

The University of Melbourne Careers Talk

Dr. Xiaogang Chen

Centre for Human Services, Research and Evaluation

Department of Human Services

My Qualifications

- Bachelor of Science in Geography, Zhejiang University, China
- Master of Science in GIS (Geographic Information System) and Mapping, Changchun Institute of Geography, Chinese Academy of Sciences, China
- Postgraduate Diploma in Geo-information Production, International Institute for Aerospace Survey and Earth Science (ITC), The Netherlands
- Doctor of Philosophy in Geomatics, The University of Melbourne (2003-2006)

My Career Profiles – In Overseas

I have held various positions in academics, governments, industries and international organisations in either overseas or Australia.

- Research Assistant/Fellow at the Institute of Geography, Chinese Academy of Sciences, China
- Senior Land Surveyor at Rolong Land Baord, Ministry of Local Government, Lands and Housing, Botswana
- Senior Research Fellow at the Institute of Geography, Chinese Academy of Sciences, China
- Project Consultant for UNDP, UNICEF, WFP (UN, China)

My Career Profiles – In Australia

- Visiting Fellow at the Department of Geomatics, The University of Melbourne (2001-2002)
- PhD Candidate at the Dept. of Geomatics (2003-2006)
- Data and Knowledge Analyst at Spatial Sciences, Primary Industries Research, Victoria (Feb 2006 – Aug 2006)
- Research Fellow at the School of Population Health, the University of Melbourne (Dec 2006 – Oct 2008)
- Senior Data Analyst at DHS (Oct 2008 – current)
 - 1) Disability Services Division
 - 2) Industry, Workforce and Strategy Division
 - 3) Centre for Human Services, Research and Evaluation

What we do - DHS

DHS is a government service organisation, funding and delivering high quality community and housing services to support and protect Victorians most in need.

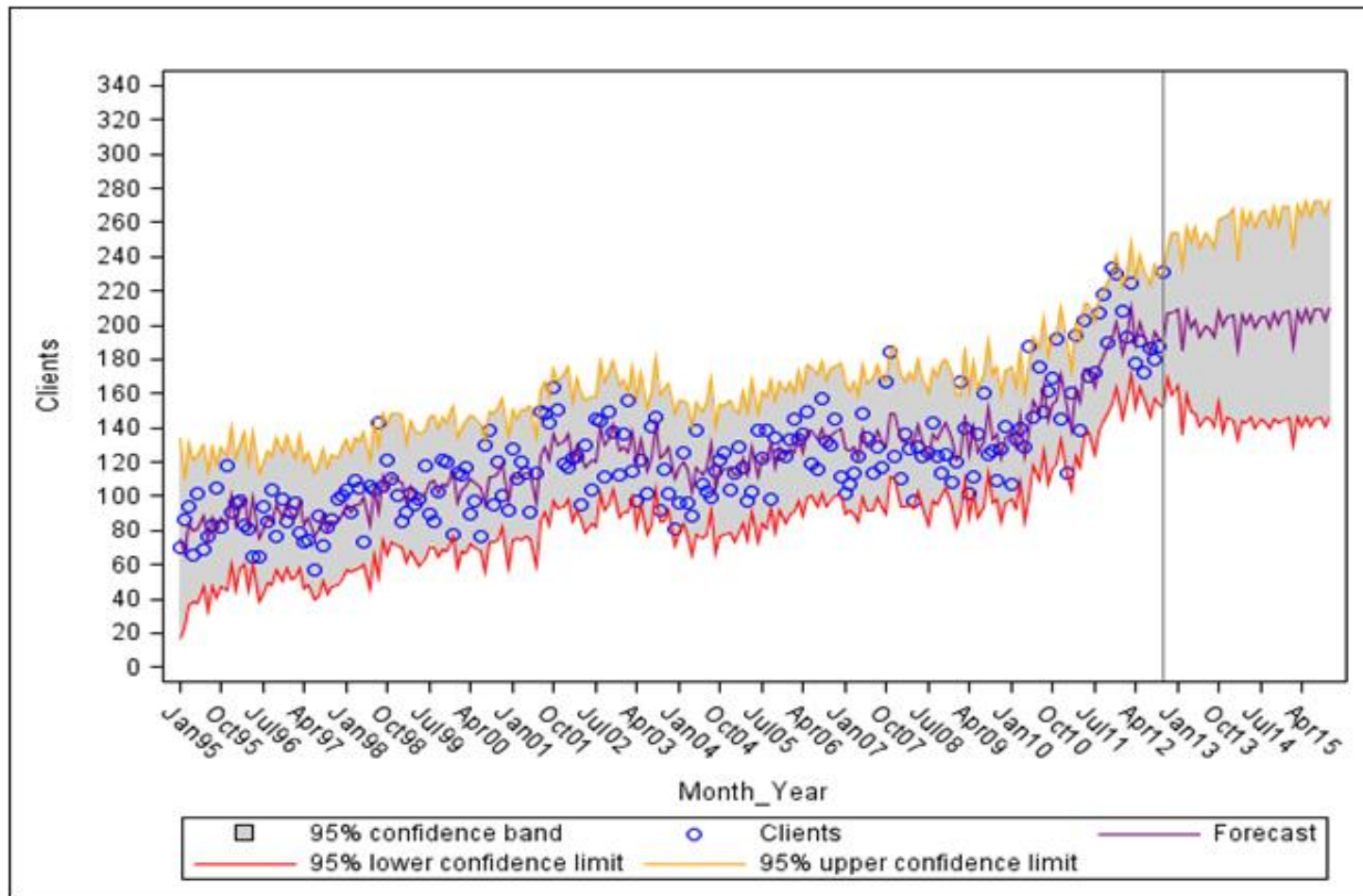
- Supporting Victorians living with disabilities
- Protecting vulnerable children
- Assisting young people entering or leaving the youth justice system
- Providing more and better public and social housing
- Improving the range of affordable housing options
- Reducing homelessness

What we do – Modelling and Forecasting Unit, Centre for Human Services, Research and Evaluation

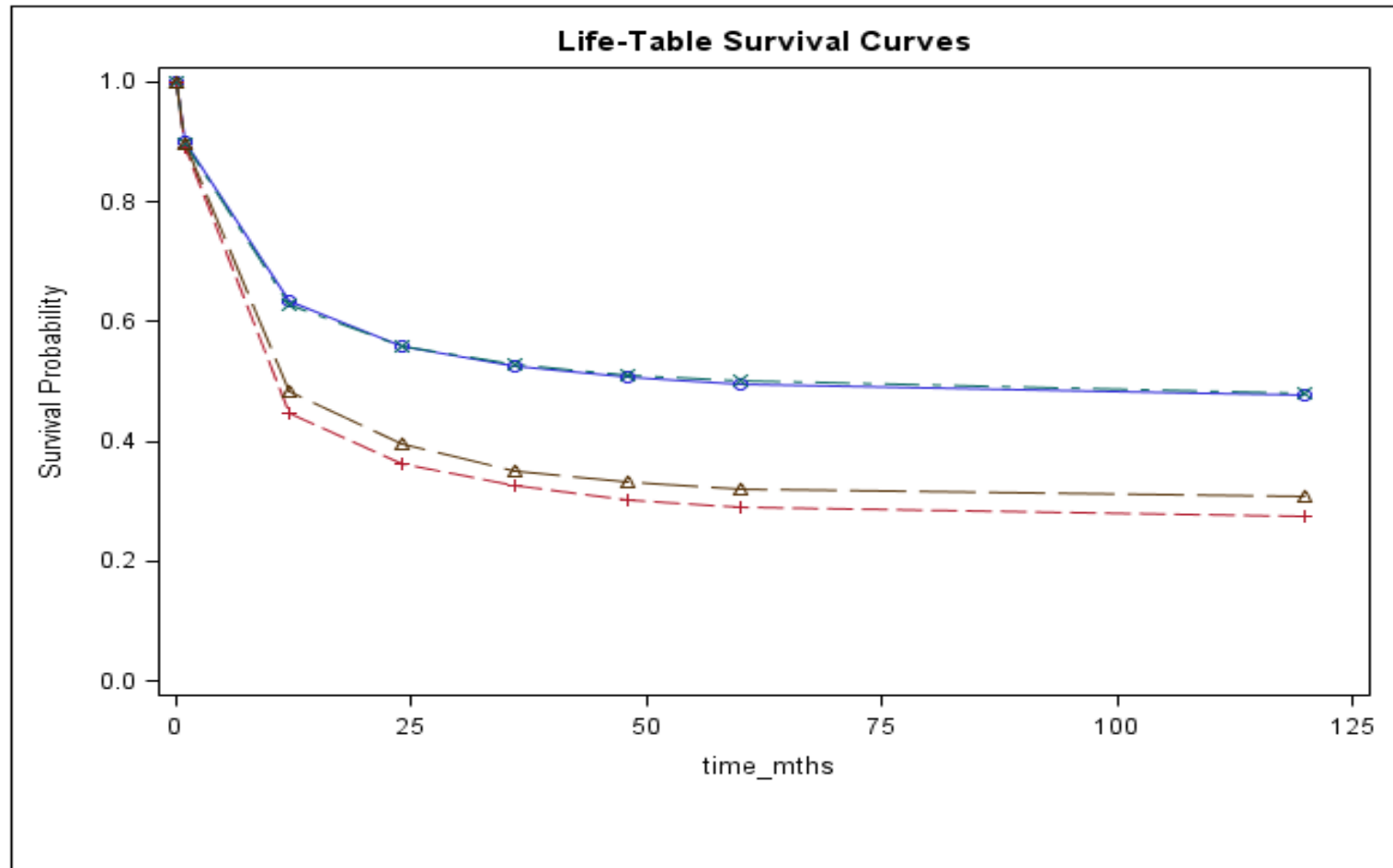
Key Functions and Activities

- Modelling socio-economic events and trends to assess their impact on the human services system
- Undertaking forecasting for human services delivery to inform strategic planning and decision making
- Conducting GIS analysis and spatial mapping to inform location-based service planning and policy development
- Providing advice and assistance to policy and program development activities for decision-making

Time Series Forecasting Project

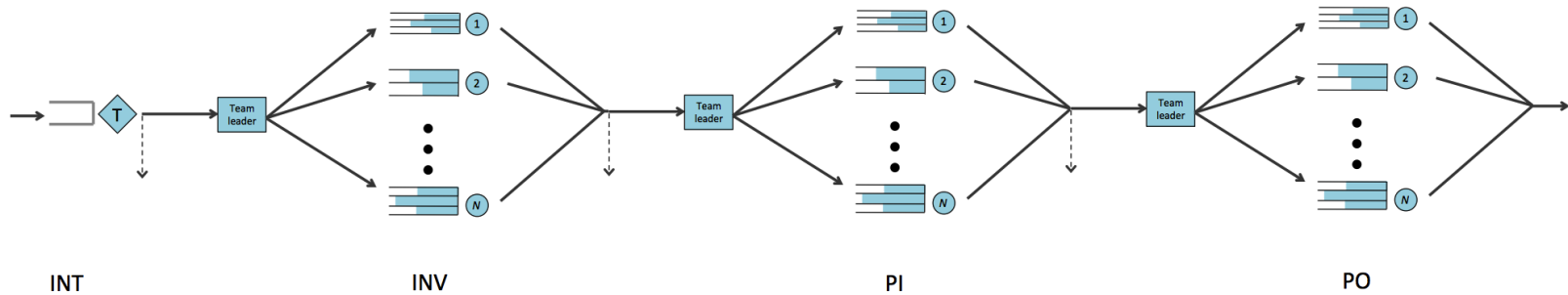


Survival Analysis of Repeat Clients



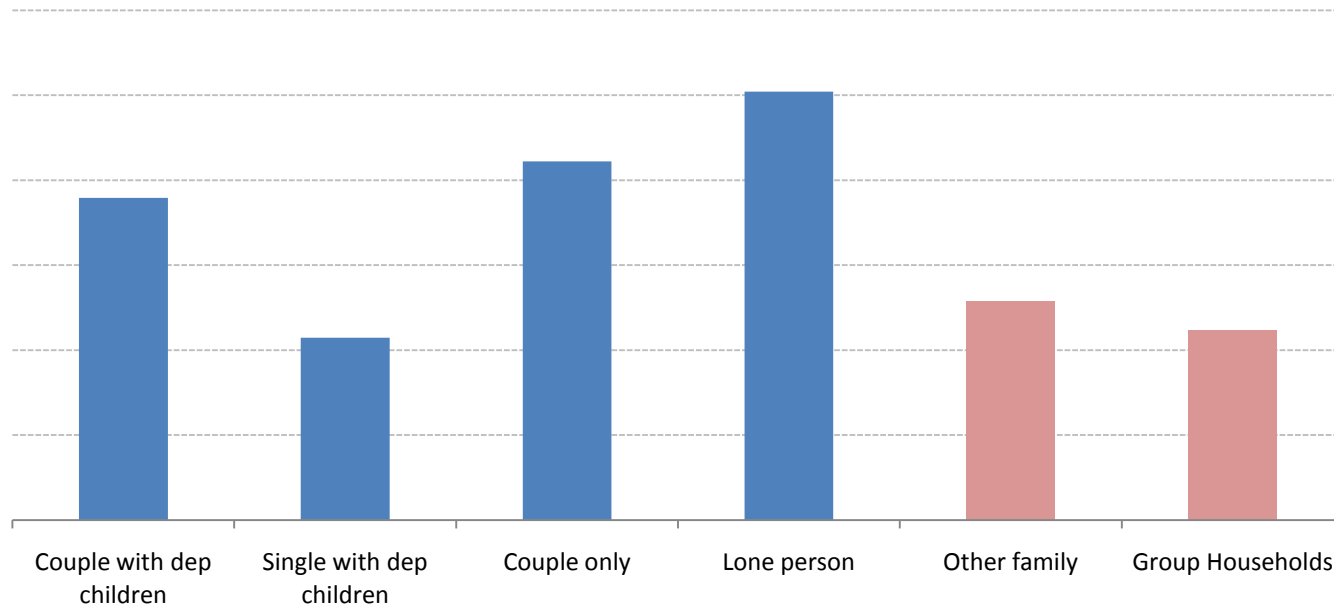
Queueing Model

A joint project between DHS and Stats Department to develop a queueing model for capacity planning of human services



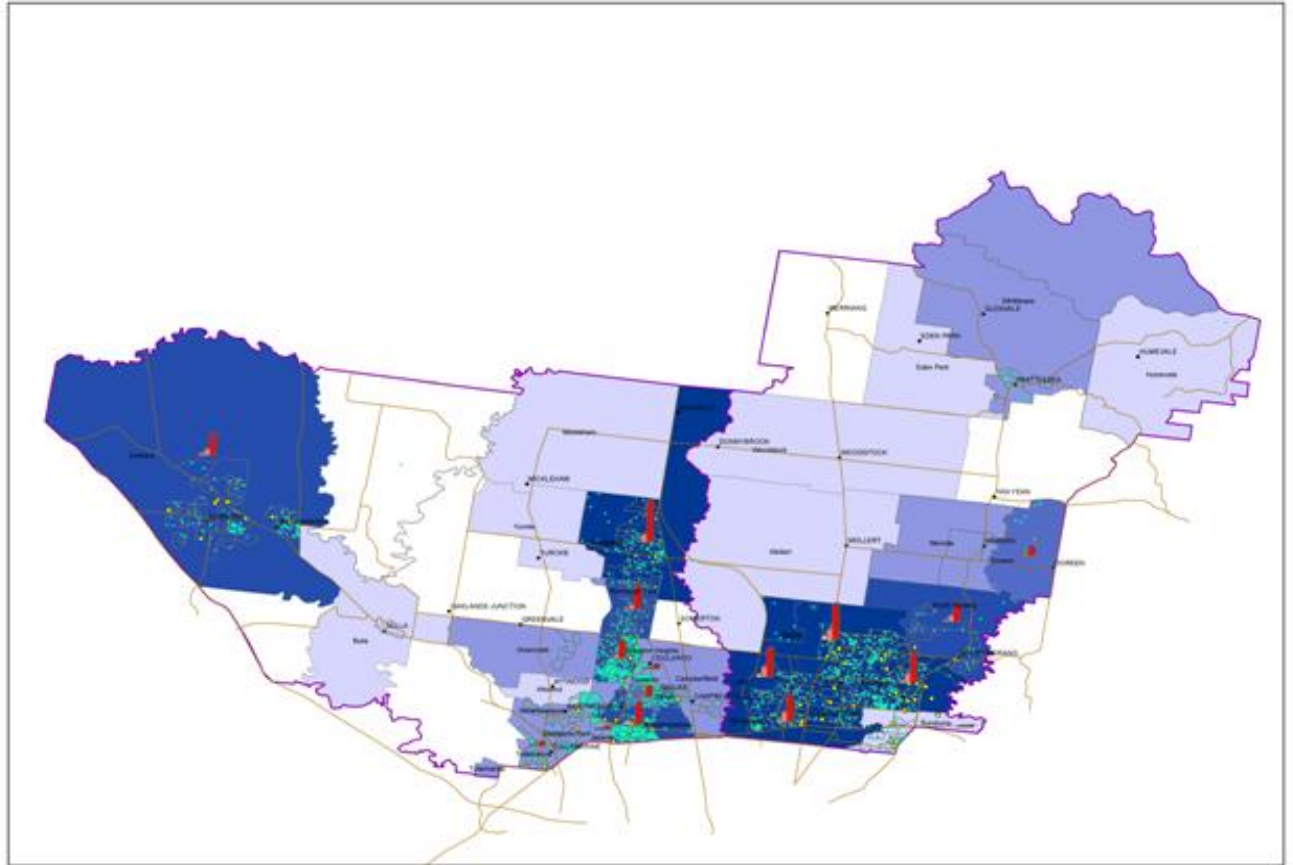
Social Housing Demand Project

- To provide an analysis of unmet social housing demand by various household types by LGA, current and projected



Location-based Service Demand Project

- To identify service gap in Victorian Growth Area to plan and improve future services, based on population growth forecasting



What professional attributes required

Desirable/Mandatory Qualifications

- A post-graduate qualification in Math/Statistics
- Demonstrated working knowledge of SAS, SAS macros, SAS/STAT
- Proficiency in R

Knowledge and Skills

- Presentation Skills - deliver logical, sequential and succinct presentations
- Verbal Communication - conveys ideas in a clear and interesting way

Personal Qualities

- Conceptual and analytical ability - uses analytical and conceptual skills to reason through problems
- Customer Focus - committed to delivering high quality outcomes for clients

What maths/statistics grads can contribute

- Data processing, analysis and reporting - required
- Modelling and forecasting – highly demanded
 - Survival analysis – workforce development strategy
 - Time series analysis – service demand forecasting
 - Queueing model construction to predict service waiting times and lengths, informing resource relocation
 - Spatial regression and spatial auto-correlation for hot spot identification and analysis

Partnerships

- The Centre for Human Services Research and Evaluation will lead the development of the department's evidence base through research and evaluation activities and by undertaking forecasting and modelling in relation to the delivery of human services.
- The Analysis and Partnerships Unit of the Centre will build and manage relationships with knowledge-producing institutions including universities and think tanks, etc.
- Various models of innovation partnership with universities will be built up to drive evidence-based policy and service delivery aligned to DHS strategic objectives.

Contact Detail

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