Appendix 6

Notes from a Presentation to Panel of Experts by Dr. Byron Spencer, McMaster University

on the POPulation Projection System (POPPS)

An Appendix to
LONG TERM POPULATION PROJECTIONS FOR
NEWFOUNDLAND AND LABRADOR:
A Consultative Approach
DRAFT #2 — Final Report

A Joint Project Between
Economics and Statistics Branch, Department of Finance
and
Planning and Coordination Division, Atlantic Canada Opportunities Agency
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Presentation to Panel of Experts

Dr. Byron Spencer presented on the POPPS model, a population projection and simulation program. The following points were made.

- The model simulates population change and labour market for regions.
- It also determines program expenditure implications.
- It is organized by various geographical boundaries including the Regional Economic Development Zones, health board regions, school board regions, census divisions and the province overall.
- Interval reporting can be chosen in the model by age groups and gender.
- The model can show the results in population pyramids.
- Dependency ratio tables, labour force participation rates are incorporated into the model.
- Labour force data at the regional level are based on tax filer data.
- There are default assumptions such as the fertility rate by Statistics Canada in 1997 in the model but these can be changed.
- Changes can be made on all assumptions such as mortality, migration, population adjustments, projected participation rates, and expenditure projections.
- Pyramids show that there was less of a boom showing in 1996 than in Canada but with the loss of youth by 2011 the boomers begin to be more prominent again.
- By 2026, the base of the pyramid becomes even narrower and takes on a spin top look.
- The baseline assumptions made for the model include the highest ratio of population to labour force, continued low fertility, continued out-migration.
- Based on these assumptions, POPPS shows a substantial decrease in population with a very large decrease in youth and a huge increase in the elderly.
- There is much more rapid aging in Newfoundland than Canada.
- A monthly and yearly basis was used for labour market participation rates.
- International migration in Newfoundland is very low; in 1999 the province had 0.22% of the country's in-migration.
- Almost all population flows are inter-provincial.
- There has been a long history of out-migration in the province and after a decade (2000 to 2010) of inflows and outflows, net migration goes to zero in the model by 2011.
- POPPS accounts for different migration rates by age group.

Discussion

- Statistics Canada is now using child benefit data to track migration.
- It appears that many families left in the late 1990s but it is expected that there will be a greater proportion of singles leaving in the future.
- Many young people are leaving the province, as they cannot enter the fishery since rehiring is being done on the basis of seniority and all older workers are being rehired in fish plants.
- Age specific in and out flows are required to compute population scenarios, out-migration can be calculated better than in-migration.
- Age cohort information is important in developing scenarios.
- There is a great deal of uncertainty about migration flows as they are unpredictable.
- Migration is the one that we know the least about but it is becoming more and more important.
- The planning process requires more attention paid to the uncertainties.
- Planning needs to be more robust rather than less so.
- Planning should be on-going for infrastructure with new infrastructure possibly designed to have greater mobility and flexibility.
- It appears older seniors move to become closer to services such as health care and seniors homes.
- Questions include: Who bears the cost where migrants go? Should Newfoundland bear the cost of demographic change?
- Providing high, medium and low best way to plan.
- All scenarios lead in the same direction, urbanization and intra-provincial migration.