
British Petroleum Co of Aust	31	207	Petr Ref	UK	4,027
Mobil Oil Australia	38	174	Petr Ref	US	2,600
Myer Emporium	42	167	Retail		21,205
Aust. Consolidated Ind	44	162	Packaging		16,000
Ford Motor Co. of Australia	47	156	Motor Veh	US	7,850
G.M. Acceptance Corp. Aust	50	146	Other Fin	US	394
G.J. Coles & Co	51	146	Retail		21,000
Aust. Paper Manufacturers	53	133	Pulp Paper		5,800
Alcoa of Australia	57	125	Pmry NoFe	US	1,250
Ansett Transport Industries	58	120	Transport		10,343
H. C. Sleigh	59	115	Petr Mktg		5,505
Comalco Industries	60	114	Pmry NoFe	US	2,175
Gas & Fuel Corp. of Vict	64	108	Utility	Vict	3,786
Dunlop Rubber Australia	66	106	Rubber		13,000
Carlton & United Breweries	68	104	Beer		3,260
ESANDA	70	103	Other Fin	UK	n/a
Sub Total $100-299 M.	18/47	2,752			143,623
Cumulative > $100 M.	31/70	12,189			299,798
III Echelon $50-99 M.	22/58	1,420			73,979
Cumulative > $50 M.	53/128	13,609			373,777
IV Echelon $30-49 M.	16/48	609			29,979
V Echelon < $30 M.	235/731	2,204			160,694
Total Melbourne Companies	304/907	16,422			564,440

Source: Compiled from 1967 Delfin Digest.

savings bank. Markedly different from the list of Sydney's top Echelons is the number of foreign controlled firms operating through Melbourne head offices. In the First Echelon are the top placed Australian and New Zealand Bank (ANZ), and the English Scottish and Australian Bank (ES and A), ICIANZ, and Shell. Nine more are in the next Echelon for a total of thirteen as compared to only four in Sydney, all of which are in the Second Echelon. Melbourne's foreign enterprises control nearly 40 per cent of the $12,000 million assets of that city's large companies.

Melbourne has twenty-two medium-sized firms. Together with the above large companies, two-thirds of the Delfin industry groups are represented by Melbourne's share of the TOP 128. Three Commonwealth transportation authorities are in this Third Echelon: The Commonwealth Railways, Australian National Airlines, and the Australian Coastal Shipping commission. The investment banking and money market group has two firms. Australian United Corporation and Capel Court Securities are associated with the nation's leading share broker houses, Ian Potter and Company, and J. B. Were and Son respectively. These brokers, through their underwriting activities, are two of the main reasons Melbourne has been called the "Financial Capital" of Australia. How appropriate this term is will be seen in a later part of the study.

In summary, Melbourne's and Sydney's almost identical number of large and medium sized companies have roughly four-fifths of their respective city's Delfin assets. The actual amounts are $2,000 million different because of Sydney's larger total Delfin assets (Figure 9). Melbourne's leading firms are rather evenly split between manufacturing and primary and tertiary. Sydney's leaders are much more strongly

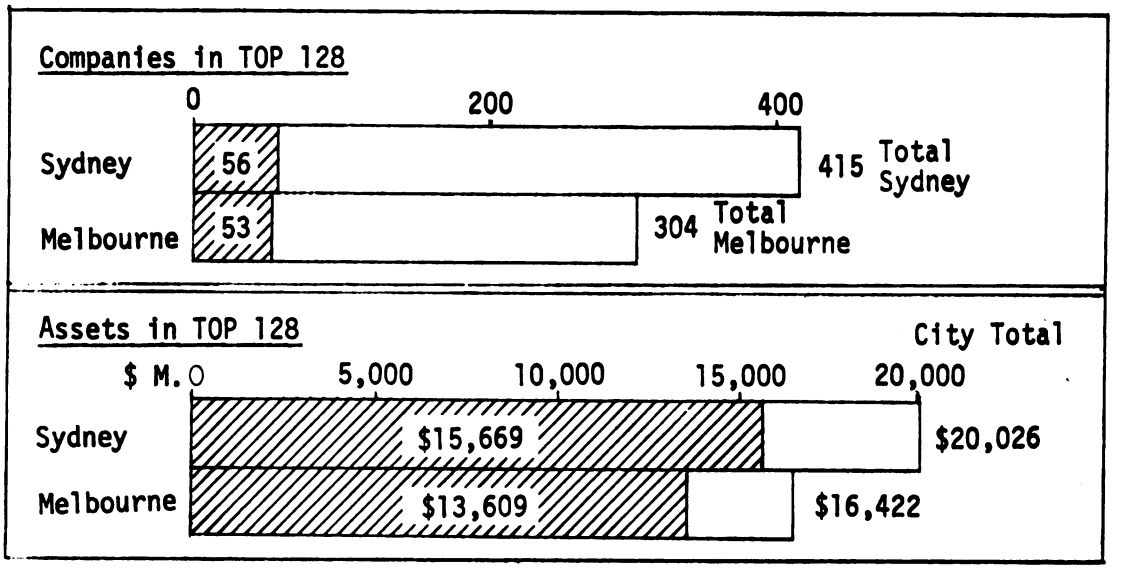


Figure 9. Sydney and Melbourne companies and assets in TOP 128.

Source: Compiled from 1967 Delfin Digest.

represented in the latter with thirty-six firms to twenty in manufacturing. In the lower two Echelons, Melbourne companies have less in all measures than their Sydney counterparts (Table 19, and see Table 9 for Sydney). They are very diverse in their economic activities, being found in all industry groups except among the large banks and government railways.

Another Half-Million Employees

Although Melbourne has fewer companies on the Delfin list than Sydney, and we have seen Sydney's greater assets, it is in employment that Melbourne achieves parity. The disclosed work forces controlled from Melbourne and Sydney are both about 560,000. Internally, their sector components show strong contrasts (Figure 10 A). In actual number of workers, Melbourne has 108,000 more in manufacturing than in

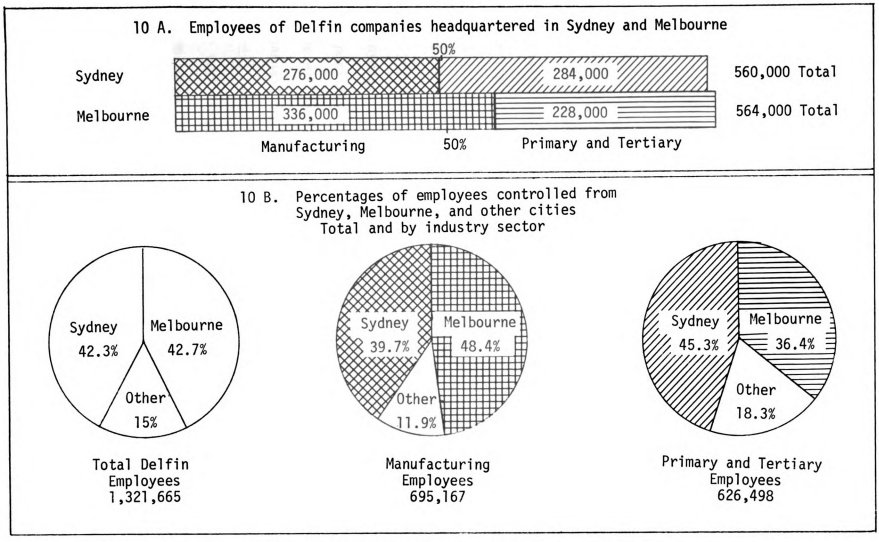


Figure 10. Delfin company employees controlled from Sydney and Melbourne.

Source: Compiled from 1967 Delfin Digest.

primary and tertiary. Sydney's small 8,000 difference is in favor of the latter sector. With equal percentages of all Delfin employees, Melbourne has 9 per cent more of all manufacturing workers, while Sydney has a similar higher share of all primary and tertiary persons (Figure 10 B).

Melbourne has more Major Employers than does Sydney, thirty-three compared to twenty-six (Table 20 and see Table 10 for Sydney). They control 61 per cent of Melbourne's Delfin workers. The Broken Hill Proprietary Company is the largest private employer in the nation with 1 per cent of the total Australian work force. It has major facilities and staffs in New South Wales, Victoria, South Australia, and Western Australia. The large staffs of the Victorian Railways and the State Electricity Commission are essentially within Victoria. Myers and Coles, together with Sydney-based Woolworths and David Jones, are the four great retailers in Australia. All are major tertiary industry employers. Nineteen manufacturers are found in Table 20, including the top positioned BHP. They displace many of the banks and other tertiary firms with large assets to lower positions on the list. Three small companies, Prestige (clothing manufacturer), Cox Brothers (department stores), and the Melbourne and Metropolitan Tramways are represented with work forces comparable in size with two assets-rich banks. Nine of Melbourne's First and Second Echelon companies are not on this list of Major Employers (See Table 19).

The fifty-nine firms in the tables of Melbourne's and Sydney's Major Employers control 46 per cent of all Delfin workers, and some 12 per cent of the national work force. It should be recalled that it

Table 20. Melbourne based Major Employers. (Delfin companies with more than 4,000 employees.)

	Company	No. of Empls.	Rank in 68 Co's > 4,000	Mfg	Assets Size
1.	Broken Hill Proprietary	48,191	1	M	I
2.	Victorian Railways	28,254	3		I
3.	State Electricity Comm.	22,477	6		I
4.	Myer Emporium	21,200	7		II
5.	G. J. Coles and Co.	21,000	8		II
6.	General Motors-Holden's	20,958	9	M	II
7.	Aust. Consolidated Ind.	16,000	11	M	II
8.	Dunlop Rubber Aust.	13,000	13	M	II
9.	I.C.I.A.N.Z. Ltd.	11,000	16	M	I
10.	Ansett Transport Ind.	10,343	17		II
11.	Aust. & New Zealand Bank	9,536	21		I
12.	Ford Motor Co of Aust.	7,850	26	M	II
13.	Repco	7,772	27	M	III
14.	Felt & Textiles of Aust.	7,710	29	M	III
15.	Nat'l Bank of Australasia	7,111	31		I
16.	Shell Aust. Securities	6,315	35	M	I
17.	Australian Nat'l Airlines	6,263	36		III
18.	Olympic Consolidated Ind	6,200	37	M	III
19.	Humes	5,983	38	M	III
20.	Electronic Industries	5,976	39	M	III
21.	McPherson's	5,938	40	M	III
22.	Commercial Bank of Aust.	5,861	41		I
23.	Aust. Paper Manufacturers	5,800	43	M	II
24.	H. C. Sleigh	5,505	46	M	II
25.	E. S. & A. Bank	4,841	53		I
26.	Melb & Metro. Tramways	4,614	56		V
27.	Associated Pulp & Paper	4,580	57	M	III
28.	Conzinc Riotinto of Aust.	4,470	59		II
29.	Cox Brothers (Aust.)	4,389	60		IV
30.	Prestige	4,200	62	M	V
31.	British Petroleum	4,027	65	M	II
32.	Int'l Harvester Co of Aust	4,011	66	M	III
33.	State Savings Bank Vict	4,001	67		I
	Total	345,376		19 MFG	

Source: Compiled from 1967 Delfin Digest.

took just the twenty-three First Echelon giants to control more than half of the Delfin assets. However, only seventeen of those big money enterprises are on the big employer lists.

The three measures evidenced through head office control, viz., number of companies, assets, and employees, show Melbourne to have a strong decision-making function (See Table 17). Number of employees is her strong suit, but all three indices are more than one-and-a-half to two times the city's 19 per cent share of the national population. Melbourne can be characterized as the site of head offices for manufacturing firms with large assets and work forces more so than Sydney. Every Delfin industry group is represented. The city ranks first or second only to Sydney in all groups and by all measures except one. Adelaide is second in both assets and employees in the wool selling brokers and agents group.

Under the foregoing broad interpretation, Melbourne is headquarters for both private domestic and foreign firms, and Commonwealth and State enterprises. The decision-making function attributable to overseas companies is more pronounced in Victoria's capital than in Sydney. A moderate interpretation results in a substantial alteration to Melbourne's decision-making role.

Multi-National Firms With Head Offices for Australia in Melbourne

Over a third of the Delfin assets in Melbourne are controlled by foreign companies. Two British banking houses, the ANZ Bank and ES and A Bank, have $2,500 million of the city's $5,800 million overseas assets. Together with the other foreign firms in the First and

Second Echelon they control $4,700 million (See Table 19). We have already seen that a number of these firms are industry leaders, such as ICIANZ, Shell Australian, Conzinc Riotinto of Australia, and Alcoa of Australia. General Motors-Holden's, the leading auto maker, moved its head office from Adelaide to Melbourne when a large new factory was built during World War II. Adelaide was the location of the original Holden operations and the site of the first GM-H assembly plant. Both this company's current head office and that of the Ford Motor Company of Australia are at their principal factories unlike most of the other CAO's which are in the central business district. General Motors Acceptance Corporation, a hire purchase subsidiary of its American parent, has its Australian head office in Melbourne's financial district rather than in association with the GM-H head office at the Port Melbourne plant. In contrast, ESANDA, the hire purchase arm of ES and A Bank, is administered from the same building in Collins Street.

In all Echelons, there are eighty-five foreign head offices in Melbourne, 28 per cent of that city's Delfin list. They control about a quarter of the work force. Ten companies are among the Major Employers (See Table 20). GM-H with 21,000 is the largest foreign employer ranking ninth among all Delfin firms.

Melbourne's manufacturing sector has sixty-nine enterprises. More than half the companies, the assets, and the employees in seven of Melbourne's major manufacturing groups are foreign controlled. They are:

Primary non-ferrous metals
Farm, construction, and other equipment
Motor vehicle assembly
Electrical machinery, equipment, and supplies
Petroleum refining and marketing

Industrial chemicals
Miscellaneous products

In the primary and tertiary sector, Melbourne's mining, wool selling brokers, and other finance groups have more than half of their assets directed from overseas. The two British banks have the biggest share of foreign assets, nearly as much as the sixty-nine manufacturers combined.

United Kingdom enterprises have forty Delfin head offices in Melbourne, whereas the United States has thirty-three, West Germany five, Sweden four, Canada two, and the Netherlands one. Petroleum refining, chemicals, mining, and banking groups are all dominated by one or two British firms each. Americans have large investments and control in auto making, aluminium refining, petroleum refining, and hire purchase. The electrical machinery and equipment group is dominated by the Netherlands' Electronics Industries. This group also has three Swedish, one West German, two British, and one American company. The United Kingdom firms have assets of $4,234 million compared to the $1,382 million for the American interests, and a combined $218 million for the other four countries. Employees are more nearly equal for the first two nations. The United Kingdom firms controlled 165,000 and the Americans employed 98,000.

Exerting their powerful influence in a few key basic industries and in banking, the thirteen largest foreign companies, all British and American, play a significant role in the decision-making that emanates from or flows through Melbourne. However, in a moderate interpretation their impact and that of the smaller foreign firms is

subtracted from Melbourne's total decision-making role and placed at parent company head offices overseas. Such a subtraction substantially reduces the presence of this function in Melbourne.

	Head Offices	Assets $ M.	Empls. #
Total Melbourne	304	$16,422	564,000
Foreign Controlled	- 85	- 5,835	-131,000
Melbourne Domestic	219	$10,587	433,000
(Sydney Domestic)	265	$16,796	401,500

It is in the wealth of these companies that they markedly alter Melbourne's importance vis-à-vis Sydney.

Commonwealth enterprises also have a role in the assessment of Melbourne's decision-making function. Under a moderate interpretation they add to the city. Under a strict interpretation they are subtracted leaving just State Government and private domestic companies.

The Government Sector in Melbourne

Commonwealth

When the Commonwealth of Australia came into being in 1901, Melbourne became the temporary seat of government for the new nation. For the next quarter century the Federal Parliament and ministerial departments were located there. In 1927 Parliament met for the first time in Canberra, the fledgling permanent capital city. In the same year eight Federal departments were transferred from Melbourne. After a long delay, a renewed exodus began in 1959. By 1966, eighteen of the

twenty-five ministries were headquartered in Canberra, as well as numerous lower level government organizations. However, Melbourne retained some legacy from its former "temporary" role. The head offices of seven departments and eighteen organizations remained in Melbourne (Table 21). The city continues as the site of the High Court of Australia.

From a strictly economic standpoint, two of the departments are paramount, those of the Postmaster-General and Labour and National Service. Four others are directly involved in economic activities and services: Civil Aviation, Shipping and Transport, Supply, and Works. Only Repatriation is more of a social service, although it has some limited economic influence. Of these departments, only the assets for the Postmaster-General Department are available on a basis comparable with Delfin Digest data.

The Postmaster-General's Department was not included in the Delfin Digest because it is a department rather than statutory agency of the government. However, it is the sole provider of postal, telephone, and telegraph services. It owns and operates the transmitters and other equipment for the radio and television services of the Australian Broadcasting Commission. When measured by the indices used for the Delfin companies, the department is a major economic force. It had assets of $1,844 million in 1966, which would rank it fourth, just below the Reserve Bank of Australia if that government organization had also been listed (Yearbook of Australia, 1968, 440). The Postmaster-General's Department is the largest employer unit, government or private, in the nation. Its full time staff of 99,000 is augmented

Table 21. Commonwealth government organizations with head offices in Melbourne in 1966.

Ministerial Departments	Employees[a] 1966-67	Minister Responsible
Civil Aviation	6,661	
Labour and National Service	2,363	
Postmaster-General	98,886	
Repatriation	9,749	
Shipping and Transport	854	
Works	13,798	
Supply	9,424	
Not Under Public Service Act	12,418	
Sub-Total	154,143	
Other Organizations		
Aust. National Airlines Comm'n	5,775	Civil Aviation
Coastal Shipping Commission	1,785	Shipping, Transp.
Commonwealth Railways	3,232	Shipping, Transp.
Aust. Transport Advisory Council	n/a	Shipping, Transp.
Commw. Serum Laboratories Comm'n	903	Health
Commw. Scientific and Industrial Research Organization (CSIRO)	5,836	Prime Minister
Commw. Grants Commission	n/a	Prime Minister
Aust. Broadcasting Control Bd	127	Postmaster-Gen'l
Commw. Bureau of Meteorology	n/a	Interior
Public Service Arbitrator	n/a	Labour
River Murray Commission	n/a	National Devpmt.
Nat'l Coal Res. Advisory Comm'n.	n/a	National Devpmt.
Aust. Apple & Pear Board	n/a	Primary Industry
Aust. Canned Fruits Board	n/a	Primary Industry
Aust. Dairy Produce Board	n/a	Primary Industry
Aust. Dried Fruits Control Bd	n/a	Primary Industry
Aust. Wheat Board	n/a	Primary Industry
Aust. Wool Board	n/a	Primary Industry
Sub-Total	17,658	
TOTAL	171,801	

[a]Employees are those listed under the Public Service Act except for 12,418 in Supply under other Acts.

Source: Commonwealth of Australia Directory, 1966, and employment from Australia in Facts and Figures, No. 99, Sept., 1968.

by an additional 14,000 full and part time persons operating under contract (Yearbook of Australia, 1968, 438).

Labour and National Service is important because of its impact on the national work force rather than by having large assets or number of employees. This influence is exercised through the Commonwealth Employment Service, labour statistics, conciliation and arbitration in industrial disputes, industrial training, and other services related to employment numbers, wages, and conditions. The departments of Civil Aviation, Shipping and Transport, and Works, exercise policy functions, provide services, and carry out operations in the fields of aviation, shipping and ports, road and rail, and major governmental construction activities. Supply is concerned with the provision of governmental equipment and supplies, especially in the munitions and defense areas. Each is an important channel of government expenditures on capital facilities and equipment such as aerodromes, navigational aids, shipbuilding, railroads, national highways, federal buildings, and defense needs. Five of these departments rank as Major Employers by Delfin criteria (See Table 21).

Four Commonwealth organizations headquartered in Melbourne are statutory authorities with large enough assets to be included in the Delfin lists. They include the Australian National Airlines, one of two internal air services, and the Coastal Shipping Commission which operates a coastwise service. The Commonwealth Railways operate the transcontinental line extending from Port Augusta, South Australia westward to connect with the Western Australian Railways at Kalgoorlie. Another line extends northward to Alice Springs. It is connected by

coordinated rail and road service to Darwin. A short five mile line connects Canberra to the New South Wales system at Queanbeyan. The three transportation authorities are all Third Echelon size enterprises, with the airlines qualifying as a Major Employer. The Commonwealth Serum Laboratories provide research and production of serums and drugs for government and private use. The Commonwealth Scientific and Industrial Research Organization (C.S.I.R.O.) was not financially structured as an autonomous authority in 1966 and so comparable data on assets were not available for its inclusion in the Delfin list. However, it is estimated that it would rank in the Third Echelon. With 5,800 employees, the C.S.I.R.O. would also appear as a Major Employer.

Most of the other organizations in Table 21 are regulatory boards and include the very influencial Wheat and Wool boards as well as a number of lesser primary industry marketing boards. It is through the head offices of departments, especially the Postmaster-General's, Civil Aviation, Works, and Supply; plus the three transport authorities, and the Wool and Wheat boards, that the Federal Government adds strongly to the decision-making function headquartered in Melbourne. The 172,000 disclosed employees of Melbourne based Commonwealth organizations are four times the 41,000 controlled through Sydney head offices. On the other hand the huge assets of the Commonwealth Banking Corporation and Reserve Bank overshadow the considerable assets of the Postmaster-General's Department plus the disclosed assets of all other Melbourne based Commonwealth organizations. These comparisons are true under a moderate interpretation which also includes the role of State Government organizations.

Victorian State Government

Victoria is the second smallest state in area, but the second most populous with 3,200,000 people in 88,000 square miles. A quarter of the nation's population is in just 3 per cent of its area. Melbourne is the capital in which the State Government makes the decisions that affect this compact, populous corner of Australia. The Victorian Parliament and twenty-one State Ministries are at the top levels of the decision-making and executive functions. In addition, there are a number of large statutory authorities that have major economic impact. The Victorian Railways, Electricity Commission, and the State Savings Bank of Victoria, all rank in the First Echelon of assets as did their Sydney counterparts. The Gas and Fuel Corporation operates statewide and has the most assets of any Australian gas supplier. The Railways and the Electricity Commission rank immediately below the Broken Hill Proprietary Company among Melbourne based Major Employers (in Table 14). The Melbourne and Metropolitan Tramways Board joins the Savings Bank near the bottom of that list. The remaining statutory authority included in the Delfin Digest is the Fourth Echelon State Government Insurance Offices.

The Victorian Government employed 151,000 persons in 1966, 40 per cent of whom worked for the above six authorities. The remaining personnel were in public works, roads, coal mining, and government factories; in the social service areas of education, health, police, welfare, and repatriation; and the general administration offices. Victoria has a highly centralized population and its State Government provides services for a much more compact area than is true for New

South
more
units
towns
over
vien

ing
Fede
is r
cont

mak
whe
Del
Aus
pr
tu
tr
nu
Th
in
Ur
30

South Wales. Melbourne dominates the economic activities of its state more so than does Sydney. There is less decentralization of government units because of the smaller area and fewer other medium size country towns. Only three, Geelong, Ballarat, and Bendigo, have populations over 25,000. They are all within 100 miles of the capital and subservient to it for most state functions.

Thus we find the Commonwealth and State Governments contributing to Melbourne's ranks of CAO's and its decision-making role. The Federal units do so on a nationwide scale whereas the State Government is restricted to a very small area by Australian standards, but which contains a quarter of the population.

Comparisons of Interpretations of Melbourne's Decision-Making Function

Melbourne exhibits a strong presence of CAO's and the decision-making function under a broad interpretation. This is especially true when the data for the Postmaster-General's Department are added to the Delfin measures (Figure 11). In 1966 there was 19 per cent of the Australian population in the metropolitan area. Under a broad interpretation the city had a third of all Delfin head offices. They, in turn, control 40 per cent of the measured assets and employees. Subtracting the foreign companies in a moderate interpretation reduces the number of head offices and assets to 24 and 27 per cent respectively. The further subtraction of the five Commonwealth enterprises in a strict interpretation has the strongest effect on the percentage of employees. Ultimate control of almost $8,000 million of Melbourne's assets and 300,000 of its employees in a broad interpretation are assigned overseas

NUMBER OF HEAD OFFICES[a]

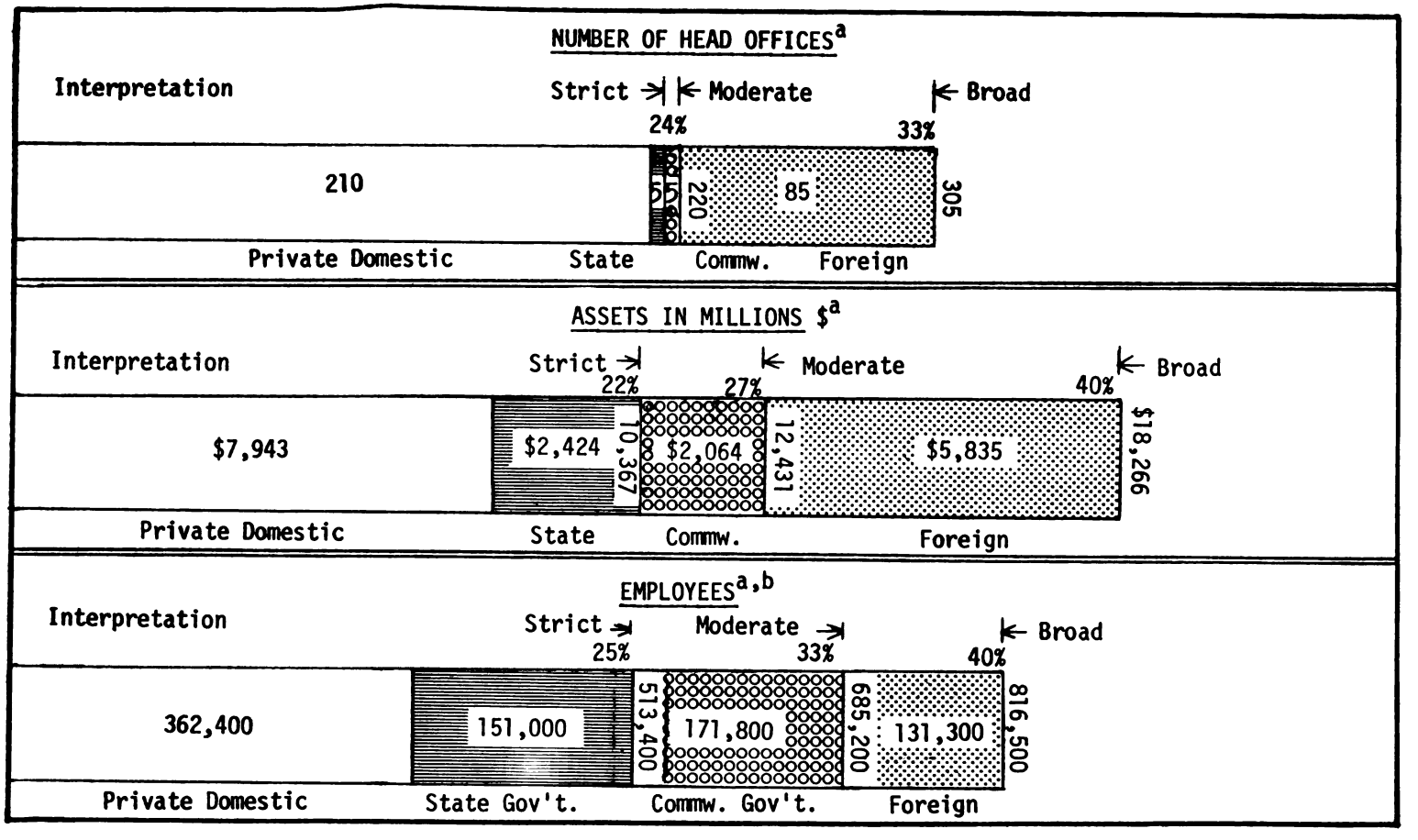


Figure 11. Comparisons of broad, moderate, and strict interpretations for Melbourne.

[a]Includes Melbourne Delfin companies and the Postmaster-General's Department.

[b]Includes Melbourne Delfin employees, all Victorian State Government employees, and all Commonwealth Government employees controlled from Melbourne head offices.

Source: Compiled from 1967 Delfin Digest and 1968 Yearbook of Australia.

and to Canberra in a strict interpretation. The numbers of head offices, assets, and employees of Australia's largest companies attributable to Melbourne in a strict interpretation remain considerable. They represent 22 to 25 per cent of each measure, somewhat more than the metropolitan share of the national population.

These measures lead to the conclusion that Melbourne is an important location for top level decision-making in Australia. The city occupies a challenging position to Sydney in the number of head offices and control of assets under all interpretations (See Figure 4 for Sydney). Melbourne controls more employees in all cases. Thus, it is a truly competitive rival of Sydney for this top most economic function. The nodal region for this southern capital is next delimited to see if it is of national extent like Sydney's. The spatial analysis is made under a strict interpretation as was done for Sydney. Similarly it results in a nodal region for Melbourne determined by the companies and establishments of private domestic and State Government enterprises only. Commonwealth and foreign enterprises are not included.

Melbourne's Spatial Impact

The Victorian gold rush of the 1850's was important to the development of Melbourne as a center of finance and to the growth of its decision-making importance. Financial houses such as J. B. Were and Son (Ellis, 1954), and more recently, Ian Potter and Company, have been influential in the city's growth as a headquarters center. The Collins House group of companies with roots in the Broken Hill mines have initiated a number of manufacturing firms with operations in

several states wherein they have reinvested the profits from their mining ventures. The small areal size of Victoria led these and other Melbourne firms to seek investment opportunities in other states, thus expanding their spatial influence throughout Australia. Conversely, Melbourne has attracted the top decision-makers and the head offices of companies whose main operations are in other states, most notable the Broken Hill Proprietary Company.

Number of Companies

Melbourne has 215 private domestic and State Government statutory authorities listed in the Delfin Digest after the foreign and Commonwealth enterprises are excluded (Table 22). The difference between Melbourne's smaller number of firms and Sydney's 262 is largely found in the 27 and 72 companies respectively which operate only in one state. The number of national and regional multi-state companies are similar for both cities (See Table 12 for Sydney).

The large companies from the TOP 128 list are predominantly national with the remainder operating only in Victoria or one other state. Half of Melbourne's large national firms are manufacturers compared to only a fifth of Sydney's. Leading the list is the Broken Hill Proprietary Company, the largest manufacturing firm in Australia, with steel mills, mines, shipbuilding, and other processing and distribution facilities in all states and the Northern Territory. Australian Consolidated Industries similarly dominates the packaging industry with glass and package making factories in all states. Australian Paper Manufacturers, Dunlop Rubber, Felt and Textiles, Olympic

Table 22. Melbourne private domestic companies and state statutory authorities operating in number of states.

Establishments in	Total No. of Co's.	Co's. in TOP 128	Smaller Co's.
6 States	77	21	56
5 States & Market Nationally	27	1	26
5 States	11	-	11
Total National	115	22	93
4 States	16	-	16
3 States	23	1	22
2 States	34	4	30
Multi-State Reg'l.	73	5	68
1 State and Local	27	3	24
Total	215	30	185

Source: Compiled from 1967 Delfin Digest.

Consolidated Industries (rubber products), and Humes (building materials) each have processing plants as well as marketing outlets in all states. Repco (auto replacement parts), McPhersons (machine tools), Associated Pulp and Paper Mills, and H. C. Sleigh (petroleum marketing) market nationally but have processing plants only in Victoria or only a few of the other states. The other half of Melbourne's twenty-two large national companies are from the tertiary sector. The National Bank of Australasia and the Commercial Bank of Australia, three insurance houses, and Myers and G. J. Coles mirror the number of firms in these groups which have head offices in Sydney. Melbourne has only three

companies from the other finance group compared to Sydney's nine. They are: The Australian United Corporation, an investment bank associated with Ian Potter and Company; Capel Court Securities in the short term money market and associated with the Capel Court Group which is managed by J. B. Were and Son; and General Credits Holdings which is the hire purchase affiliate of the Commercial Bank of Australia. Ansett Transport Industries serve most of Australia's larger population centers through its national and regional airline subsidiaries. This company's bus and road transport routes also help link the nation together.

The non-national companies from the TOP 128 list represent seven industry groups. Carlton and United Breweries has its major brewing and marketing operations in Victoria. Through takeovers it also has five breweries in Queensland and has expanded into the Northern Territory with a new facility at Darwin. The Victorian Railways serves the state and the Riverina district of New South Wales. Three companies have head offices in Melbourne but have their principal operations in another state. They are: E. Z. Industries which mines and smelts zinc in Tasmania, and North Broken Hill and Broken Hill South with mines in New South Wales. Three state statutory authorities, the State Saving Bank, the State Electricity Commission, and the Gas and Fuel Corporation of Victoria, operate only intrastate.

One half of the smaller Melbourne firms that are not in the TOP 128 operate nationally. Of these, two-thirds are manufacturers whereas somewhat less than half of the multi-state regional and one state companies are in the manufacturing groups. Many of the smaller national companies, like their larger counterparts, have processing

plants as well as distribution units in other capital cities and states. The smaller companies operating in four states usually omit Western Australia and Tasmania. When operating in only three states, the second state is usually New South Wales and the third state is either South Australia or Queensland.

National companies headquartered in Melbourne have 65 per cent of the assets controlled from that city, somewhat less than the 72 per cent held by like firms in Sydney (Table 23, and see Table 13 for Sydney). Regional multi-state companies have twice the percentage of Melbourne's assets than their counterparts do in Sydney. This is largely because the Victorian Railways with $424 million in assets operates in two states whereas the New South Wales Government Railways

Table 23. Assets by areas of operations of Melbourne based companies.

Area of Operation	Number of Companies	Assets $ M.	Percentage of Assets
National	115	$ 6,794	65+ %
4, 3, or 2 States	73	1,395	13+ %
1 State or Local	27	2,178	21+ %
Total	215	$10,367	100 %

Source: Compiled from 1967 Delfin Digest.

is counted as only a one state company. Both cities have about one-fifth of their assets held by companies which operate only in one state and locally. In absolute terms, national companies in Sydney control

$2,500 million more assets than Melbourne national companies. The differences between the number of companies and assets of the two cities is reflected in the processing establishments controlled from each.

Processing Establishments

The number and distribution of processing establishments controlled by Melbourne companies in each state is not very different from the pattern for Sydney except that each dominates its home state (Figure 12, and see Figure 5 for Sydney). The contrasts that exist are expected because of locational proximity. Thus, Melbourne has more of its establishments in Tasmania and South Australia and less in Queensland and the A. C. T. than does Sydney (Table 24). Although absolute

Table 24. The distribution of processing establishments controlled from Melbourne.

Location of Establishments	Number of Units	Percentage of Melbourne Units
New South Wales	262	19.6 %
Victoria	679	50.7 %
South Australia	123	9.2 %
Queensland	113	8.4 %
Western Australia	75	5.6 %
Tasmania	75	5.6 %
Northern Territory	8	.6 %
A. C. T.	5	.4 %
Melbourne Total	1,340	100.0 %
Delfin Total	4,351	

Source: Compiled from 1967 Delfin Digest.

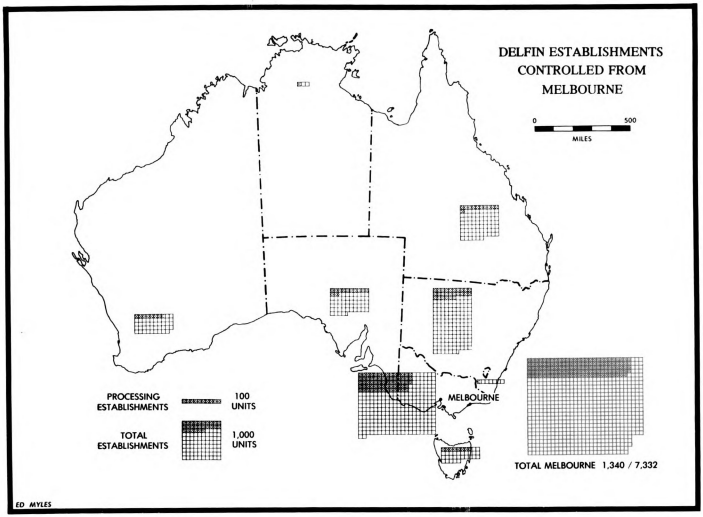


Figure 12. Distribution of Delfin processing and total establishments controlled from Melbourne.

Source: Compiled from 1967 Delfin Digest, Universal Business Directories, and telephone directories.

numbers are about the same, Melbourne has a slightly higher percentage of its establishments in New South Wales than Sydney does in Victoria. These several differences result in 51 per cent of Melbourne controlled processing establishments being in Victoria compared to 55 per cent of Sydney's units being in New South Wales the absolute difference is 178.

From another point of view Melbourne has substantial percentages of each state's processing establishments (Table 25). The greatest

Table 25. The number of processing establishments in each state and percentage of state units controlled from Melbourne.

State	Processing Units	Controlled by Melbourne	Percentage of State Units
New South Wales	1,539	262	17.0 %
Victoria	1,268	679	53.5 %
South Australia	433	123	28.4 %
Queensland	551	113	20.5 %
Western Australia	327	75	22.9 %
Tasmania	167	75	44.9 %
Northern Territory	29	8	27.6 %
A. C. T.	37	5	13.5 %
Total	4,351	1,340	30.8 %

Source: Compiled from 1967 Delfin Digest.

relative impact is in Victoria and Tasmania, and the weakest is in the Australian Capital Territory and New South Wales (Figure 13). However, because of the large number of establishments in New South Wales it still has the largest absolute number of units outside of Victoria controlled from Melbourne.

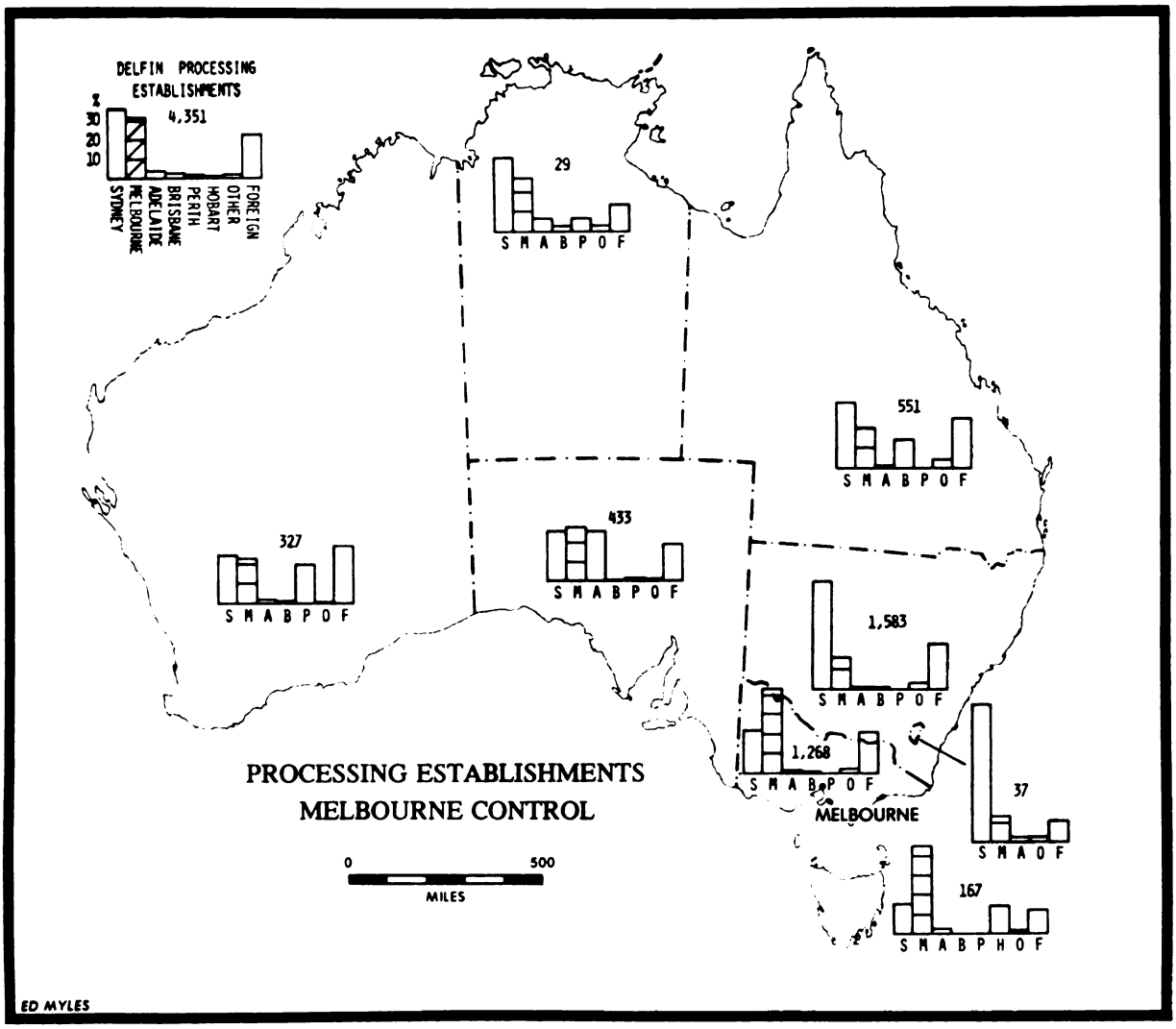


Figure 13. The percentage of each state's Delfin processing establishments controlled from Melbourne.

Source: Compiled from 1967 Delfin Digest, Universal Business Directories, and telephone directories.

Total Number of Establishments

When Delfin processing establishments are combined with distribution and office units for the figures on total establishments, Melbourne has a very slight lead on Sydney, 7,332 to 7,266. The relative similarity is more important than the minor difference. The distribution of these units among the various states shows two differences from Sydney's pattern (See Figure 12 for Melbourne and Figure 5 for Sydney). Only 44 per cent of Melbourne controlled establishments are in Victoria compared with 54 per cent for Sydney in New South Wales. The bulk of this difference is accounted for by Melbourne having 23 per cent of its total establishments in New South Wales as opposed to Sydney having only 16 per cent of its establishments in Victoria.

In terms of percentages of total state units, Melbourne has from 21 to 36 per cent of the Delfin establish ments in other states and territories (Table 26). These are quite comparable to the same statistics for Sydney. The notable exception is the 36 per cent for Tasmania, a share four times greater than is controlled from Hobart in that state (Figure 14). Melbourne's share of the national total for all establishments (31.3 per cent) is almost identical with its share of the total processing units alone (30.8 per cent). The city does not exhibit the stronger share of processing units that was shown for Sydney, a puzzling fact when it is recalled that Melbourne has a greater share of the head offices of manufacturing firms.

Having nearly a third of all Delfin establishments distributed throughout the nation provides strong evidence of the national impact of decisions made in head offices in Melbourne. Through the CAO's and

Table 26. The number of total establishments in each state and the percentage of state units controlled from Melbourne.

	Total Units	Controlled by Melbourne	Percentage of State Units
New South Wales	7,869	1,666	21.1 %
Victoria	6,280	3,219	51.3 %
South Australia	2,646	645	24.4 %
Queensland	3,252	860	26.4 %
Western Australia	1,963	490	25.0 %
Tasmania	975	353	36.2 %
Northern Territory	134	29	21.6 %
A. C. T.	285	70	24.6 %
Total	23,414	7,332	31.3 %

Source: Compiled from 1967 Delfin Digest.

decision-making function this city, like Sydney, has a nationwide nodal region. Melbourne is the decision-making center for Victoria. The Delfin data show Melbourne is a national rival of Sydney for economic decision-making, although it ranks second in the number of national companies and assets of these wide ranging firms. Melbourne most also take second place in the number of Delfin processing establishments, by some 5 per cent, or 230 units. The cities are equal in total Delfin establishments, each having about 7,300 units. Together they make up nearly two-thirds of the national total. From the foregoing analysis it is concluded that Melbourne is a national decision-making center. Like Sydney this conclusion is made under a strict interpretation. A broad interpretation would substantially increase the measures of Melbourne's national importance through the many nationwide establishments

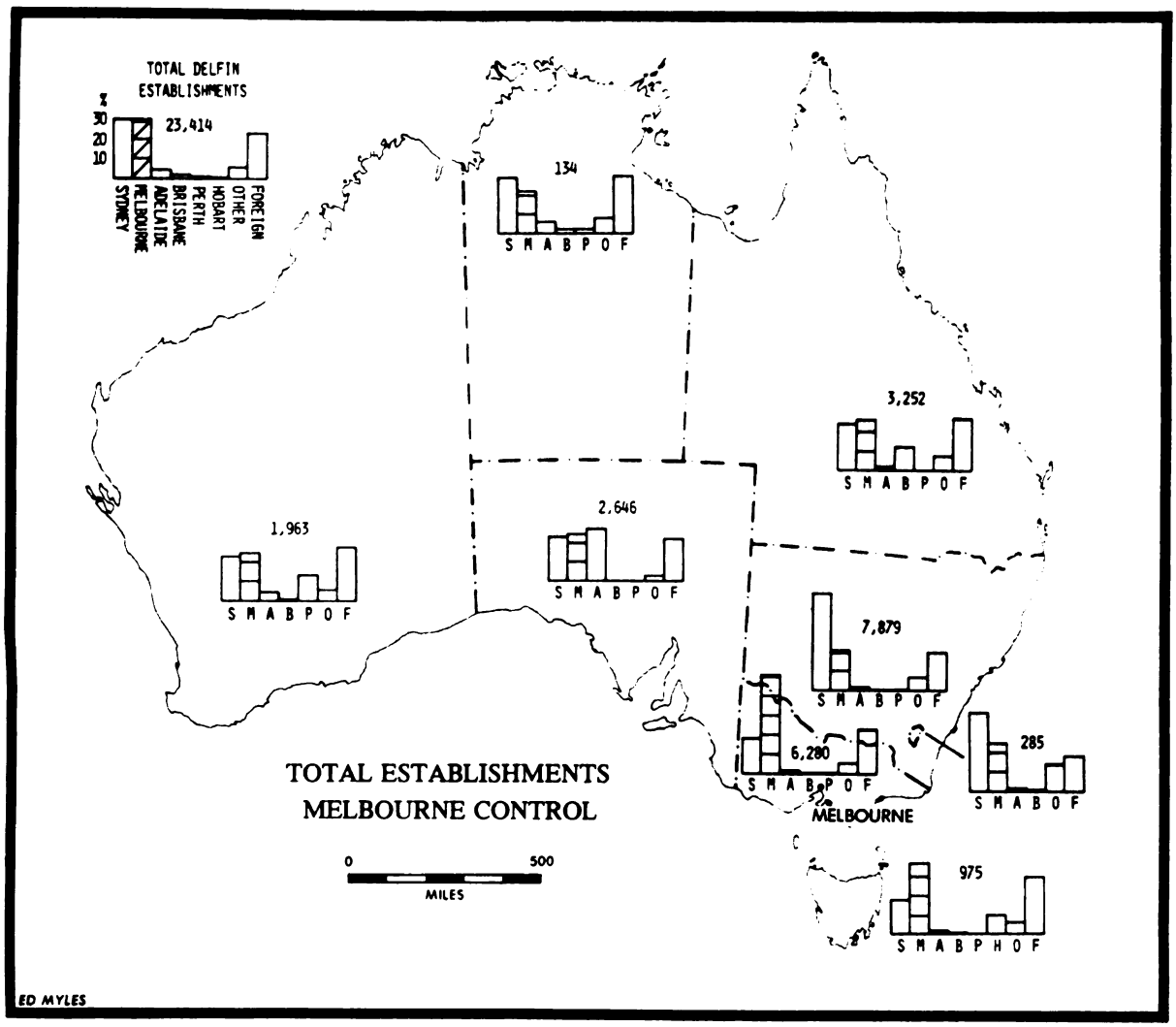


Figure 14. The percentage of each state's total Delfin establishments controlled from Melbourne.

Source: Compiled from 1967 Delfin Digest, Universal Business Directories, and telephone directories.

of foreign and Commonwealth enterprises controlled from head offices in that city. However, such an increase would not be sufficient to displace Sydney from its premier position under the same interpretation.

A strict interpretation allows Canberra's decision-making role to be more accurately measured. For this city the analysis of Commonwealth organizations and employees augments the rather limited Delfin Digest data available for the nation's young capital.

CHAPTER V

CANBERRA: THE IMPACT OF THE NATIONAL CAPITAL

Development and the Private Sector

Canberra, the youngest of Australia's major cities, came into being a dozen years after federation. The Federal Parliament moved from its temporary Melbourne location to sit for the first time in the new Provisional Federal Parliament House in Canberra in 1927. For a score of years the young capital grew at a slow pace, from 5,000 residents in 1927 to 15,000 by 1947. Following World War II, the city's development quickened, population increase was rapid, and the city received its due attention from its major occupant, the Commonwealth Government. Purpose, planning, and resources were directed towards providing the buildings, people, and infrastructure to receive government departments being moved from Melbourne to Canberra. In 1967 Canberra attained a population of 100,000. Government and construction were the two major employers. Today Canberra is truly the nation's capital. New buildings are under construction in satellite towns to house increasing residential growth as well as to decentralize government offices from the central Parliament triangle (Figure 15). Such suburbanization emphasizes how much Canberra has become the focal point of government, and especially the growth of the Federal Government.

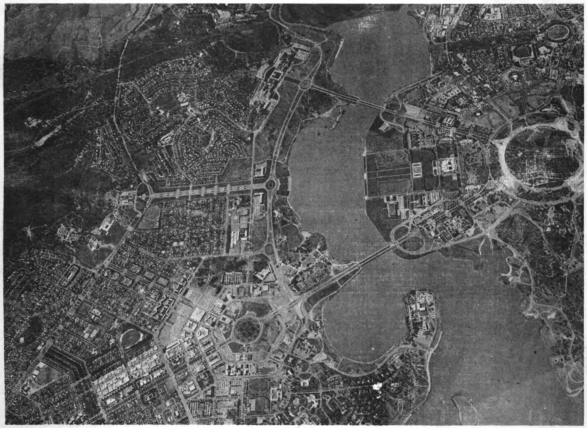


Figure 15. Canberra, the capital of Australia. Parliament House is to the right of Lake Burley Griffin. The central business district and City Circle are in the lower middle. Most government department head offices are in or close by Parliament Triangle, two sides of which bridge the lake.

(Photo courtesy Australian News and Information Bureau.)

As measured by the Delfin Digest data, Canberra's decision-making role is rather minimal. Only four Delfin companies have head offices here (Table 27). Laporte is a British owned producer of

Table 27. Canberra Delfin companies.

Company	Industry	Assets $ M.	Number of Employees
Laporte Australia[a]	Indl Chem	15	330
A.C.T. Electric Authority[b]	Utility	12	n/a
J. B. Young Holdings	Retail	5	300
Ravenshoe Tin Dredging	Mining	2	95
Total		$34	725

[a]A British owned firm.
[b]A Commonwealth Statutory Authority.

Source: Compiled from 1967 Delfin Digest.

titanium oxides with its main plant at Botany Bay near Sydney. The Australian Capital Territory Elec ric Authority provides electricity distribution for the capital. J. B. Young operates several retail department stores and supermarkets in Canberra and Queanbeyan. Ravenshoe has one tin mine in northern Queensland. This short list illustrates that Australian and overseas businessmen have not been overly eager to move to or to establish new head offices in the nation's capital. Construction, retailing, banking, insurance, and almost all other aspects of private economic activity in the daily lives of Canberrans, are controlled at the top level by Sydney and Melbourne based companies. Canberra has only small scale private sector decision-making.

The lack of statistics on Commonwealth assets controlled by most departments and organizations headquartered in Canberra hinders a comparison of the capital with Sydney and Melbourne under a broad interpretation. Statistics are available on Commonwealth revenues and expenditures but not generally organized by departmental totals. The counterpart statistics for many of the companies in the Delfin Digest are not available, and thus make comparisons impossible. The number of departments and organizations and their employees are the best indicators available to measure the governmental units against companies in the Delfin list. They are used first in a broad interpretation.

Canberra's Decision-Making Role Under a Broad Interpretation

It has already been seen that the four Delfin companies headquartered in Canberra have very minimal economic and spatial impact, even under a broad interpretation. They will not be drawn into the following analysis of the government's role in Canberra.

It is through the public sector, in the form of the Commonwealth Government, that Canberra evidences strength of economic as well as political decision-making. Parliament House must be considered as the single most important decision-making establishment in Australia. The laws of the land are debated and enacted by Federal Parliament here, not in one of the state capital cities. Additionally, there is a large body of Federal Government organizations including departments, commissions, councils, boards, and agencies that assist in the formulation of proposed laws. These units are charged with the duty of interpreting and executing the laws once passed, and have considerable policy-making

functions within the broad frameworks and wordings of the various acts and laws as set down by Parliament.

Commonwealth Organizations

Ministerial Departments are the focal points of much decision-making. They have not yet all been moved to Canberra from their temporary location in Melbourne as was seen in the discussion of that city. An early nucleus of key departments was transferred in 1927, the same year Parliament moved to the new capital. After a thirty-year delay transferrals of other departments began again in 1959 with the four defense related departments. Nineteen of the twenty-six departments were headquartered in Canberra in 1966 (Table 28).[1]

More important than assets, revenues, expenditures, employees, or number of head offices is the nationwide impact of the statutes Federal departments help formulate and implement. The departments are also generators of important decisions and policies in their own right that do not become formalized as Federal Acts. Several of these units have strong, direct impact on economic activity. Others are more political or social in their services, although having some economic effect as well. The former would include the departments of the Prime Minister, Treasurer, Trade and Industry, Customs and Excise, National Development, Primary Industry, Immigration, and Interior. It is worth noting that

---

[1]The 1966 total is given for comparability with Delfin data. In 1968 Supply was moved to Canberra, Repatriation, and Shipping and Transport in 1970; and Environment, Aborigines, and Arts was created and headquartered here in 1971.

Table 28. Commonwealth government departments and instrumentalities with head offices in Canberra in 1966.

		P. S. Act[a] Employees 1966-67	
Ministerial Departments and Date Head Offices Moved to Canberra			
Prime Minister	1927	1,892	
Treasurer	1927	14,758	
Attorney-General	1927	1,585	
Interior	1927	5,189	
Territories	1927	2,291	
Immigration	1927	1,761	
Trade and Industry	1927	987	
Customs and Excise	1927	4,141	
Health	1928	3,189	
External Affairs	1935	1,812	
Housing	1957[b]	1,167	
			Total
Air (Military 21,492)	1959	+ 3,474	= 24,966
Army (Military 79,269)	1959	+ 7,868	= 87,137
Navy (Military 20,617)	1959	+ 2,619	= 23,236
Defence	1959	1,160	
National Development	1965	1,353	
Primary Industry	1965	1,642	
Social Services	1965	3,633	
Education and Science	1966[b]	397	
		60,918	
Government Employees Not Under Public Service Act			
With Attorney-General's Department		698	
With Navy Department		7,505	
With Other Departments not specified		597	
		8,800	
Federal Instrumentalities			
Canberra Community Hospital		1,036	
Aust. Services Canteens Organization		986	
Other, Including Employees of the Departments of Parliament		5,184	
		7,206	
Total Civilian		76,924	
Total Military		121,378	
Total Canberra Controlled		198,302	

[a]Those listed under the Public Service Act.
[b]First established in Canberra, not transferred.

Source: Commonwealth of Australia Directory, 1966, employment from Australia in Facts and Figures, No. 99, Sept., 1968.

five of the seven departments headquartered in Melbourne have strong direct economic inputs: Postmaster-General, Works, Labour and National Service, Civil Aviation, and Supply.

A number of other organizations, mainly advisory councils, boards, and committees responsible to various ministers have head offices or secretariats in Canberra. Generally they function more in the advisory sphere rather than at the implementation end of Parliamentary enactments (Table 29). Most of those responsible to the Minister of the Interior are concerned with Canberra as the national capital. Two units under the Treasurer are of national extent and economic importance, the Taxation Branch and the Bureau of Census and Statistics. Decisions by the Tariff Board are critical to a number of manufacturers operating under protective tariffs.

Commonwealth Employment

The Commonwealth Government employed 400,000 civilian and military personnel in 1966-67 (Figure 16). All of these employees result in the Federal Government being the largest employer in Australia, with 9 per cent of the total Australian work force. Canberra is headquarters of Federal departments and organizations which employ close to half of these persons. Melbourne is a close rival as a headquarters for Commonwealth staffs largely because of the Postmaster-General's Department. Head offices of Federal instrumentalities rather than departments give Sydney control of 10 per cent of the employees. The Snowy Mountains Hydro-Electric Authority operates from Cooma, New South Wales and directs the activities of 3,000 workers constructing

Table 29. Other Commonwealth government organizations with head offices in Canberra.

Minister Responsible	Organizations
Customs and Excise	Commw. Leterature Censorship Board
Health	Nat'l. Health and Medical Research Council Registration Boards of the A.C.T. Commw. Council for National Fitness Nat'l. Tuberculosis Advisory Council
Interior	A.C.T. Advisory Council Australian National Film Board Australian War Memorial Canberra Theatre Trust Commw. Brickworks (Canberra) Ltd. National Capital Development Commission National Memorials Committee
National Development	Snowy Mountains Council Aust. Water Resources Council National Mapping Council Australian Forestry Council
Primary Industry	Australian Agricultural Council Fruit Industry Sugar Concession Comm. Export Sugar Committee Federal Potato Advisory Committee Central Tobacco Advisory Committee Wheat Industry Research Council
Prime Minister	Public Service Board Auditor-General's Office
Territories	Territories of the Commonwealth
Trade and Industry	Export Development Council Mfg. Industries Advisory Council Tariff Board
Treasurer	Bureau of Census and Statistics Defence Forces Retirement Benefits Board Government Printing Office National Debt Commission Royal Australian Mint Superannuation Board Taxation Branch

Source: Commonwealth of Australia Directory, 1966.

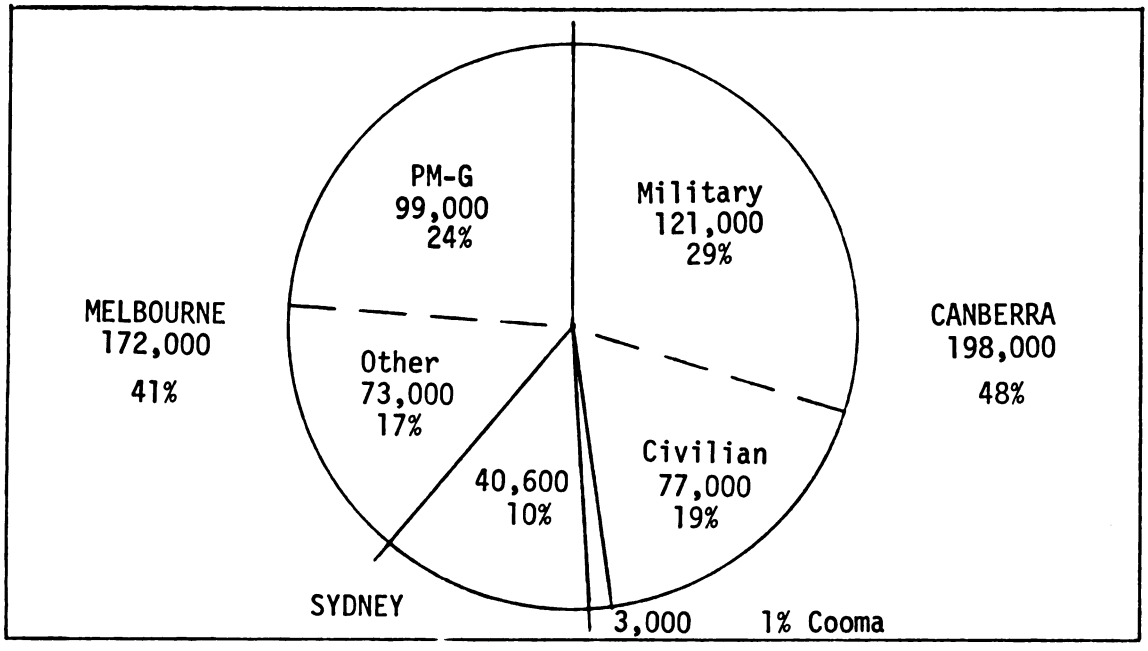


Figure 16. Location of head office control of 413,600 Commonwealth Government employees.

Source: Australia in Facts & Figures, No. 99, Sept. 1968.

the immense Snowy Mountains Scheme of water diversion for power and irrigation.[1]

The figure of 4,000 employees is used in this study to distinguish Major Employers among the Delfin companies. When this figure is applied to Commonwealth Departments in Canberra it shows four of them to be among the ranks of big civilian employers. They are Treasurer, Interior, Customs and Excise, and Army (See Table 28). The Army,

---

[1]The Snowy Mountains Hydro-Electric Authority was not included in the Delfin Digest. In 1966 its assets of $685 M. would have ranked it twelfth in the TOP 128. The Snowy Mountains Authority is charged with construction of the scheme, whereas the Snowy Mountains Council in Canberra directs and controls the operation of the completed permanent works.

Air, and Navy Departments rank among the very large employers when their military components are added. All other departments except the newly created Education and Science have staffs of about 1,000 or more.

The Commonwealth Government head office and employee measures of Canberra under a broad interpretation do not indicate that the nation's capital should be classified as a decision-making center. Control of 77,000 civilian and 121,000 military personnel is far less than the half-million employees controlled from both Sydney and Melbourne. The combined civilian Commonwealth employees controlled from CAO's of Federal instrumentalities in these two cities are equal to Canberra's 200,000. This employee figure does, however, give Canberra a measure of importance greater than Adelaide, Brisbane, Perth, or Hobart as will be seen in the next chapter. Even when State Government staffs are added to Delfin company employees in these lesser capitals Canberra remains the head office location of a larger work force.

One significant importance of Canberra as a place of government decision-making is that it provides neutral ground on which the advocates of the various states and cities can vie for power and favor. Once Parliament passes the various Acts of Government, they are increasingly being interpreted and implemented by top administrators who live in Canberra. These persons are geographically and psychologically removed from the biases and pressures of living in one of the state capitals. Further, by being the seat of the Federal Government, Canberra denies this role and its associated power and prestige to either of the rival cities of Sydney or Melbourne. As the remaining departmental head offices are transferred from Melbourne to Canberra,

especially the very large Postmaster-General's, much of whatever advantage Melbourne may have had as "temporary" seat of government will end. Additional direct importance will accrue to Canberra if and when the head offices of the semi-autonomous authorities such as the Reserve Bank and Commonwealth Bank, the four transportation authorities, and the Australian Broadcasting Commission, are relocated to the capital.[1]

A Strict Interpretation of Canberra's Decision-Making Role

The interpretations of the location of ultimate top level decision-making are critical to the measurement of Canberra as a decision-making center. It has been shown in previous chapters and immediately above that a broad interpretation places the control of half of the Commonwealth employees in Sydney and Melbourne. Further, the known large assets of the Commonwealth Banking Corporation, Reserve Bank, Postmaster-General's Department and other statutory authorities have all been assigned to head offices in these two cities.

Now a strict interpretation is used to measure Canberra. In this, the ultimate top level decision-making and control of all Commonwealth assets and employees are deemed to rest with the Federal Parliament and Cabinet in Canberra. Although decisions and some measure of control surely originate in the head offices of departments and other organizations the final authority is Parliament.

---

[1]The C.S.I.R.O. moved from Melbourne to its new head office building in Canberra in 1971 and has been financially restructured as a statutory authority.

When the available statistics on Commonwealth assets and employees are all assigned to Canberra, this city's control of these measures increases dramatically from the meager $33 million and 199,000 employees under a broad interpretation to $9,000 million and 414,000 under a strict interpretation (Figure 17). This is the reverse of what occurred for Sydney and Melbourne in previous chapters. Under a strict interpretation the Commonwealth Government in Canberra controls 20 per cent of total assets. This total figure is made up of the 907 Delfin companies plus the Reserve Bank, Postmaster-General's Department and the Snowy Mountain Authority. If the very considerable dollar value of the assets of other Federal departments headquartered in Canberra were known and added to those of the Postmaster-General's, the Federal banks, and statutory authorities, it is believed that Canberra would control more than the $10,000 million in private and State Government assets controlled from Melbourne under this interpretation. Canberra also controls 20 per cent of the 2,000,000 work force made up of the Delfin employees plus all Federal and State Government employees. This makes Canberra a strong rival to Sydney and Melbourne, each of which control about 24 per cent. Commonwealth departments, statutory authorities, and various other organizations are not as numerous as the Delfin companies in Sydney and Melbourne. However, there is a rather broad diversity of economic activities and social services in which their employees are engaged. Commonwealth assets represent a wide sample of the nation's economic infrastructure.

Based on these measures and their comparability to Melbourne it is concluded that Canberra is a third important decision-making

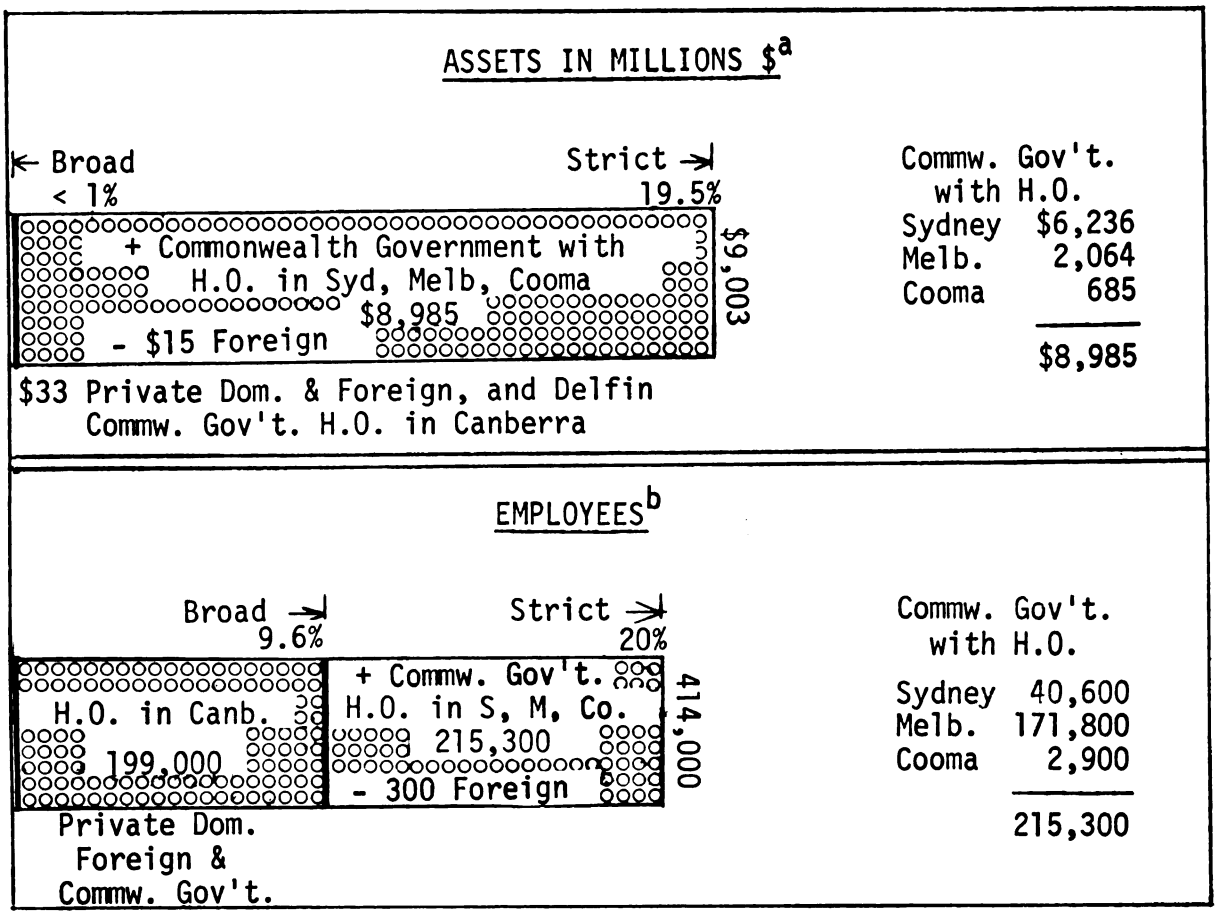


Figure 17. Comparisons of broad and strict interpretations for Canberra. Showing control of Commonwealth Government assets and employees from other cities under broad interpretation, assigned to Canberra under strict interpretation.

[a]Includes Delfin companies, PM-G Dept., Reserve Bank of Australia, and Snowy Mountains Authority.

[b]Includes Delfin employees and all Commonwealth Government employees, both civilian and military.

Source: Compiled from 1967 Delfin Digest and 1968 Yearbook of Australia.

center in Australia. As such the national capital receives due recognition for its important share of decision-making for the nation's economy. Because the Commonwealth Government is the essence of Canberra's importance it can be assumed that this city has a nationwide nodal region for the decision-making function. This assumption can be documented and contrasted with the importance of State Governments.

Canberra's Spatial Impact

As the Federal capital, Canberra is certainly the focal point for political decision-making at the national level. Many of the laws enacted by Federal Parliament have an effect on economic activities for the entire nation. The interpretation, communication, and execution of the top level decisions are carried out by the Federal departments and agencies in Canberra and across Australia through their branches and employees. The size of Australia, the distribution of population around the coast with a sparsely settled interior, and a federal structure of government all contribute to the dispersal of public service functions, establishments, and employees away from the nerve center at Canberra.

The Delfin Digest lists only eight Federal statutory authorities. In terms of numbers of companies or their establishments they are not very useful in measuring Canberra's spatial impact. The assets of these enterprises, even when augmented by those of the Reserve Bank, the Postmaster-General's Department, and the Snowy Mountain Authority are not usable in determining the spatial impact of Canberra because

the distribution of Commonwealth assets by states is now known. Neither are the number and distribution of all Federal establishments.

Only the location of Federal civilian employees is available on a state basis. They are used here to indicate the spatial impact of decision-making radiating from Canberra to all parts of the nation. The number of Federal civilian employees located in each state and territory is shown in Figure 18. The distribution roughly reflects each state's share of the population. The major anomaly is the larger number of employees in the Australian Capital Territory, which would be expected. Federal employees tend to be concentrated in the state capitals where they can most efficiently serve these dominant population clusters. However, there are branch offices and a variety of other units scattered throughout the smaller towns and rural areas. The nationwide distribution of Commonwealth employees substantiates the assumption of a national nodal region for Canberra.

As further evidence of Canberra's importance, Figure 19 contrasts the number of Federal versus State Government employees in each political unit. The figures give some suggestion of the relative roles of the two levels of government within states as well as among states. The large number of Commonwealth employees in both Victoria and New South Wales are only about half the even more numerous State workers. Western Australia and Tasmania have the lowest ratios with about one Federal worker to every three-and-a-half State employees.

A number of Federal departments and authorities have strong direct economic impact in all states through their branches, staffs, and operations. Examples of these would be first and foremost the

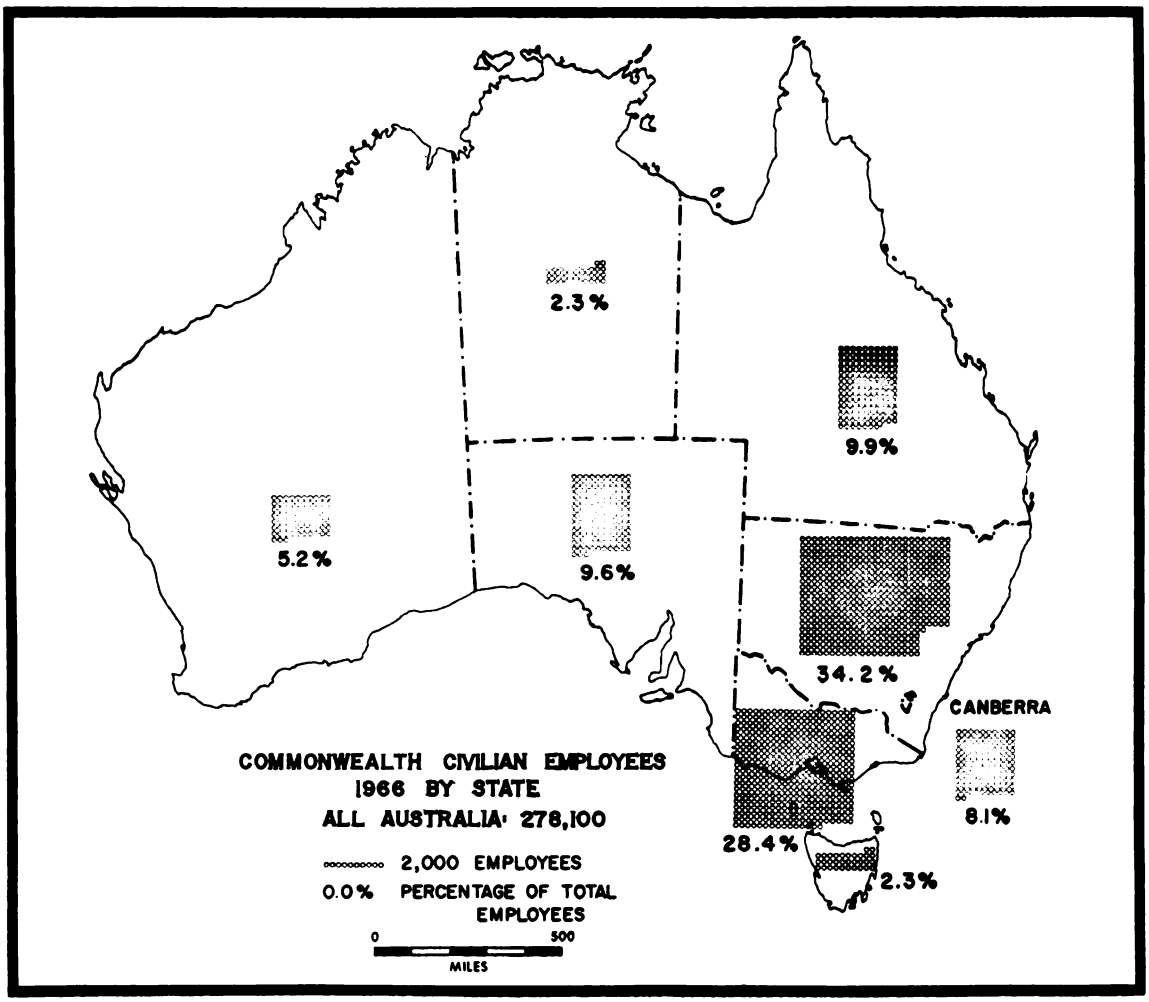
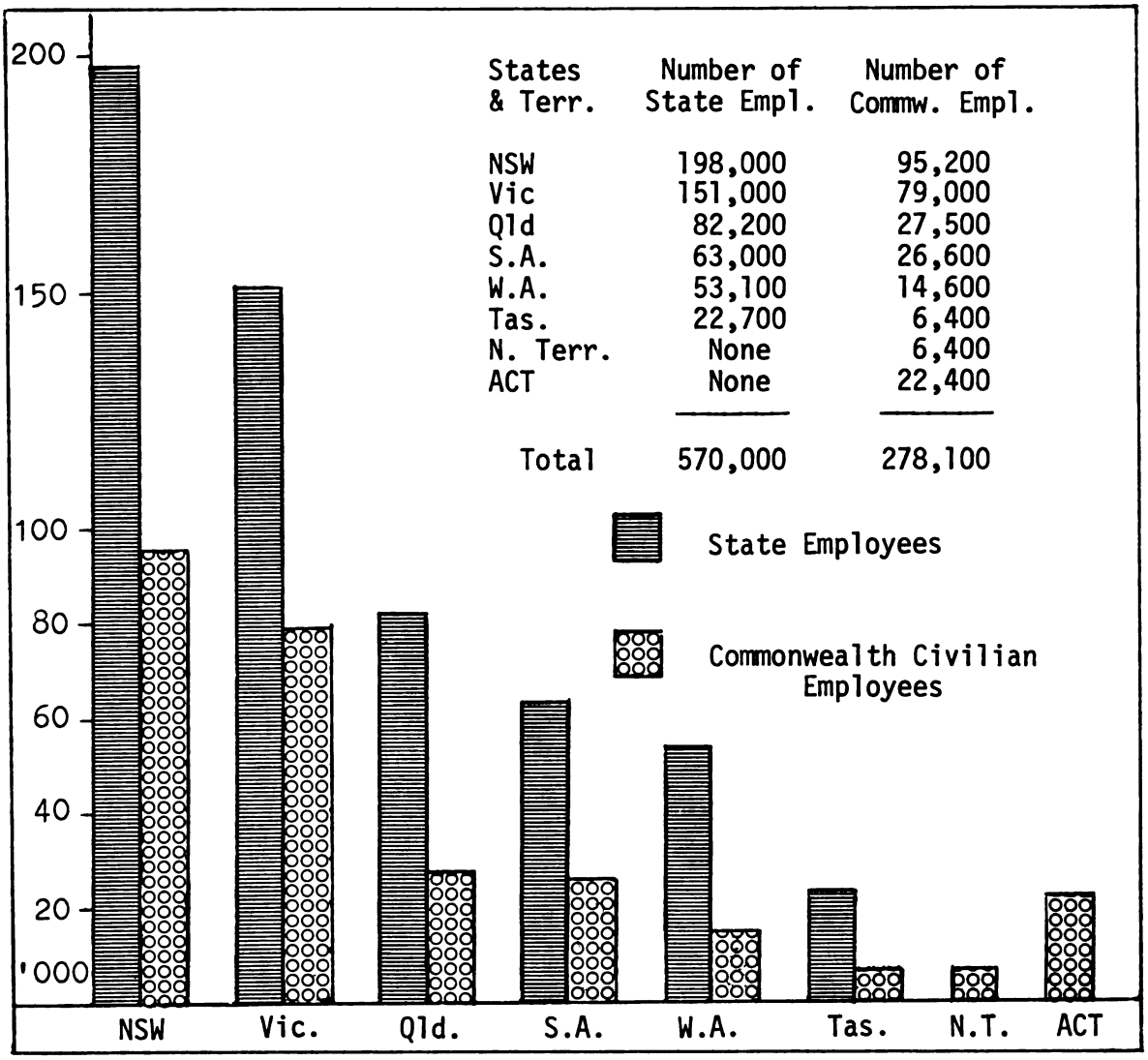


Figure 18. Commonwealth civilian employees by state, 1966.

Source: Yearbook of Australia 1968 and State Yearbooks.



States & Terr.	Number of State Empl.	Number of Commw. Empl.
NSW	198,000	95,200
Vic	151,000	79,000
Qld	82,200	27,500
S.A.	63,000	26,600
W.A.	53,100	14,600
Tas.	22,700	6,400
N. Terr.	None	6,400
ACT	None	22,400
Total	570,000	278,100

Figure 19. Commonwealth and State Government civilian employees by state, 1966.

Source: Yearbook of Australia and State Yearbooks.

Postmaster-General's Department, the Treasury, Customs and Excise, Repatriation, Civil Aviation, Works, Health, and the C.S.I.R.O. and Trans Australian Airlines. Others having substantial employment and operations in specific states and territories are:

In New South Wales
- Commonwealth Banking Corporation head office
- Reserve Bank of Australia head office
- Qantas Empire Airways head office and operations
- Snowy Mountains Hydro-Electric Authority
- Australian Broadcasting Commission
- Navy Department Dockyards and civilian employees
- Overseas Telecommunications Commission head office

In Victoria
- Postmaster-General's Department head office
- Civil Aviation Department head office
- Bureau of Meteorology
- Coastal Shipping Commission head office
- Trans Australian Airlines head office and shops

In South Australia
- Department of Supply Weapons Research Center
- Commonwealth Railways workshops and lines

In Western Australia
- Commonwealth Railways Trans Australian line

In Tasmania
- Coastal Shipping Commission

In the Northern Territory
- Northern Territory Administration
- Department of the Interior
- Commonwealth Railway lines

In the Australian Capital Territory
- C.S.I.R.O. head offices and laboratories
- Australian National University
- Canberra Hospital
- Royal Australian Mint
- Bureau of Census and Statistics

It is the decision-making linkages from Parliament and the departmental head offices to these and other organizations that create a national nodal region for Canberra.

It must be emphasized that the three nationwide nodal regions for decision-making focusing on Canberra, Melbourne, and Sydney are all co-extensive. The two older cities have not carved up the continent into their separate preserves, rather, they compete vigorously throughout the land, and are joined in a somewhat different vein by Canberra for this top level function. Sydney and Melbourne are in competition even in each other's home state as documented earlier by the number of establishments controlled from opposite cities. It will be shown in the next chapter that the two cities are powerful factors in each of the remaining states.

CHAPTER VI

CENTRAL OFFICES IN OTHER CAPITALS AND CITIES

The foregoing analysis of the central administrative offices of leading Australian companies and the Commonwealth Government show that Sydney, Melbourne, and Canberra are national decision-making centers. The three cities combined account for 80 per cent of the assets of the companies in the Delfin Digest. Not much is left to be divided among the remaining four state capitals and other towns. Further, no Commonwealth department or statutory authority is headquartered in any of the smaller state capitals. Adelaide, Brisbane, Perth, Hobart, and other cities have very limited decision-making roles at the top levels of industry and government (Figure 20). The Digest and State Government employment statistics provide data for comparing these cities among themselves moreso than with Sydney, Melbourne, and Canberra (Table 30). Because of the limited presence of foreign company head offices in the smaller capitals and the absence of Commonwealth head offices in them, the comparisons will be made under a broad interpretation. The limited presence of CAO's and the decision-making function is documented for each capital first. Their spatial impact is assessed after that.

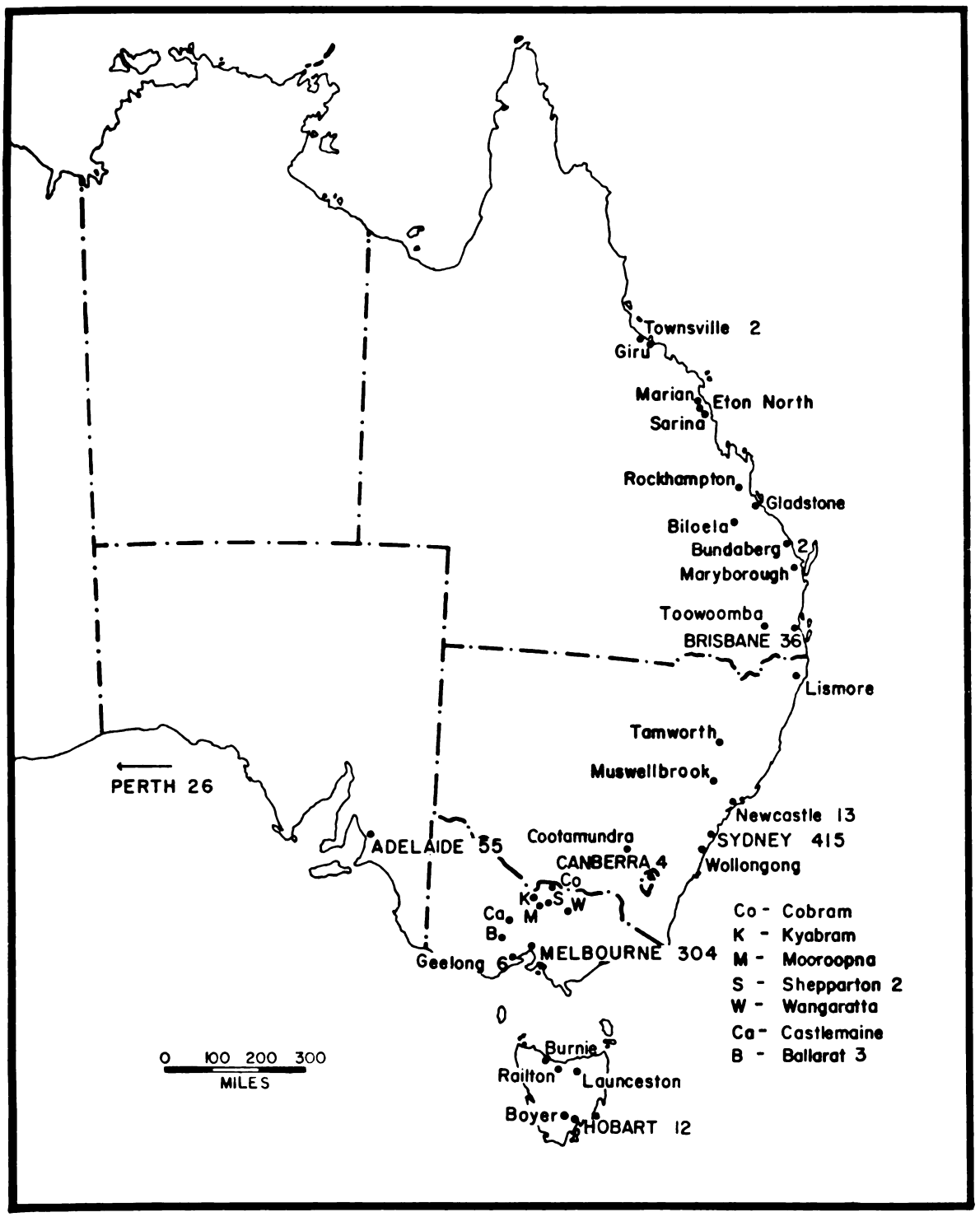


Figure 20. Locations of head offices of 907 Delfin Digest companies. Four head offices are not shown; one is in Port Moresby, Papua-New Guinea and three are in New Zealand.

Source: Compiled from 1967 Delfin Digest.

Table 30. Comparative measures of Adelaide, Brisbane, Perth, and Hobart.

Delfin Measures	Adelaide		Brisbane		Perth		Hobart	
	Number	Percentage of Delfin	Number	Percentage of Delfin	Number	Percentage of Delfin	Number	Percentage of Delfin
Head Offices	55	6.0%	36	4.0%	26	3.0%	12	1.0%
Assets in Millions	$ 1,881	4.6%	$ 1,053	2.5%	$ 650	1.6%	$ 426	1.0%
Employees	67,000	5.0%	58,000	4.4%	34,000	2.6%	10,600	0.8%
Industry Groups Rep.	25		20		16		10	
Foreign H. O's	7		1		2		2	
Foreign Assets	$ 116		$ 175		$ 19		$ 24	
Foreign Employees	8,165		4,122		1,456		2,167	
1966 Population in Statistical Div'n. and percentage of Australia	771,000	6.7%	778,000	6.7%	559,000	4.8%	141,000	1.2%

Source: Compiled from 1967 Delfin Digest. Population from 1968 Yearbook of Australia.

Adelaide

Adelaide has 55 Delfin head offices which results in it being ranked a distant third behind Sydney's 415 and Melbourne's 304. It is similarly in third place among Australian cities in the other measures of assets and number of employees (Table 30). Adelaide's percentages of the Delfin measures much more closely approximate its share of the Australian population than was true for Sydney or Melbourne under a broad interpretation.

The State owned Savings Bank of South Australia ranks in the First Echelon of assets. It is the only enterprise in this elite group which does not have its head offices in either Sydney or Melbourne. Three other government authorities, the Electricity Trust, the South Australian Railways, and the State Bank share Second Echelon positions with the private Bank of Adelaide and Elder Smith Goldsbrough Mort (Table 31). The last named is the nation's second largest wool selling broker. Adelaide's representation of large and medium-sized companies among the TOP 128 is completed by the Finance Corporation which is a hire purchase affiliate of the Bank of Adelaide, and Chrysler Australia, the only foreign enterprise. These eight companies have 70 per cent of the assets controlled from this city. Four of them are Major Employers; together their employees represent 40 per cent of the city's total Delfin work force. In Adelaide and in the other smaller capitals, assets in the top three Echelons are dominated, if not exclusively controlled, by State Government instrumentalities.

Even with a relatively small number of Delfin head offices, Adelaide manages to be represented in twenty-five industry groups.

Table 31. Adelaide based companies ranked by assets.

Echelon, Company Name Gov't./Foreign Control	TOP 128 Rank	Assets $ M.	Industry Group	No. of Empls.
I Echelon > $300 M.				
Savings Bank of South Aust[a]	18	371	Banking	1,101
II Echelon $100-299 M.				
Elec. Trust of South Aust[a]	29	247	Utility	5,810
Elder Smith Goldsbrough Mort	48	153	Wool Brkr	4,921
South Australian Railways[a]	49	152	Govt RR	9,179
Bank of Adelaide	55	130	Banking	1,044
State Bank of South Aust[a]	61	114	Banking	n/a
III Echelon $50-99 M.				
Finance Corp. of Australia	84	82	Other Fin	236
Chrysler Australia (U.S.)	88	76	Motor Veh	5,520
Cumulative > $50 M. (in TOP 128)		1,325 70%		27,811 42%
IV Echelon $30-49 M.				
News Limited		38	Newspaper	4,000
South Australian Gas Co		36	Utility	1,158
John Martin & Co		32	Retail	2,225
Va Echelon $20-29 M.				
Adelaide Steamship Co		29	Trans Equi	1,100
Advertiser Newspapers		27	Newspaper	1,544
South Aust. Brewing Co		25	Beer	500
Simpson Pope Holdings		24	Elec Mach	3,134
Beneficial Finance Corp		23	Other Fin	87
Lensworth Finance		22	Other Fin	46
Vb Echelon $10-19 M.				
G. & R. Wills (Holdings)		19	Wholesale	1,100
S. A. Rubber Holdings		18	Rubber	1,700
S. A. Farmers Co-op Union		18	Wool Brkr	1,341
Kelvinator Australia		13	Elec Mach	2,200
Bennett & Fisher		12	Wool Brkr	381
Harris, Scarfe		12	Wholesale	1,000
Adelaide & Walleroo Fertilizer		11	Other Chem	750
Adelaide Cement Holdings		10	Bldg Matrl	150
Vc Echelon < $10 M.				
30 Companies in Vc (6 Foreign)		188		16,530
Sub Total IV & V Echelons		556 30%		38,946 58%
Total Adelaide Companies		1,881		66,757

[a]South Australian Government Statutory Authorities.

Source: Compiled from 1967 Delfin Digest.

Fourteen are in manufacturing and eleven are in the primary and tertiary sector. A third of these industries have only one company headquarters; the maximum of five is in building materials. Banking has the greatest assets, $614 million, although this is just 5 per cent of the Delfin total for all banks. The only group in which Adelaide has the second largest percentage of assets in any city is the wool selling brokers and agents with 30 per cent of all group assets. Elder Smith Goldsbrough Mort is the main reason for this eminence. The firm's wide ranging activities in wool and livestock brokering, transportation, rural properties, and as station agents, plus strong ties with Adelaide's financial institutions, make it a major element among the city's more important business enterprises.

There are no headquarters of Delfin companies in eleven industry groups. Four of the city's eight largest firms are State authorities with 47 per cent of its Delfin assets and a quarter of the Delfin employees. Chrysler Australia, together with six other smaller foreign firms, account for 3 per cent of the assets and 8,100 employees. Compared with Sydney and Melbourne the measures of Adelaide's decision-making role in the private sector are quite modest. On the more positive side, there are no Delfin companies headquartered anywhere else in South Australia.

The South Australian Government repeats, on a smaller scale, the role of economic decision-making in Adelaide that was depicted earlier for Sydney and Melbourne. With about two-thirds of the state

population, and no "country town"[1] larger than 20,000 persons, Adelaide is the only location of State Government decision-making for South Australia. All State departments and organizations are headquartered here (Figure 21). There are only limited branch operations and these mainly in Port Lincoln and Mount Gambier.[2] State employees number 64,000, a quarter of whom are employed by the five Delfin statutory authorities. These are in contrast to the 50,000 employees of private companies headquartered in Adelaide. The only Commonwealth organization head offices here are for the Australian Wine Board and the Australian Wine Research Institute which are relatively minor marketing and research units. They are in Adelaide because the nation's wine industry is dominated by the vineyards and wineries of the nearby Barossa Valley. The relative decision-making role of private companies versus the State Government in Adelaide holds true for the other state capitals.

Brisbane

In 1966 the Adelaide and Brisbane Statistical Divisions had almost identical populations, 771,000 and 778,000 respectively (Figure 22). Queensland, the second largest state in land area, had 1,700,000 people. South Australia had 1,100,000 persons in about half as large an area. Given Queensland's larger population and area, one

---

[1]"Country town" is an Australian term generally applied to all non-capital cities and towns with the exception of Newcastle, Wollongong, and Geelong.

[2]The Universal Business Directories and Telephone directories have been used to document the presence or absence of government branches in country towns.

Figure 21. Adelaide, capital of South Australia.

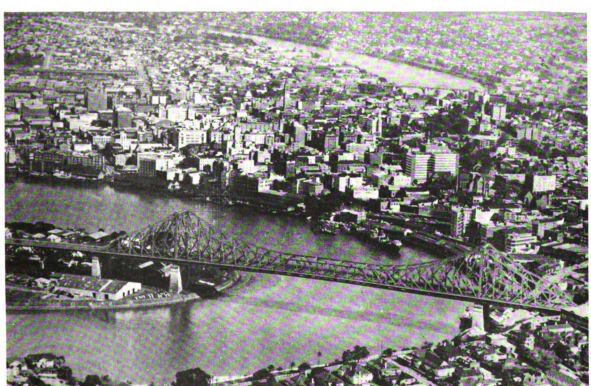


Figure 22. Brisbane, capital of Queensland.

(Photos courtesy of Australian News and Information Bureau.)

might expect Brisbane to be a more important location for head offices than we have seen for Adelaide. Table 30 above shows that such is not the case. Brisbane has only thirty-six Delfin companies, considerably less assets, and fewer employees. The metropolitan population is 6.7 per cent of Australia's total, a somewhat higher share than the other percentages are of the Delfin measures. Assets are particularly weak being only 2.5 per cent of the Delfin total.

There are no top Echelon head offices in Brisbane (Table 32). Three State authorities are in the Second, the Queensland Railways, Southern Electric Authority of Queensland, and the Government Insurance Offices. They are joined by the only foreign enterprise on the entire list, the American controlled Mount Isa Mines. Together, these four firms control 70 per cent of the assets and 58 per cent of the employees. The remainder of the companies are quite small. Even collectively they provide limited competition to the large State Government and foreign enterprises for economic importance.

Brisbane has head offices in fewer industry groups than Adelaide. Manufacturing firms are in nine industries compared with fourteen for Adelaide. Both cities have eleven primary and tertiary groups represented, but not the same ones. Bank head offices are notably missing in Brisbane. Most companies are in the food and drink group with six, followed by retail trade with five. Thirteen groups have just one company each. The large assets of the Department of Railways and the utilities help give the primary and tertiary sector two-thirds of Brisbane's assets. Mount Isa Mines, which is also a major processor of copper at its mine site in far northwest Queensland, is the city's

Table 32. Brisbane based companies ranked by assets.

Echelon, Company Name Gov't./Foreign Control	Rank	Assets $ M.	Industry Group	No. of Empls.
I Echelon > $300 M. None		--		--
II Echelon $100-299 M.	TOP 128			
Qld. Dept. of Railways[a] . . .	28	252	Govt RR	25,620
Mount Isa Mines (U.S.) . . .	37	175	Pmry NoFe	4,122
So. Elec. Auth. of Qld[a] . . .	41	167	Utility	2,995
State Govt. Ins. Offices[a] . .	52	143	Insurance	1,040
III Echelon $50-99 M. None		--		--
Cumulative > $50 M. TOP 128		737 70%		33,777 58%
IV Echelon $30-49 M. None		--		--
Va Echelon $20-29M.				
Castlemaine Perkins		23	Beer	n/a
Pioneer Sugar Mills		22	Food	750
Vb Echelon $10-19 M.				
Thiess Holdings		19	Bldg Const	2,077
Queensland Press		18	Newspaper	1,591
United Packages		16	Packaging	1,400
Queensland United Foods		16	Food	1,521
Golden Circle Cannery[a]		16	Food	1,725
Evans Deakin Industries		15	Trans Equi	2,806
Qld Primary Producers Co-op		14	Wool Brkr	n/a
Qld Cement & Lime Co		12	Bldg Mtrl	464
Provincial Traders Holdings		12	Food	1,507
Brisbane Permanent Building and Banking Co.		12	Other Fin	50
Milliquin Sugar Co		12	Food	600
Intercolonial Boring Co		11	Wholesale	1,137
Vc Echelon < $10 M.				
18 Companies in Vc		96		8,879
Sub Total IV & V Echelons		316 30%		24,507 42%
Total Brisbane Companies		1,053		58,284

[a]Queensland Government Statutory Authorities.

Source: Compiled from 1967 Delfin Digest.

standout private firm. By itself it accounts for 21 per cent of the Delfin primary non-ferrous metals group assets and places Brisbane second to Melbourne in this group. Unfortunately, it is foreign controlled, unlike Elder Smith Goldsbrough Mort in Adelaide. Elder's operations are much more diverse and spatially diffuse. Mount Isa Mines and Elder Smith are the only two companies large enough to displace Sydney or Melbourne from first or second places in Delfin industry groups. Mount Isa Mines and the Department of Railways are the two Major Employers headquartered in Brisbane.

Private domestic companies in Brisbane are small by Delfin standards, all being in the Fifth Echelon. Six of the fourteen companies named in Table 32 are food or beer processors, including the State owned Golden Circle Cannery. The other manufacturers are: Queensland Press, publishers of the state's leading newspaper;[1] United Packages, which is primarily associated with the food processing industry; Queensland Cement and Lime; and Evans Deakins in heavy and general engineering, especially small boat building. With the exception of Evans Deakin and another small engineering firm, most of the manufacturing head offices are of firms in industries often associated with "developing" nations; namely, food processing, building and construction materials, and mineral processing. In the primary and tertiary sector, the city also has something of an "emerging nation" character. Besides the large government concerns in railways, electricity, and insurance, there are three firms in primary industry, two in building and construction, a

---

[1]The Herald and Weekly Times of Melbourne owns 40 per cent of the company stock.

home loan company, two small gas utilities, and nine retailers and wholesalers. Missing are head offices of private or government banks, private insurance, and other financial institutions. The largest private company in this sector is Thiess Holdings in the construction industry.

Queensland State Government and Other Towns

The State Government in Brisbane must administer a sizably larger area and population than was true for Adelaide. Less than half of the state population is concentrated in the capital. Although top-level governmental economic decision-making is concentrated in Brisbane, the 83,000 state employees are more dispersed. The larger regional centers of Townsville, Rockhampton, Mackay, Maryborough, and Toowoomba have sizable concentrations of both State and Federal workers.[1] The five statutory authorities headquartered in Brisbane employ 32,000 State personnel. That is more than all the private Delfin firms. There are no Federal Government organizations with head offices here.

Unlike South Australia, eleven smaller Queensland towns are the locations of thirteen Delfin head offices (See Figure 20). Six of these companies are locally important sugar mills. The large American controlled Queensland Alumina smelting operation is in Gladstone. Regionally important wholesalers are in Townsville and Rockhampton and engineering firms are in Toowoomba and Maryborough. None of these head offices provide any serious competition for Brisbane's decision-making

---

[1]From Universal Business Directories.

function for the state. If they were all in the capital city they would not substantially add to its strength. Much of the assets are foreign controlled in Queensland Alumina, or are associated with the purely local importance of the six sugar mills. It is evident that Brisbane has been less successful than Adelaide in attracting the head offices of private companies both from within the state and from overseas.

Perth

Perth, isolated and lonely in the southwest corner of the continent, is the capital of the nation's largest state, the million square mile Western Australia. The city is 2,000 miles from Canberra and Sydney, and 1,400 miles from Adelaide, the nearest other state capital. The half million people in the metropolitan area constitute two-thirds of the state population. As in South Australia, there are no country towns larger than 20,000 in this huge state. One might expect to find a proliferation of regionally important head offices of firms in such an isolated city as Perth so far removed from the great centers of Sydney and Melbourne. But the small population warrants against many companies of a size sufficient to be included in the Delfin Digest. There are only twenty-six. Many of the large office buildings prominent in Perth's skyline house the branch offices of banks, insurance firms, and other businesses whose national head offices are in eastern cities (Figure 23).

Perth, like Brisbane, is not headquarters for any First Echelon giant. Similarly, three statutory authorities characterize the Second Echelon (Table 33). There is only one company, a fertilizer

Figure 23. Perth, capital of Western Australia.

Figure 24. Hobart, capital of Tasmania.

(Photos courtesy of Australian News and Information Bureau.)

Table 33. Perth based companies ranked by assets.

Echelon, Company Name Gov't/Foreign Control	Rank	Assets $ M.	Industry Group	Empls. No.
I Echelon > $300 M. None		--		--
II Echelon $100-299 M.	TOP 128			
W. Aust. Govt. Railways[a] . . .	33	191	Govt RR	11,764
Rural & Industries Bank of Western Australia[a] . . .	62	109	Banking	611
State Electricity Comm'n of Western Australia[a] . . .	65	107	Utility	2,650
III Echelon $50-99 M. None		--		--
Cumulative > $50 M. TOP 128		407 63%		15,025 44%
IV Echelon $30-49 M.				
CSBP & Farmers		32	Other Chem	850
Va Echelon $20-29 M.				
Westralian Farmers' Co-op		28	Wool Brkr	1,692
Swan Brewing Co		22	Beer	1,200
Vb Echelon $10-19 M.				
Boans		15	Retail	2,350
West Australian Newspapers		13	Newspaper	1,525
Cockburn Cement (U.K.)		12	Bldg Mtrl	185
State Govt. Insurance Office[a]		11	Insurance	186
Chamberlain Holdings		10	Farm Mach	1,310
Metropolitan (Perth) Passenger Transport Trust[a]		10	Transport	1,770
Vc Echelon < $10 M.				
14 companies in Vc (1 For'n)		87		8,054
Sub Total IV & V Echelons		242 37%		19,122 56%
Total Perth Companies		649		34,147

[a]Western Aust. Government Statutory Authorities.

Source: Compiled from 1967 Delfin Digest.

works, in the Fourth, followed by the Westralian Farmers' Co-operative and Swan Brewery heading the list of small Delfin companies. Sixteen Delfin industry groups are represented but eleven have only one company each. Besides the fertilizer works and the brewery, other Delfin manufacturers include: Chamberlain Holdings, a maker of farm and construction equipment; the West Australian Newspapers, publishers of the state's only daily newspapers; Peters Ice Cream (W.A.); and four building materials firms. Two of the latter are the only foreign enterprises operating through Perth. The elementary character of most of these companies is similar to what was found in Brisbane. Four of the ten primary and tertiary groups have only one government authority each, and a fifth, other transportation, has the Western Australian Coastal Shipping Commission and the Metropolitan (Perth) Passenger Transport Trust. Westralian Farmers' Co-operative heads the list of private firms in this sector, others of which are mainly in retail and vehicle distribution.

Table 30 on page 141 shows that the percentages of Delfin head offices, assets, and employees are all less than Perth's 4.8 per cent of the national population. Two-thirds of the assets are controlled by the six government authorities, as are 15,000 of the Delfin employees. The Western Australian Government Railways is the only Major Employer (Table 33). There are no large country towns to detract from Perth's decision-making function, through either the governmental or private sectors. All of these factors indicate a minimal presence of the decision-making function except as exercised by State Government. The government in administering for 850,000 West Australians has the

challenge of developing and governing one third of the continent. At present much of this is very thinly populated or uninhabited desert or steppe.

Hobart

There are almost no favorable factors for Hobart to be important for decision-making. It is the capital of Australia's smallest state areally and in population. Hobart's share of Tasmania's 371,000 people, 38 per cent, is the smallest portion any capital city has of its respective state population. Launceston, in the north of this island state, has always been a serious rival to Hobart because of its more favorable location to other small north coast towns, the island's rural population, and to the mainland. Being at the head of the long Tamar Estuary makes Launceston less accessible by sea whereas Hobart is on the deep and wide Derwent River estuary, a magnificent harbor (See Figure 24).

A dozen Delfin head offices with aggregate assets of less than $500 million are located in Hobart. The Delfin measures and the city's population are again very slim portions of the Delfin list and of the nation's population (See Table 30). The three top companies are statutory authorities. The Hydro-Electric Commission is just short of being in the top assets Echelon (Table 34). Its substantial investment in developing the state's water power potential results in it ranking quite high among the TOP 128. The Hobart Savings Bank and the Transport Commission are very small when compared with similar authorities in other states. Cadbury-Fry-Pascall, a confectionery maker, and

Table 34. Hobart based companies ranked by assets.

Echelon, Company Name Gov't./Foreign Control	Assets $ M.	Industry Group	No. of Empls.
I Echelon > $300 M. None	--		--
II Echelon $100-299 M.			
TOP 128 Rank			
Hydro-Electric Comm'n[a] . . . 25	290	Utility	2,016
III Echelon $50-99 M. None	--		--
Cumulative > $50 M. TOP 128	290 68%		2,016 19%
IV Echelon $30-49 M.			
Hobart Saving Bank[a]	45	Banking	143
Va Echelon $20-29 M.			
Transport Comm'n (Tas.)[a]	22	Govt RR	2,753
Cadbury-Fry-Pascall Aust (UK)	21	Food	1,915
Vb Echelon $10-19 M.			
Cascade Brewery Co	11	Beer	492
A. G. Webster & Woolgrowers	11	Wool Brkr	590
Vc Echelon < $10 M.			
Roberts Stewart & Co	6	Wool Brkr	277
G. P. Fitzgerald & Co	4	Retail	621
Charles Davis	4	Retail	340
Davies Brothers	4	Newspaper	510
Nettlefolds	4	Veh Distr	733
Murex (Australasia) (U.K.)	3	Elec Mach	252
Sub Total IV & V Echelons	135 32%		8,625 81%
Total Hobart Companies	426		10,641

[a]Tasmania Government Statutory Authorities.

Source: Compiled from 1967 Delfin Digest.

the smaller Murex at the bottom of the list, are British manufacturers. The Hydro-Electric Commission is the only enterprise of major significance among the Delfin 907. Some of the others have statewide influence, especially the Transport Commission. Although not on the Delfin list of Major Employers, these two government authorities and Cadbury-Fry are the only three Hobart headquartered companies with more than a thousand employees.

The smallness of the state and its population has precluded even most government authorities from being large. The government's total employment is just 23,000. If Tasmania was not so favored with a climate and topography that has given it a substantial waterpower potential, even the Hydro-Electric Commission would be much smaller. Unlike South Australia and Western Australia, there are Delfin companies in four other towns in Tasmania. The largest of these firms is the Launceston Bank for Savings, with $39 million in assets. The others are near their sources of raw materials. They include a newsprint mill at Boyer, a British owned paint pigments factory in Burnie, and the island's only cement works in Railton. Even if their head offices were in Hobart the smallness of these companies would not add much to the city's rather minor decision-making function.

The Spatial Impact of the Smaller Capital Cities

The presence of the decision-making function in Adelaide, Brisbane, Perth, and Hobart is limited. The spatial impact of central administrative offices and their associated companies in these cities is also of limited importance and extent as evidenced by Delfin measures.

Of the private domestic companies and state statutory authorities, more operate in one state or locally than at a national or multi-state level.[1] Even with this localized concentration, the Delfin data indicate that the state capitals are still not the principal focal point for top level decisions in their respective states.

Number of Companies and Assets

Table 35 shows a concentration of companies and assets for each city in the Intrastate column. The large assets in each case are predominantly because of state owned statutory authorities, especially electricity, utilities, railways, and banks. Adelaide has more national and multi-state regional companies than the other three cities combined. Yet, the assets of these wider ranging firms in aggregate are about half those of the one-state companies in South Australia. Only Elder Smith Goldsbrough Mort, and the Bank of Adelaide and its hire purchase affiliate, the Finance Corporation of Australia, are national companies large enough to be included in the TOP 128. The assets of all twenty-three national companies headquartered in Adelaide, Brisbane, and Perth constitute less than 2 per cent of the assets of all Delfin companies operating nationally. At the same time the sixty-three firms which operate in just one state control a respectable third of all assets of

---

[1]To be consistent with the spatial analysis done for Sydney and Melbourne, the following concerns only the private domestic and state enterprises. The dozen foreign firms thereby excluded would not substantially alter the details for any of the smaller capitals. The largest of these firms, Mount Isa Mines, operates in Queensland and the Northern Territory. Chrysler Australia has its main processing and distribution in Adelaide. The ten other companies are all Fifth Echelon.

Table 35. Area of operations of companies with head offices in smaller capitals.

City	Total H.O.	Total Assets $ M.	National H.O.	National Assets $ M.	4,3 or 2 States H.O.	4,3 or 2 States Assets $ M.	Intrastate H.O.	Intrastate Assets $ M.
Adelaide	48	$1,765	16	$569	13	$133	19	$1,063[a]
Brisbane	35	878	6	74	9	88	20	716[b]
Perth	24	630	1	11	8	91	15	528[c]
Hobart	10	420	-	--	-	--	10	420[d]
Total	117	$3,675	23	$654	30	$312	64	$2,709[e]

[a]Includes $890 M. of 5 State statutory authorities.
[b]Includes $584 M. of 5 State statutory authorities.
[c]Includes $437 M. of 6 State statutory authorities.
[d]Includes $357 M. of 3 State statutory authorities.
[e]Includes $2,268 M. of 19 State statutory authorities.

Source: Compiled from 1967 Delfin Digest.

Delfin one-state companies. The local concentration of these assets is accentuated by examining the distribution of establishments.

City Control of Processing and Total Establishments

Both processing and total Delfin establishments are highly concentrated in the capitals of their respective states. The numbers of units and percentages in home states are in inverse order for these four cities (Table 36). Adelaide has the largest number of processing and total units. It also has the lowest percentages of establishments in its home state. At the opposite end, Hobart companies have the fewest processing and total establishments and all are in Tasmania.

Table 36. Processing and total Delfin establishments controlled from smaller capitals.

City	Total No.	In Home State No.	In Home State %	Highest Percentage Out of State and No.
		Processing Establishments		
Adelaide	160	112	70%	11.3% in Victoria (18)
Brisbane	103	83	81%	10.7% in N.S.W. (11)
Perth	68	64	94%	2.9% in S. Aust. (2) and N. Terr. (2)
Hobart	24	24	100%	None
Total	355	288		
		Total Establishments		
Adelaide	1,135	714	63%	10.3% in N.S.W. (117)
Brisbane	464	389	84%	8.0% in N.S.W. (37)
Perth	284	262	92%	4.0% in S. Aust. (11)
Hobart	96	96	100%	None
Total	1,979	1,461		

Source: Compiled from 1967 Delfin Digest.

The high percentages of establishments in the home states account for the small proportions found elsewhere. Adelaide companies have 11 per cent of their processing establishments (only 18 units) in Victoria and a further 10 per cent of total establishments in New South Wales. These are the highest percentages for any of the smaller capitals.

Percentage of Establishments in Each State Controlled from Its Capital City

The other side of the analysis is that even with strong internal concentration, each state has a low proportion of Delfin

establishments controlled from its respective capital (Table 37). Adelaide, with control of a quarter of both processing and total establishments in its own state is the strongest capital of the four, followed by Perth, Brisbane, and Hobart. The lack of rival in-state

Table 37. Percentage of home state processing and total establishments controlled from state capitals.

State	Total No. In State	Controlled from Capital	
		No.	Percentage
	Processing Establishments		
South Australia	433	112	26% from Adelaide
Queensland	551	83	15% from Brisbane
Western Australia	327	64	20% from Perth
Tasmania	167	24	14% from Hobart
	Total Establishments		
South Australia	2,646	714	27% from Adelaide
Queensland	3,252	389	12% from Brisbane
Western Australia	1,963	262	13% from Perth
Tasmania	975	96	10% from Hobart

Source: Compiled from 1967 Delfin Digest.

centers in South Australia and Western Australia help explain part of the differences. Townsville, Toowoomba, and the sugar mill towns in Queensland reduce Brisbane's spatial impact somewhat. But the main factor detracting from the capital cities' shares of establishments in their own states is the large number of establishments controlled from Sydney, Melbourne, and by foreign companies (Figure 25).

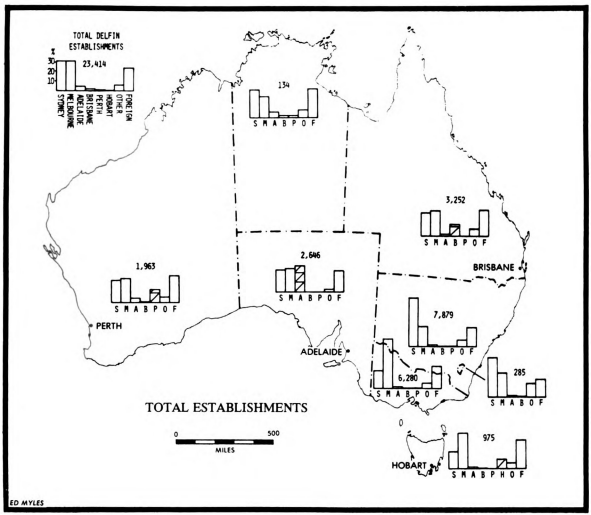


Figure 25. The percentages of Delfin companies' total establishments in own state controlled from smaller capital cities.

Source: Compiled from 1967 Delfin Digest, Universal Business Directories, and telephone directories.

The distribution of Delfin establishments shows the relatively weak role of those headquartered in Adelaide, Brisbane, Perth, and Hobart in their respective states. This indicates that these cities are less than "masters in their own houses." Brisbane, Perth, and Hobart all rank fourth in percentage of establishments in their respective states, behind Foreign, Melbourne, and Sydney (Table 38). Even in South Australia where Adelaide ranks first, Sydney, Melbourne, and foreign firms control 69 per cent of all establishments. Sydney and Melbourne together dominate each state, controlling about half of the Delfin establishments.

Table 38. Control of Delfin total establishments in states of smaller capitals.

Control from Various Cities Ranked by Percentages			
SOUTH AUSTRALIA		QUEENSLAND	
1. ADELAIDE	27%	1. Foreign	27%
2. Melbourne	24%	2. Melbourne	26%
3. Sydney	23%	3. Sydney	25%
4. Foreign	22%	4. BRISBANE	12%
5. All Other	4%	5. All Other	10%
Total	100%	Total	100%
Syd. + Melb.	47%	Syd. + Melb.	51%
WESTERN AUSTRALIA		TASMANIA	
1. Foreign	28%	1. Melbourne	36%
2. Melbourne	25%	2. Foreign	29%
3. Sydney	23%	3. Sydney	18%
4. PERTH	13%	4. HOBART	10%
5. All Other	11%	5. All Other	7%
Total	100%	Total	100%
Syd. + Melb.	48%	Syd. + Melb.	54%

Source: Compiled from 1967 Delfin Digest.

It is concluded that Adelaide, Brisbane, Perth and Hobart are not decision-making centers. The relatively small number of central administrative offices in these cities, and the limited assets and employees controlled from them result in decision-making roles far inferior to Sydney, Melbourne, and Canberra. The Delfin establishments indicate that these smaller capitals are not even the main centers for the private sector decision-making in their states. CAO's in Sydney and Melbourne are the foci for control of much of the private economic activity throughout Australia.

Delfin Companies in Non-Capital Cities and Towns

The Delfin Digest provides the information to document the paucity of the decision-making function in non-capital cities and towns as well as was evidenced for Hobart and Perth. Fifty-five companies have their headquarters in thirty-two other locations (See Figure 20). In total, these firms control more assets than either Perth or Hobart (Table 39). With few exceptions, however, most are only Fifth Echelon in assets size. None of the companies rank as Major Employers although several have over a thousand employees. Of the five firms not in the lowest Echelon, the three largest are foreign companies. The American controlled Queensland Alumina is the only non-capital city firm in the TOP 128, having $104 million invested in a new smelter and supporting facilities at Gladstone. Two New Zealand insurance companies in the Third Echelon operate branches in Australia directly controlled by head offices in Auckland. In the Fourth Echelon are two companies in

Table 39. Non-capital city Delfin Companies.

State	No. of Cities	No. of Co's	Assets $ M.	No. of Empls.
New South Wales	6	18	169	8,324
Victoria	8	16	127	6,027
Queensland	11	13	202	7,059
South Australia	--	--	--	--
Western Australia	--	--	--	--
Tasmania	4	4	91	2,125
Aust. Capital Terr.	--	--	--	--
Northern Territory	--	--	--	--
In Australia	29	51	589	23,535
Other[a]				
New Zealand	2	3	167	2,662
Papua-New Guinea	1	1	17	589
Other	3	4	184	3,251
TOTAL	32	55	773	26,786

[a]Includes two New Zealand insurance firms that have branches throughout Australia controlled directly from Auckland or Dunedin. The only company listed in the Delfin Digest for Papua-New Guinea is Steamships Trading Company of Port Moresby. It owns plantations and is in island trading, shipping, wholesaling, and general engineering.

Source: Compiled from 1967 Delfin Digest.

Tasmania, the Launceston Bank for Savings at Launceston, and Australian Newsprint Mills at Boyer.

The food and drink group has the largest number of companies, thirteen, in eleven cities and towns. These include the previously mentioned sugar mills in five Queensland country towns. The remaining firms are more diverse, being in twenty-two other industry groups. Industries with three to five CAO's at various locations are building materials, other transportation equipment, mining, insurance, utilities, and wholesale distribution. The minimal decision-making function these various headquarters may bring to the country towns is further diminished by foreign control of a quarter of them. In total, the fifty-five companies represent 6 per cent of Delfin firms and 2 per cent of both assets and employees. Hobart would be included in this list of lesser cities except for its economic decision-making role as capital of Tasmania and through the presence of State Government statutory authorities and departments. Without these it would be on a par with Newcastle in terms of Delfin measures.

Newcastle, Wollongong, and Geelong

At the 1966 census, Australia had ten urban statistical units with populations greater than 100,000. Six of these were the state capitals. The others were:

Newcastle Statistical District	323,000 Population
Wollongong Statistical District	177,000 Population
Geelong Statistical District	111,000 Population
Canberra Statistical District	107,000 Population

The Newcastle Statistical District has thirteen small Delfin head offices controlling $135 million in assets and employing 6,500.

Twelve industry groups are represented. Shortland County Council, an electricity distributor, and the State Dockyards are statutory authorities of New South Wales. Allis-Chalmers Australia, an American manufacturer of farm equipment, and Courtaulds (Australia), a subsidiary of the big British synthetic fiber maker, have their principal plants and head offices in Newcastle. Together these state and foreign enterprises control just about half the assets. This seriously reduces what small decision-making impact there is in this largest non-capital city. There are seven manufacturers and six primary and tertiary head offices in Newcastle. Being less than a hundred miles north of Sydney, almost all of these headquarters are of small local companies in conjunction with their principal operational facility.

Wollongong, the seventh largest urban center in Australia, is just fifty miles south of Sydney. It has only one Delfin head office. Breckett Limited, which is 50 per cent American owned, is a reclaimer of metal scrap. The company has only $3 million assets. Wollongong is almost a satellite of Sydney in many respects, which has resulted in almost no major head offices. Its principal industry, the great iron and steel mills, is controlled from Melbourne by the Broken Hill Proprietary Company.

Geelong has six Delfin head offices with $38 million in assets and 1,700 employees. Two British firms control nearly half of these assets, Pilkington Brothers--a glass maker, and Birmid Auto Castings. Again, all companies are small, topped by Pilkington Brothers' $14 million assets. Each is of only local or minimum state importance.

The other small non-capital city companies are all in the Fifth Echelon. Besides Newcastle, Geelong, and Canberra, the only other towns having more than one company head office are Ballarat and Shepparton in Victoria and Bundaberg and Townsville in Queensland (See Figure 20). Ballarat has a heavy engineering firm, an American roller bearing company, and a brewing investment company. Shepparton is the location of the American Campbell Soup factory and of Shepparton Preserving Company, a fruit canner. Fairymead Sugar Mills and Gibson and Howes are sugar millers in Bundaberg. Samuel Allen and Sons, a general wholesaler, and North Australian Cement serve the north of Queensland from Townsville.

The forty-two private domestic companies having head offices in such non-capital cities and towns as Newcastle, Geelong, and Townsville are decidedly local or one-state in the extent of their operations. Only four small (Fifth Echelon) companies operate nationally. They are: M. B. John and Hattersley engineers, the Ardmona Fruit Products Co-Operative, and Kyabram Preserving Company, all headquartered in Victoria; and another engineering firm in Toowoomba, Queensland--Industrial Enterprises. Another eight firms operate in two or three states. The largest number, thirty, operate only locally or in one state. Together all these companies have just 2 per cent of both processing (89) and total (401) establishments. Their units are found predominantly in Victoria, New South Wales, and Queensland.

The smaller cities and towns and the companies associated with them are of minimal consequence to the determination of nodal

regions in Australia. Their impact is so small, scattered, and localized as to not seriously detract from the regional roles of the capital cities.

CHAPTER VII

FOREIGN COMPANIES IN THE AUSTRALIAN ECONOMY

Companies and Industries

Foreign companies play an important role in the Australian economy. Top level decisions made in central administrative offices of international companies in London, New York, and other cities are implemented through the Australian management offices of these enterprises. Most such offices for Australian operations are located in Sydney or Melbourne with a scattering of others in the smaller state capitals and cities. When all 263 foreign firms are examined in aggregate they constitute roughly a quarter of the Delfin head offices, assets, and employees (Table 40).

Table 40. Delfin foreign controlled companies.

	Head Office No's.	Assets $ M.	No. of Empls.
All Foreign	263	$9,808	313,000
Percentage of Delfin	29%	24%	24%
Manufacturing Sector	199	$5,161	252,000
Percentage of Mfg.	40%	46%	36%
Primary and Tertiary Sector	64	$4,647	51,000
Percentage of P. & T.	16%	15%	8%

Source: Compiled from 1967 Delfin Digest.

Under a strict interpretation of the location of ultimate control a quarter of Australia's leading firms represents a substantial amount of overseas influence in the nation's economy, but far from "economic colonialism." This is especially true when it is considered that these companies are not all headquartered in one overseas city, let alone one country. Foreign enterprises have about the same dollar value of assets invested in the manufacturing sector as in the primary and tertiary. The percentages in the two divisions are considerably different for all three measures, and show foreign firms relatively more strongly represented in manufacturing.

At the industry group level foreign companies have over $300 million or a high percentage of assets invested in eight manufacturing and five primary and tertiary groups. Trading banks and petroleum refining stand out in terms of actual dollars whereas industrial chemicals and vehicle assembly have the highest percentages (Table 41, Part A). On the positive side of the ledger for Australian control of its economy are a number of groups where foreign investment is limited or absent (Table 41, Part B). Another way of assessing domestic versus foreign dominance in key industries is to look at the nine Delfin groups having assets of more than $1,000 million (Table 41, Part C). These nine control nearly three-quarters of all Delfin assets. The petroleum refining and marketing group is the only foreign dominated industry among these important segments. The government railways and utilities remain exclusively Australian industries.

Sydney has been chosen most frequently as the location for the Australian offices of foreign companies, having 150 of the Delfin total.

Table 41. Foreign control of industry groups.

Group	Assets > $300 m $ m.	Percentage of Group Assets	Co's. Prop. of Group
A. Strong Foreign Representation			
Primary Non-Ferrous Metals	$ 701	86%	7/13
Farm, Constr. & Other Equip	116	75%	9/14
Motor Vehicle Assembly	674	97%	7/9
Electrical Mach, Equip	365	61%	24/39
Petroleum Refining & Mktg	1,147.	74%	10/13
Industrial Chemicals	619	99%	20/21
Other Chem, Fert, Pharm	249	72%	26/35
Food & Drink	326	26%	23/82
Mining	454	62%	6/25
Wool Selling Brokers & Agents	297	49%	3/16
Banks, Trading & Saving	2,478	18%	2/15
Other Finance	457	25%	6/35
Insurance, Life & Non-Life	467	10%	12/47
B. Weak Foreign Representation			
Metal Bldg Supplies & Equip	$ 15	8%	3/20
Agricultural & Pastoral Production & Distribution	19	7%	2/14
Investment Banking	--	--	0/10
Railways, Government	--	--	0/7
Other Transportation	19	3%	2/23
Utilities	--	--	0/20
Retail Trade	21	2%	2/50
Investment & Holding Co's	6	2%	1/20

Industry Groups Ranked by Assets Size	Total Assets $ m.	Foreign Assets $ m.	Percentage Foreign
C. Delfin Groups with more than $1,000 million Assets			
Banks, Trading & Saving	$13,675	$2,478	18%
Insurance, Life & Non-Life	4,498	468	10%
Utilities	2,764	--	--
Railways, Government	1,844	--	--
Other Finance	1,828	457	25%
Petroleum Refining & Mktg	1,554	1,147	74%
Food & Drink	1,280	326	26%
Retail Trade	1,092	21	2%
Primary Iron & Steel	1,073	184	17%

Source: Compiled from 1967 Delfin Digest.

Melbourne is next with 85. Of the remaining companies, Adelaide has seven, while the other capitals and small towns have one or two each. Melbourne and Sydney would be almost identical centers of foreign assets without the presence of the Australian and New Zealand Bank and the English, Scottish and Australian Bank. These two pillars of Melbourne's financial power give it a strong lead in foreign investment. However, this factor reduces the city's importance as a domestic decision-making center under a strict interpretation. Over one-third of Melbourne's Delfin company assets are foreign controlled as compared with 15 per cent for Sydney and Brisbane. Mount Isa Mines is the latter's only foreign enterprise head office. CAO's in Adelaide, Perth, and Hobart all have less than 7 per cent of their assets foreign controlled.

The companies based in Australia's two largest cities control 93 per cent of Delfin foreign assets and employees. This leaves 7 per cent channeled through all other places. Thus, while reserving the ultimate top-level decision-making to their various overseas headquarters, international businessmen have usually chosen to locate their Australian managements in the same two cities that Australian businessmen have most frequently favored. Sydney has been more often chosen, but the value of assets controlled through Melbourne is considerably larger, the excess over Sydney being mainly through banking.

Nations Represented

British and Americans dominate foreign enterprises operating in Australia. They have roughly equal numbers of companies but the United Kingdom firms are clear leaders in assets and employees controlled

(Table 42). Both the United States and the United Kingdom have nearly equal assets in the manufacturing sector, about $2,400 million each. Through banking, mining, wool brokering, insurance, other finance, and smaller investments in other primary and tertiary groups the British have $3,900 million in this sector compared with only $500 million for the Americans. The $664 million total assets of the nine lesser nations are about three-to-two in manufacturing versus primary and tertiary groups. Although overshadowed by the British and Americans, the companies of these lesser nations occupy interesting niches in Australia's economy, such as Electronic Industries, Massey-Ferguson in farm machinery, and Nestlé confectionery and dairy products. Several companies are Third and Fourth Echelon in assets size, but sixteen are in the Fifth Echelon. A number of these firms are subsidiaries of well known international companies from European industrial nations such as West Germany's Volkswagen and Asea Electric and Ericsson from Sweden.

The minimum assets size of about $2-to-4 million for most Delfin industry groups has excluded a number of smaller foreign controlled firms from this analysis. The same lower limits have excluded a great many small Australian business firms. The one nation notably absent from the Delfin Digest companies is Japan, although it is a major trading partner of Australia as are the United Kingdom and the United States.

Ultimate top level decision-making for 263 foreign companies lies outside of Australia. However, many important decisions are made in Sydney and Melbourne by the local boards and management officers of these firms. Policies and decisions pertinent to the Australian

Table 42. Foreign nations with Delfin companies operating in Australia.

Foreign Nation	Co's. No.	Assets in Australia $ m.	Employees in Aust. No.
United Kingdom	122	$ 6,307	173,000
Percentage of Foreign	47%	64%	55%
United States	114	$ 2,837	110,000
Percentage of Foreign	44%	29%	35%
U.K. + U.S.	236 90%	$ 9,144 93%	283,000 90%
New Zealand	3	167	2,662
Netherlands	2	112	10,800
Switzerland	5	88	7,464
West Germany	5	73	3,317
Canada	4	70	3,983
Hong Kong	1	68	230
Sweden	5	46	1,200
France	1	22	220
Papua-New Guinea	1	17	589
All Others	27 10%	$ 664 7%	30,565 10%
Total Foreign	263	$9,808	313,000

Source: Compiled from 1967 Delfin Digest.

operations of the companies are strongly influenced by the local officers. Even if they do not make the ultimate decisions, they interpret and implement broad directives and general policies, thus having considerable input into the ultimate effect of decisions made in overseas headquarters. In subtracting the total assets and employees of these foreign firms from the Delfin totals for Australian cities, the adjustment under a strict interpretation may be too severe. If anything, the correction is in the direction of being overly-cautious rather than too lenient. In the final analysis, however, it is men in London, New York, and other overseas cities that are risking their companies' assets and who are accountable to the stockholders. Australian top management and even boards of directors of foreign subsidiaries generally serve at the discretion of the top international administration and its directors.

Spatial Impact of Foreign Controlled Companies

In aggregate, foreign controlled companies occupy an important position in the Australian economy. Their spatial impact is nationwide. Although their Australian management offices are strongly concentrated in Sydney and Melbourne, production and other establishments are found in all states and territories. Foreign Delfin establishments constitute important proportions of units in every state.

Companies and Assets by Area of Operations

The impact of foreign companies is areally extensive; 164 operate nationally and an additional 67 operate in more than one state

(Table 43). Of the remaining which operate locally or in one state, several have wide impact because they are the producing units for

Table 43. Foreign controlled Delfin companies by area of operations.

Area of Operation	Companies		Assets	
	No.	% of Foreign	$ M.	% of Foreign
National	164	62%	$8,136	83%
4, 3, or 2 States	67	26%	1,239	13%
1 State and Local	32	12%	433	4%
Total	263	100%	$9,808	100%

Source: Compiled from 1967 Delfin Digest.

associated firms which market nationally. This is particularly true of oil refineries, petro-chemical and pharmaceutical companies. There are more foreign firms operating nationally than there are domestic firms headquartered in either Sydney (125) or Melbourne (115). The national companies include most of the major ones, and thus, have by far the largest share of assets. The $8,000 million assets of these national foreign companies rank between those of Sydney ($9,300 million) and Melbourne ($6,800 million).

Foreign firms make up one-third of the TOP 128 list (see Table 4). There are also twenty among the Major Employers (see Table 6). For the most part these leading firms operate nationally. The ANZ Bank and ES and A Bank have the largest number of establishments

distributed nationwide. Four insurance houses and five hire purchase firms also have widespread operations. Large foreign firms are predominantly in manufacturing and mining. Some of these operate the largest factories in Australia. Their various establishments are found in all the capital cities as well as in country towns and rural areas.

Most foreign manufacturers in the TOP 128 list are subsidiaries of well known multi-national corporations. Among those operating nationally are a dozen British firms including: Imperial Chemical Industries of Australia and New Zealand, Shell Australian Securities, Conzinc Riotinto of Australia, British Petroleum of Australia, British Tobacco (Australia), Metal Manufacturers, John Lysaght (Australia), Tubemakers of Australia, Unilever Australia (Holdings), George Weston Foods, British Motor Corporation (Australia), and Commonwealth Industrial Gases. There are nine big subsidiaries of American corporations with marketing and processing establishments throughout Australia. They are: General Motors-Holden's, Mobil Oil Australia, Ford Motor Company of Australia, Comalco Industries, Caltex Oil (Australia), Esso Standard Oil (Australia), International Harvester Company of Australia, Goodyear Tyre and Rubber (Australia), and Chrysler Australia. The last named company, Chrysler Australia, is the only one of these companies not having its Australian management office in either Sydney or Melbourne. Its head office and principal works are in Adelaide.

Multi-state regional foreign companies from the TOP 128 generally have smaller assets than their national counterparts. Most are involved in mining, primary metal processing, or petroleum refining.

Thus, they usually have just one or a few major processing establishments and a limited number of distribution units. Operating in four states are: Alcoa of Australia with processing plants in Western Australia and Victoria and Amoco Australia with its refinery at Brisbane and markets in the four eastern mainland states. Operating in three states are: Consolidated Gold Fields Australia with six mines in New South Wales, Queensland, and Tasmania; and Broken Hill Associated Smelters with big works at Port Pirie, South Australia and two smaller plants in New South Wales. Among the foreign multi-state regional operators, Mount Isa Mines has the largest assets, $175 million. However, its principal activities are at Mount Isa and near Townsville in northern Queensland with exploration work being done in the Northern Territory. Another miner, New Broken Hill Consolidated has its only mine at Broken Hill, New South Wales and its management office in Melbourne (as do the other two domestic mine operators at Broken Hill). Petroleum Refineries (Australia) has only two processing establishments, with refineries at Adelaide and near Melbourne. Its products are marketed by Mobil and Esso. Only two of the TOP 128 companies operate locally. Australian Oil Refinery has just one big plant on Botany Bay in southern Sydney but its output is sold nationally by Caltex. Queensland Alumina is constructing the world's largest primary alumina smelter complex at Gladstone on the central Queensland coast.

Completing the list of the TOP 128 foreign firms are two British controlled pastoral houses. Dalgety-New Zealand Loan operates through some 300 establishments as stock and station agents and wool brokers in all mainland states and territories. It has pastoral

properties in New South Wales, Queensland, and Western Australia. Australian Estates also has pastoral properties in Queensland and New South Wales and some ninety stock and station agents in these two states and Victoria. The 219 smaller foreign firms are more frequently found as multi-state regional or one-state operators than their larger counterparts. However, they are most numerous as national companies. Among these companies manufacturers still predominate. They represent a wide spectrum of the manufacturing industry groups. Many have processing plants in all states, although there is a tendency, as among the larger firms, to have more of the principal processing establishments in Sydney or Melbourne near the nation's largest markets.

Spatial Distribution of Foreign Controlled Establishments

Foreign companies have almost 1,000 processing establishments and over 5,000 total Delfin establishments in Australia. They are less concentrated in any one state than is true for the domestic companies controlled from any one Australian city (Table 44). Even so, over half of both processing and total establishments are in New South Wales and Victoria with Queensland ranking a weak third in both columns. The single highest proportion is the 36 per cent of processing units in New South Wales. In this state and Victoria are many of the largest manufacturing plants in the nation including auto assembly plants, refineries, clothing factories, metal works, and food processing. About 1,500 total establishments are also found in each of these states and include many of the branch offices of banks, insurance companies,

Table 44. Distribution of Delfin establishments controlled by foreign companies.

	Processing Establishments No.	%	Total Establishments No.	%
New South Wales	354	35.9%	1,571	29.1%
Victoria	267	27.1%	1,438	26.7%
South Australia	81	8.2%	584	10.8%
Queensland	142	14.4%	877	16.3%
Western Australia	97	9.8%	549	10.2%
Tasmania	37	3.8%	282	5.2%
Northern Territory	4	.4%	40	.7%
A. C. T.	4	.4%	53	1.0%
Foreign Total	986	100.0%	5,394	100.0%
Delfin Total	4,351		23,414	

Source: Compiled from 1967 Delfin Digest.

pastoral houses, and retail outlets, as well as the above mentioned processing units.

Percentage of Each State's Establishments Which are Foreign Controlled

About 23 per cent of both processing and total establishments are controlled by foreign firms. These rank third behind domestic units with head offices in Sydney and Melbourne. Absolutely and relatively, the number of establishments is important both nationally and within individual states. The range of control varies from a low of 11 per cent in the Australian Capital Territory to a high of 30 per cent in Western Australia (Figure 26). When compared with companies

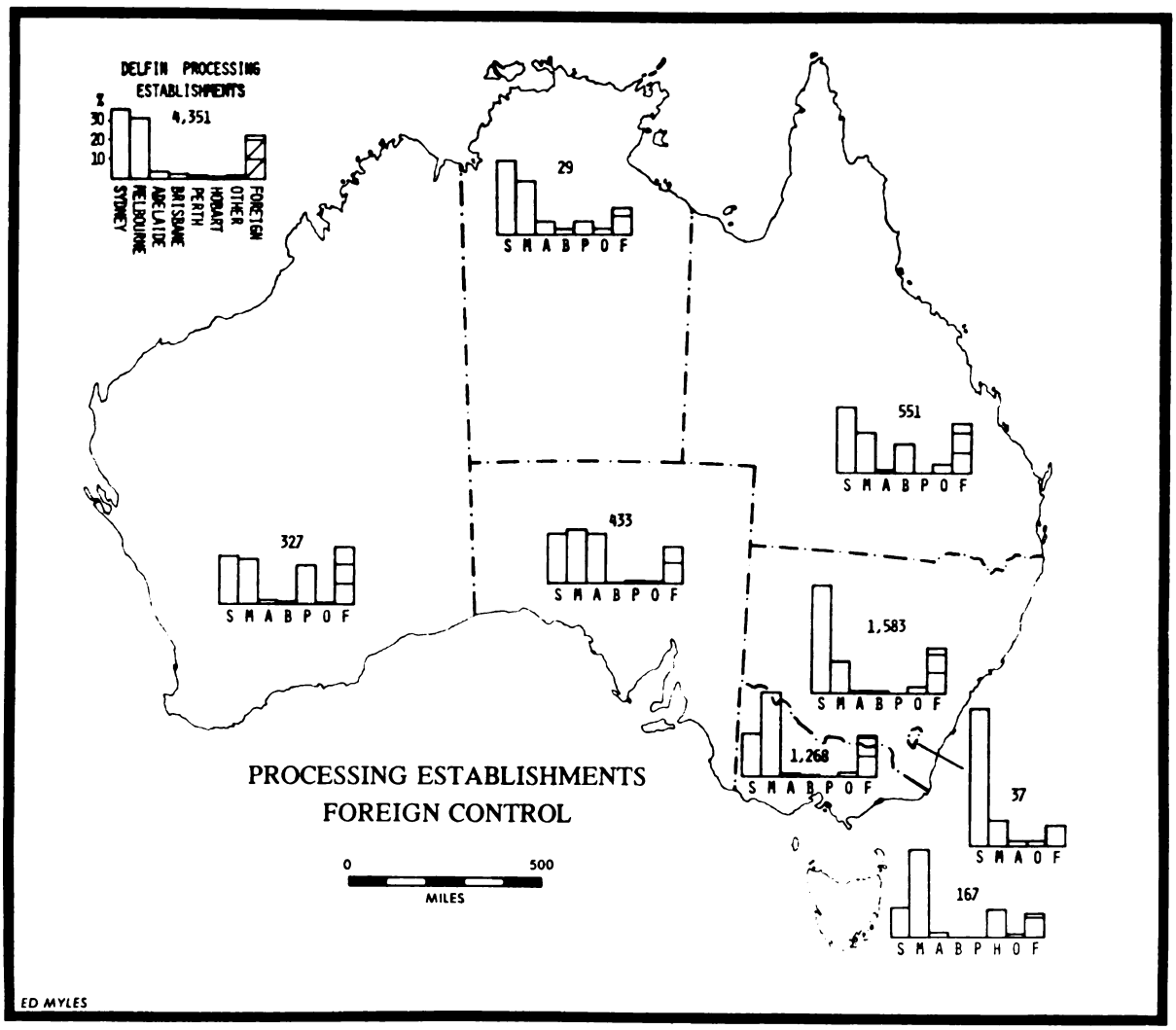


Figure 26. The percentage of each state's Delfin processing establishments controlled by foreign companies.

Source: Compiled from 1967 Delfin Digest, Universal Business Directories, and telephone directories.

controlled from the various Australian capital cities foreign firms rank first in number of processing establishments in Western Australia, second in New South Wales, Queensland, and Tasmania, and third in Victoria, the Northern Territory, and the Australian Capital Territory. Only in South Australia do they rank fourth, yet even here there are very important units such as Esso's refinery, Chrysler's and General Motors-Holden's auto factories, and the Broken Hill Associated Smelter's works at Port Pirie.

Foreign control of total establishments is similarly important when compared to state capitals (Figure 27). Overseas firms rank first in Western Australia, Queensland, and the Northern Territory, second in Victoria and Tasmania, third in New South Wales and the Australian Capital Territory, and fourth in South Australia again.

The one-quarter of processing and total establishments on a national basis, and high relative control in most states and territories, indicates the nationwide importance of decision-making done by foreign firms. There is not a concentration in one state, rather the pattern of both production and moreso of total establishments roughly approximates the national population distribution. New South Wales and Victoria are the locations of the greater number of these establishments.

Foreign control is from central administrative offices in a number of cities in two major nations, the United Kingdom and the United States, and in several smaller countries. No one city or nation is dominant as was true of London and the United Kingdom prior to political federation. This detracts somewhat from the overall influence of foreign CAO's because control is diffuse. At the same time, in

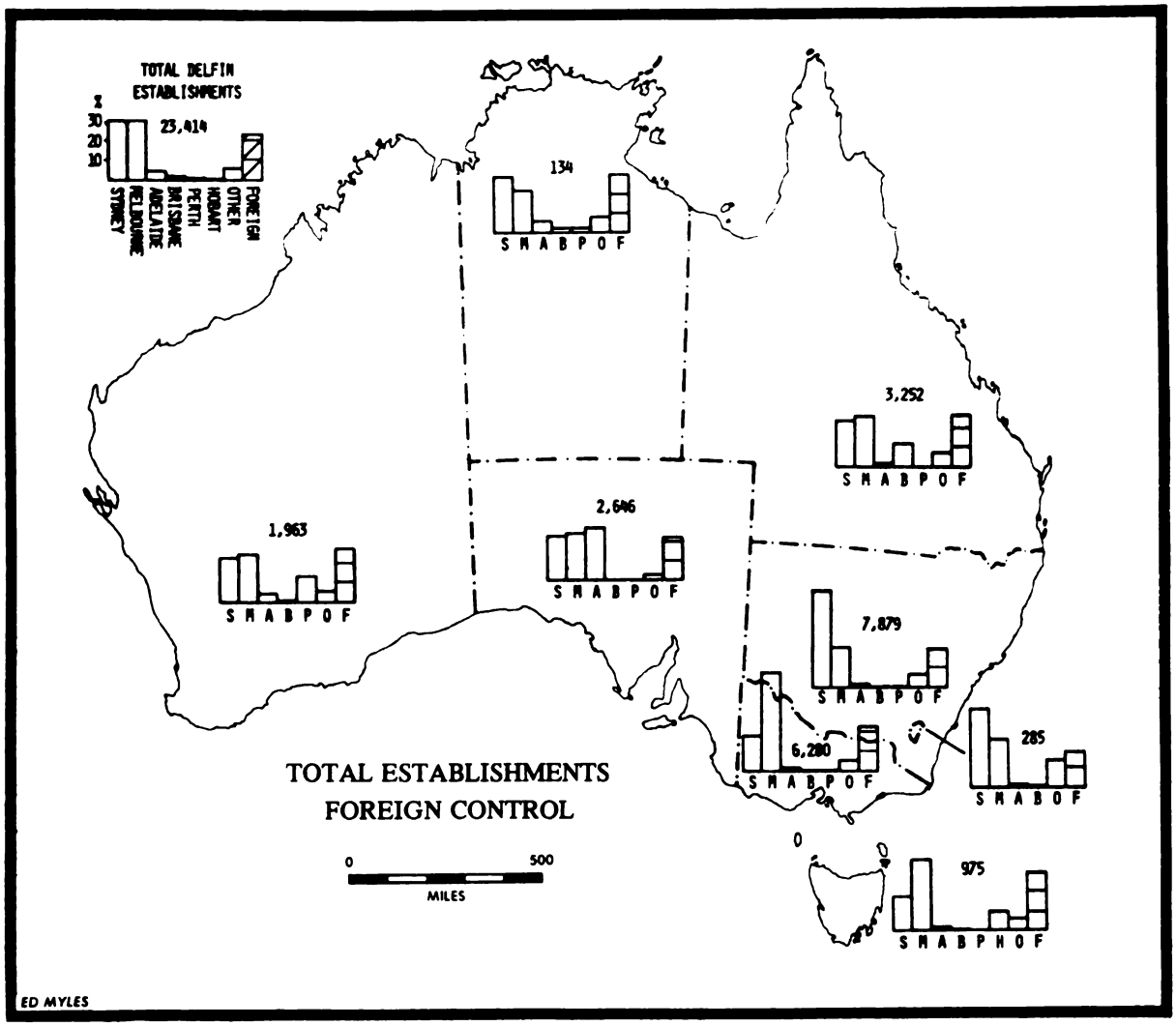


Figure 27. The percentage of each state's total Delfin establishments controlled by foreign companies.

Source: Compiled from 1967 Delfin Digest, Universal Business Directories, and telephone directories.

aggregate terms they control nearly a quarter of the Delfin companies, assets, employees, and processing and total establishments--a very sizable share of any nation's economic structure. Their impact is nationwide and on many local scenes.

CHAPTER VIII

COMPARATIVE METROPOLITAN DOMINANCE IN THE AUSTRALIAN ECONOMY

The preceding chapters have examined the central administrative offices and top level decision-making in each Australian city. The presence of the function in varying amounts is indicated for all capitals. There is a substantial foreign component as well. The relative dominance of Australian cities as locations of CAO's and as decision-making centers is compared in this chapter prior to examining the third hypothesis of a centrally directed economy. A strict interpretation of the location of top level decision-making is used. This author believes that such an interpretation best reflects the true location of ultimate decision-making and control by the Commonwealth Government and by foreign enterprises operating in Australia. Data on 907 Delfin Digest companies plus three major Federal Government organizations not included therein,[1] and all Commonwealth and State Government employees are used in the comparisons of the capital cities.

Companies, Assets, and Employees

The number and location of 910 head offices of major domestic and foreign companies and government statutory authorities and

---

[1]The Postmaster-General's Department, the Reserve Bank of Australia, and the Snowy Mountains Hydro-Electric Authority.

organizations measure the decision-making function for a key segment of the nation's economy (Figure 28). By this measure Sydney has a clear lead over all other cities. However, its rival, Melbourne, is not to be denied a very considerable importance. The other capitals, including Canberra, are "also-rans." Overseas CAO's of foreign companies operating in Australia equal the number for private domestic firms and State Government statutory authorities in Sydney.

Assets of the Delfin companies give a more refined measure of the location of decision-making and ultimate control. Dollar figures give a weighted value to companies with large or small assets. The companies and government statutory authorities included in the Delfin Digest have assets of $41,000 million. The three Commonwealth Government instrumentalities have been added because of their considerable assets, a combined $4,900 million. Data on assets of other government departments and organizations are not available on a basis comparable with those in the Delfin Digest. However, forty-five Commonwealth and State semi-autonomous statutory authorities are included in the Delfin list. So a very substantial amount of government business enterprise is represented in this analysis. The total assets of the 910 government and private enterprises is $46,000 million (Figure 29).

The division of ultimate control of these assets among Australian cities under a strict interpretation assigns all Commonwealth assets to Canberra. Assets of all foreign companies are aggregated as foreign controlled. They are not assigned to the city having their Australian management offices as was done earlier under a broad interpretation.

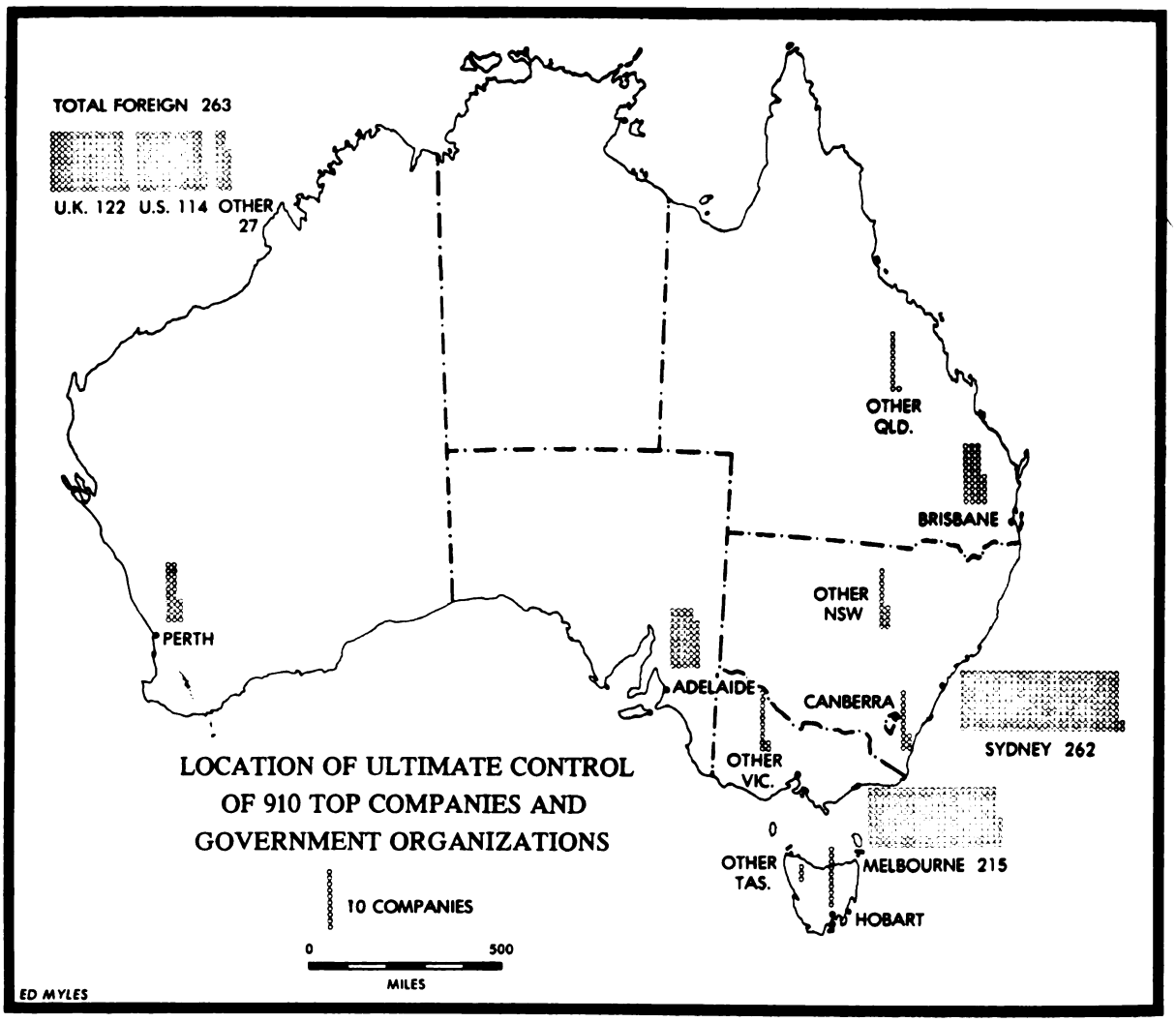


Figure 28. Location of ultimate control of 910 top companies and government organizations. Strict interpretation assigns control of all foreign companies overseas, and all Commonwealth enterprises to Canberra. The latter include the Postmaster-General's Department, the Reserve Bank of Australia, and the Snowy Mountains Hydro-Electric Authority not included in the 907 companies listed in the 1967 Delfin Digest.

Source: Compiled from 1967 Delfin Digest.

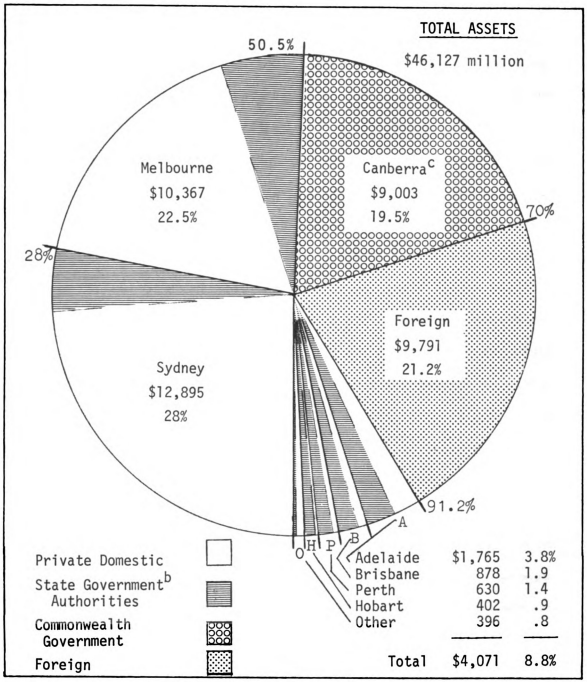


Figure 29. Location of control of $46,000 million assets of 910 major companies and government organizations.[a]

[a]907 Delfin companies, PM-G, Reserve Bank, Snowy Mountain Authority.

[b]$6,732 m. of 36 statutory authorities in Delfin Digest.

[c]$8,997 m. are Commonwealth Government, $6 m. are private domestic.

Source: 1967 Delfin Digest and 1968 Yearbook of Australia.

Sydney companies control the largest amount of assets, almost $13,000 million (Figure 29). Again, Melbourne companies rank a respectable second. Assets show Canberra to be far more important than when measured by number of head offices. This importance is almost exclusively through the Commonwealth Government, rather than private companies as for Sydney and Melbourne. One-fifth of all assets are assigned to overseas control. Several nations are represented so that no one city can be considered a serious rival for decision-making importance. Foreign control of almost $10,000 million in assets denies their importance to Australian cities. Thus, only 9 per cent of the assets remain to be divided among the smaller capitals and other cities and country towns. Adelaide, Brisbane, Perth, and Hobart all have more of their assets in State Government statutory authorities than in private domestic companies. The individual weakness of each of these cities is in marked contrast to the strength of Sydney, Melbourne, and Canberra.

The number of employees controlled from Australian cities is a weighted measure as is assets. Employment is a more inclusive measure because all civilian and military personnel of the Federal Government, all State Government staffs, plus the private domestic and foreign employees of the Delfin companies are included. Data for these persons can be compared with the total Australian work force whereas no total is available for all Australian assets (Figure 30). The Delfin companies, which include a number of large State and Federal employers, represent about 27 per cent of the nation's work force. By adding the remaining Government employees, about 42 per cent of the national total is included, over 2,000,000. Decision-making measured by this expanded

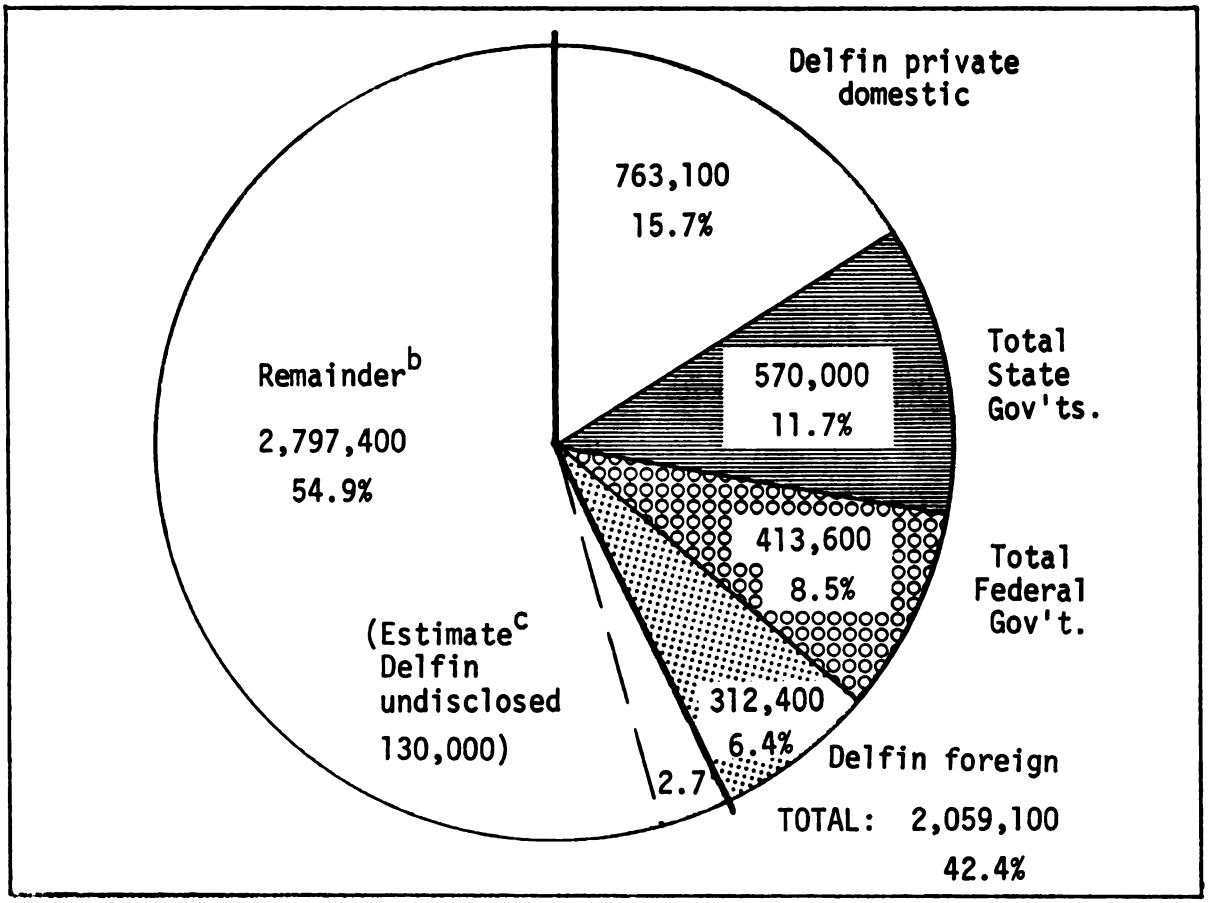


Figure 30. Control of segments of the Australian work force in 1966.[a]

[a]At 1966 Census, 4,856,500 persons.

[b]Includes non-Delfin private domestic and foreign, plus 99,000 local government employees.

[c]Of the 907 Delfin companies, 136 did not disclose the number of their employees. Eighteen were in the first four Echelons. The remaining 118 were Fifth Echelon, with an estimated average of 1,000 employees each. Most of these firms have head offices in Sydney or Melbourne.

Source: Yearbook of Australia 1968 and 1967 Delfin Digest.

figure affects over two-fifths rather than just a quarter of national employment.

Companies and State Governments in Melbourne and Sydney control about 500,000 employees from each city (Figure 31). Melbourne's lead of about 18,000 personnel is not as impressive as Sydney's larger dominance of head offices and assets.[1] Canberra is assigned control of all Commonwealth employees, 414,000. This figure ranks it third, ahead of the employees of all foreign companies, and also far ahead of all the remaining capitals and cities in Australia. Again, the importance of State Government versus private domestic companies in the lesser capitals is evident in the employment measure as it was for assets.

Australia has three decision-making centers when all three measures are viewed together. Sydney and Melbourne dominate the private sector as approximately equal rivals with Sydney having somewhat greater importance than Melbourne. Canberra is a third center for economic decision-making because of the importance of the Commonwealth Government rather than through private companies. No other Australian city is a serious competitor to these three; neither is any foreign city.

Overall Comparisons of Spatial Impact[2]

By definition a top level decision-making center has an extensive nodal region encompassing cities of lower economic function.

---

[1]The difference might even reverse if the undisclosed employees of 136 Delfin companies were known.

[2]This spatial analysis concerns only the 907 Delfin companies. It does not include the Reserve Bank, PM-G Department, or Snowy Mountain Authority because of lack of data on the establishments of these government units.

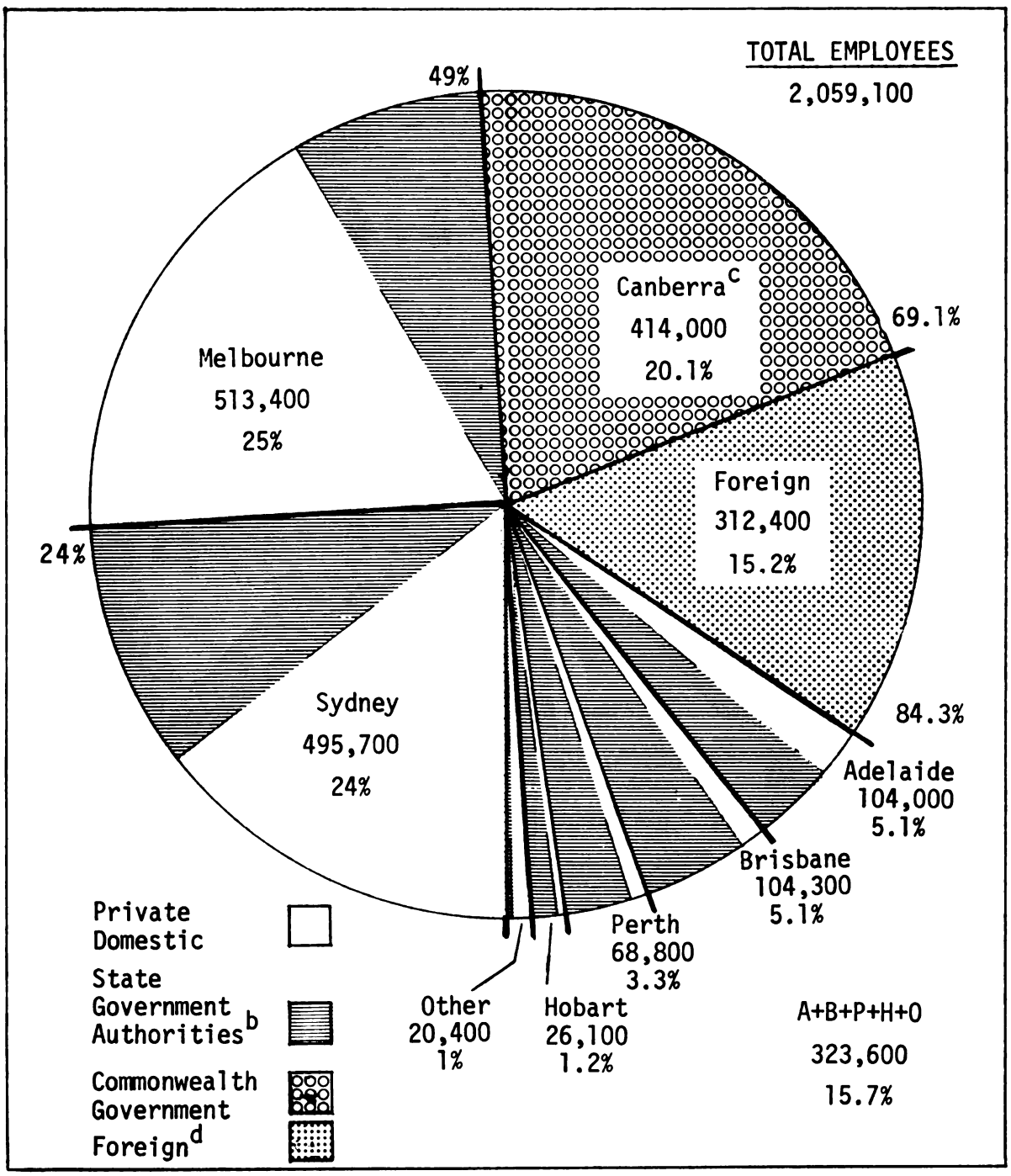


Figure 31. Location of control of 2,000,000 employees of 910 major companies and government organizations.[a]

[a]907 Delfin companies, PM-G, Reserve Bank, Snowy Mountain Authority.

[b]570,000 total employees of all six State Governments.

[c]413,600 are Commonwealth Government, civilian (292,200) and military (121,400). Only 400 are private domestic of two firms.

[d]All assigned to overseas ultimate control.

Source: 1967 Delfin Digest and 1968 Yearbook of Australia.

The analyses in preceding chapters have shown that Sydney, Melbourne, and Canberra have large nodal regions which are nationwide in expanse. The decision-making function of Delfin companies headquartered in other capital cities is spatially restricted in its areal impact. These smaller cities are not dominant even in their own states. The following summarizes the measures of spatial impact for the various cities.

Half of the Delfin companies operate on a nationwide scale. One-quarter have establishments in two to four states and a quarter operate locally or only in one state. Of the national companies, Sydney and Melbourne demonstrate strong leadership (Table 45, National Columns). Foreign companies control a somewhat larger number of these wide ranging enterprises than does either Sydney or Melbourne. Only thirty-four nationally operating companies are headquartered in the remaining state capitals and cities.

In monetary terms $29,000 million of the Delfin assets are controlled by national companies, a much larger share than the number of companies. Multi-state regional firms are where the percentage of assets are noticeably less than the percentage of firms. Intrastate and local companies have roughly equal shares of both companies and assets (Table 45).

Large assets emphasize two contrasting facts. One is the concentration of large national companies in Sydney and Melbourne. The other is the decidedly intrastate or local impact of firms headquartered in the other capitals, especially State Government statutory authorities. The assets of Commonwealth Government authorities, most notably the Commonwealth Banking Corporation, account for 14 per cent of Delfin

Table 45. Summary of 907 Delfin companies and assets by area of operations. (Foreign and Commonwealth Gov't. grouped separately.)

City	Total		National		4, 3, or 2 States		Intrastate and Local	
	No. of Co.	Assets $ M. and %	No. of Co.	Assets $ M. and %	No. of Co.	Assets $ M. and %	No. of Co.	Assets $ M. and %
Sydney	262	12,895 31%	125	9,334 32%	65	821 21 1/2%	72	2,740 33%
Melbourne	215	10,367 25%	115	6,794 23%	73	1,395 36 1/2%	27	2,178 26%
Commw. Govt[a]	8	4,133 10%	7	4,121 70%	--	--	1	12 ..
Sydney + Melbourne + Commw. Govt.	485	27,395 66%	247	20,249 70%	138	2,216 58%	100	4,930 59%
Adelaide	48	1,765 4%	16	569 2%	13	133 3 1/2%	19	1,063 13%
Brisbane	35	878 2%	6	74 ..	9	88 2%	20	716 8 1/2%
Perth	24	630 2%	1	11 ..	8	91 2 1/2%	15	528 6%
Hobart	10	402 1%	--	--	--	--	10	402 5%
Other	42	385 1%	4	44 ..	8	56 1 1/2%	30	285 3 1/2%
A+B+P+H+O	159	4,060 10%	27	698 2%	38	368 9 1/2%	94	2,994 36%
Total Domestic	644	31,455 76%	274	20,947 72%	176	2,584 67 1/2%	194	7,924 95%
Foreign	263	9,808 24%	164	8,136 28%	67	1,239 32 1/2%	32	433 5%
Total Delfin	907	$41,263	438	$29,083	243	$3,823	226	$8,357
Percentage of Delfin			48%	71%	27%	9%	25%	20%

[a]The PM-G, Reserve Bank, and Snowy Mountain Auth. would add $4,864 millions in assets.

Source: Compiled from 1967 Delfin Digest.

company assets in the national column. Thus, Sydney, Melbourne, and Canberra control 70 per cent of the assets of nationally operating companies. By almost any analysis of these data, one is drawn to the conclusion that a relatively small number of all Australian companies control huge assets and dominate the national economic structure. The CAO's of these firms in Sydney and Melbourne are joined by the Commonwealth Government in Canberra as the foci of decision-making for the entire nation. Top level decisions are disseminated via a nationwide network of offices and processing and distribution establishments through and within which those decisions are implemented.

The productive output of Australia comes from a myriad of farms, mines, mills, and factories. The Delfin companies control over 4,300 processing units which must be regarded as including most of the larger mining and manufacturing establishments, as well as many critical smaller ones. Companies headquartered in Sydney and Melbourne control two-thirds of these units so basic to the nation's economic well being (Figure 32). Not only does each city control about half of the processing units in its own state, but together they control half or more of such units in all other states.

When the one-quarter of processing units which are foreign controlled are removed from the Delfin total only a slender 10 per cent remains to be divided among the other state capitals and lesser cities. Control of production in Australia is highly centralized into two cities.

The location of control and spatial pattern of the 23,000 total Delfin establishments repeat and support the pattern of processing units. These thousands of shops, offices, and other commercial

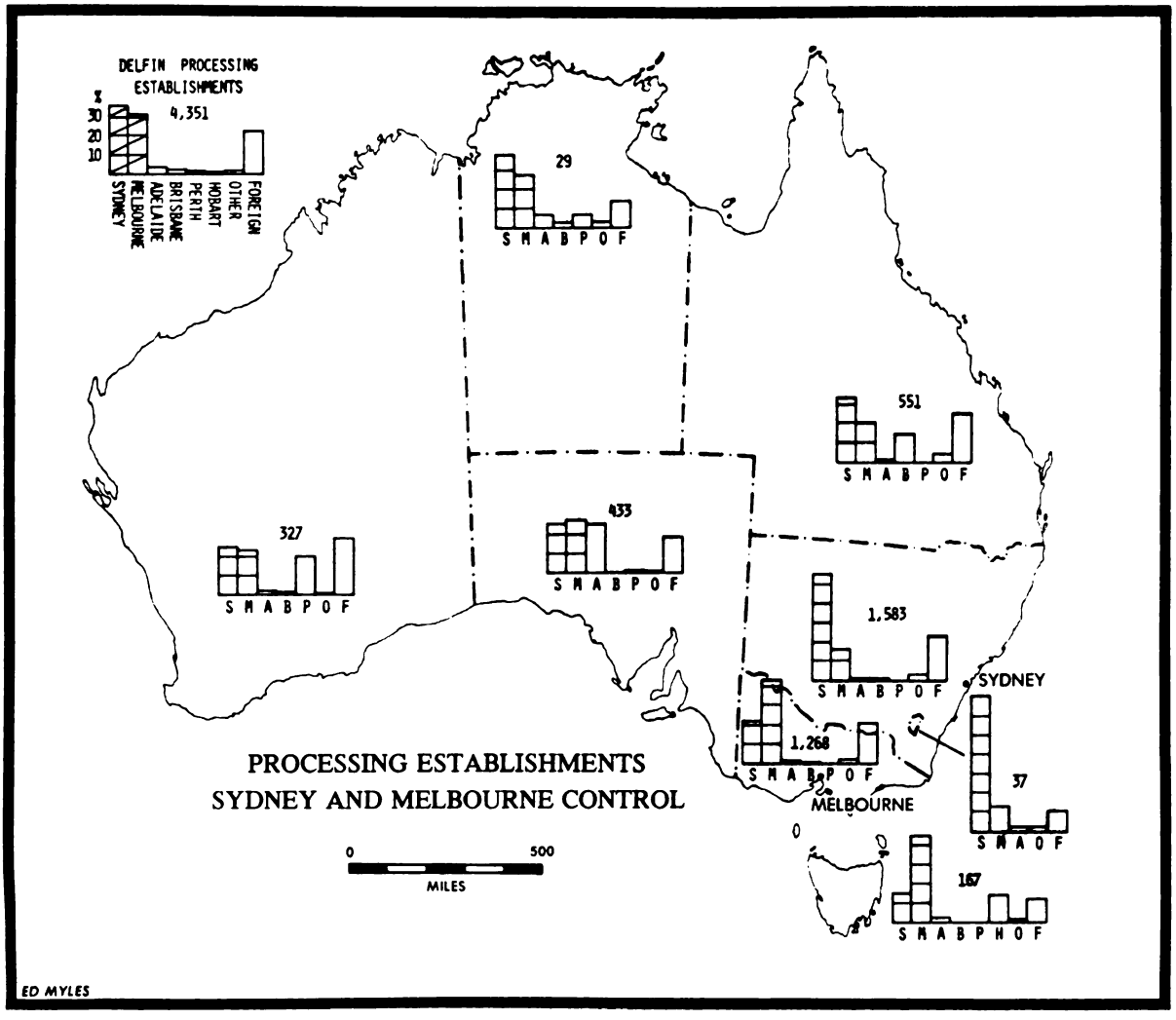


Figure 32. The percentage of each state's Delfin processing establishments controlled from Sydney and Melbourne together.

Source: Compiled from 1967 Delfin Digest, Universal Business Directories, and telephone directories.

establishments are more widespread throughout the states, being found diffused in the metropolitan centers, in the large and small country towns, and in the rural areas. They fill in the spaces between the capital cities, as well as fill out and cater to the needs of the metropolitan areas. Sydney and Melbourne dominate as equals by this measure, each having about 7,300 units or a combined 62 per cent. Total foreign establishments account for an added 23 per cent leaving only 15 per cent for all other cities most of which are intrastate or local, rather than interstate (Figure 33).

A Centrally Directed National Economy

In modern, industrialized, commercial exchange economies such as Australia's, the concentration of CAO's and top level economic decision-making are key indicators of the centralization of control of economic activity. If control of a nation's industry and commerce is centralized, then the structure of the nation's economy is likely to be more cohesive than fragmented. The identification and determination of the major decision-making centers and their nodal regions measure the extent of centralization of direction and control in the Australian economy.

A geographic analysis of the central administrative offices of the Delfin companies and government authorities leads to the conclusion that Australia has a centrally directed economy. There are three centers of top level decision-making, Sydney, Melbourne, and Canberra. However, these centers do not divide the nation into mutually exclusive nodal regions. Rather, they all have coextensive nationwide

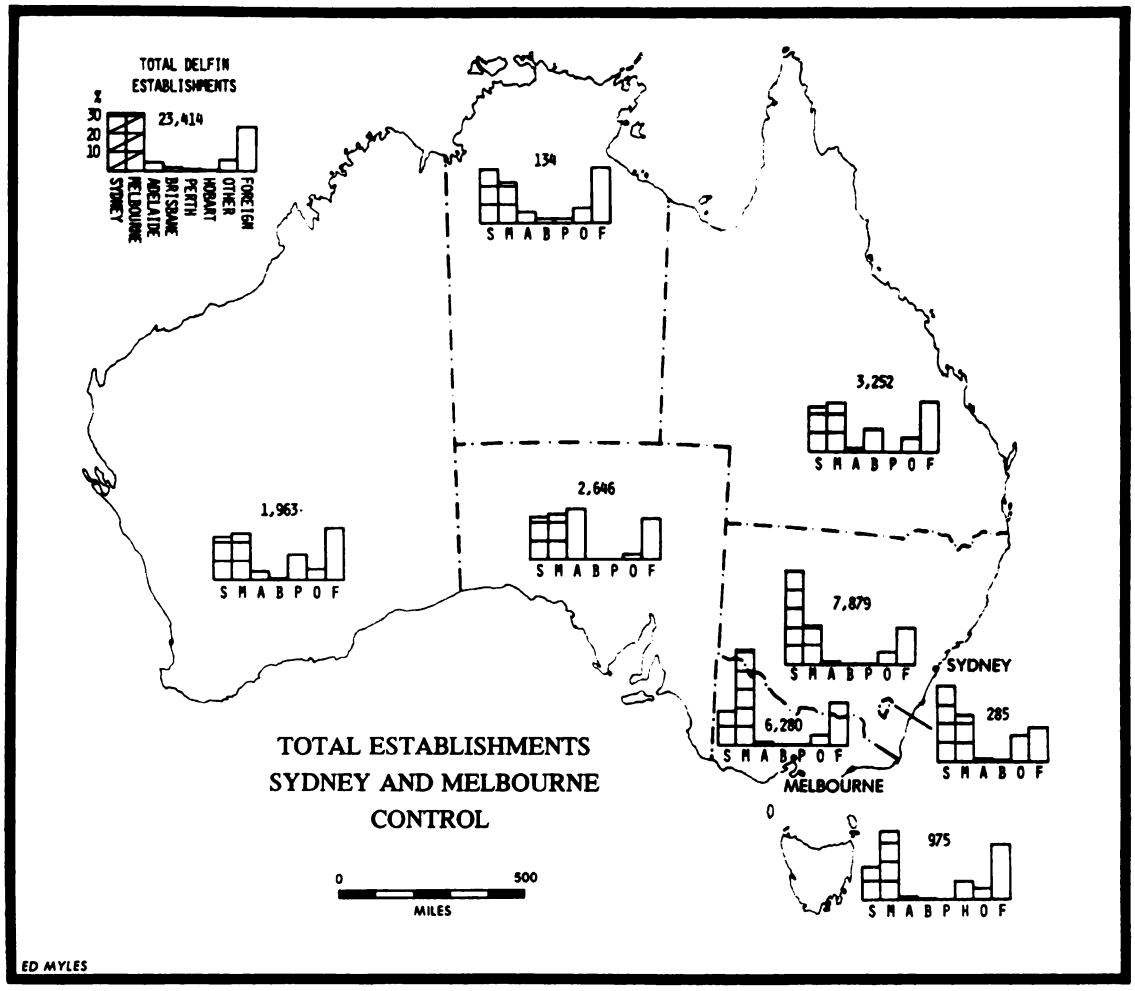


Figure 33. The percentage of each state's total Delfin establishments controlled from Sydney and Melbourne together.

Source: Compiled from 1967 Delfin Digest, Universal Business Directories, and telephone directories.

impact. The national economic structure is not fragmented since there are no less-than-national regions focusing on these or any other state capital. It is uncommon for three centers to share the topmost decision-making function for an entire nation.

Corporate and governmental head offices are found in small numbers in Adelaide, Brisbane, Perth, and Hobart. However, the small number of such CAO's and their limited areal impact are not sufficient to create decision-making centers nor distinct regions that rival the national leaders. Just the reverse is true. Through their establishments and employees in all states, Sydney, Melbourne, and Canberra dominate the economic decision-making not only for New South Wales and Victoria but also for South Australia, Queensland, Western Australia, Tasmania, the Australian Capital Territory, and the Northern Territory; in short, all of Australia. Centrality and economic cohesiveness result from economic activity in all states being dominantly influenced and directed from national centers rather than from regional focal points. With few exceptions, state owned railroad and electric utilities being outstanding, most of the main industrial and commercial groups are organized nationally and controlled nationally.

The three major centers compete nationally over the same area. They do not compete frontally on the margins of mutually exclusive regions. Sydney and Melbourne being the centers of private corporate decision-making and CAO's are complemented by Canberra which serves as the center for national governmental economic decision-making. Canberra in its short history has eclipsed the older, more populous state capitals for this important function. The Federal capital has

attracted few corporate head offices. Indeed, the Commonwealth Government is still in the process of transferring departmental head offices to Canberra from their "temporary" locations in Melbourne.

As a contrast to the national regions for decision-making, the following map shows how Australia is fragmented at the more tangible level of wholesaling (Figure 34). The size of states, the overall size of the continent, and the overall spatial distribution and concentrations of population are such that the wholesaling function is not concentrated only in the major cities in each state. There are several wholesaling centers and regions in most states, some crossing state boundaries, most notably Adelaide's region. The wholesaling establishments for these regions are found concentrated in the larger country towns as well as in the state capitals. Wholesaling in Australia tends to create a pattern of economic activity fragmented at less than the state level.

Wholesale centers are linked by the various transportation media to transshipment centers, the next level in the hierarchy of economic functions (Philbrick, 1957, 327). This is the highest level where tangible linkages connect nodal points. The flow of goods over railroads, highways, air routes, and shipping lanes connect the transshipment centers to each other and to lower order wholesale and retail places which make up their nodal regions. These regions more closely correspond to states in their areal extent because in Australia the capital cities are the principal or only transshipment center in each state (Figure 35).[1]

---

[1]The map of transshipment centers and their regions is based upon extensive field work and analysis of the wholesaling, transportation,

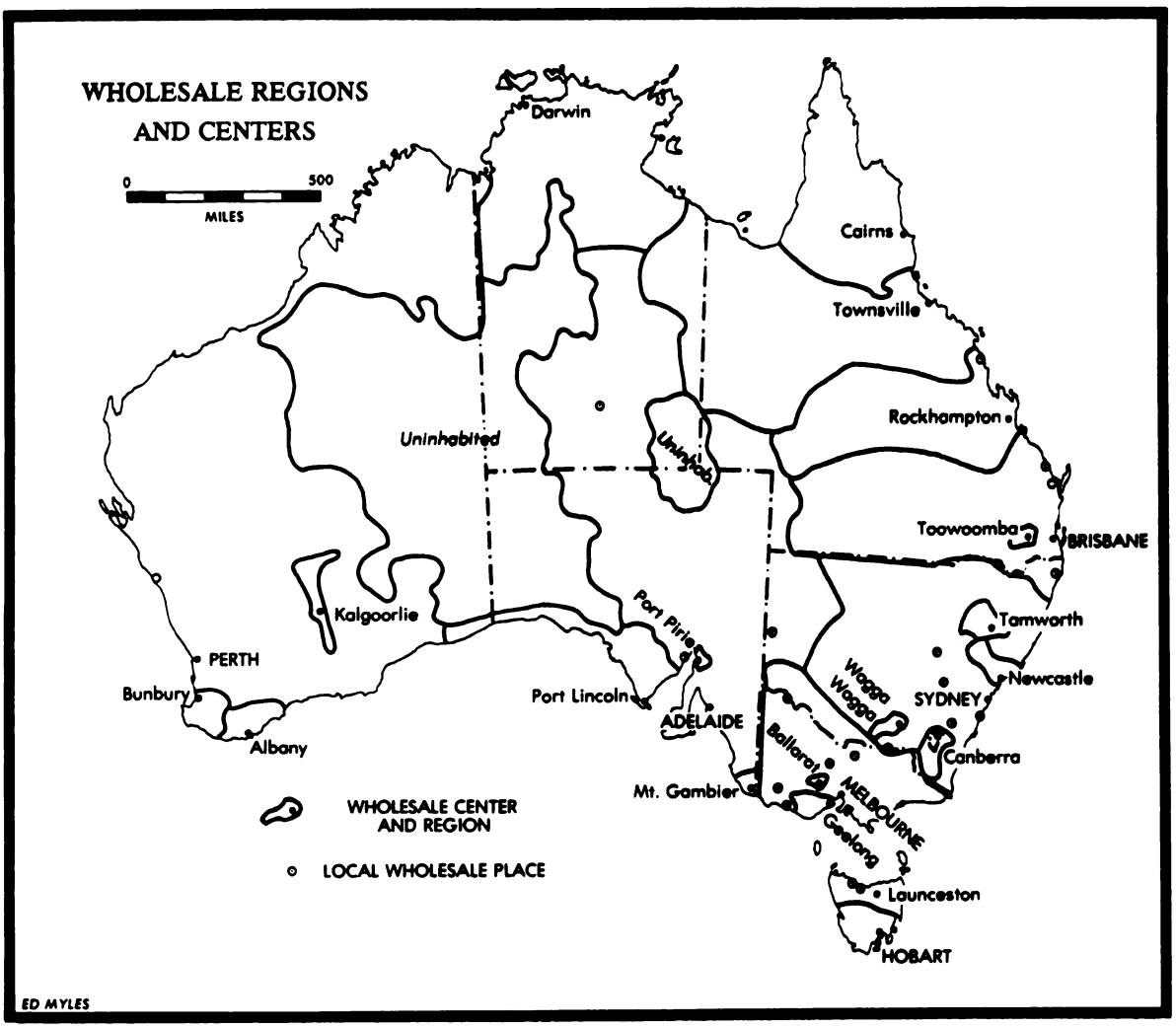


Figure 34. Wholesale centers and their tributary nodal regions. Local wholesale places perform some wholesaling function for themselves and nearby retail centers but are not dominant for this function and can not be classified as wholesale centers.

Source: Unpublished research of author on the areal functional organization of Australia. This map is based upon information from interviews with personnel of major wholesaling firms, numerous retailers, and transportation authorities in all major cities and country towns. These interviews were augmented by extensive field observations and detailed analysis of wholesaling establishments listed for all cities and towns in the Universal Business Directories of 1963-1965.

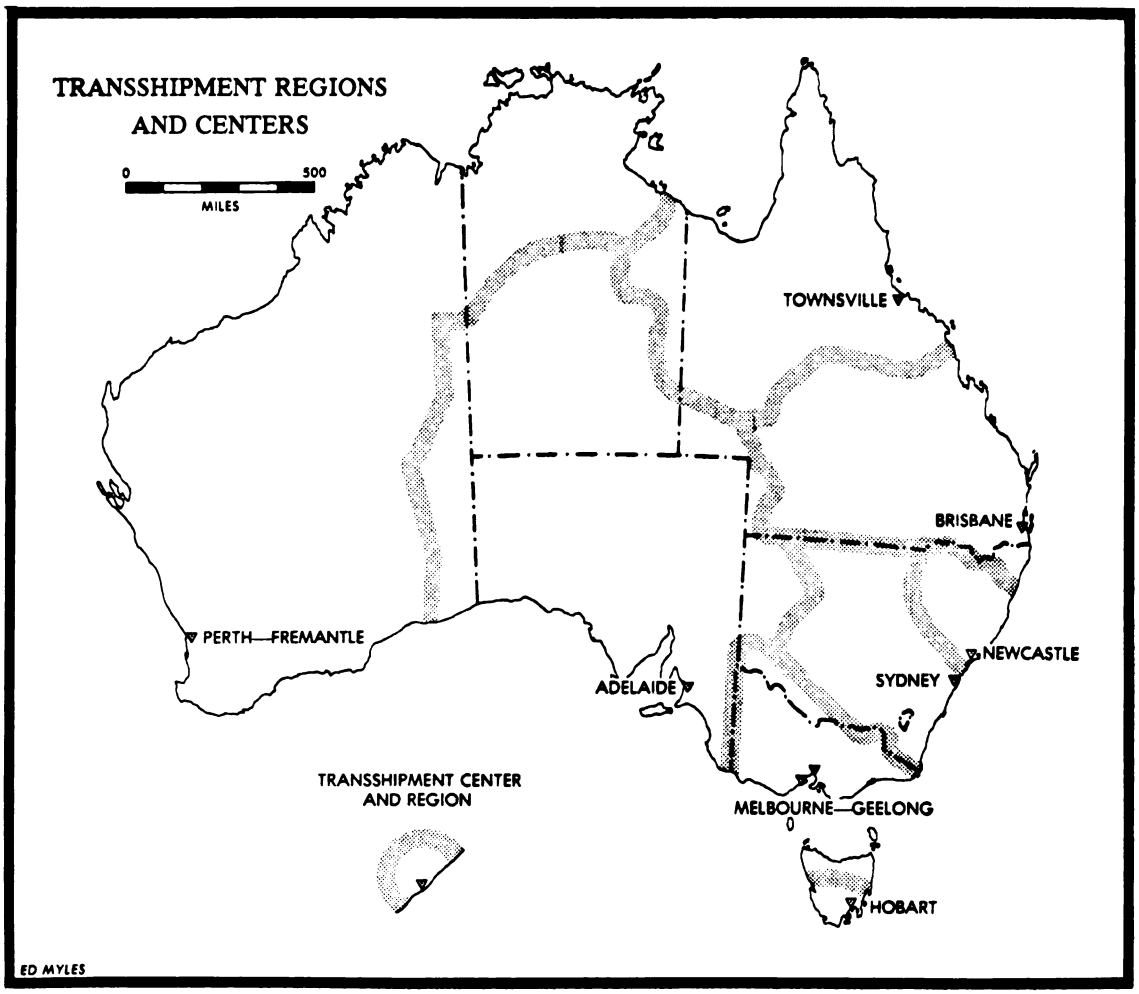


Figure 35. Transshipment centers and their tributary nodal regions.

Source: See Footnote 1, page 201.

These two highly visible levels of economic activity and organization might lead one to conclude that Australia has a fragmented economic structure focused upon each state capital. At the levels of the tangible linkages and actual flows of goods this could be a possible conclusion. However, it is one which does not include the intangible linkages of ownership, control, and top level decision-making which are equally, if not more, important in understanding the structure of the nation's economy. These linkages, because they are intangibles, are not as visible in the landscape. Yet, they are the means by which Australia can and does function as a single national economic region. Top level decisions and control from central administrative offices make the tangible movement of goods through transshipment, wholesale, and retail places possible. National companies and Commonwealth organizations direct and facilitate the flows between transshipment regions as well as within them. The state capitals serve as regional centers for the branch offices of the multi-establishment national companies. Linkages from them to head offices in Sydney, Melbourne, and Canberra tie the nation into a complex interconnected whole.

It is concluded from this geographic analysis that Australia has a centrally directed, national structure of economic organization.

---

and transshipment functions in Australia. It reflects a composite of several transport media unlike the Atlas of Australian Resources map of "Ports and Shipping" which indicates hinterlands for Australian ports only. That map is the only attempt at a nodal regionalization of Australian known to this author. Regionalizations reflecting homogeneity of economic activity are more common, e.g., Robinson (1960), Spate (1968), and McKnight (1970).

This structure focuses simultaneously on three decision-making centers which have coextensive nationwide regions. There are no less-than-national regions for the top level function although such smaller regions exist for the wholesaling and transshipment function.

The "Financial Center" of Australia

In addition to determining the centralization of the crucial decision-making function in the Australian economy, the analysis of the Delfin companies provides information directly relevant to the question of which city is the "financial center" of Australia. Much of the Australian press and many lay persons believe Melbourne is. Their belief is nurtured in large measure by the presence in Melbourne of Australia's two leading share brokers and underwriters, J. B. Were and Son[1] and Ian Potter and Company. These two firms are leaders in the organization of capital for investment in both private and public enterprises. They have dominated the underwriting of most of Australia's share and bond issues.

If the term "financial center" is defined in a narrow sense as the city where money is organized for investment, then Melbourne may lay claim to the title. However, if the "financial center" is more broadly defined as the city where large amounts of investment capital originate, where other capital for consumer credit, commercial and consumer mortgages, and development financing is controlled, and the

---

[1]The long history of this firm and its contributions to Melbourne's financial importance are told in the firm's biography, The House of Were (Ellis, 1954).

city which dominates the banking and insurance industries, then Sydney has a more valid claim as the "financial center" of the nation. This city has all of these attributes. Data on the Delfin companies show that private domestic, State, and Commonwealth enterprises headquartered in Sydney control $19,000 million in assets compared with Melbourne's domestic control of $12,000 million. Both figures exclude foreign control but include the Reserve Bank of Australia and the Commonwealth Banking Corporation for Sydney and the large assets of the Postmaster-General's Department for Melbourne.[1] It has been shown in earlier chapters that much more of Sydney's assets are held in more liquidable forms by banks, insurance houses, and other financial and investment holding companies. The assets of Melbourne based companies are more in the manufacturing sector, in the less liquidable forms of machinery, buildings, and other capital goods. Other factors add validity to Sydney's claim. The value and volume of trading on the Sydney Stock Exchange exceeds those measures for the Melbourne Exchange. Sydney has the only commodity exchange in any city in Australia, the Sydney Greasy Wool Futures Exchange. The city is rapidly pulling abreast of Melbourne as an organizer of investment capital through the aggressive activities of an increasing number of underwriters and investment banking houses.[2]

---

[1]If foreign controlled assets were included under a broad interpretation, then Sydney has $22,000 million assets and Melbourne is still second with $18,000 million.

[2]It is ironic that Sydney companies for years sought investment capital using the services of Melbourne-based J. B. Were and Son or Ian Potter and then often received this capital from Sydney investors and institutions through these Melbourne brokers. It attests to these firms stature, expertise, and strength in the financial community, and

The number, diversity, and size of financial firms and their large assets buttress this author's belief that Sydney is the true financial center of Australia. The city's financial role complements and is a part of its larger role as the leading decision-making center. Together these roles have many ramifications for the continuing competition between Sydney and Melbourne.

---

the paucity (until recently) of serious competition from Sydney broker-underwriter houses.

CHAPTER IX

CONCLUSIONS

This geographic study of Australia has sought answers to two related questions about the spatial pattern of that nation's economic structure. Those questions as posed in the Introduction are: What comparative roles do the major Australian cities have as decision-making centers in producing regions of national dominance? Secondly, does Australia have a centrally directed economy? Three hypotheses have been tested in seeking answers to these questions. The foregoing analysis is the basis for the following conclusions about those hypotheses.

Conclusions

The first hypothesis examined concerns the role of Australian cities.

1. It is hypothesized that the urban functional hierarchy of Australian cities culminates in a decision-making center, or centers, having nationwide economic dominance through the concentration of central administrative offices.

From the detailed examination of companies and cities, it is concluded that the urban functional hierarchy in Australia has three decision-making centers with nationwide economic importance rather than only

one such center. Sydney must be considered as Australia's most important center based on its strength in number of CAO's, assets, and employees. Regardless of interpretation of the location of ultimate control of foreign and Commonwealth Government enterprises, Sydney has the largest number of companies and assets, and is a close contender to Melbourne for control of private and government employees. In a composite view of all three measures Sydney is clearly the most dominant center. Its strength is broadly based in all industrial sectors and is especially strong in tertiary activities through banking, insurance, and other financial groups. This strength results in Sydney being considered by this author as the financial center of Australia.

Melbourne is Australia's second decision-making center. It is a strong rival to Sydney, most notably in the manufacturing sector and through control of a very large work force. Its assets are large under any interpretation, the moreso if broadly interpreted. Melbourne's leadership in the employment control measure, yet its ranking second in assets, number of companies, and in a composite of all three, illustrates the validity of using more than one index to measure the function of decision-making.

Canberra ranks as a third decision-making center when a strict interpretation is made of the measures of assets and employee control. Number of companies is not a true measure for this city because its importance is not through private companies but rather through the Commonwealth Government. Assets would be a better measure if all Commonwealth Government assets were known and on a comparable accounting basis with private companies. The best measure for the capital is employment.

The Federal Government is Australia's largest employer. Government decision-making gives Canberra national importance. Considering the economic aspects of political and social decisions that also emanate from the capital, it ranks favorably with the other two centers.

Adelaide, Brisbane, Perth, and Hobart have elements of private and State Government decision-making. However, on a proportionate basis of any of the measures of CAO's, these cities individually or collectively are very weak when compared with Sydney, Melbourne, and Canberra. The Delfin measures do not warrant classifying any one of them as a decision-making center. They all have some regional importance in their respective states mostly through the impact of State Government decisions affecting economic activities. The private sector as evidenced in the Delfin list is small for these cities even when measured against their State Government assets and employees. Sydney and Melbourne dominate much of the private economic activity in all states.

The second hypothesis examined the spatial impact of the decision-making centers.

2. It is hypothesized that Australian capital cities are the nodal points of a hierarchy of functional regions culminating in a nationwide economic region coextensive with the national political boundaries.

It is concluded that there are three decision-making centers with coextensive and competitive nationwide economic decision-making regions. These are nodal regions which are focused on Sydney, Melbourne, and Canberra simultaneously through different sets of corporate and

government networks of establishments. The several measures of spatial impact derived from the Delfin data indicate the national importance of central administrative offices and decision-making centered in Sydney and Melbourne which exceeds what might be expected from these cities' shares of the national population or work force. Canberra's nationwide region is indicated through its pattern of federal employees and establishments. The assets of a number of important Commonwealth enterprises which operate nationally rank Canberra a very respectable third to Sydney and Melbourne by this measure.

The national regions of these three cities overshadow the weak one-state influence of Adelaide, Brisbane, Perth and Hobart so much so that these lesser cities are not considered the principal foci for economic decision-making in their own states. Thus, there are no less-than-national regions that reduce the spatial extent of the decision-making function focused on Sydney, Melbourne, and Canberra. There are, however, lower order functional nodal regions for the transshipment and wholesaling functions which focus on the smaller capitals and other cities and towns and which are decidedly less-than-national in extent.

The conclusions about the regions and decision-making roles of Australian cities lead to answering the question on the central direction of the Australian economy, which was the third hypothesis investigated.

3. It is hypothesized that Australia has a centrally directed, national economy.

The existence of three coextensive national regions and the absence of any less-than-national decision-making regions are the basis for the conclusion that Australia has a centrally directed national economic structure. It derives from the concentration of CAO's and the spatial impact of top level decision-making which is centralized for the nation in Sydney and Melbourne for the private sector and in Canberra for much of the government sector. The function is not fragmented among all state capitals with regions of only statewide extent. The geographic pattern is one of conterminous nationwide regions within which economic activity is directed from national, not regional, centers. The lower order wholesale and transshipment cities and regions are sub-sets in the overall pattern of centrality. Linkages occur among these lower order regions because of companies and government enterprises which operate nationally rather than just regionally. The national pattern of the linkages of decision, control, and ownership give Australia a unified rather than a fragmented economic structure.

The non-availability of data on actual decisions had made it necessary for this study to use surrogate indicators of the location, relative importance, and spatial extent of the decision-making function. Central administrative offices in which the function is known to occur, and the assets and employees controlled as measures of the importance of those head offices, at best result in only relative comparisons of Australian cities. But those measures are better than none at all for this topmost economic function. Availability of data on assets of all State and Commonwealth departments and instrumentalities would have

sharpened the precision of the measurement.[1] Such data would have given a better measure of the relative roles of private versus governmental economic activities than just the data on employees do. Data from the Integrated Economic Censuses taken in 1969 pertaining to enterprises are not yet available at the time of this writing. Such information about assets would be valuable for comparing the Delfin sample against national totals, as was done for the employee measure in this study. However, government restrictions against disclosure of confidential information about individual companies may seriously reduce the usefulness of these census data. Probably the most serious limitations of this present study is the non-availability of data on the geographic distribution of assets and employees, even aggregated at the state level. Such data would have enhanced the precision of measuring the spatial importance of the various companies which was not possible with the data on numbers of processing and total establishments alone. Even with all of these various limitations it is felt that this study has made a contribution to the understanding of the geography of Australia. It is preliminary to a number of related research topics.

Basis for Other Studies

This study has concerned itself with the topmost establishments and function in the hierarchy of areal functional organization. They are the central administrative offices of major corporations and

---

[1] *Fortune* magazine prepared an annual report of the Federal Government of the United States in its May, 1973 issue (*Fortune*, 1973). Similar reports on the Australian Commonwealth and State Governments would have been most useful for this study.

government enterprises, and decision-making centers and regions. There is a need to more completely detail the nature of the hierarchy as it exists in Australia. Such was the original intent of this author, but it proved to be a more extensive task than was appropriate for the dissertation. However, much of the basic analysis has been done and, although not directly included here, it has given greater insight to this present study of the decision-making function at the pinnacle of the hierarchy of economic organization.

A second avenue of research will be to further explore why Australia's private sector of decision-makers and their head offices are concentrated in two centers and not just one which is characteristic of many of the world's nations. The political decision which placed the Commonwealth capital at Canberra and thereby denying its importance to either Sydney or Melbourne is an obvious influence on their continued rivalry. It is believed there are other economic and social factors that favored the simultaneous growth of the two cities. The location of head offices within these two cities and the answers to why such internal patterns exist may provide clues to the broader question of why there are two rather than one major centers.

This present study is an analysis of the geography of decision-making in Australia at a particular point in time, the mid 1960's. It is also a study of certain static implications of the decision-making control of assets and employees and their ties to a few central locations. As such, it can serve as a point of reference for two other studies. First, how has or will the geographic structure of the economy change with time--both from earlier and later view points? Second, what are

the dynamic rather than static aspects of the process of decision-making in a geographic context? How does the function create a spatially centralized system rather than serve as a measure of the system at a specific point in time?

Value to Applied Geography

This study of decision-making centers in Australia has practical value for businessmen and the Commonwealth and State Governments. For the corporate executives, foreign or domestic, charged with the decision of where to locate their company's head office in Australia, it provides information on the number, size, and kind of other major head offices located in each of the various major cities. Australia provides a choice of locations unlike many nations which have only one dominant primate city. The very presence of the opportunity to choose which city would be best for a given company's head office means that its executives should have the fullest information upon which to make their decision. Part of that information should include the head office location of companies that they may be dealing with or competing against. Proximity to other executives is a powerful attractive force for many executives.

On the other hand, some entrepreneurs may find the relative paucity of head offices and, therefore, of other corporate top level personnel, advantageous to their operations in some of the smaller capitals. The fact that crucial decisions of competitors may have to be made by top management a continent away gives the local decision-maker certain advantages of time and first-hand knowledge. This study, and

others like it would also be valuable to the applied geographer who is studying where new head offices might be best located. Industrial location and retail location have been studied at some length by geographers. Corporate head offices and regional branch offices have received very little attention.

Companies seeking investment or credit capital should find the information useful that Sydney firms control more varied and relatively more liquidable assets than their Melbourne counterparts. Such companies may be more inclined to seek that money through Sydney underwriters and brokers.

The Commonwealth Government may find this study useful in its deliberations on the control of the nation's economy by foreign companies. So often such deliberations concentrate on the manufacturing or mining sectors of the nation's economy and do not consider the fuller range of economic activities in the primary and tertiary sectors, including government enterprises. Conversely State Governments should find this study supports their contention of too much centralization of power by the Federal Government in Canberra. Even though the information is somewhat dated and certainly not complete because of lack of data on assets, it does provide a benchmark against which to measure more recent data and thereby suggest the trend of centralization of government power.

> The debate in Australia is intensifying on the issue of centralizing government powers in Federal hands, and control over natural resources. The Liberal Premier of Victoria, Mr. Rupert Hamer, said last weekend that endless legal conflicts between Canberra and the states would flow from legislation claiming Federal Government jurisdiction over off-shore areas. The Premier said the Senate had acted correctly when it blocked the proposed off-shore legislation.

> In Brisbane, the Queensland Treasurer, Sir Gordon Chalk, . . . said Queensland was being held back by what he called the socialistic policies of the Federal Labor Government (Australian Weekly News, May 31, 1973).

The State Governments in Brisbane, Adelaide, Perth, and Hobart might consider the information on the limited number and importance of head offices of major companies in their capitals as a challenge to more vigorously pursue these key establishments, not just their processing or distribution units. Perth, for instance, has been recently successful in getting the Australian management office of the overseas controlled Mount Newman Mines. This is a major company involved in the development of the huge iron ore resources in northwestern Australia.

The Federal Government might find the centralization of private corporate decision-making in Sydney and Melbourne documented in this study a spur to its own centralization of economic power at Canberra. Although Federal Parliament and Cabinet exercise ultimate control, much important decision-making is in fact done in the head offices of departments still headquartered in Melbourne. The transfer of the Postmaster-General's Department would at one stroke enhance significantly Canberra's role.

Value to Economic and Urban Geography

In addition to the applied values there are others of concern to the geographic profession. Economic and urban geographers should find this study useful. It has employed corporate data in a manner not commonly used, i.e. the analysis and comparison of centers within a hierarchy of functional centers and regions. Such data can be used for other than the top level decision-making function. The measurement

elements, companies and their head offices, assets, employees, and establishments have generally not been studied or used as entities by geographers. More traditionally geographic research has been concerned with employees, or factories, or retail outlets, or other establishments grouped by location or industry rather than as enterprises and the parts thereof. Yet, the industrial societies of the world are largely organized and operated by large and small companies. Their spatial influence is increasing rather than diminishing. Government enterprises are their counterparts in many developing nations.

The method of this study provides a means for the better understanding of spatial organization in both urban and economic geography. Through beaded linkages within multi-establishment firms, space is organized into nodal regions. Focal centers develop from the hierarchical concentration of linkages upon a relatively few favored locations from many other widespread places. This is an approach that adds to the principles of areal functional organization as developed by Philbrick. The method also complements the main body of central place theory which has largely been concerned with the lower order economic functions of retailing and wholesaling and the bi-polar linkages between consumer and retailer, or retailer and wholesaler. Central place studies have not generally employed the continuous, intangible, beaded linkages of decision-making, control, and ownership. Nor, have such studies analyzed higher order centers above those connected by the tangible flow of goods and services.

Economic geographers could well devote more attention to the spatial significance of large corporations. Their CAO's exhibit an

increasing concentration of decision-making and control over major segments of the environment. This study is only a beginning in that direction. More directly related to this research would be similar studies of the location and geographic concentration of central administrative offices and decision-making in other nations. Of particular interest to this author are several countries where there is not a clear cut primate city such as London or Paris. A number of nations with competing decision-making centers are former British colonial areas. Some have large areas, others are much smaller. Large and small populations are both represented. Canada has many obvious comparisons to be made with Australia. Toronto, Montreal, and the compromise capital at Ottawa are counterparts to Sydney, Melbourne, and Canberra. New Zealand has Auckland and Wellington sharing the decision-making function. Capetown and Johannesburg, South Africa are another pair for study. The United States provides an excellent area for historical as well as contemporary analysis of the location of top level economic decision-making in New York, Washington, Boston, and Philadelphia. On a regional basis, the state of California is worthy of analysis of the relative strengths of San Francisco, Los Angeles, the political capital at Sacramento, and out-of-state influences. India provides an Asian culture with a British overprint. The question here would be how do New Delhi, Bombay, Calcutta, and Madras function as national and regional centers.

There are other countries not having a British colonial heritage. Japan, very young industrially but with many large corporations, has the rival centers of Tokyo and Osaka. The future of West Germany

with the capital at Bonn and no single obvious private sector decision-making center, also invites analysis of interest to the political, as well as economic, geographer. What are the future implications of the rather recent creation of Brazilia on the roles and strengths of São Paulo and Rio de Janiero? The governments, businessmen, and citizens of these nations could benefit from detailed investigations of the location of top level decision-making that affects the very roots of their national economies.

Above the national level of decision-making there exists an almost untouched realm for geographic inquiry into the location and spatial implications of multi-national corporations. This present study has indicated that such giants of worldwide industry, commerce, and finance have substantial influence on the economy of Australia. The identification and broader geographic assessment of the few hundred or so major multi-national companies is a task that awaits geographic analysis.

Postulations

The conclusion that Sydney is the true financial center of Australia leads to postulations about the future role of this city. In 1966 Sydney led Melbourne in the measures of the decision-making function by varying degrees. Sydney's greater importance in the tertiary sector of the economy, rather than the manufacturing sector where assets are controlled more from Melbourne, gives it a great flexibility in maintaining and possibly enhancing its lead as a decision-making center. Melbourne will lose some of this function as the remaining

Federal departments are transferred to Canberra. These moves likely will be followed by a number of national offices of trade unions and other politically concerned associations, again, more to the detriment of Melbourne than Sydney and certainly to the enhancement of Canberra.

It is postulated that because of such foreseeable events Sydney will increase its position vis-à-vis Melbourne as a decision-making center. Canberra, through the expanding role of the Federal Government will narrow the separation with Melbourne from the opposite direction. It is not likely that Melbourne will lose its role as a national center to Sydney and Canberra to the extent that has occurred for Adelaide, Brisbane, Perth, and Hobart. Because of its entrenched position, Melbourne will continue to be a national center but relatively less influential than Sydney and more closely rivaled by Canberra.

It appears that the greatest challenges to the existing tripartite decision-making centers for continued influence in the nation's economy will come from external forces in the form of multi-national corporations as well as from internal competition among the three cities. If not carried to excess, both forms of competition should favor the continued strengthening of a dynamic economy in Australia.

LIST OF REFERENCES

LIST OF REFERENCES

Australia Commonwealth Bureau of Census and Statistics, Official Yearbook of the Commonwealth of Australia, 1968 (Canberra: Commonwealth Government Printer, 1969).

Australia Department of National Development, Regional Development Division, Atlas of Australian Resources (Canberra: Second Series 1962--).

Australia Prime Minister's Department, Commonwealth of Australia Directory, 1966 (Canberra: Commonwealth Government Printer, 1966).

Australian Financial Review (1963-1968).

Australian Financial Review's Directory of the TOP 800 Australian Companies (Sydney: John Fairfax and Sons, 1963).

Australian News and Information Bureau, Australia in Facts and Figures No. 99, Sept. 1968 (Canberra: Australian News and Information Bureau, 1968).

_____. Australian Weekly News, January 18, 1973 (San Francisco: Australian Consulate-General, 1973).

_____. Australian Weekly News, May 31, 1973 (San Francisco: Australian Consulate-General, 1973).

Beaujeu-Garnier, Jacqueline, and Chabot, Georges. Urban Geography (London: Longmans, Green, 1967), Ch. 29.

Block, R. O. Ed., Delfin Digest 1965 (Sydney: Development Finance Corporation, 1965).

_____, and Seldon, R. G. Ed's., Delfin Digest 1967: The Top Companies in Australia, New Zealand and South East Asia (Sydney: Development Finance Corporation, 1967).

Borchert, J. R., and Adams, R. B. "Trade Centers and Trade Areas of the Upper Midwest," Upper Midwest Economic Study, Urban Report No. 3 (Minneapolis, 1963).

Bushnell, J. A. Australian Company Mergers 1946-1959 (Melbourne: Melbourne University Press, 1961).

(The) Business Who's Who of Australia 1970-1971 (Sydney: R. G. Riddell, 1971).

Campbell, E. W. The Sixty Rich Families Who Own Australia (Sydney: Current Books, 1963).

Cowan, Peter, et al. The Office: A Facet of Urban Growth (London: Heinemann, 1969).

Dickinson, Robert E. City and Region: A Geographical Interpretation (London: Routledge and Kegal Paul, 1964).

Duncan, O. D., et al. Metropolis and Region (Baltimore: Johns Hopkins University Press, 1960).

Ellis, A. T. Ed., The House of Were 1839-1954 (Melbourne: J. B. Were and Son, 1954).

Fortune. "The Fortune Directory: The 200 Largest Industrials Outside the U. S." (Sept. 1967), pp. 140-146.

_____. "An Annual Report for the Federal Government," (May 1973), pp. 193-199.

Goodwin, William. "The Management Center in the United States," Geographical Review, Vol. 55 (1965), pp. 1-16.

Gottman, Jean. Megalopolis (Cambridge, Mass.: M.I.T. Press, 1964).

_____. "Urban Centrality and the Interweaving of Quaternary Activities," Ekistics, Vol. 29 (1970), pp. 322-331.

Hewitt, Don. Interviews Sept. 1963. Manager, Cullity Timber, Perth, Western Australia.

Hopkins, H. H. Interview June 1963. Alderman, Townsville, Queensland and Chairman of the People the North Committee.

Jefferson, Mark. "The Law of the Primate City," Geographical Review, Vol. 29 (1939), pp. 226-232.

Johnston, R. J. "Commercial Leadership in Australia," The Australian Geographer, Vol. 10 (1966), pp. 49-52.

Karmel, P. H., and Brunt, Maureen. The Structure of the Australian Economy (Melbourne: F. W. Cheshire, 1963).

Keuning, H. J. "Approaching Economic Geography from the Point of View of the Enterprise," Tijdschrift voor Economische en Sociale Geographie, Vol. 51 (1960), pp. 201-205.

Koezod, Alex. Interview January 1964. American economist and Fulbright Fellow. Canberra.

Krumme, Gunter. "Towards a Geography of Enterprise," Economic Geography, Vol. 45 (1969), pp. 1-29.

Lundberg, Ferdinand. The Rich and the Super-Rich (New York: Lyle Stuart, 1968).

McKnight, Thomas. Australia's Corner of the World (Englewood Cliffs: Prentice-Hall, 1970).

McNee, Robert B. "Towards a More Humanistic Economic Geography: The Geography of Enterprise," Tijdschrift voor Economische en Sociale Geographie, Vol. 51 (1960), pp. 201-205.

Morgan, W. T. W. "A Functional Approach to the Study of Office Distribution," Tijdschrift voor Economische en Sociale Geographie, Vol. 52 (1961), pp. 207-210.

Philbrick, Allen K. "Principles of Areal Functional Organization in Regional Human Geography," Economic Geography, Vol. 33 (1957), pp. 299-336.

Rand McNally and Company. Commercial Atlas and Marketing Guide (Chicago: Rand McNally, 1972), pp. 4-7.

Robinson, K. W. Australia, New Zealand and the Southwest Pacific (London: University of London Press, 1960).

_____. "Sixty Years of Federation in Australia," Geographical Review, Vol. 51 (1961), pp. 1-20.

Rolfe, Hylda. The Controllers: Interlocking Directorates in Large Australian Companies (Melbourne: F. W. Cheshire, 1967).

Sampson, Anthony. Anatomy of Britain (London: Hodder and Stoughton, 1962).

Smith, R. H. T. "Method and Purpose in Functional Town Classification," Annals, Association of American Geographers, Vol. 55 (1965), pp. 539-548.

Spate, O. H. K. Australia (New York: Praeger, 1968).

Starkey, Otis P., and Robinson, J. Lewis. The Anglo-American Realm (New York: McGraw-Hill, 1969).

The Australian. "A Directory to the Top 1,000 Companies, Australia and N. Z. 1964," (October, 1964).

Thoman, Richard S., et al. The Geography of Economic Activity (2nd ed.; New York: McGraw-Hill, 1968).

Ullman, Edward L. "Regional Development and the Geography of Concentration," Papers and Proceedings, Regional Science Association, Vol. 4 (1958), pp. 179-198.

Universal Business Directories. (Sydney: Universal Business Directories, various years 1963-1965).

Wheelwright, E. L., and Miskelly, Judith. Anatomy of Australian Manufacturing Industry (Sydney: Law Book Company, 1967).