

# **3rd SOCIAL SERVICE RESEARCH NETWORK (SSRN) “Transforming Research into Solutions”**

**Tuesday, 16 February 2016  
Lecture Theatre, Level 2  
Lifelong Learning Institute**

# Getting Insights from Data

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Chairman

SAS User Group

&

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Operations Director

SAS User Group



SAS USER GROUP

# HOW TO USE DATA EFFECTIVELY

ERIC SANDOSHAM & TAN POH CHOO  
SAS USER GROUP 2016



THE POWER TO KNOW.

## SAS USER GROUP WHO WE ARE



- SAS User Group (Singapore) is an independent, volunteer organization run by SAS users
- It provides a platform for users to meet, share knowledge and experience, and learn more about SAS solutions from colleagues, peers and professionals



# Don't focus on the data!

*Always start with the problem.*



**What**

*What am I observing?*

- Symptoms vs Cause
- Financial impact
- Biz criticality

Framing &  
Problem  
Deconstruction

**Why**

*Why is this happening?*

- Hypotheses (cause & correlation)
- Structured Q&A
- Key (actionable) insights

**How**

*How can I take action?*

- Creativity & Modeling
- Customer experience
- Simulate P&L

# Recognise the problem.

*Apply the right technique!*



## Deviation Problems

### Monitor

- Quality Control Sampling
- Regression Trending

## Anticipation Problems

### Predict

- Forecasting
- Correlating

## Allocation Problems

### Assign

- Matching
- Scheduling
- Queuing
- Routing

# The team's the key!

## *Secret sauce in Analytics powerhouse*



### *Business- Embedded Function*

*Focus on  
Innovation*



*Authority &  
Accountability*

### *Strong P&L Foundation*



# LEVERAGING ANALYTICS IN SOCIAL SERVICES

TAN POH CHOO







1

We can identify shelters with the most critical health risks

We can uncover shelters experiencing a dangerous mix of overcrowding, unsafe drinking water and solid waste disposal problems



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**O'Joy Care Services**

"Bringing oceans of love to those we serve"

Home | Yolanda Script | Log Off

File Insert View Help

Objects Data \* Yolanda Script Introduction Family Housing Current Status

Tree Map of IDP Families and Persons - Cumulative

Total IDP Family and Persons per Municipality

Municipality STD

BOGO CITY, SARA, MEDELIN, DAB... SIGMA, BAYB... ANIAG...  
SAGAY CITY, SEBALOM, GUILUAN, JASO, DUM...  
ORMOC CITY, CARLES, ALIUY, MARAYOR, DUMNGAS, BATA...  
CADIZ CITY, PASS CITY, PALO, DULAG, BANTAN, BATO, SUBAN...  
TACLOBAN CITY (CAPITAL), BANTAYAN, ALANGALANG, CORON, BALELE, TIBAG, ALFAS...  
ROXAS CITY (CAPITAL), IDAJAY, CALINOG, DUMPO... ESTINCA, BARDAL...  
SAPLAN, BORRON

Properties \* Roles Styl... Dis... Inte... Fil...  
Tree Map of IDP Families and Persons - Cumulative  
Name: Tree Map of IDP Families and Persons - Cumulative  
Title: Total IDP Family and Persons per Municipality  
Format: Arial 16  
Description:  
Tree map:  
 Show data  
 Show legend  
Placement:

**1** Typhoon Haiyan

- PEOPLE
- FAMILIES
- HOUSING

Yolanda Script Introduction Family Housing \* Current Status Log Off

Pie Chart of Total House Damaged

Total House Damaged per Region

Total Number of House Totally and Partially Damaged per Municipality

Cumulative Numbers of Evacuation Centers and IDP for Families and Persons inside and outside Evacuation Centers

Municipality STD	Evacuation Co...	IDP Families in...	IDP Persons in...	IDP Families ou...
AGUTAYA	14	1625	7475	
ARACELI	27	573	2511	101
BUSUANGA	36	828	2578	3359
CAGYANCILLO	2	10	41	0
CORON	23	1244	6093	7081
CULION	40	702	2608	2298
CUYO	9	389	1708	618

Province Standard

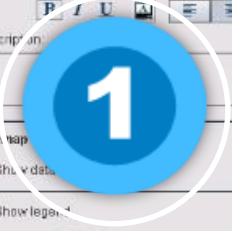
- MARINDUQUE
- PALAWAN
- OCCIDENTAL MINDORO
- ROMBLON
- ORIENTAL MINDORO

Properties \* Roles Styl... Dis... Inte... Fil...  
Pie Chart of Total House Damaged  
Name: Pie Chart of Total House Damaged  
Title: Total House Damaged per Region  
Format: Arial 16  
Description:  
Pie:  
Data labels:  
 Show category labels  
 Show actual values  
 Show values as percentage of total  
Grouping style: Stack  
 Create "Other" slice for minimal values  
Minimum percentage for "Other": 4  
 Show legend  
Placement:



USER GROUP

Typhoon Haiyan



- PEOPLE
- FAMILIES
- HOUSING



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We can secure materials more quickly and put roofs over 63,000 families to create a level of stability and protection, in anticipation of next monsoon season



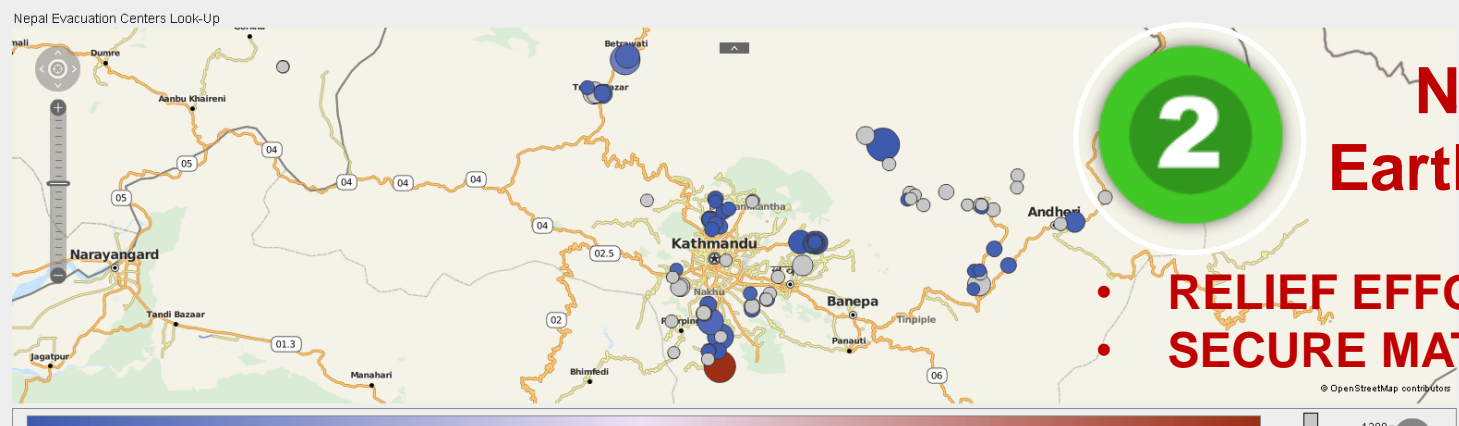
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\_District  Waste\_Garbage\_Being\_Collect  Shelter\_Site\_Crowded\_1Low  Security\_Provided\_At\_Site  Waste\_Garbage\_Being\_Collect  \_Survey\_Round



# Nepal Earthquake

- RELIEF EFFORTS
- SECURE MATERIALS

Site Name	District	Survey
Aamchaur	Sindhupalchok	Round 1 -
Gumba Danda	Sindhupalchok	Round 1 -
Melamchi Bazar	Sindhupalchok	Round 1 -
Pipaldanda	Sindhupalchok	Round 1 -
sangachok, bhanjhyang	Sindhupalchok	Round 1 -
Sangbote	Sindhupalchok	Round 1 -

File Help Sign Out

Select Reporter:  Select Year(s):

2012 2013

[More Info](#)

Select 2 Digit Code/s

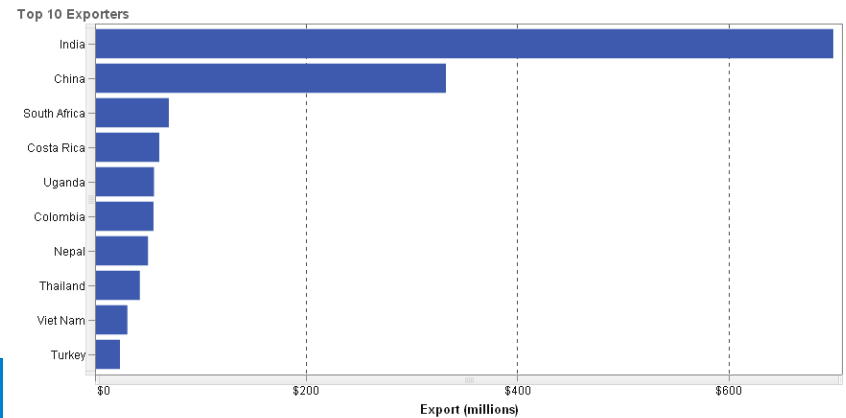
- 71-Pearls, precious stones, metals, coins, et
- 72-Iron and steel
- 73-Articles of iron or steel
- 74-Copper and articles thereof
- 75-Nickel and articles thereof
- 76-Aluminium and articles thereof

Select 4 Digit Code/s

- 7206-Iron and non-alloy steel in primary form
- 7207-Semi-finished products of iron or non-al
- 7208-Hot-rolled products, iron/steel, width>6
- 7209-Flat-rolled iron/steel, >600mm, not clad
- 7210-Flat-rolled iron/steel, >600mm, clad, pl
- 7211-Flat-rolled iron/steel, <600mm, not clad

Select 6 Digit Code/s

- 721011-Flat rolled iron or non-alloy steel, c
- 721012-Flat rolled iron or non-alloy steel, c
- 721020-Flat rolled iron or non-alloy steel, c
- 721030-Flat rd prod electr zinc
- 721041-Flat rolled iron or non-alloy steel, c
- 721049-Flat rolled iron or non-alloy steel, c



Partners	Export
Total	\$1,622,974,309
Zimbabwe	\$1,471,025
Zambia	\$9,901,179
Yemen	\$1,225,056
Wallis and Futuna	\$85,540
Virgin Islands, British	\$236,720
Viet Nam	\$4,853,537
Venezuela, Bolivarian Republic of	\$28,591,343
Vanuatu	\$7,298
Uzbekistan	\$54,878
Uruguay	\$3,345,212
United States	\$2,834,086
United Kingdom	\$2,932,351
United Arab Emirates	\$182,632,001



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We are able to identify who are most at risk (delinquency, committing crimes, etc.)

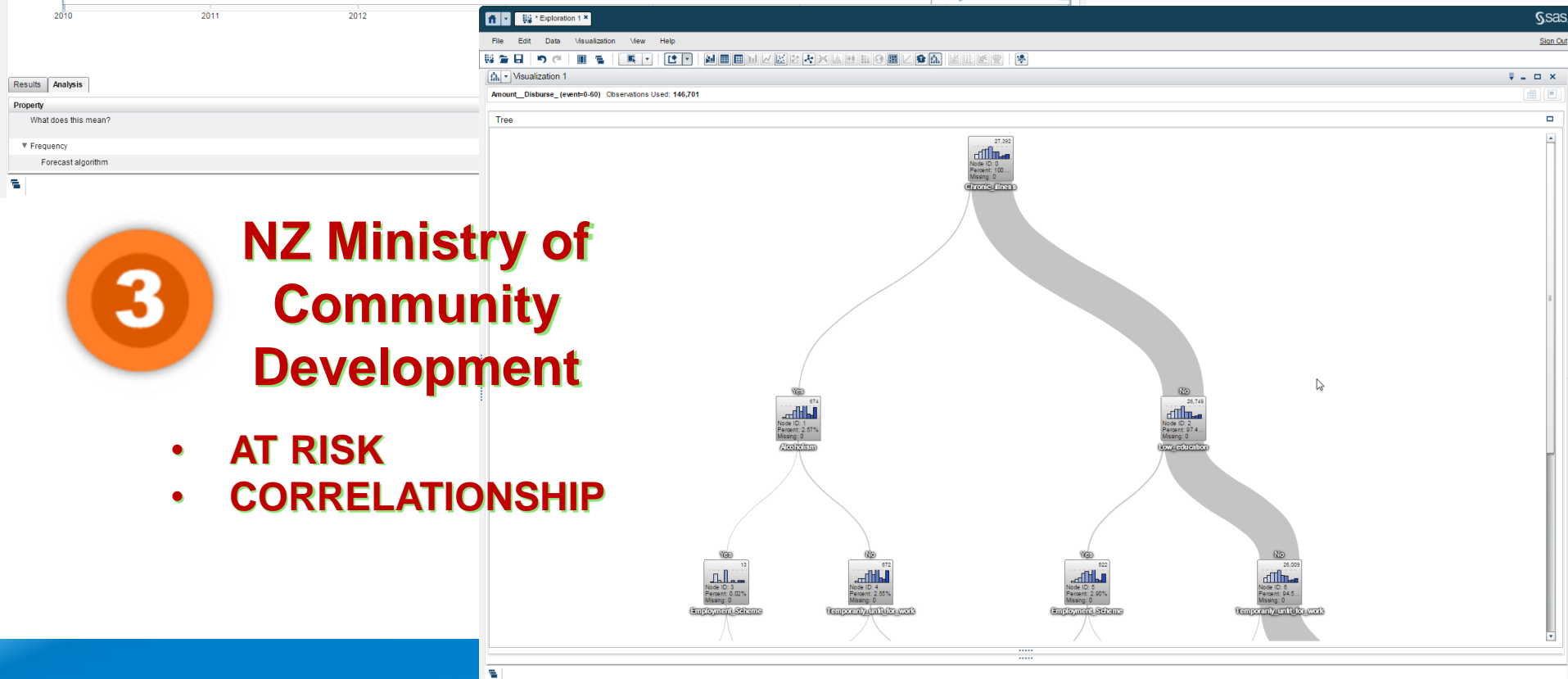
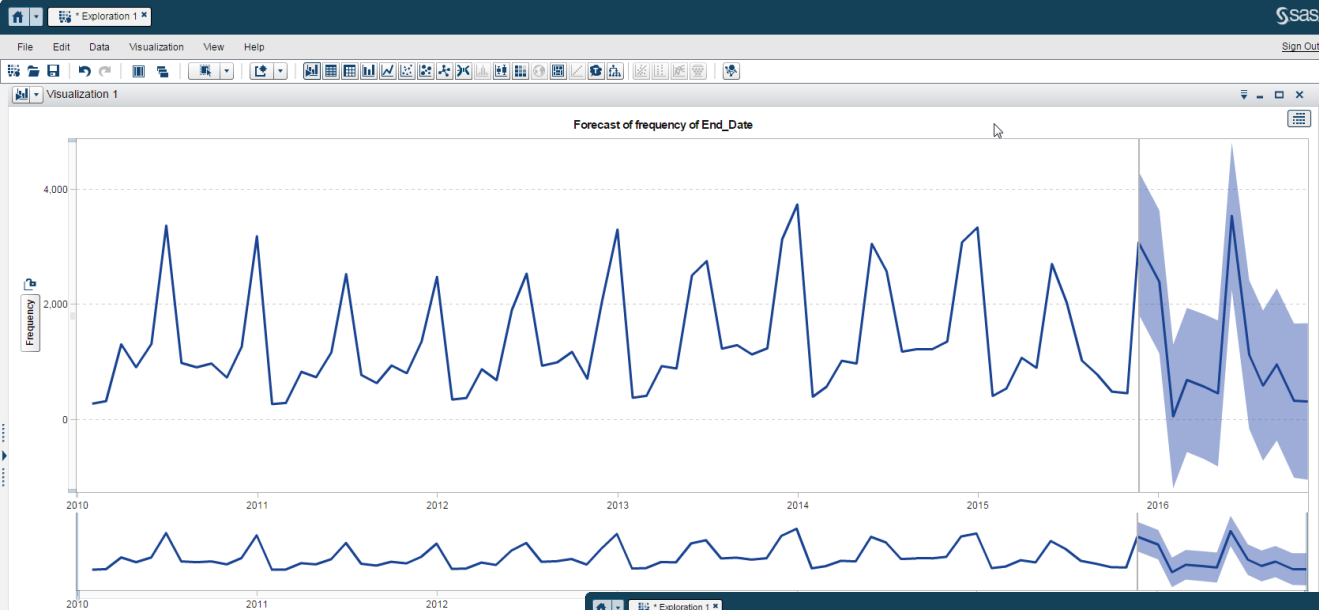
We are able to analyse the relationship between historical background and later outcomes



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3

# NZ Ministry of Community Development

- AT RISK
- CORRELATIONSHIP



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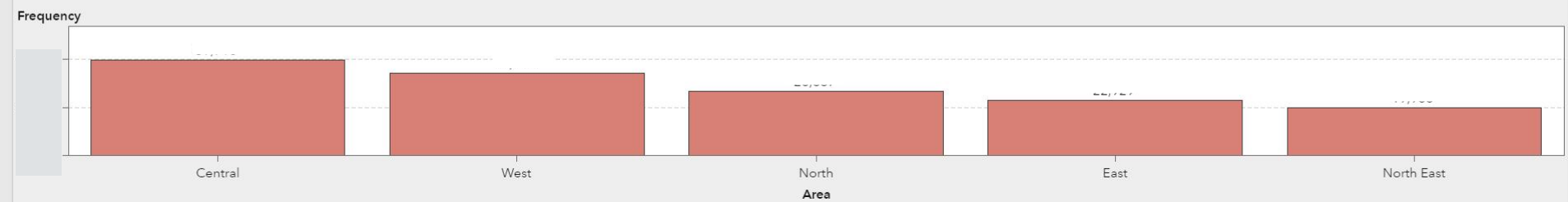
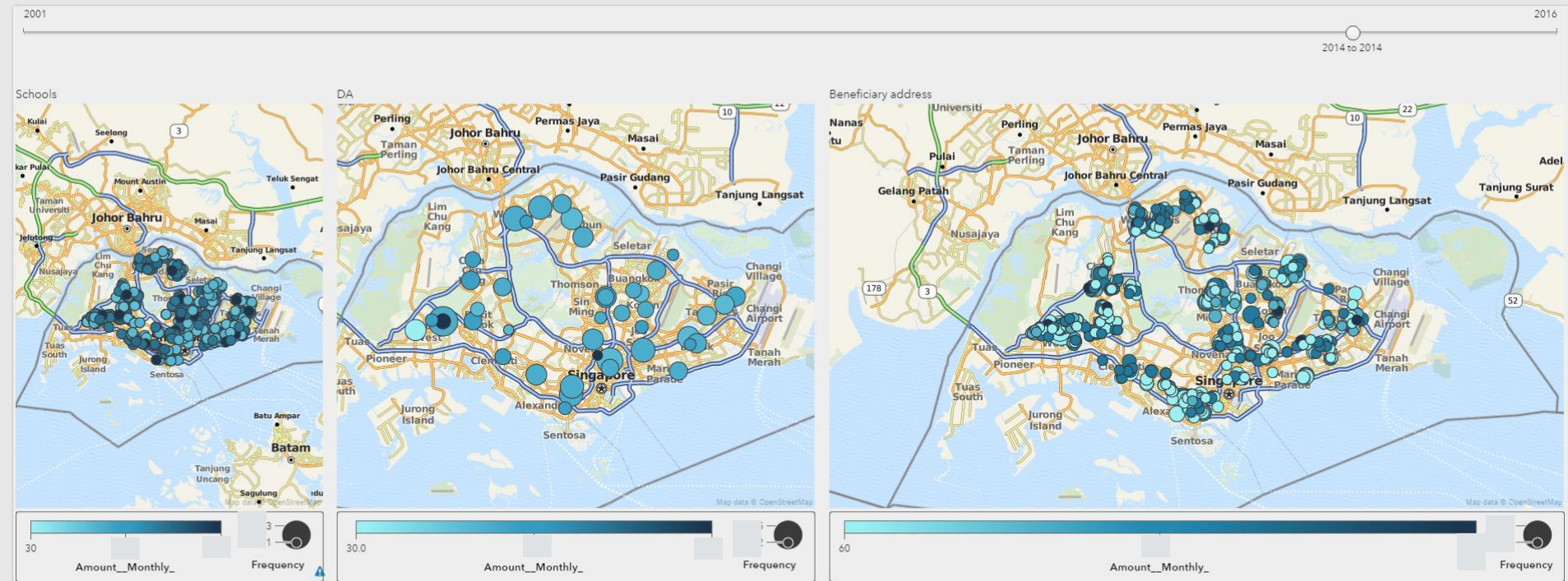
We can understand the demographics of the beneficiaries that need greater support

We can explore factors contributing to the time taken to complete assistance, with possible implications on policy

# 4

## NCSS – SPMF

- Geographical distribution of cases
- Income grouping breakdown







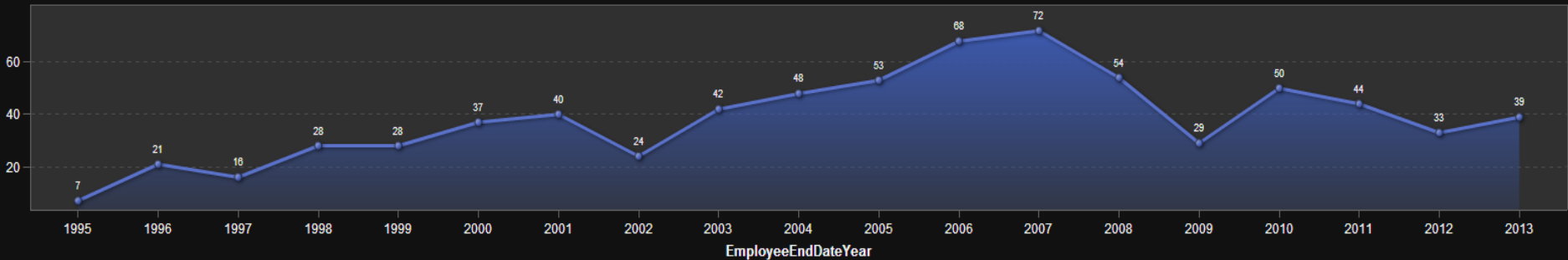
# 4

## Manpower/Staffing/Volunteer Analysis

- Demographic factors and retention
- Demographic factors and type of volunteer work



Employee End Count Per Year Staff

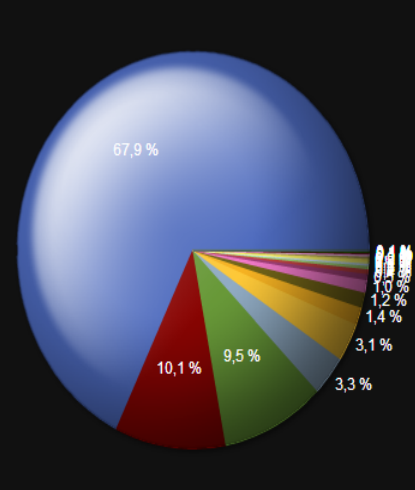


Employee Details

ActiveSta...	EmployeeFirst...	EmployeeLast...	EmployeeGe...	Empl...	EmployeeStart...	EmployeeEndD...	ResignReasonLabel
Active	Gene	Kelly	Male	28	01/09/1985	.	
Active	Melanie	Couture	Female	28	25/02/1985	.	
Retired	Robert	Mitchum	Male	27	01/01/1984	17/10/2011	D - Mutual Agreement
Active	Marc-Antoine	Audette	Male	27	03/07/1986	.	
Active	Vivien	Leigh	Male	27	18/08/1986	.	
Active	Alexandra	Rott	Female	27	01/03/1986	.	
Active	Alexia	Grun	Female	25	01/10/1988	.	
Active	Shirley	Temple	Female	25	07/11/1988	.	
Active	Joan	Crawford	Female	25	05/10/1988	.	
Active	Jean-Claude	Gelinas	Male	25	01/11/1988	.	
Retired	Korine	Côte	Female	24	01/10/1986	03/04/2010	D - Dismissal - Perf...
Active	Mario	Jean	Male	24	06/09/1989	.	
Active	Jean-Marie	Corbeil	Male	24	23/10/1989	.	
Retired	Normand	Chouinard	Male	24	14/09/1987	28/04/2011	D - Dismissal - Perf...
Active	Ghislaine	Panini	Female	24	22/05/1989	.	

ResignReasonLabel	Fréquence
	716
Contract ended	100
D - Dismissal - Performance	35
D - Dismissal - Probation	15
D - Health reasons	1
D - Mutual Agreement	33
D - Redundancy	4
Dismissal	2
O - Temporary Contract ended	5
Organizational	1
R - Accepted other offer - Career	107
R - Accepted other offer - Financial	2
R - Become independant consultant	2
R - Mutual Agreement	11
R - Non return from maternity	1
R - Personal - Family reasons	3

Termination Reason Distribution





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THANK YOU.



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