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WORKING PAPER

ANALYSIS AND LIAISON

DRAFT

PROPOSAL FOR REGIONAL

DEVELOPMENT ATLAS

#80-04

Government of Canada
Regional Economic Expansion

Gouvernement du Canada
Expansion Économique Régionale

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PROPOSAL FOR REGIONAL DEVELOPMENT ATLAS
#80-04

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MINISTERE DE L'EXPANSION
INDUSTRIELLE REGIONALE

D 80043
Sept. 12, 1980

Data Coordination
Analysis and Liaison
DREE - Hull

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1.0 IDENTIFICATION OF USERS

- DREE Senior Management
- MPs
- DREE Analysts
- Analysts in Other Federal Departments, Provincial and Municipal Governments
- Academics
- General Public

2.0 ARTICULATION OF OBJECTIVES

- Portrayal and description of the spatial pattern of material and socio-cultural well-being of Canadians
- Assessment of the nature and extent of regional disparity
- Identification of socio-economic factors which may contribute to barriers or opportunities in economic development
- Illustration of means, instruments, programs and achievements of the Government of Canada, particularly DREE, in the pursuit of sustained and balanced economic growth among the various regions of the country.

As a result of an increased understanding of the regional problems and issues, it is anticipated that the Atlas would result in better action among decision makers, academics and the general public.

- Among Decision Makers

  - assistance in the orderly, systematic and analytic approach to regional policy formulation
  - generation of new ideas, hypotheses, and innovative solutions
  - improvement of planning process in the design of programs and policies
  - delineation of areas of concern and monitoring of progress toward stated objectives.

- Among Academics

  - stimulation of research into the conceptual, theoretical and empirical problems of regional economic development
  - development of new source of related small-area information, data analysis and presentation techniques

- Among Public at Large

  - a better appreciation and awareness of the issues and problems facing the deprived regions
  - improvement of communication and consultation process between decision makers and the general public as a result of the formation of intelligent opinions for both parties.

3.0 SELECTION OF INFORMATION

3.1 Criteria

- simple, straightforward, easy to understand
- relevant and valid indicators or explanatory factors of regional economic circumstances
- availability of data (given resource constraints)
- timely
- discriminating

3.2 Possible Variables

3.2.1 Material Achievement

- Income and Wealth
  - Income - level, distribution, relative change, persistent change eg. 1969-71, 1971-73, 1973-75, 1975-77, 1977-79
  - Source of Income (eg. UIC, Welfare, Wages, etc.)
  - Personal Disposable Income
  - Taxation Index (i.e. ratio of a region's share in federal tax paid and its corresponding share in population)
  - Average Weekly Earnings
  - Performance in Primary Sector
    - Agricultural
      - net farm income
      - inventory level
      - imputed house rent
    - Forestry, Mining, Fishing
  - Performance in Manufacturing Sector
    - Value of Shipments
    - Value-Added
  - Performance in Service Sector
    - Building Permits, Number and Value
    - Housing Starts and Completions
    - Ratio of Owner-occupied Dwellings
    - Retail Sales/Wholesale Trade
    - Market Potential
- Employment Characteristics and Economic Structure
  - Participation Rate, Age and Sex
  - Employment Ratio, Age and Sex
  - Unemployment Rate, Age and Sex
  - Employment Index
  - Education of Labour Force
  - Two-Job Families
  - Unemployed Families
  - UI Claimants and/or Beneficiaries
  - Employment by SIC
  - Establishments by SIC
  - Extent and Nature of Bankruptcies
  - Energy, Supply and Demand
  - Concentration of High-Technology Industry

3.2.2 Socio-Cultural Well-Being

- Health - Physicians, Hospitals
- Museums
- Libraries
- Education
- Communication
- Sewage and Water
- Transportation/Accessibility
- Judicial
- Persistent Changes in Selected Population and Demographic Variables, 1911-71
- Proportion of Families in Single Detached Dwellings

3.2.3 Satisfaction with the Environment

- Population Growth and Change
- Household Growth
- Migration - in, out, net
- International Migration
- Fertility
- Mortality
- Morbidity

3.2.4 Role of DREE in Regional Disparity

- RDIA Expenditure
- GDA Expenditure
- Estimated Jobs Created
- Estimated Direct and Indirect Economic Benefits

3.2.5 Development Principles

- Emphasis on the Comparison with A Standard Such as Location Quotients. Comparisons May be Used Such as:
  - national average
  - highest/maximum
  - lowest/minimum
- Use Indicators to Portray Both Cyclical and Structural Trends and Components
- Provide Appropriate Synopsis or Summary Using Techniques Such As:
  - summation of ranks on related indicators
  - summation of related indicators
  - assignment of weight on related indicators using factor analysis
  - cluster analysis
  - Impact of Major Projects

4.0 PRESENTATION OF INFORMATION

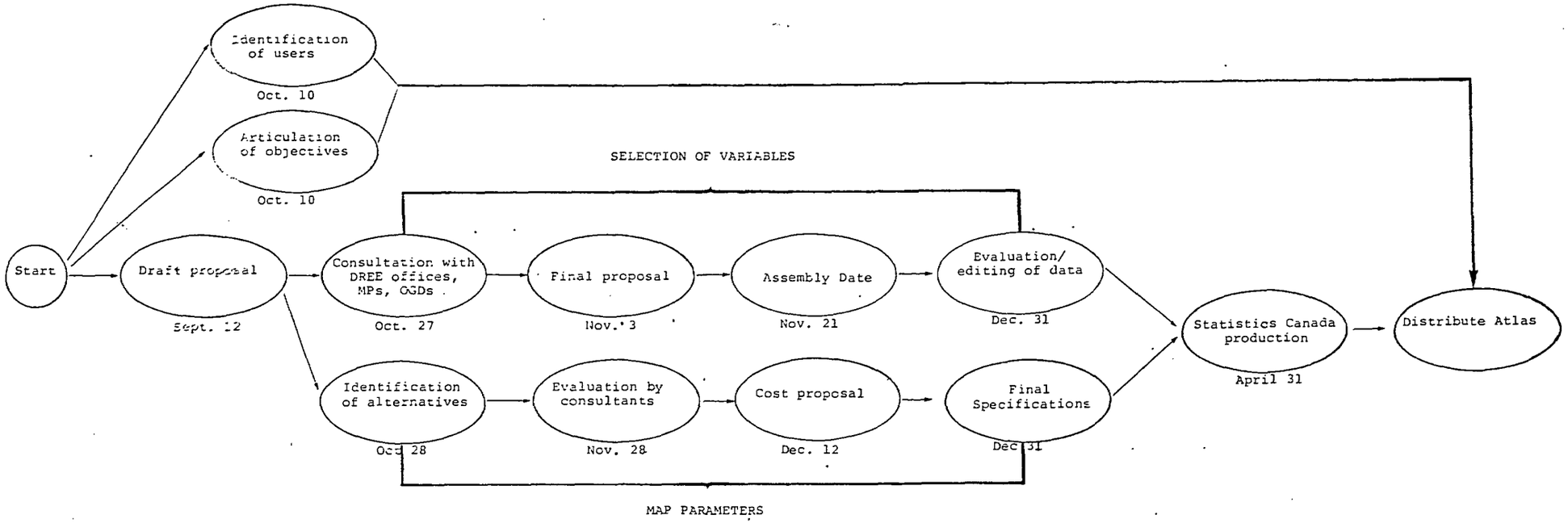
4.1 Criteria

- effective - capability of capturing the essence of the theme or concept
- accurate
- aesthetic/artistic
- cost/time

4.2 Map Parameters

- physical size
- graphs/maps
- country/region/province and/or community
- projection
- layout/boundary
- geographical unit (county, electoral district, economic region)
- choropleth/isopleth/proximal/symbols or combination
- colour scheme
- class intervals
- legend
- nature of interpretative text
- single/multiple edition/volume

5.0 ORGANIZATION OF PROJECT



APPENDIX

APPENDIX 1

SOURCE OF EXPERTISE IN THE PREPARATION OF THEMATIC MAPS

- Statistics Canada, Geocartographic Group

- D. Michael Ray, Department of Geography, Carleton University

- David Douglas, Department of Geography, University of Ottawa

- Cartographic Laboratories at

    - York University
    - University of Toronto
    - University of Alberta
    - Queens University

- Cartographic Laboratories

    - Roger Nogram - Maritime Research Management Services, Council of Maritime Premiers, Amherst, N.S.

- Department of Agriculture
  Land Resource Research Mapping Branch

- EMR, Survey and Mapping Branch

    - George Falconer
      Chief,
      Geographical Service Directorate

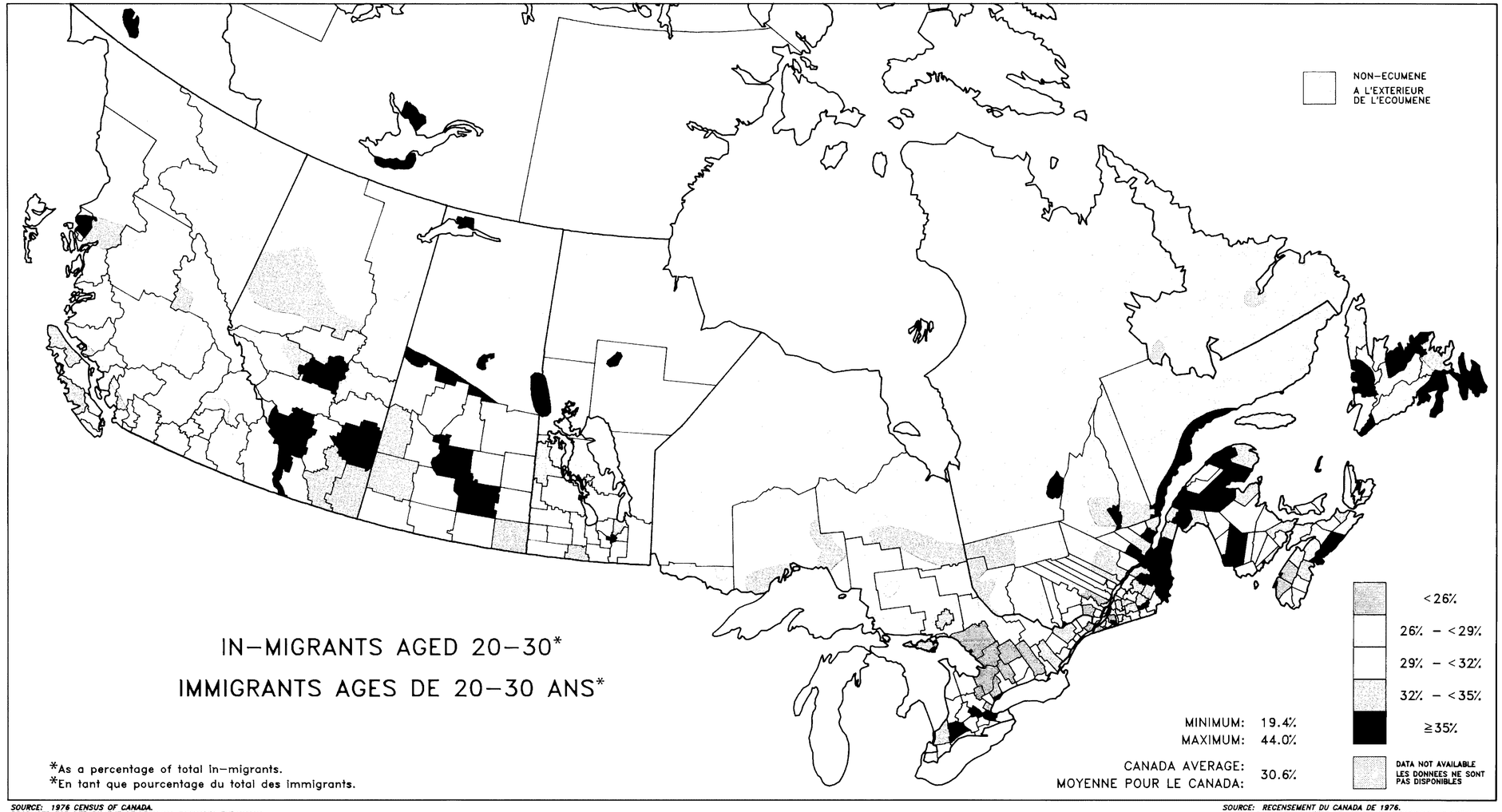
APPENDIX 2

EVALUATION OF EXPERIMENTAL MAPS

E - Excellent S - Satisfactory A - Acceptable N - Not Acceptable

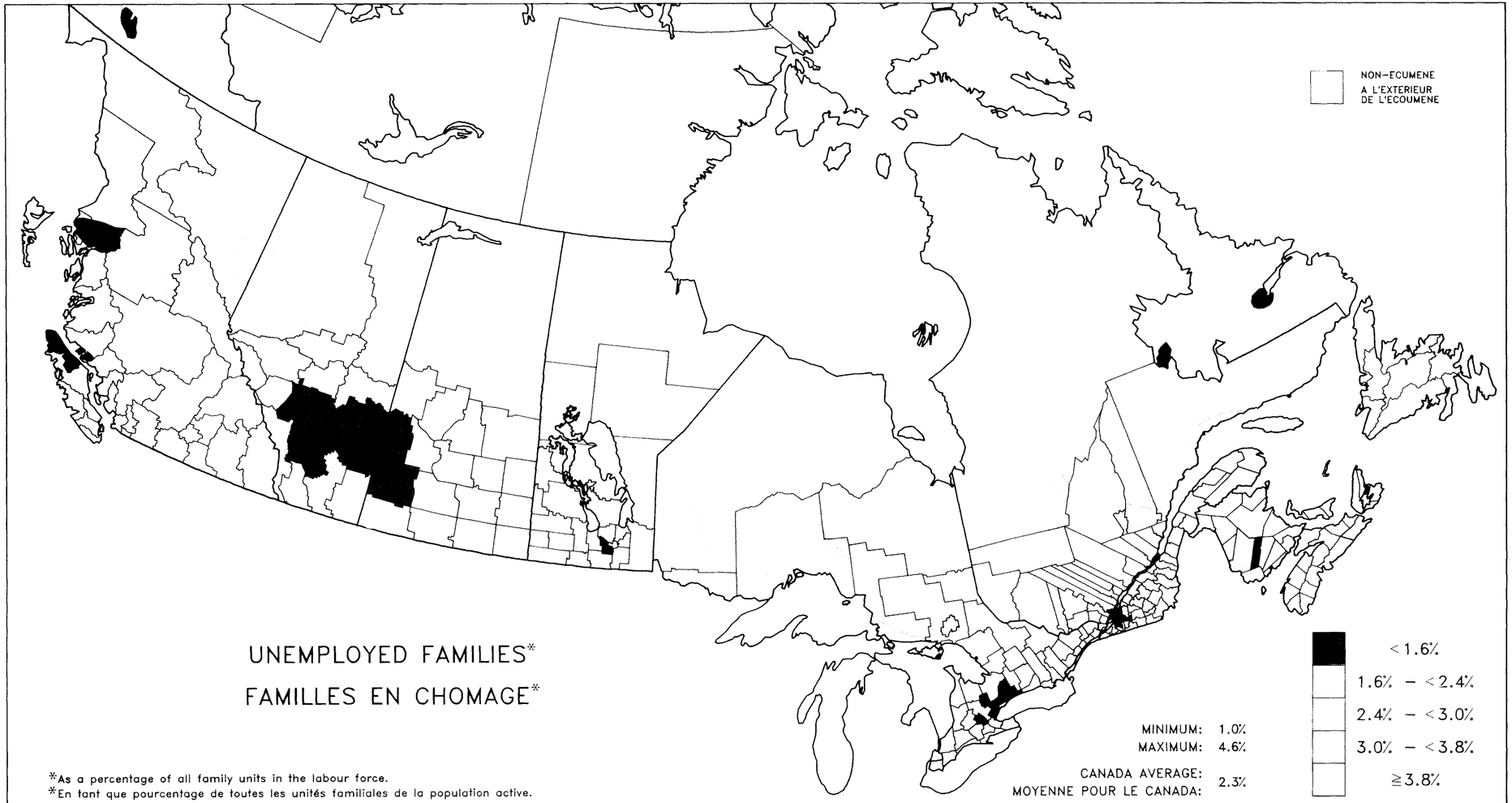
	CONTENT			REMARKS
	Simplicity	Relevance	Validity	
General Comments				- colour of ecumene too dark - inset highly desirable - colour too bright - may include place names for easier orientation and reference - difficulty in justifying and interpreting odd number of class intervals - fold-out not convenient
In-migrants	S	A	N	- must be examined in conjunction with total migration; may lead to erroneous interpretation
Unemployed Families	S	E	S	- may overlook other types of family units leading to erroneous interpretation
Two-Job Families	S	E	S	- may overlook other types of family units leading to erroneous interpretation
Female Participation Rate	E	E	E	- selection of class interval of medium-range colour
UIC Payments	E	E	A	- why six class intervals? - too much missing data - affected by taxfiling rate
Employed Labour Force with Secondary Education	A	A	A	- difficult to interpret
Income per Capita	E	E	A	- assumption of uniformity in reporting and enumeration of aggregate income no valid; e.g. the taxfiling rates for 1978 range from 85.1% in Manitoba to 72.2% in Prince Edward Island - not all money income are reported

Industrial Adjustment	S	E	E	- should relate to other factors such as
				  - population size
				  - function
				  - specialization
				  - length of development
				- formula not clearly documented



SOURCE: 1976 CENSUS OF CANADA.
PRODUCED FOR DEPARTMENT OF REGIONAL ECONOMIC EXPANSION BY THE GEOCARTOGRAPHICS GROUP, STATISTICS CANADA, 1980.

SOURCE: RECENSEMENT DU CANADA DE 1976.
ETABLIE POUR LE MINISTERE DE L'EXPANSION ECONOMIQUE REGIONALE PAR LE GROUPE DE GEOCARTOGRAPHIE, STATISTIQUE CANADA, 1980.



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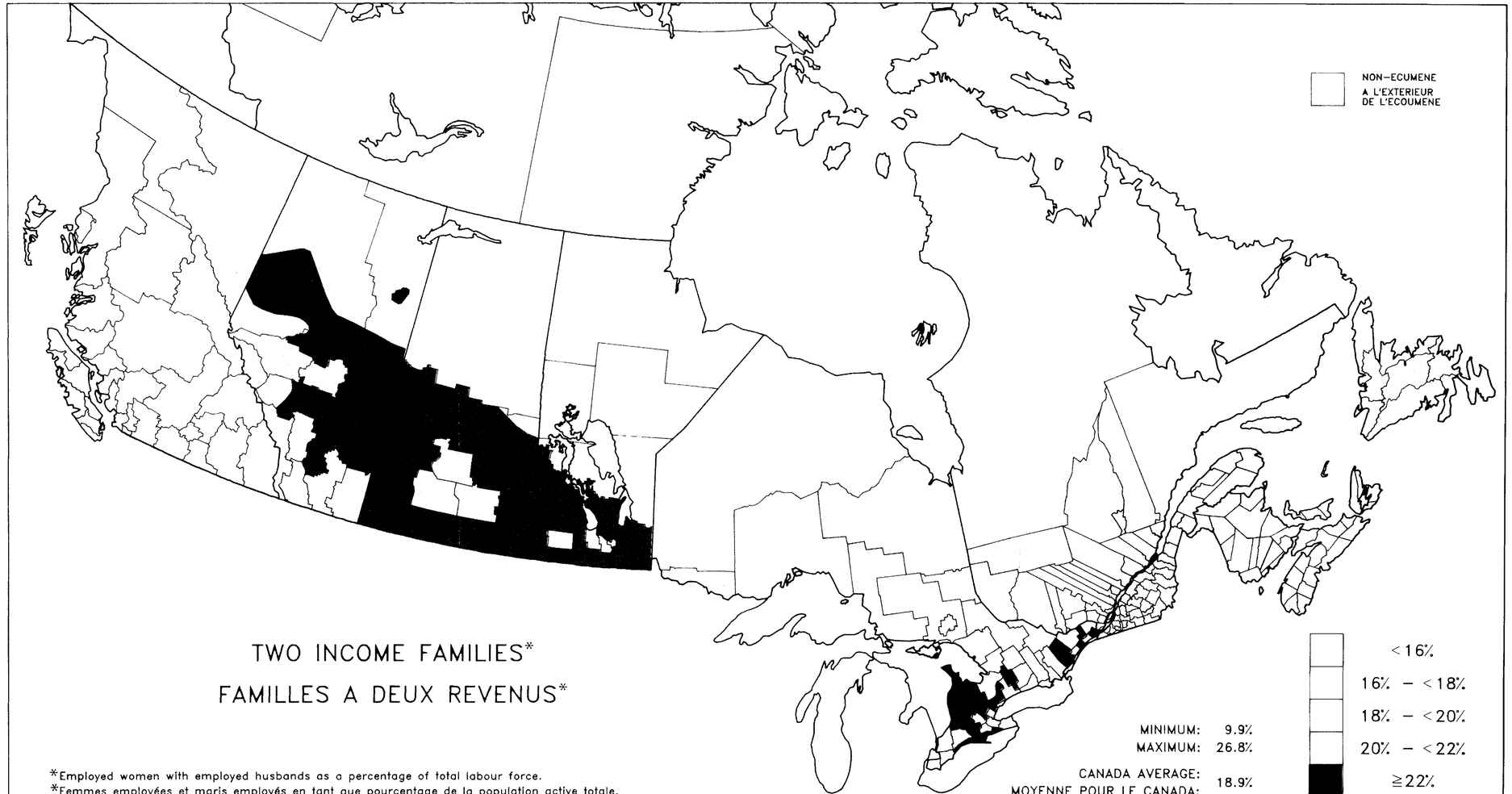

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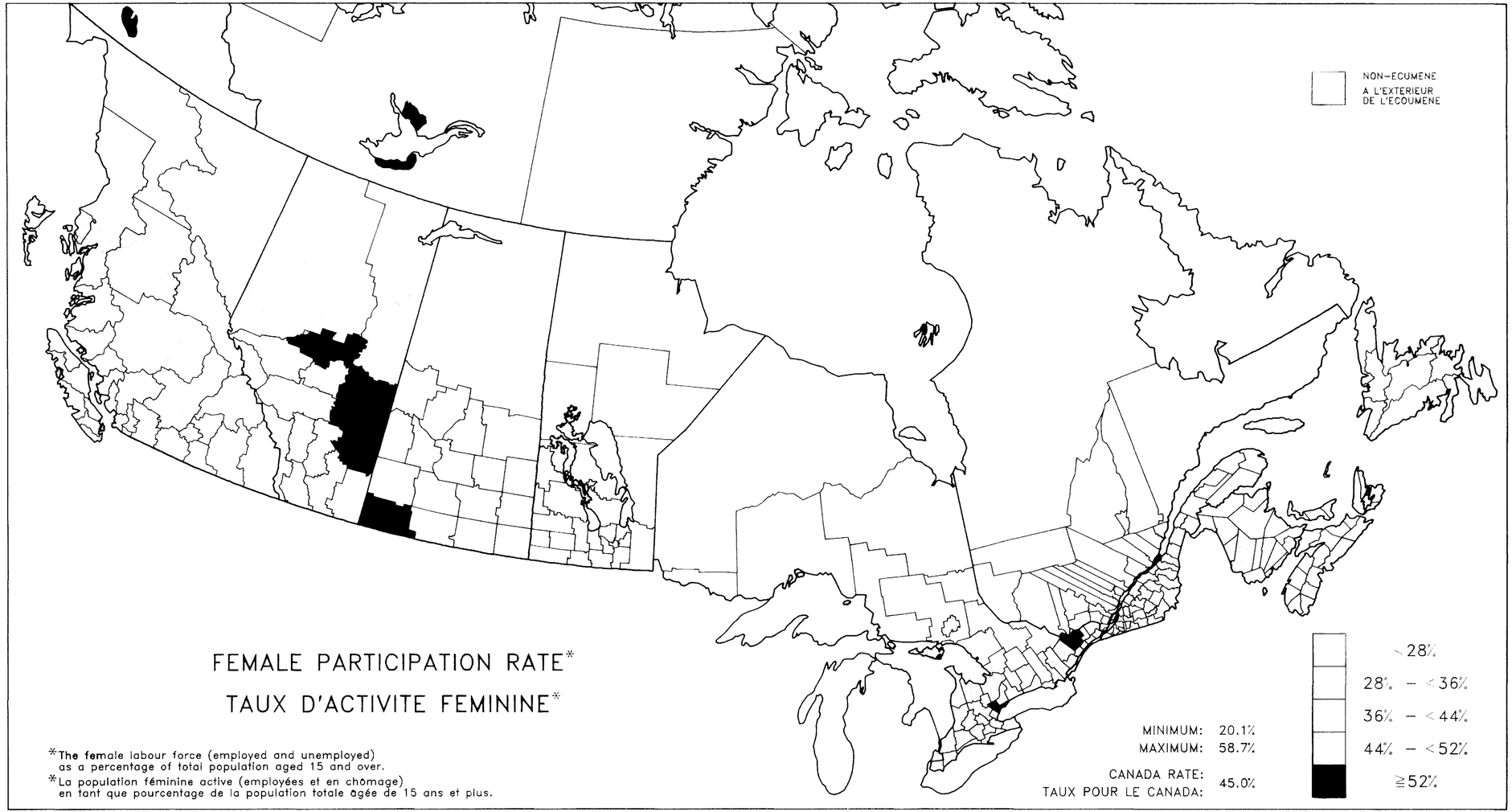

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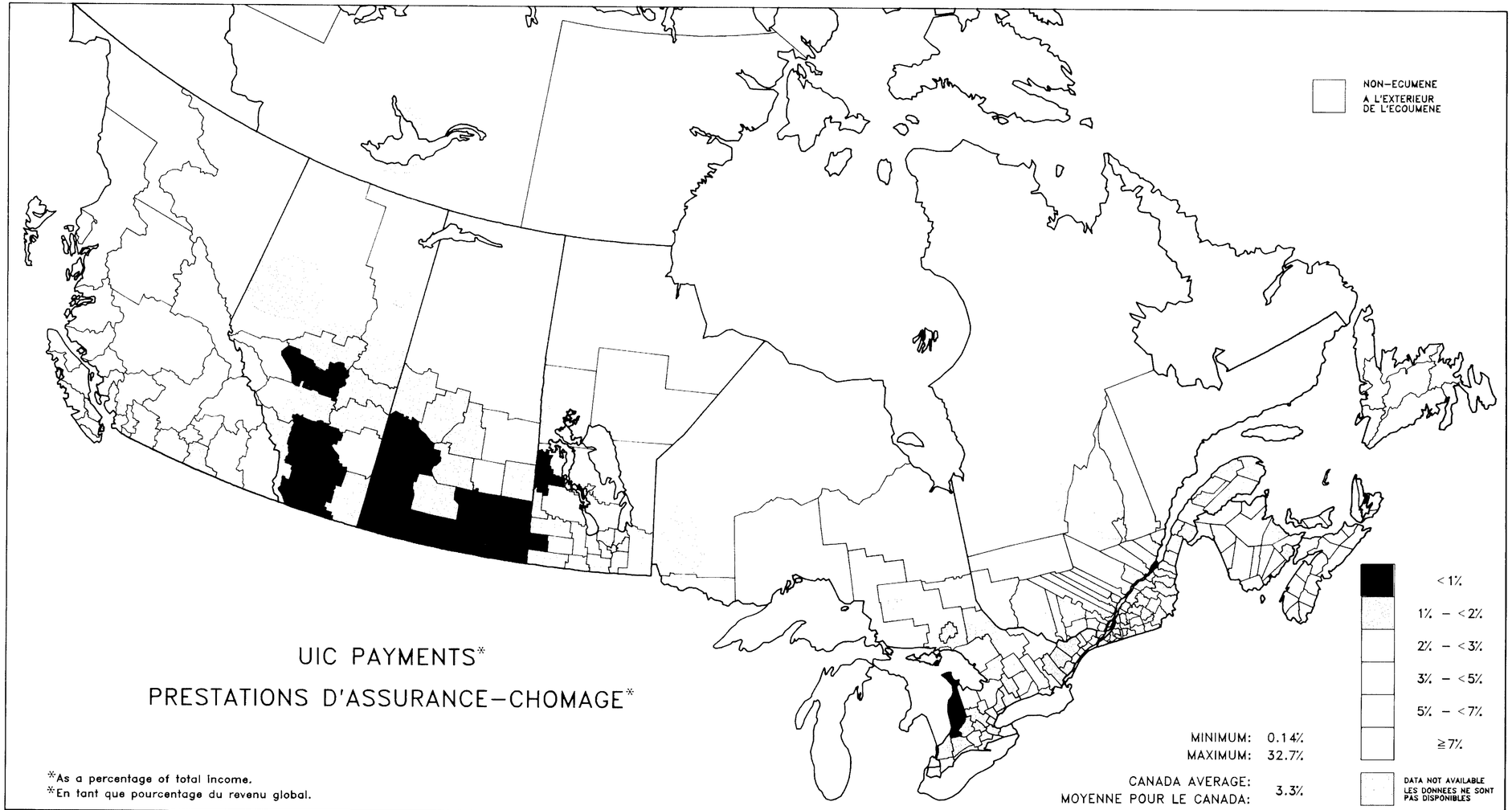

UIC PAYMENTS*

PRESTATIONS D'ASSURANCE–CHOMAGE*

*As a percentage of total income.
*En tant que pourcentage du revenu global.

SOURCE: REVENUE CANADA TAXATION, 1976.
PRODUCED FOR DEPARTMENT OF REGIONAL ECONOMIC EXPANSION
BY THE GEOCARTOGRAPHICS GROUP, STATISTICS CANADA, 1980.

SOURCE: REVENU CANADA IMPOT, 1976.
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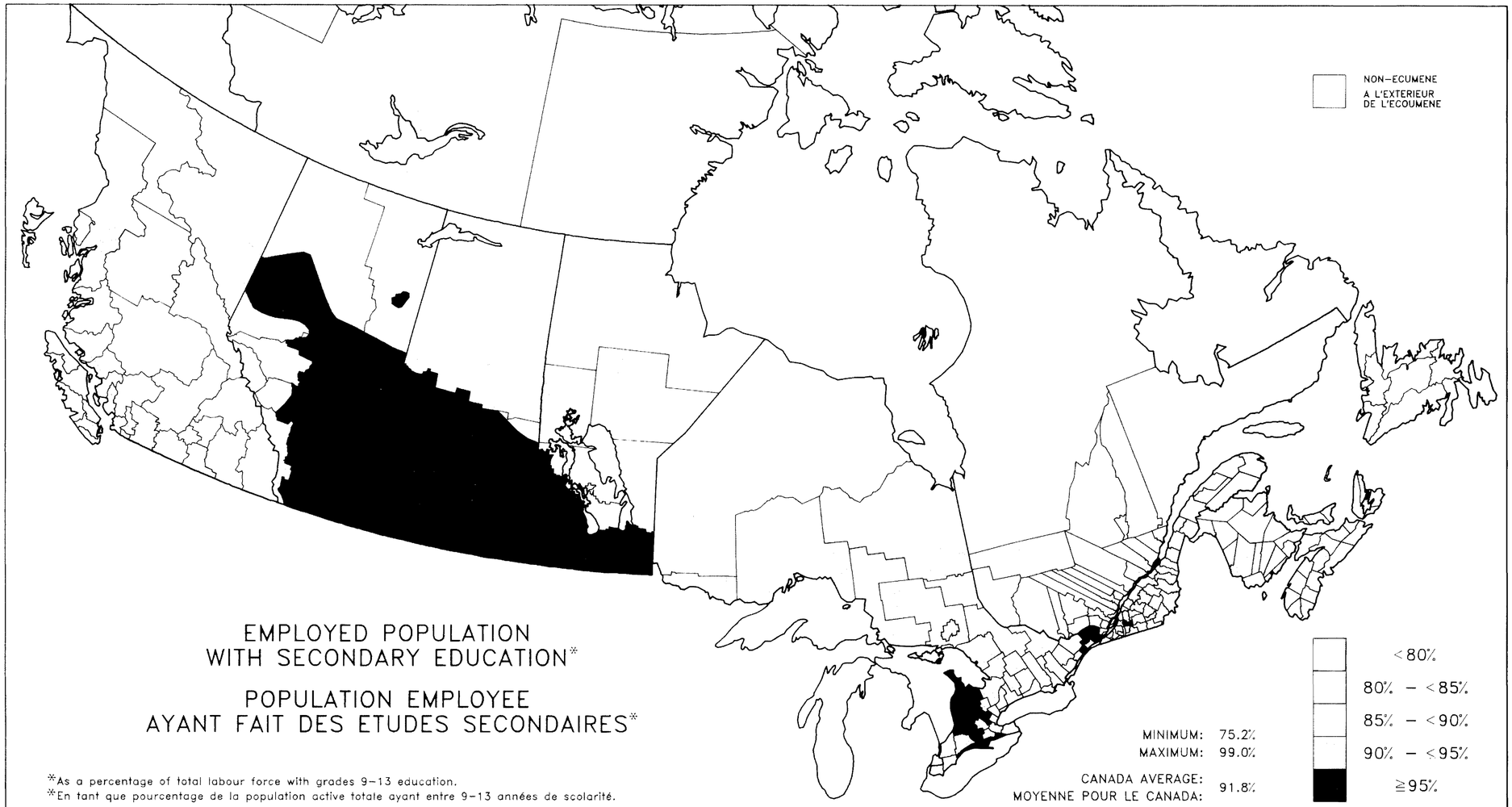

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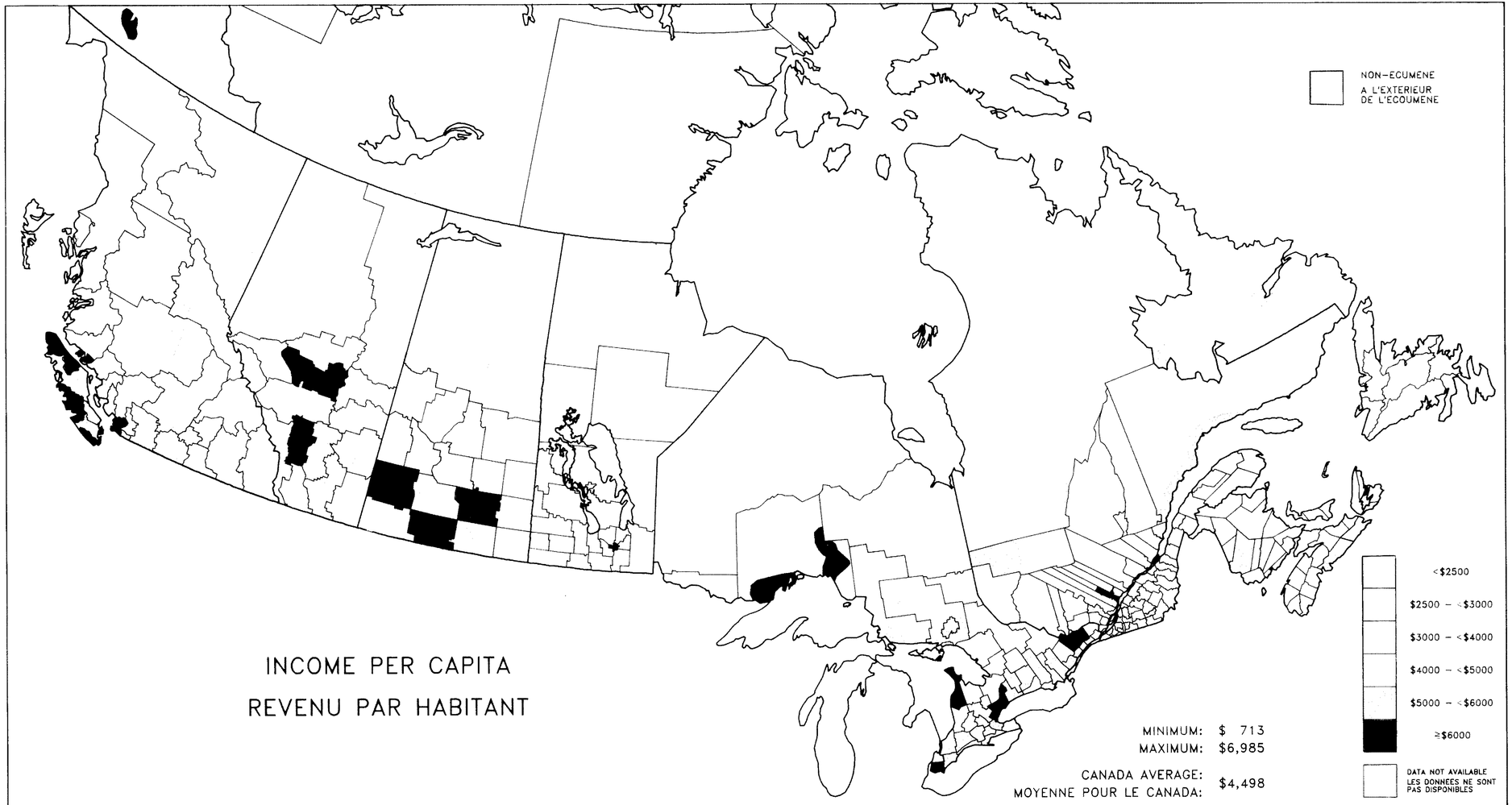

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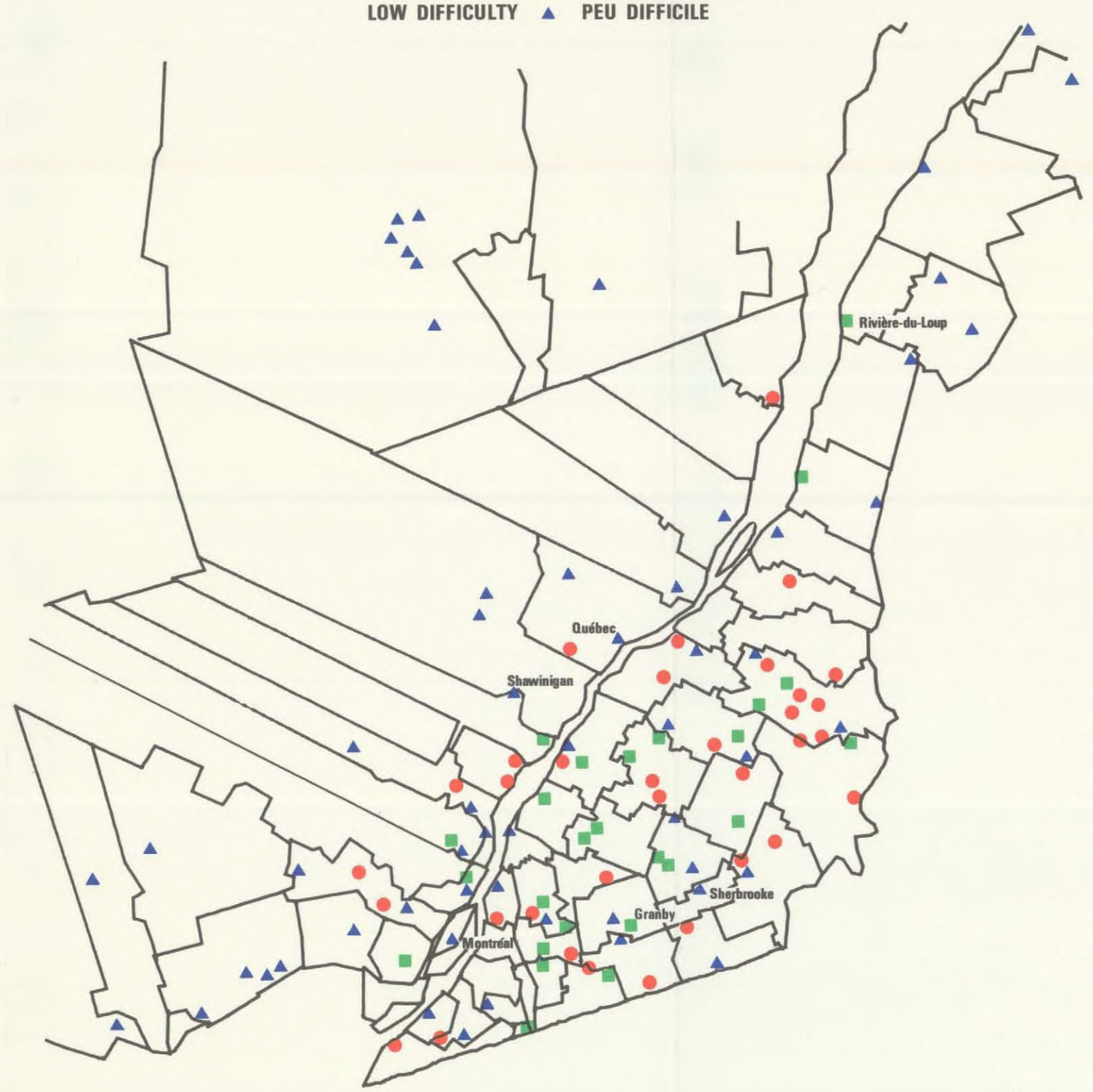
INDUSTRIAL ADJUSTMENT BY COMMUNITY IN CENTRAL QUEBEC
ADAPTATION INDUSTRIELLE PAR COLLECTIVITÉ AU QUÉBEC CENTRAL

LEGEND		LÉGENDE
DEGREE OF DIFFICULTY IN INDUSTRIAL ADJUSTMENT *		DEGRÉ DE DIFFICULTÉ DE L'ADAPTATION INDUSTRIELLE *
HIGH DIFFICULTY	●	TRÈS DIFFICILE
MEDIUM DIFFICULTY	■	MOYENNEMENT DIFFICILE
LOW DIFFICULTY	▲	PEU DIFFICILE



* Ratio between upside and downside industries to total employment in all industries; ratio ranges from +1 to –1.
Source: Unpublished paper "An analytical and policy framework for industrial adjustment in Central Canada" Policy Analysis Division, December 1979

* Le ratio des industries en expansion et de celles en régression, par rapport au total de l'emploi dans toutes les industries, varie entre +1 et –1.
Source : Document inédit : "An analytical and policy framework for industrial adjustment in Central Canada", Division de l'analyse des politiques, décembre 1979.

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Canada. Regional Economic
Draft proposal for
regional development atla
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