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Power of Linked Administrative Data

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Introduction

Linking administrative data provides valuable information about individuals using government services and can be very useful for policy-makers in improving and developing services and policies. The Child and Youth Data Laboratory (CYDL) links and analyses administrative data from Alberta Government ministries to provide evidence for policy and program development.

Objectives and Approach

Data from 20 programs of six Government of Alberta ministries (Advanced Education, Education, Health, Children's Services, Community and Social Services, and Justice and Solicitor General) were linked anonymously. The data spans six years from 2005/06 to 2010/11 and consists of almost 50 million records corresponding to over 2 million unique Albertans aged 0 to 25 years. A data visualization tool called the Program Overlap Matrix summarises the overlap rates among the programs. It is comprised of a matrix of squares, where each cell represents the overlap between two programs.

Results

The Program Overlap Matrix is publically available at <https://visualization.policywise.com/P2matrix/>. It consists of overlap rates between programs in any study year (2005/06 to 2010/11), individual years, the first year vs. future years, and the last year vs. previous years which can be used to answer many policy-related questions such as: other service use (e.g., what other services do ESL students use?), over-represented programs (e.g., in what programs are Child Care Subsidy clients over-represented?), resilience (e.g., what is the proportion of Child Intervention clients in post-secondary institutions?), transitions (e.g., what types of services do students with special needs receive as they transition to adulthood?), and time trend (e.g., what types of services did Income Support clients receive in the past?)

Conclusion/Implications

The program overlap matrix is a powerful tool to discover relationships between programs. It is a useful instrument to inform public and policy-makers about the overlap rates between government programs. It can be used to answer a variety of policy-related questions.

