Australia, the Capital Cities, and Sydney: Socioeconomic Change and Spatial Structures in a Globalizing Economy

1. Introduction
2. The global, Southeast-Asian Pacific, and national context
3. Capital cities compared, the 1980s and 1990s
4. Sydney's global links and local spatial structures

1. Introduction

- ***Socio-cultural change:*** changing household structures, aging of population, increased female labor participation, value change
- ***Technological change***: information & communication technologies in production/consumption
- ***Organizational change*** in firms:
  - internal: integration of functions, decentralization,
  - external: disintegration, global sourcing, networks
- ***Political change***: deregulation, liberalization in many markets/countries
- ***Structural economic change***:
  - industries: towards ´services´, ´information´
  - occupations: towards knowledge based activities

-> ***Geographical shifts*** of economic activities: global, national, regional/urban level

-> ´***mosaics of unevenness***´   (M. STORPER)

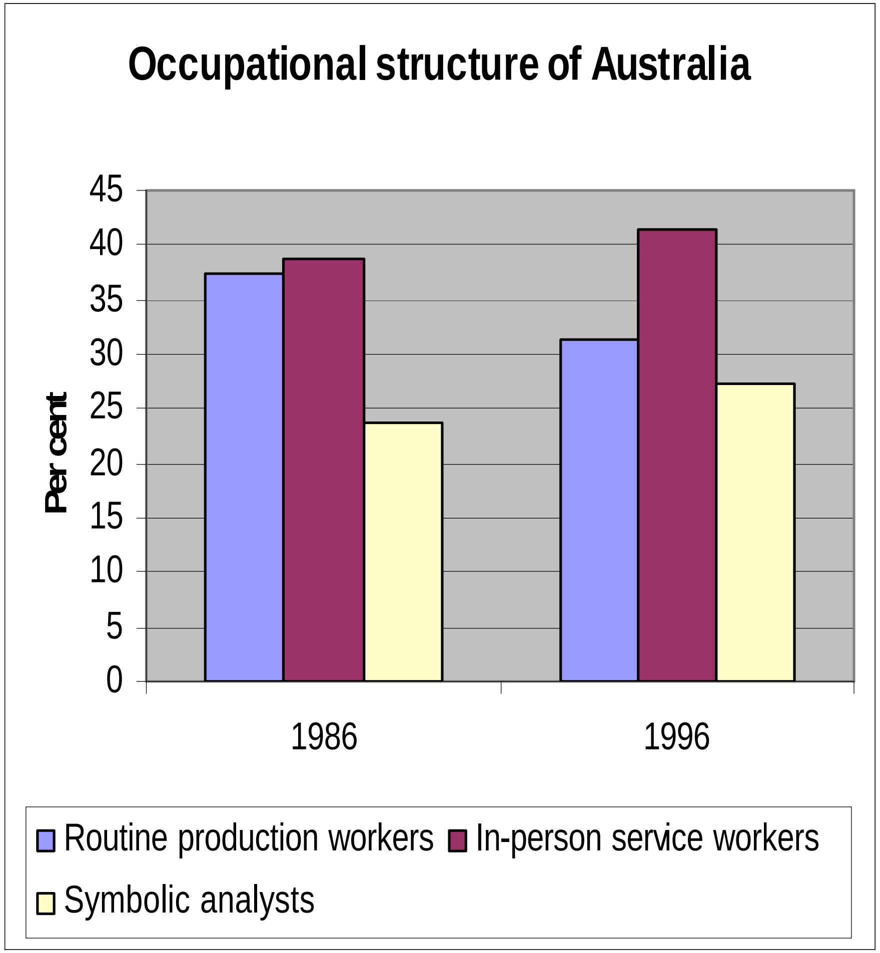
Structural change**,** six categories and employment trends (SINGLEMAN 1978)

- ***extractive industries***: agriculture, mining (-)
- ***transformative industries***: manufacturing, utilities, construction (--)
- ***distributive services*****:** wholesale and retail trade, transportation, storage, communication (=)
- ***producer services*****:** insurance, banking, engineering, business services, research&development (?) (++)
- ***social services***: public administration, defense, health, welfare, education (=)
- ***personal services*****:** domestic, repairs, recreational, entertainment (-/+)

Occupational categories (R. REICH 1992) and change in Australia

- ***routine production work***: low-skill jobs, threatened by international competition and automation,
- ***in-person services***: low-skill jobs, handling persons directly, or goods, *not* threatened
- ***symbolic-analytic services*****:** high-skill jobs, individually handling information (problem identifi-cation and solving, strategic brokerage)

- Classification/data for ***Australia*** (O'Connor/Stimson/Baum 2001)

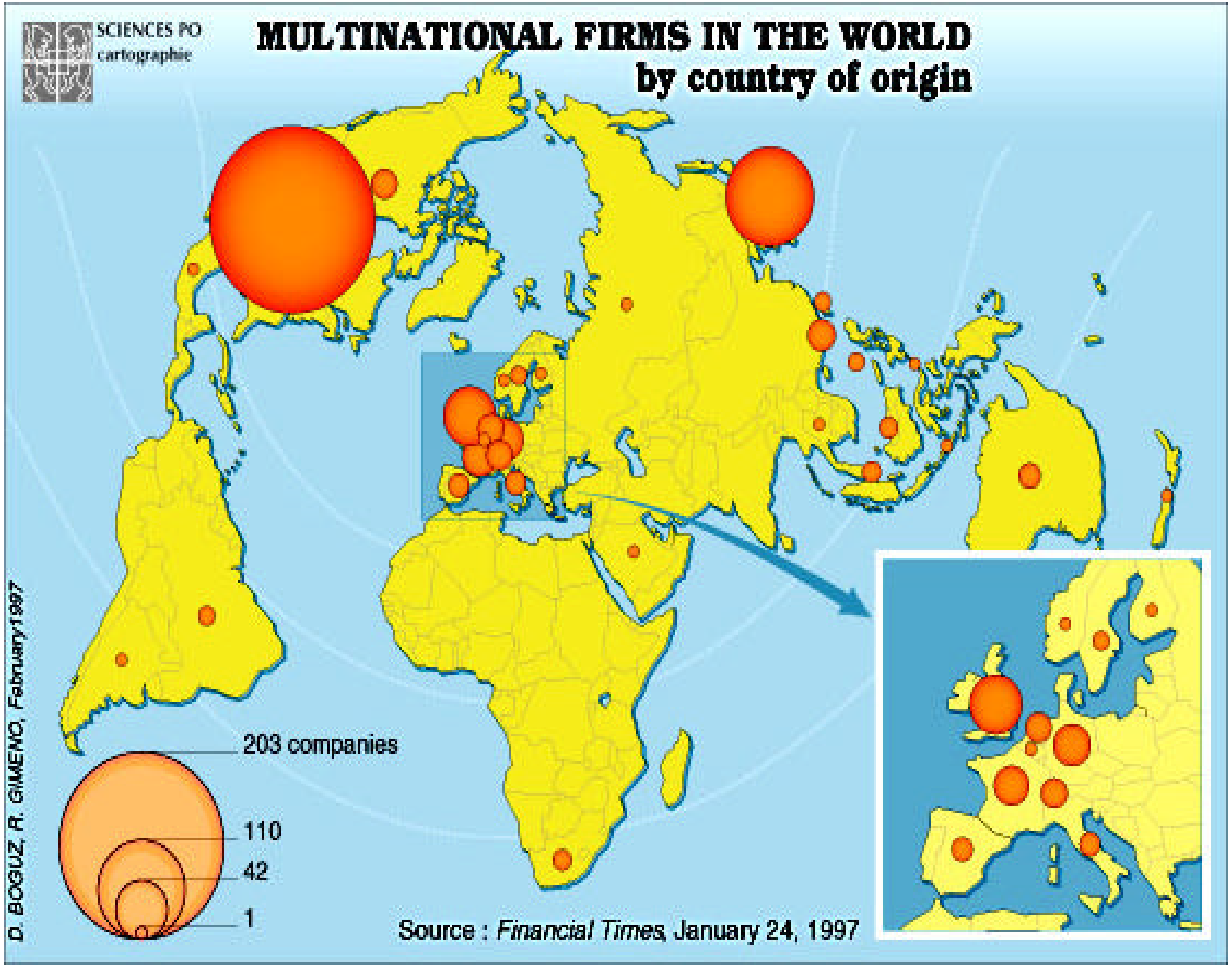


2. The global, Southeast-Asian Pacific, and national context

Economic globalization

- ‘*real*’ economy:
  - world trade increases faster than world GDP
  - steep increases in world FDI
  - world FDI increases faster than world exports

- exploding *financial* transactions
  e.g. international currency: about 2 trillion US$/ per day


SCIENCES PO
cartographie
MULTINATIONAL FIRMS IN THE WORLD
by country of origin
203 companies
110
42
1
D. BOGUZ, R. GIMENO, February1997
Source : Financial Times, January 24, 1997

Fordism and post-Fordism, globalization and localization

- ***Fordism*** (Regulation theory e.g. A. LIPETZ)
  - industrial organization: taylorism, mechanization, high integration
  - macroeconomic structure: mass production/mass consumption
  - system of rules: stable work contracts / welfare state
- ***´Golden age´*** ended around 1975, followed by slow (´unbalanced´) growth, rising unemployment, globalization, external volatility
- ***Post-Fordism***
  - internal: integration, decentralization, automation
    external: desintegration, outsourcing
  - quality, design, meaning / differentiation
  - flexibility / workfare state

The ‚new‘ competition

- ***comparative*** advantage loosing importance:
natural resources, cheap labor, location (climate, geography), easy to imitate,

- ***competitive*** advantage (socially created):
knowledge, skill, innovation, R&D

  - M. PORTER ‚diamond‘ approach: factor input conditions, national competition, demanding customers, clusters of interlinked industries
  - B.-A. LUNDVALL: learning economy (individuals, regions, nations)
  - OECD: Knowledge-based economy

Examples of continued high localization

- ***Industrial districts*** (SMEs, specialized, collaborative):
  - ‚Third Italy‘ (fashion, furniture, machine tools, ..)
  - Southern Germany (machine tools, chirurgical instruments), Downtown LA (textiles),
  - ***High technology districts***: Silicon Valley, Silicon Alley NYC (Internet), Sophia Antipolis (Southern France)
- ***Central business districts***: Manhattan, ´The City´ of London, Sydney
- ***Company towns*****:** Toyota City, Seattle (Boeing, Microsoft), Stuttgart (Mercedes), Ludwigshafen (BASF)

Causes: agglomeration economies, reduced transaction costs (negogiating, monitoring, trust), labor markets (specialization, pooling, tacit knowledge)

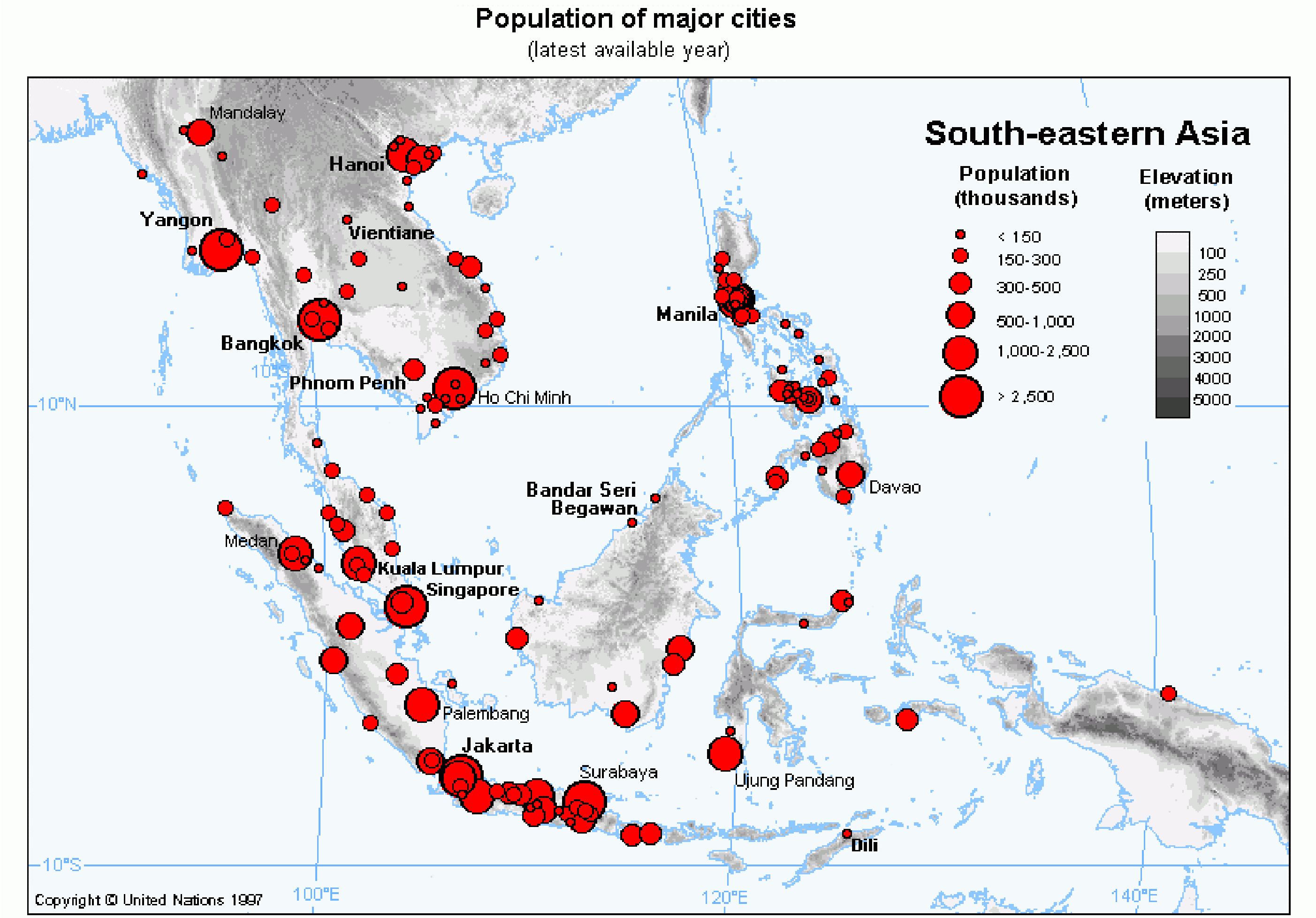
Southeast-Asia Pacific

Demography and economy of large countries in Southeast Asia

Country	Population			Gross domestic product				
	in Mio. 2001	Growth rate[1] 2000-2005	Den-sity per sq km	per capita 1998 (in $)	Growth rates (in %)			
					1997	1998	1999	2000[1]
Australia	19.4	1.0	2	20125	5.0	4.7	3.0	4.0
Indonesia	214.8	1.2	112	478	3.7	-13.7	0.8	4.8
Malaysia	23.6	1.7	71	3317	7.5	-7.5	5.8	8.5
Philippines	77.1	1.9	257	894	5.2	-0.4	3.3	3.9
Thailand	63.0	1.1	123	1890	-0.4	-9.4	4.2	4.3

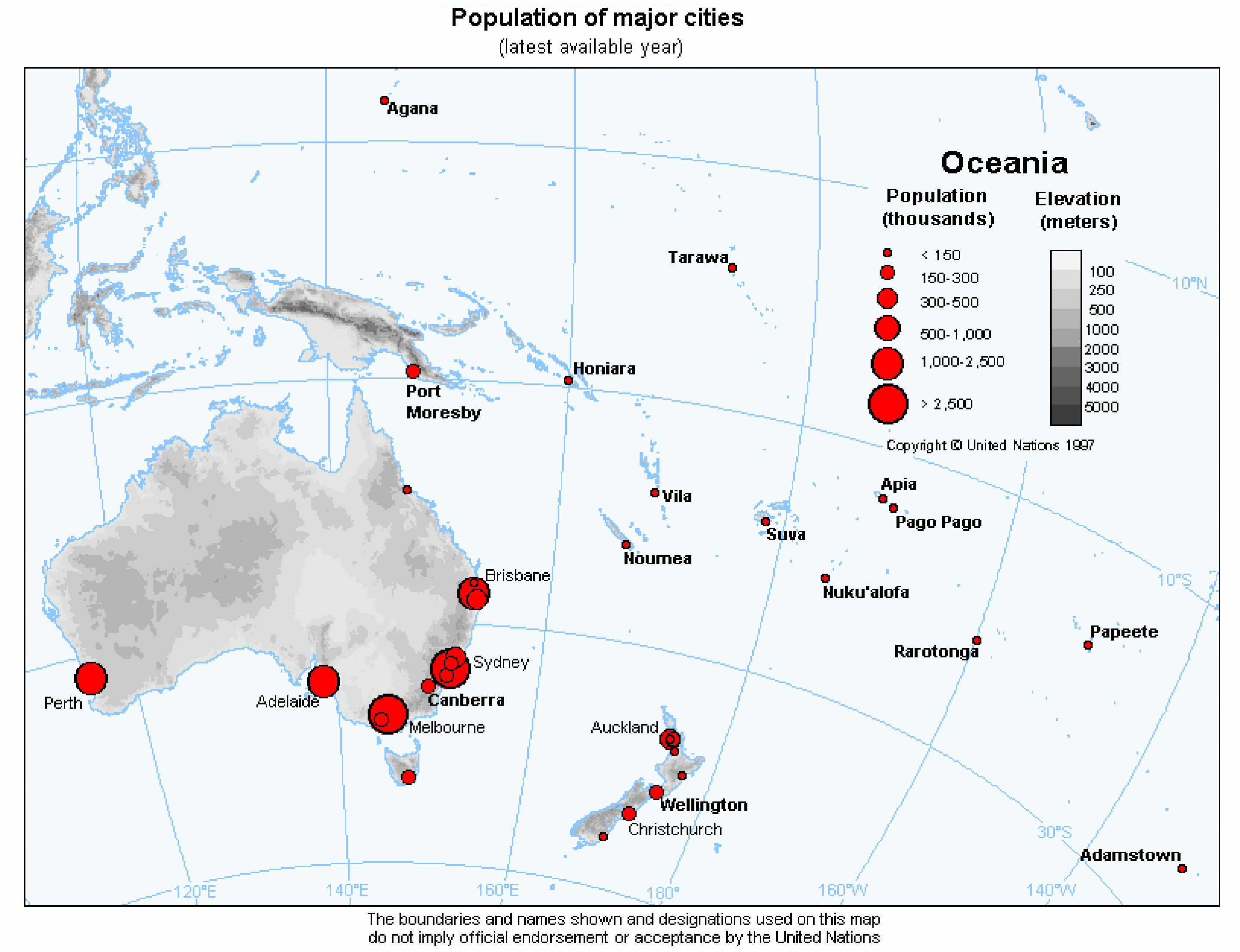
[1] estimated

Distribution of major cities in Southeast Asia

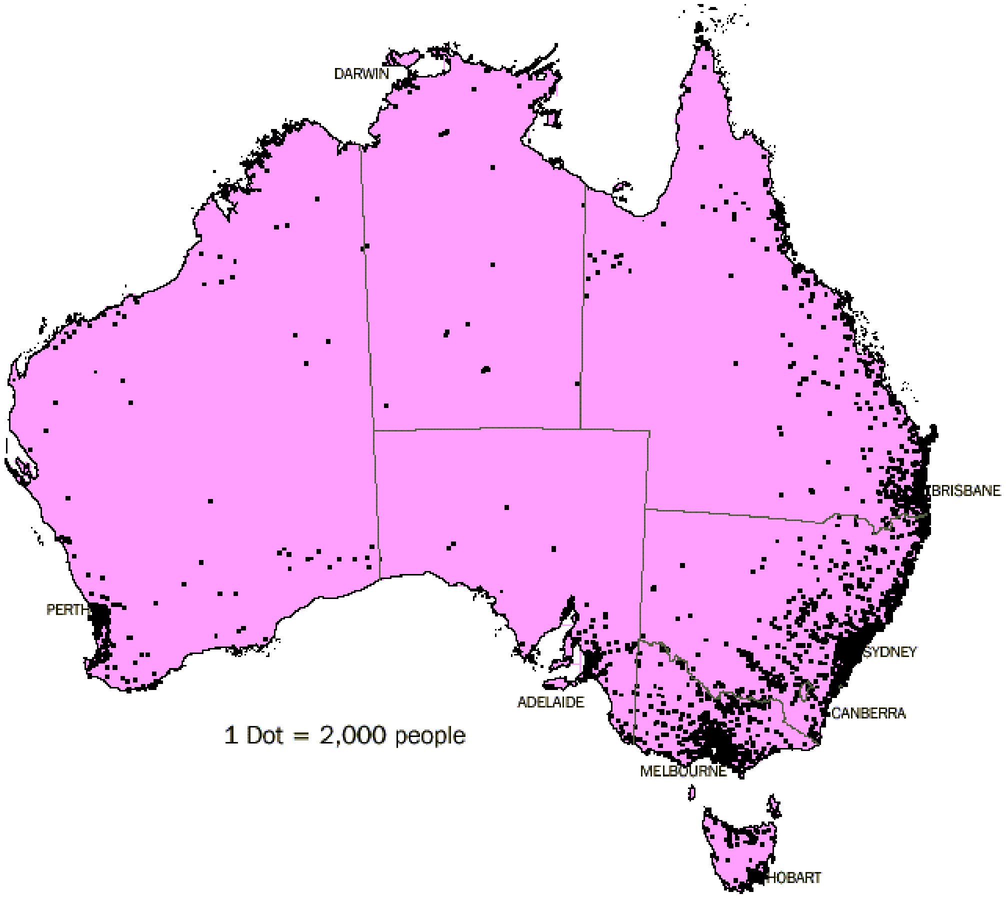


The boundaries and names shown and designations used on this map do not imply official endorsement or acceptance by the United Nations

Australia‘s urban system



Distribution of Population (1999)



(a) Estimated resident population.

Source: Regional Population Growth, Australia 1998–99 (3218.0).

Major population centers

Major population center *Capital City Statistical Division*	**Popula-tion 1994**	**Share in %**	**Popula-tion 1999**	**Share in %**	**Annual Growth Rate**
Sydney	3769600	21.1	4041400	21.3	1.4
Melbourne	3213000	18.0	3417200	18.0	1.3
Brisbane	1455200	8.2	1601400	8.4	2.0
Adelaide	1071700	6.0	1092900	5.8	0.4
Perth	1246300	7.0	1364200	7.2	1.9
Hobart	194500	1.1	194200	1.0	0.0
Darwin	79000	0.4	88100	0.5	2.3
Canberra	301100	1.7	309900	1.6	0.6
other					
Newcastle	454200	2.5	479300	2.5	1.1
Gold-Coast	321900	1.8	391200	2.1	4.3
Canberra-Queanbeyan	337400	1.9	348600	1.8	0.7
Wollongong	250500	1.4	262600	1.4	1.0
Sunshine Coast	142200	0.8	172900	0.9	4.3
Geelong	151600	0.8	156100	0.8	0.6
Townsville	119200	0.7	127200	0.7	1.3
Cairns	97800	0.5	114000	0.6	3.3
total	***13205200***	***74.0***	***14163199***	***74.7***	**1.5**
Australia	**17854700**	**100.0**	**18966800**	**100.0**	**1.2**

Source: ABS (2001b), own calculations.

Industrial structure and change

	Employed persons			Gross value added		
	. 1998/99 (1000)	Growth 1993-99 (%)	Share 1998/99 (%)	1998/89 (bill.$)	Growth 1993-99 (%)	Share 1998/99 (%)
Goods producing industries						
- Agriculture	421.8	3.2	5.0	19.0	16.6	3.1
- Mining	79.6	-11.0	0.9	23.9	26.3	3.9
- Manufacturing	1082.5	-0.9	12.2	73.8	9.8	12.5
- Electricity, gas, water	64.7	-29.8	0.8	13.5	4.2	2.2
- Construction	634.1	13.6	7.4	34.3	32.8	6.0
- Subtotal	***2282.7***	***1.9***	***26.3***	***164.5***	***16.5***	***27.7***
Service industries						
- Wholesale trade	506.7	-0.7	5.9	31.2	39.0	5.4
- Retail trade	1298.5	16.5	15.2	31.1	25.1	5.6
- Accommodation, restaurants	411.3	18.4	4.8	13.3	27.3	2.2
- Transport, storage	408.7	12.7	4.8	31.4	24.8	5.6
- Communication	151.4	13.9	1.8	18.9	61.1	2.9
- Finance, insurance	319.9	0.9	3.5	37.7	40.4	6.6
- Property, business services	945.0	47.2	10.9	59.5	38.3	10.3
- Government admin., defense	345.3	-6.2	3.9	22.9	7.1	4.1
- Education	603.5	9.3	7.2	26.5	7.8	4.5
- Health, community services	817.4	15.3	9.3	33.0	16.1	5.8
- Cultural, recreational	209.3	25.2	2.5	10.5	17.6	1.8
- Personal and other	338.7	16.3	3.8	12.9	24.1	2.3
- Subtotal	***6355.7***	***15.2***	***73.6***	***329.3***	***27.4***	***57.0***
- Other[1]	-	-	-	90.0	-	15.3
Total	**8638.4**	**11.4**	**100.0**	**493.8**	**23.5**	**100.0**

Australia‘s industrial performance vs. OECD countries (DISR 1999)

- ***I&CT infrastructure***: Australia leading
- ***Human capital***: below average in many indicators
  - public expenditure (% of GDP) on formal education lower
  - duration of on-the-job-training shorter
- ***Production and technology:*** mixed
- - good ranking for patenting activity
  - overall: R&D expenditure (% of GDP) low

Causes:

- ‚scarcity of networks of production and innovation‘
- much economic activity rather low tech, missing links
- concentration (few SMEs), MNCs, small internal market

International trade and capital investment

- ***Exports***: still dominated by resource based products (minerals, fuels, agricultural products)
  - share of ETMs increasing constantly

  Imports: high technology products (computers, telecom. equipment, aircrafts, motor vehicles, pharmaceuticals)

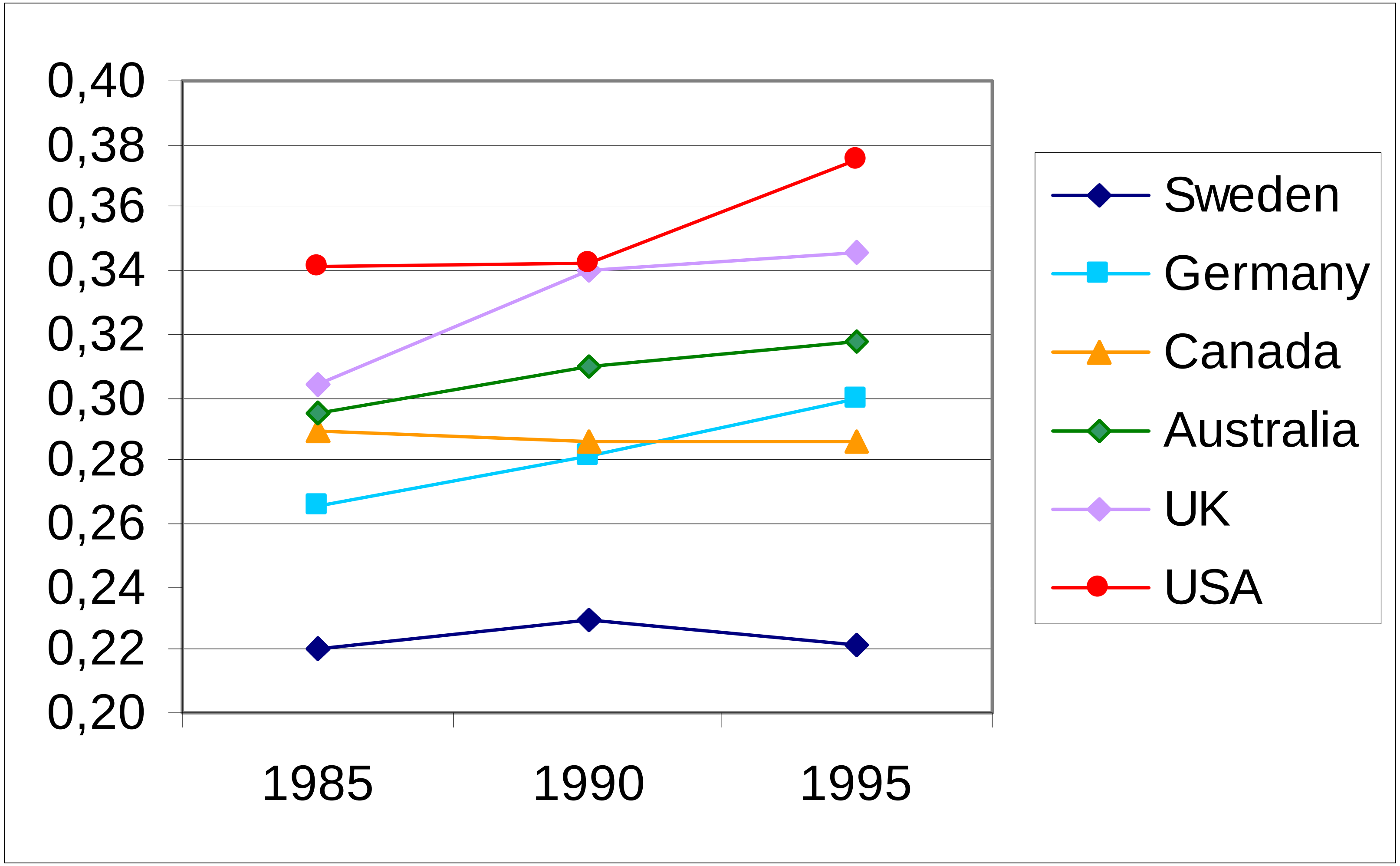
- Exports of ***services***: Australia, an advanced country ?
  - dominated by travel and transport (75%)
  - deficit in producer services

- ***Foreign direct investment*** (1990-98 cumulated, bill. US$)
  - inflows: 55.6 (like Germany)
  - outflows: 27.6 (like Finland)
  -> deficit: 28.0 (similar to Poland, Greece, Spain)

Politics: deregulation - liberalization

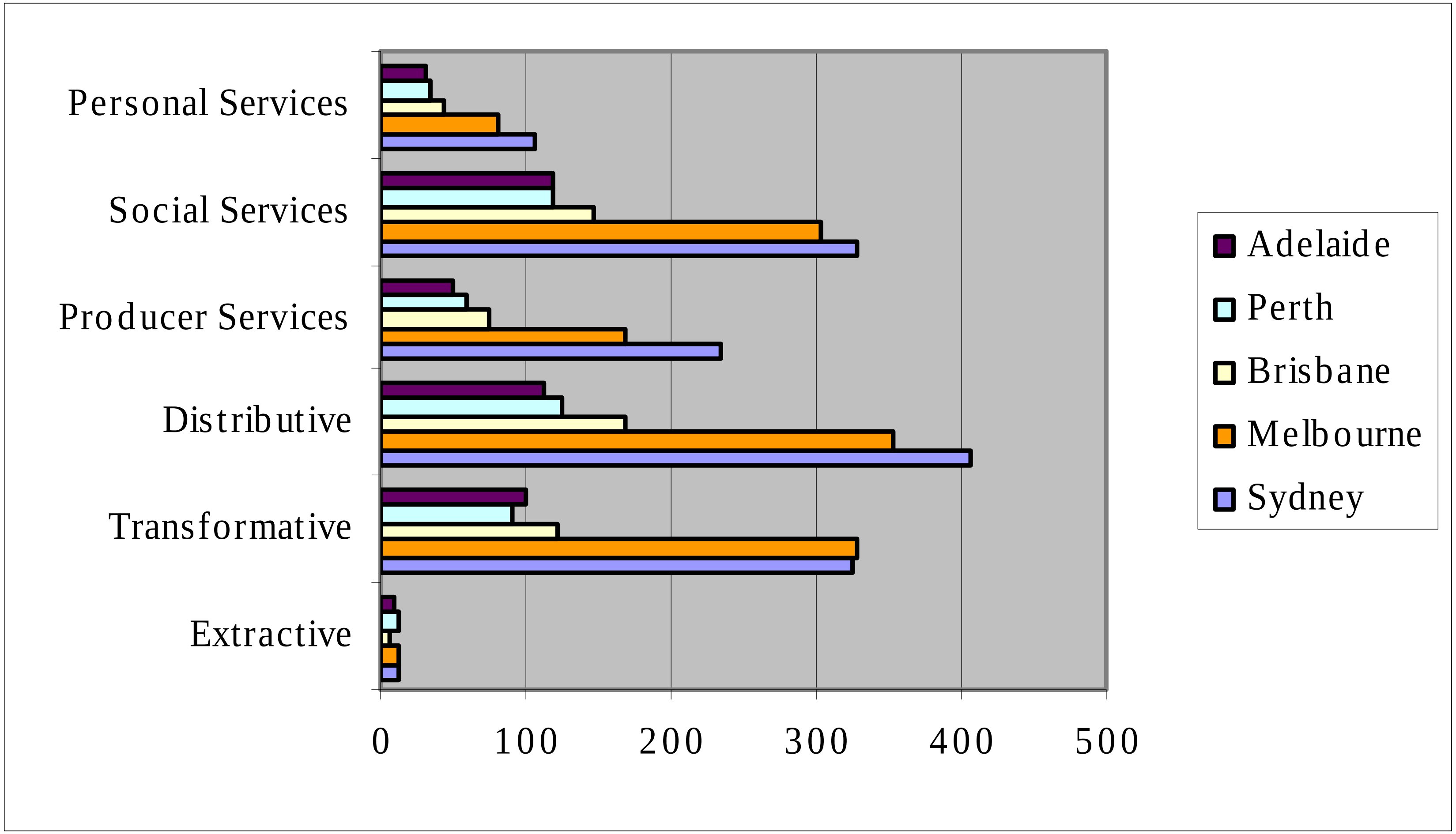
- From *one of* ***highest*** protection/regulation to ***lowest***
- ***Tariff protection*** reduced within 30 years from 35% to 5%
- ***Deregulation*** of financial markets since 1983
- ***Liberalization*** of foreign capital movements
  (except: acquisition of real estate by foreigners)
- ***Deregulation*** of labor market
  - Labor government: *accord* with trade unions (1984-93)
    (new technologies, training schemes)
  - increasing temporary and casual employment
  - late nineties: only 1/3 of workforce with standard work day/week
  - 1996 Workplace Relations Act: decentralized, workplace-based bargaining for wages/conditions

Inequality of income distribution (Gini-coefficient)

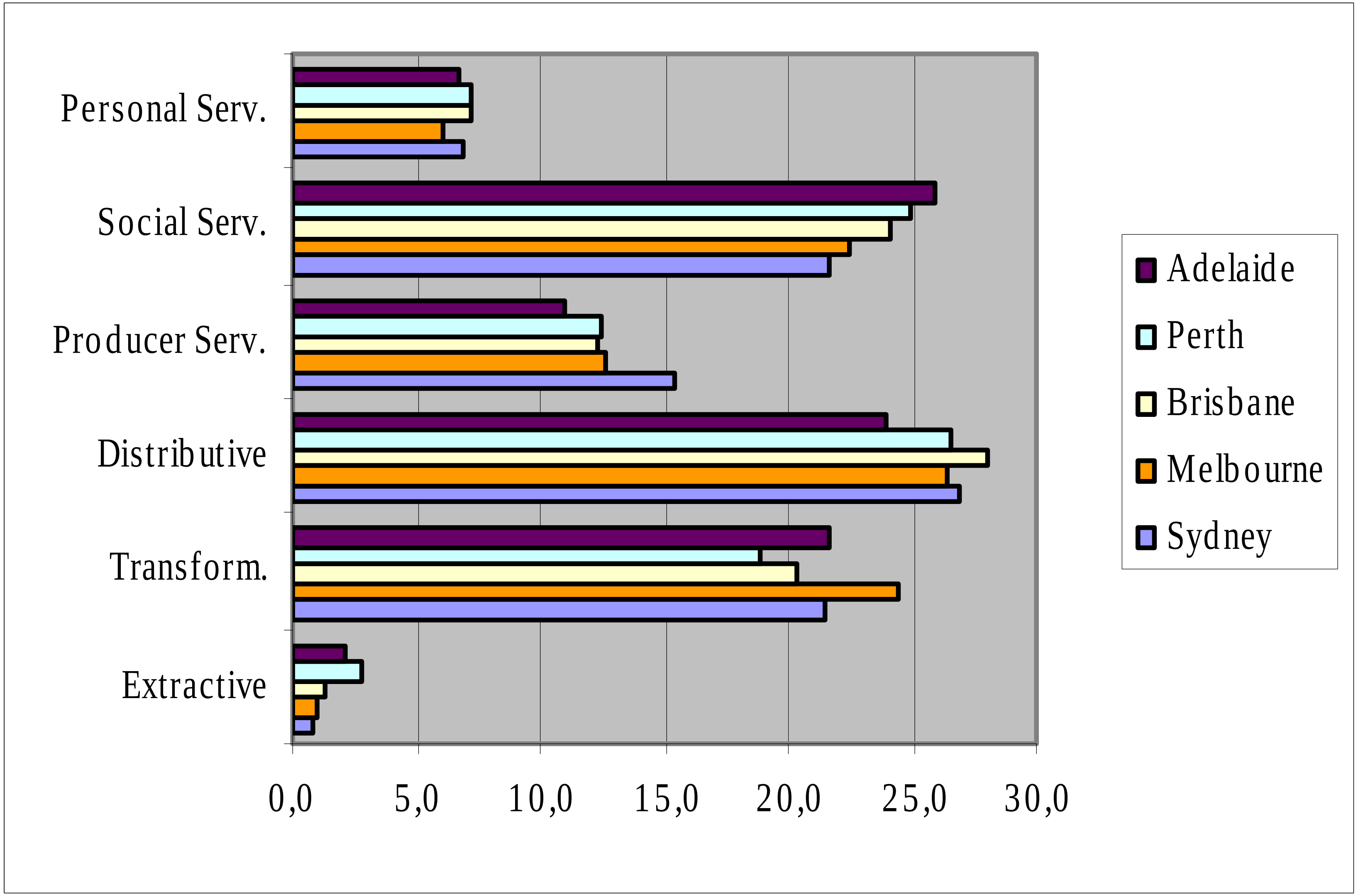


3. Capital cities compared: the 1980s

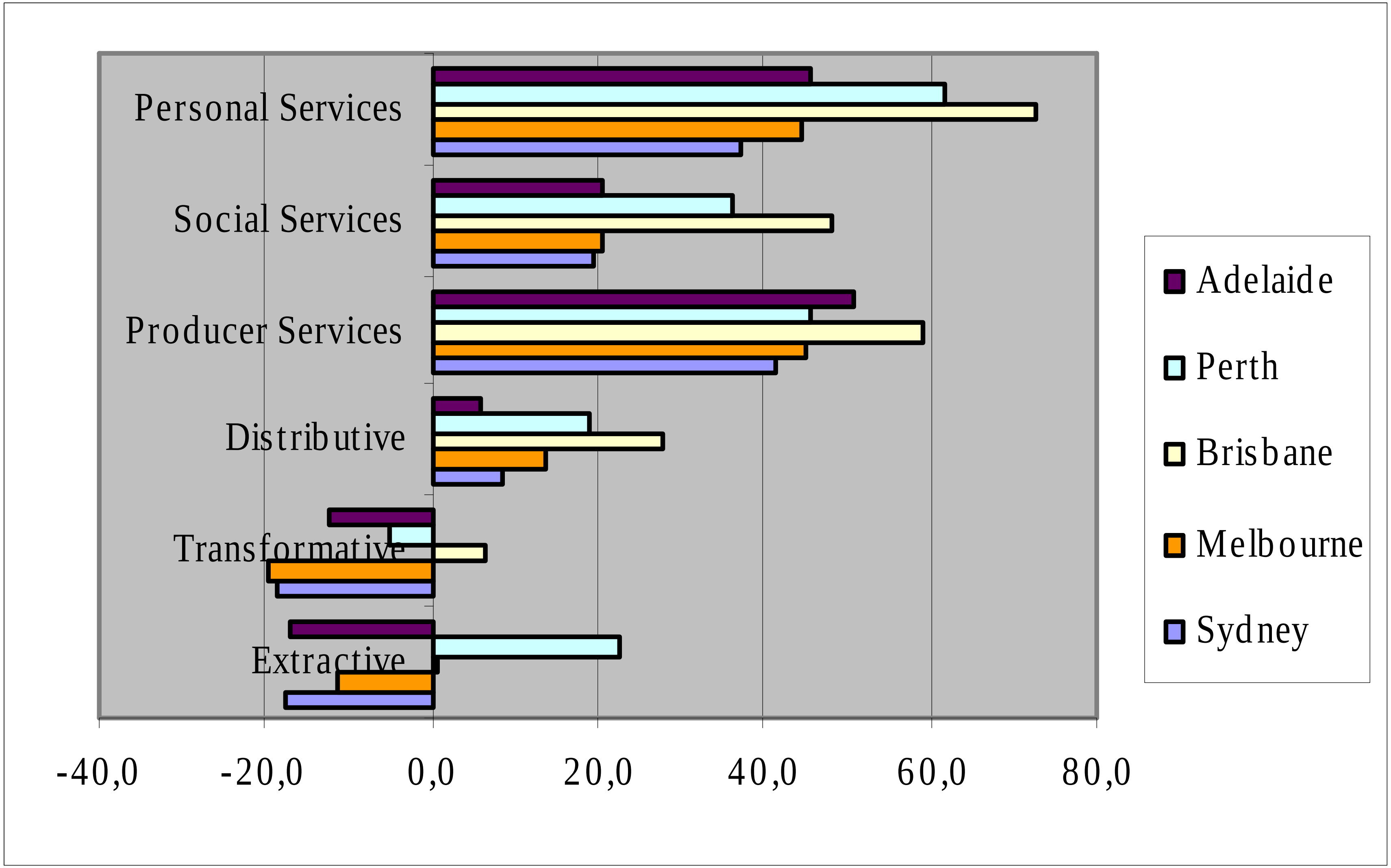
Employment in cities by industry
a) Absolute number in 1991 (1000)



b) Share of industries 1991 (% of total)

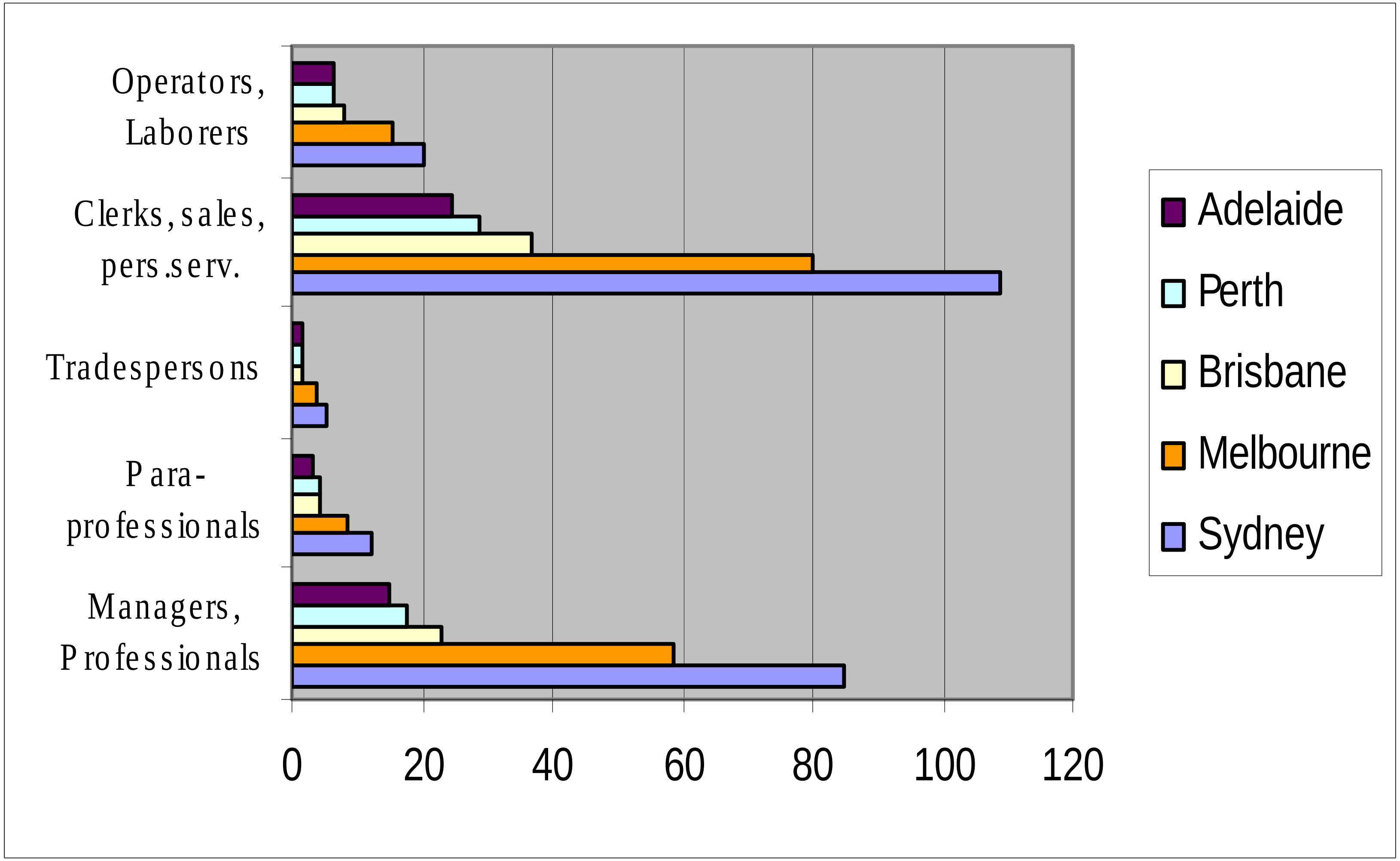


c) Change 1981-1991 (%)

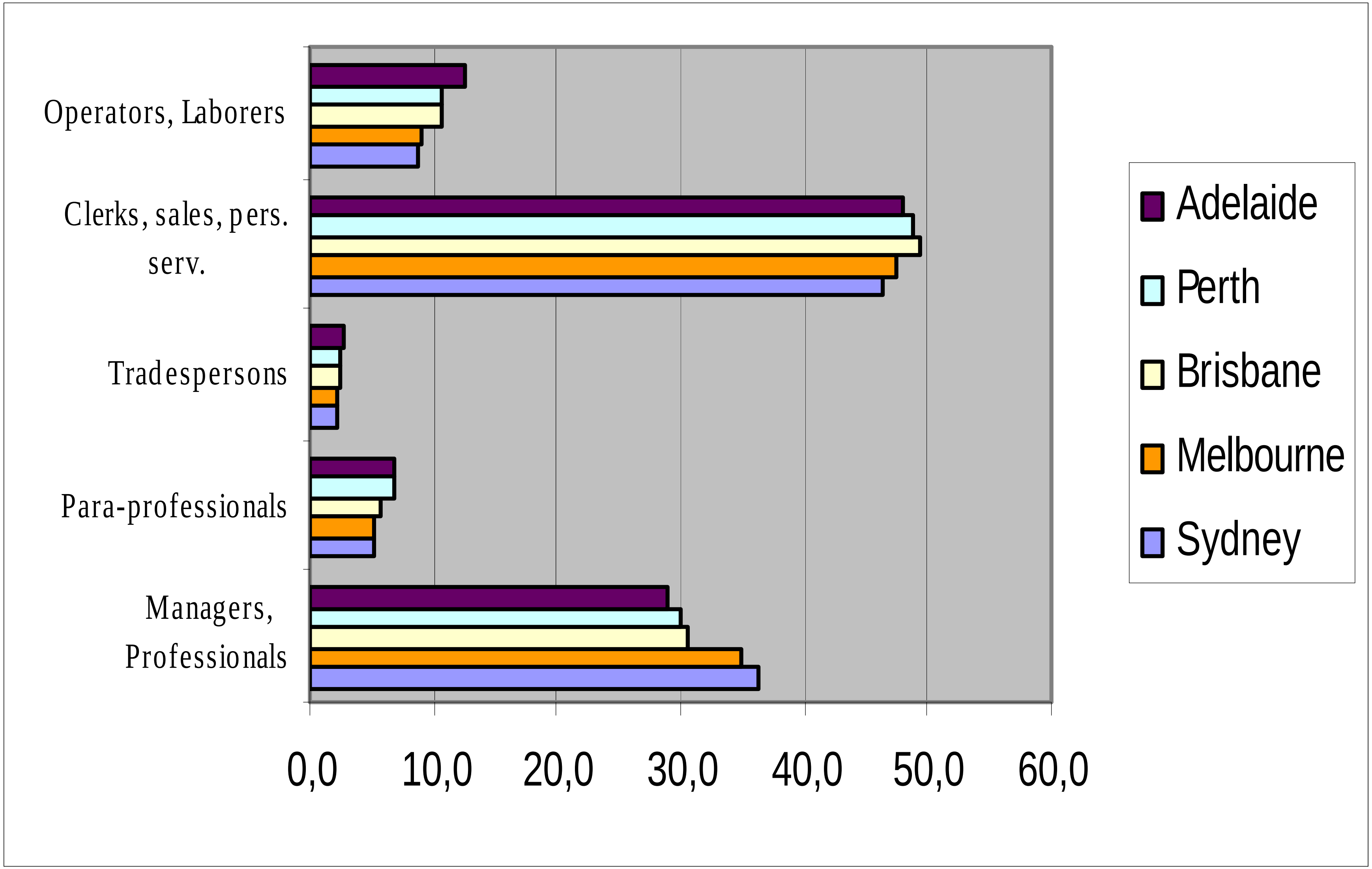


Occupational structure of ***producer services*** (1991)

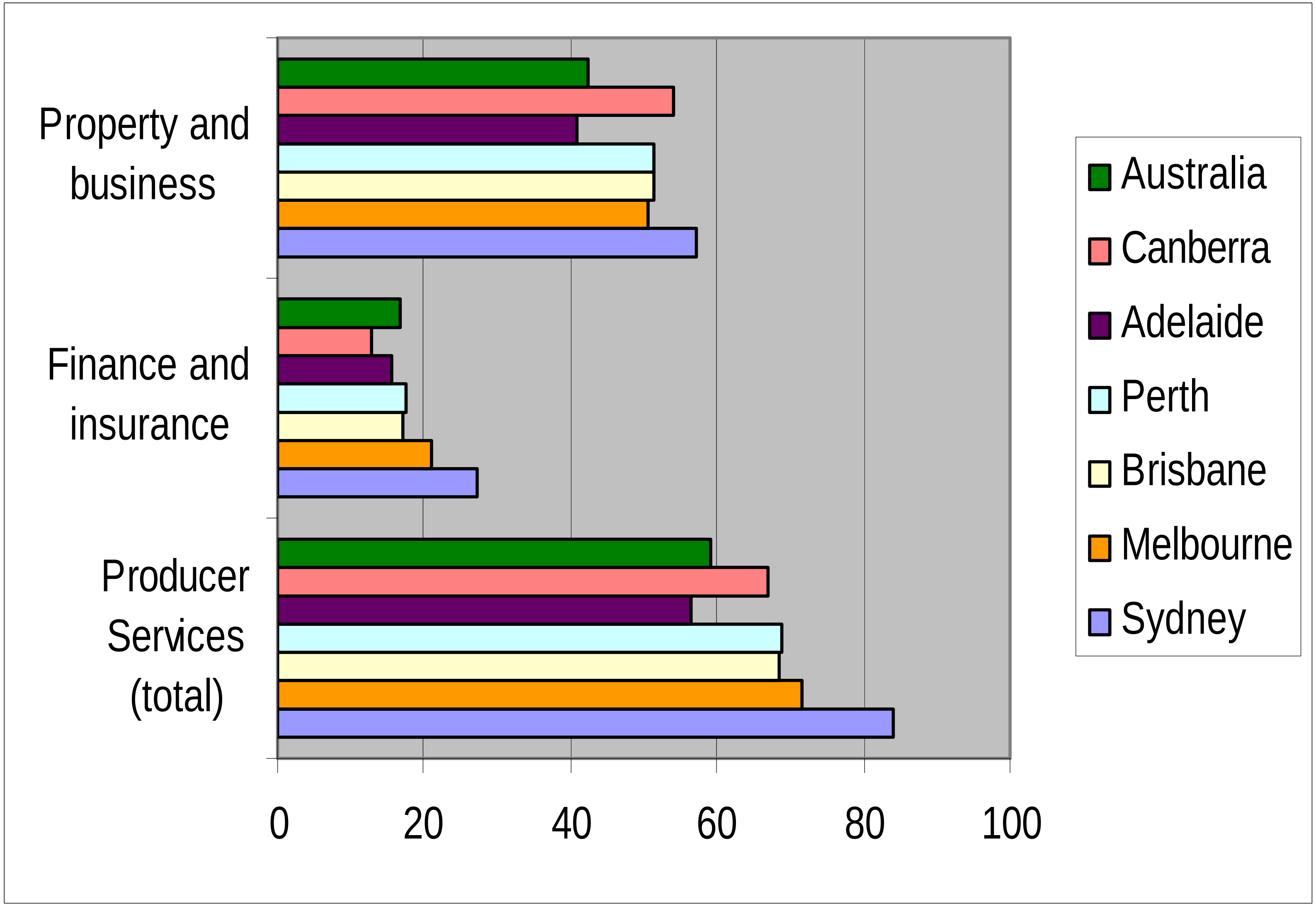
a) absolute numbers (1000)



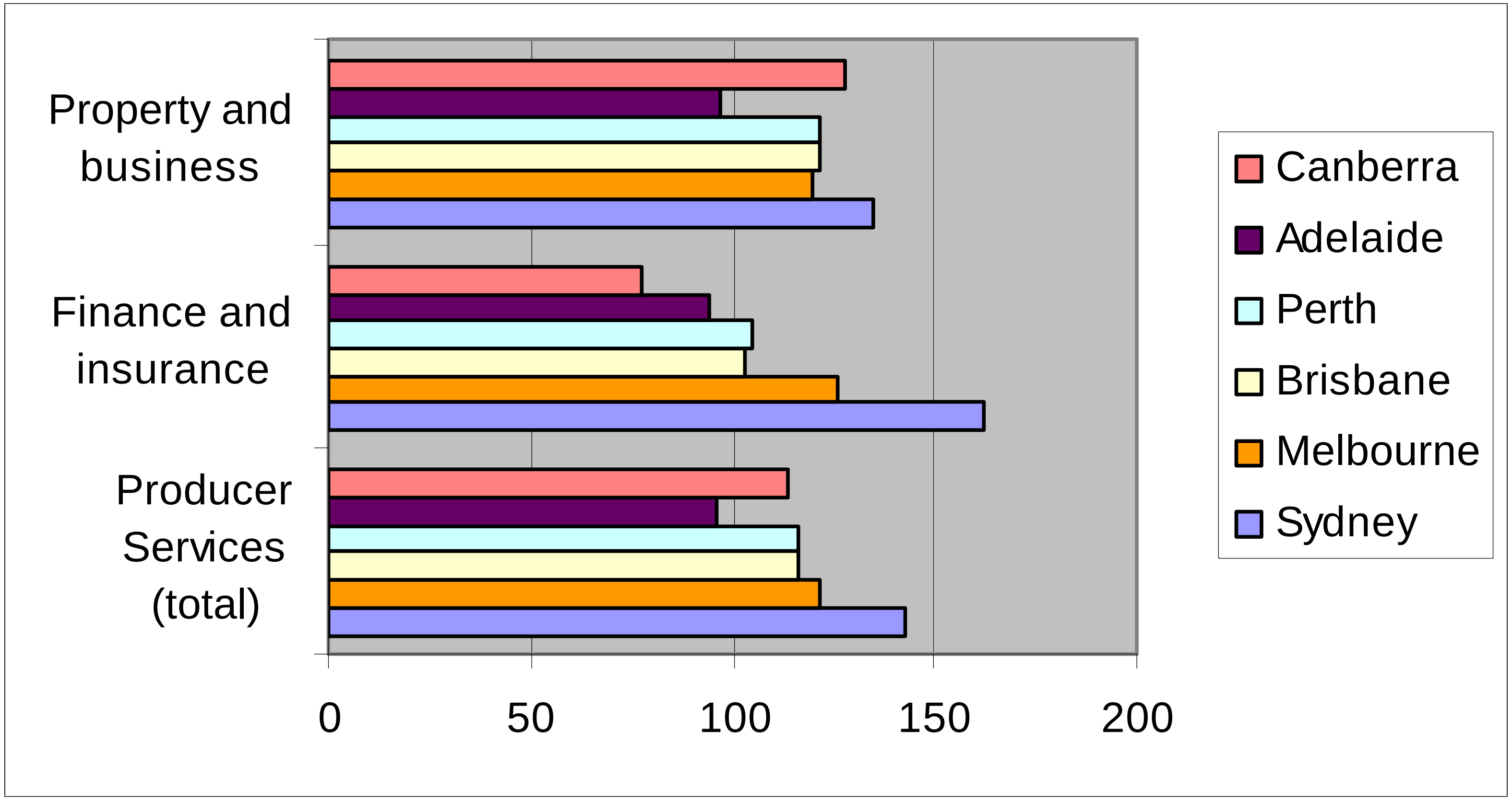
b) Share of occupations (% of total)



The 1990s: Number of service workers per 1,000 residents (1996)



Index for number of service workers per 1,000 residents (Australia=100)



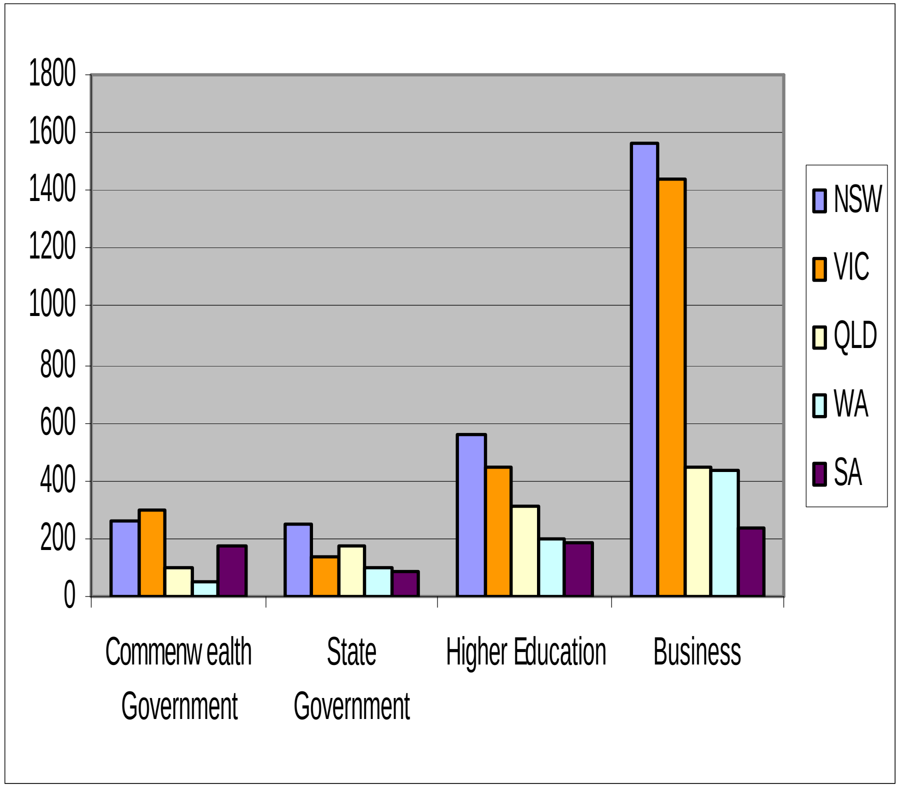
Location of headquarters and office rents in capital cities

	No. of head-quarters of top 100 firms 1995	Estimated nominal office rents $ per sq. Meter 1999
Sydney	54	625
Mel-bourne	33	300
Brisbane	3	350
Adelaide	4	210
Perth	4	425
Hobart	2	n.a.

- **Headquarters**: decision making, strategic functions, highest pay levels in corporate hierarchy

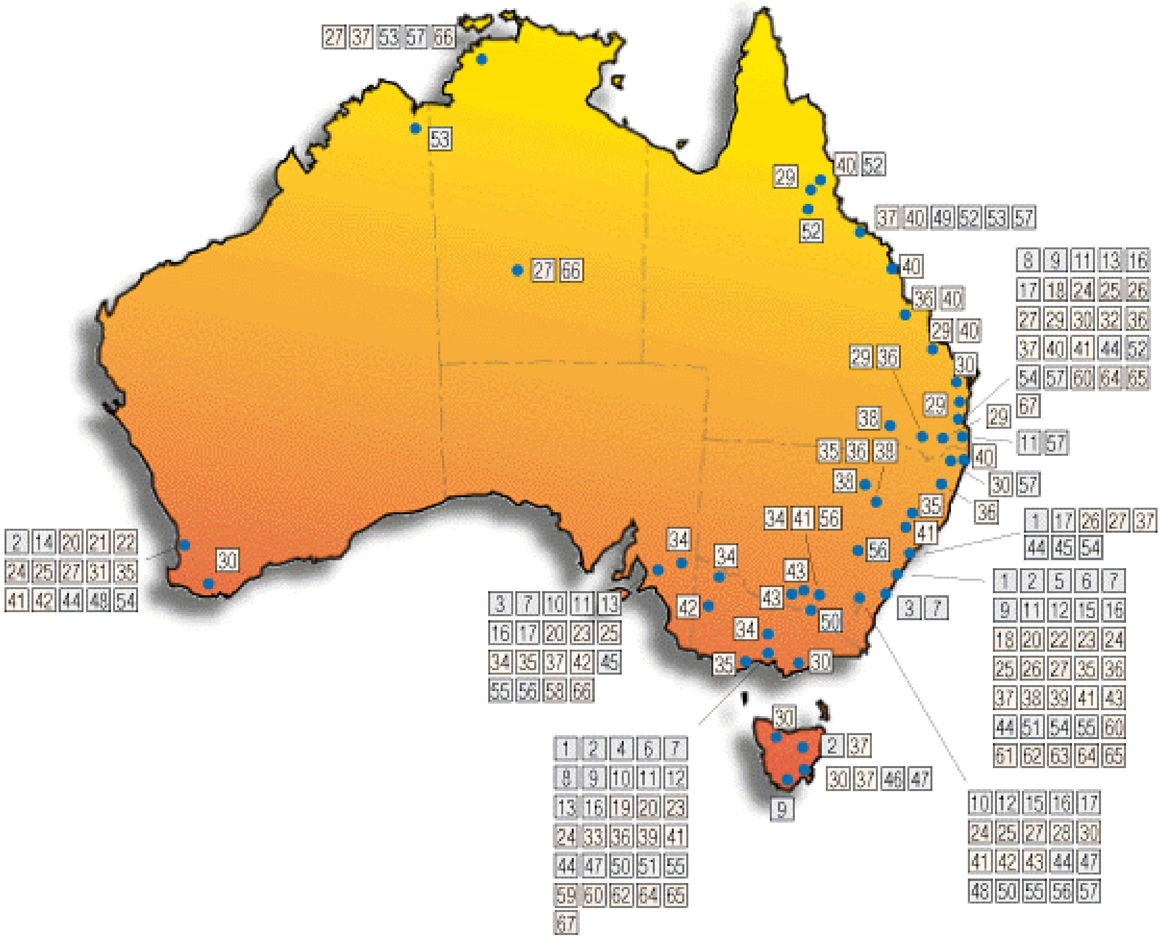
- **Office rents**: composite indicator for valuation of space by firms

Distribution of research & development expenditure by funding institutions and state



- NSW/Sydney leading
- ***per capita*** Victoria leads in business R&D
- but: regional differences smaller than for other indicators

Locations of Cooperative Research Centers



- CRCs: joint public private financing
- potential nuclei of innovation

	No. in region
• Sydney	44
Melbourne	34
Brisbane	28
Canberra	20
Adelaide	20
Perth	16

4. Sydney's global economic links and local spatial structures

Headquarters, producer services and financial activities

	Sydney	Mel-bourne	Bris-bane	Ade-laide	Perth	Hobart	Can-berra
RHQs of MNCs (%)	61.8	28.5	3.0	3.9	2.7	-	-
Freight for-warders	240	157	60	51	55	6	-
Foreign banks	155	27	-	1	2	-	-
Bank head offices	39	5	4	3	2	2	1

- ***Financial sector:*** Australian Reserve Bank / Stock Exchange, Sydney Futures Exchange, etc.
- ***Producer Services***: **1990** of top 20 multinationals (accounting, advertising, consulting, international real estate management), *shares (%):*
  Sydney:39, other:10, Hong Kong:32, Tokyo:13, Singapore:6

Global links

- ***Sydney‘s sea ports***:
  - handling 12% of Australian imports, but 40% of exports
  - 200 of the top 500 exporter firms located in Sydney
  - Sydney‘s harbor is ´Sydney‘s heart´ (M. DALY)
- ***Sydney‘s airport***:
  - double number of internat. destinations (152) and internat. departures per week (297) than Melbourne or Brisbane in mid 90s
  - ranked by millions of passengers
    14 Mio. in mid 90s (24th in the world)
    21 Mio. in 1998 (below 30th)
- ***Telecommunication***:
  - High-speed data lines: Sydney (44%), Melbourne (33%), esp. in CBDs
  - Internat. business ´traffic´:Sydney (50%), Melbourne (26%)

Culture industries

- ***Definition of cultural ´products´***:
  - manufactures from traditional sectors (e.g. jewelry, clothing, furniture),
  - personalized transactions (theater, tourist services),
  - hybrid forms (music recording, film production, design, architecture).
- In spite of their ***heterogenity*** in ‘substance, appearance and sectoral origins’ they all ‘***function*** at least in part as personal ornaments, modes of social display, aestheticized objects, forms of entertainment and distraction, or sources of information and self-awareness´.
- Even in cities like Los Angeles culture industries are now (measured by employment) ***larger than high tech industries***.

Allen J. Scott (1997)

Culture industries in Sydney

- ***Media and publishing industries***

	% of national employment
Sydney	36
Melbourne	19
Brisbane	9

- ***Film and television*** production:

  - 56% (of national output) in NSW, plus
  - 450 film groups
  - Fox studio
  - post-production, special effects, animation firms

  - ***Problems***:

  many small firms, high competition, access to and cost of high-bandwith telecommunication

Inventory of World Cities

World city type	Score	Cities *
Alpha		
	12	London, Paris, New York, **Tokyo**
	10	Chicago, Frankfurt**, Hong Kong**, Los Angeles, Milan, **Singapore**
Beta		
	9	San Francisco, **Sydney**, Toronto, Zurich
	8	Brussels, Madrid, Mexico City, Sao Paulo
	7	Moscow, **Seoul**
Gamma		
	6	Amsterdam, Boston, Caracas, Dallas, Düsseldorf, Geneva, **Jakarta**, Johannesburg, **Melbourne**, **Osaka**, Prague, Santiago, **Taipei**, Washington
	5	**Bangkok**, **Beijing**, Montreal, Rome, Stockholm, Warsaw
	4	Atlanta, Barcelona, Berlin, Buenos Aires, Budapest, Copenhagen, Hamburg, Istanbul, **Kuala Lumpur**, **Manila**, Miami, Munich, **Shanghai**

Source: Beaverstock et al. (1999) *) Cities of the Asian Pacific region marked in boldface.

World cities compared

- ***GaWC Inventory***:
  - for 122 cities ***scores*** (from 1-3) calculated in:
  - accountancy, advertising, law, banking
  - according to no. of ‚significant presences‘ of large firms
  -> ***55 world cities*** remain, ranked between 4 and 12 each
  -> Sydney is a beta level world city

- ***Economist Intelligence Unit*** *(late 90s)*:
  Organization and management structures of 8‘000 MNCs in Asia Pacific, *Regional offices* and *Regional Headquarters*

	% of total locations in
Hong Kong	35
Singapore	30
Sydney	5

Classifying communities of metro areas / Sydney

- ***Comparison*** of ´opportunity´and ´vulnerability of single communities (LGAs/SLAs) ***within*** cities using socio-economic indicators -> also comparison ***between*** cities
- ***Cluster analysis***:
  - classifying of *(most similar)* SLAs into *(most different)* ***clusters*** (groups) by hierarchical clustering procedure
  - Problem: no single optimal solution, determination of correct ***number*** of clusters
- ***Discriminant analysis***: improving results, determination of
  - ´best´ variables (discriminating most between clusters)
  - summary discriminant scores for single communities
  - mean discriminant score for clusters

-> method for ***reducing complexity of multidimensional data set***, result: meaningful clusters of objects (SLAs)

Results (BAUM, STIMSON, O'CONNOR, MULLINS, REX 1999)

- ***Data base***:
  - 25 indicators for socio-economic condition of ***resident population*** in communities, 3 types of settlements: small regional towns, large regional cities and towns, large (mega) metropolitan areas
- for ***mega metro areas***: 240 SLAs clustered into ***nine*** clusters

Clusters of metro regions

(No., mean discriminant scores, labels)

Opportunity clusters				**Marginal cluster**	**Vulnerability clusters**			
6	**2**	**3**	**1**	**5**	**7**	**4**	**9**	**8**
193.73	90.81	45.62	41.87	-11.82	-40.89	-114.72	-164.24	-187.53
Global economy/ high income cluster	Suburban expansion cluster	Transitional/gentrifying cluster	Public sector moderate opportunity. Cluster	Suburban marginal cluster	Outer metro vulnerable growth cluster	Suburban social disadvantage cluster	Peri-urban extractive industry based cluster	Extremely vulnerable old manufacturing cluster

Variables	Opportunity clusters				Margin. cluster.	Vulnerability clusters				Metro average
	6	2	3	1	5	7	4	9	8	
highest (positive) value lowest (negative)value	Global economy	Subur-ban exp	Trans./Gentrifying	Public sector	Suburb. marg.	Outer vulner..	Sub.urb. disadv.	Extrac-tive ind.	Etreme-ly vuln.	
Structural economic change										
% Change in employment	13.7	90.5	11.1	-0.8	26.4	88.9	9.0	30.4	-4.7	22.9
Point change in unemployment	-0.6	-0.1	-1.5	1.8	0.8	-2.9	0.6	-1.5	4.4	0.2
Point change high income hhs.	12.9	13.5	11.2	6.6	9.9	9.0	6.6	7.4	5.5	9.4
Population Change										
Residential turnover	40.4	43.3	46.2	36.0	37.3	49.5	37.7	41.6	35.9	40.3
Occupational characteristics										
% Symbolic analysts	43.3	22.2	38.7	38.4	23.0	18.3	20.3	33.3	20.8	29.3
% In-person service workers	37.5	44.5	38.7	38.2	43.2	42.5	43.6	33.0	42.7	40.8
% Routine production workers	19.0	32.6	22.6	22.5	33.4	37.9	35.9	33.5	36.2	29.5
Industry employment char.										
% Extractive	1.2	6.3	1.4	1.7	3.0	3.4	3.8	27.8	2.1	3.9
% Transformative	13.7	22.5	13.7	15.1	23.5	22.9	23.5	16.2	26.1	19.5
% Distributive	27.6	29.9	28.0	26.6	21.1	29.7	30.1	22.8	30.3	28.9
% Producer services	24.7	12.1	19.6	17.0	12.8	11.3	11.3	6.4	11.4	15.1
% Social services	23.2	19.6	26.0	29.5	19.9	18.2	21.2	17.9	20.3	22.2
Human capital										
% Persons with a degree	28.7	8.7	23.5	22.1	9.5	5.4	7.2	5.6	9.2	14.6
% Persons with basic educ.	12.3	25.3	11.8	11.5	20.3	27.5	22.7	28.0	15.9	18.2
Income										
% High income households	40.7	31.6	26.2	31.7	26.0	16.1	18.9	14.2	15.6	25.9
% Low income households	12.8	11.4	21.5	15.9	15.9	22.0	22.7	23.7	25.7	18.6
Unemploym./labor f. partic.										
% Youth unemployed	10.1	13.8	18.4	14.8	15.2	25.0	21.1	18.1	24.6	17.2
% Unemployed	4.7	6.7	9.5	7.0	8.1	13.9	11.4	9.2	14.5	9.0
Female labor participation	55.7	58.9	52.6	54.3	53.5	45.0	47.2	47.4	42.4	51.6
Socioeconomic disadvant.										
%Single parent families	7.9	9.0	9.5	9.0	9.9	12.0	11.2	8.1	11.3	9.7
% Recent arrivals	4.7	2.0	6.0	3.5	2.7	2.0	2.4	0.7	3.8	3.4
% Aged 65 +	14.0	6.0	12.9	13.8	9.9	14.1	13.5	12.2	17.4	12.6
***Housing** (% of households)*										
In public rental households	1.6	3.3	5.9	5.6	4.1	6.4	7.4	2.4	6.8	4.9
With rental hardship	13.7	16.6	25.0	19.8	21.3	25.3	29.6	26.3	28.8	22.7
With mortgage hardship	1.9	2.3	3.5	2.6	3.2	5.4	4.7	8.2	6.4	3.8

Clusters of SLAs in inner Sydney region

Clusters of SLAs in outer Sydney region