



homeward trust
edmonton

From Data Pipelines to Insights

Future Proofing your Homelessness Data Strategy

Alain Ndayishimiye

November 10, 2023

Land Acknowledgement

Homeward Trust respectfully acknowledges our place here on Treaty 6 Territory, the traditional and ancestral lands of many First Nation, Métis and Inuit people. We acknowledge the diverse Indigenous Peoples of this land which include the Cree, Blackfoot, Dene, Iroquois, Anishinaabe/Saulteaux /Ojibwa, Nakota Sioux, Inuit, Métis and many others whose footsteps have marked this land for time immemorial. Those whose stories, languages and culture continue to thrive today. We acknowledge ourselves as visitors living and working in this Territory.

Future Proofing Your Homelessness Data Strategy

Overview

- Background and Context
- Current State
- New Approach and Strategy
- Next Steps



Current state.

Comprehensive Approach

Leads efforts to end homelessness in Edmonton

- Responsible for leading provincial and local plans to end homelessness

- System planning
- Community leadership
- Data and knowledge management (HMIS)
- Evaluation
- Innovation



- Stewards and directs funding from 3 orders of government to meet community priorities
- Ensures compliance and contract reporting
- Invests in programs, housing supply, and community capacity

Implementation

- Community planning and engagement
- Review and investment in what works
- Taking risks and learning

Scale of the Work



One Legacy case-management system

Scale of the Work



60 Coordinated Access partners



100 Funded programs, projects & interventions



780 User accounts that enter data every day



6000 Individuals active on Edmonton's By Name List

Data: Scale of the Work



60 Coordinated Access partners



100 Funded programs, projects & interventions



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Substantial volume of structured and unstructured data that require transforming into a dynamic, data set to meet increasingly demanding and rapidly changing organizational needs

Complex and Evolving Data Needs

Today, SPOs require continuous adaptation and improvement.



Program insights:

Providing programs key insights into what's effective in their program areas.



Government and stakeholder reporting:

Ensuring meeting funder reporting requirement in a timely and accurate manner.



Community Engagement:

Informing community on the progress towards mission.

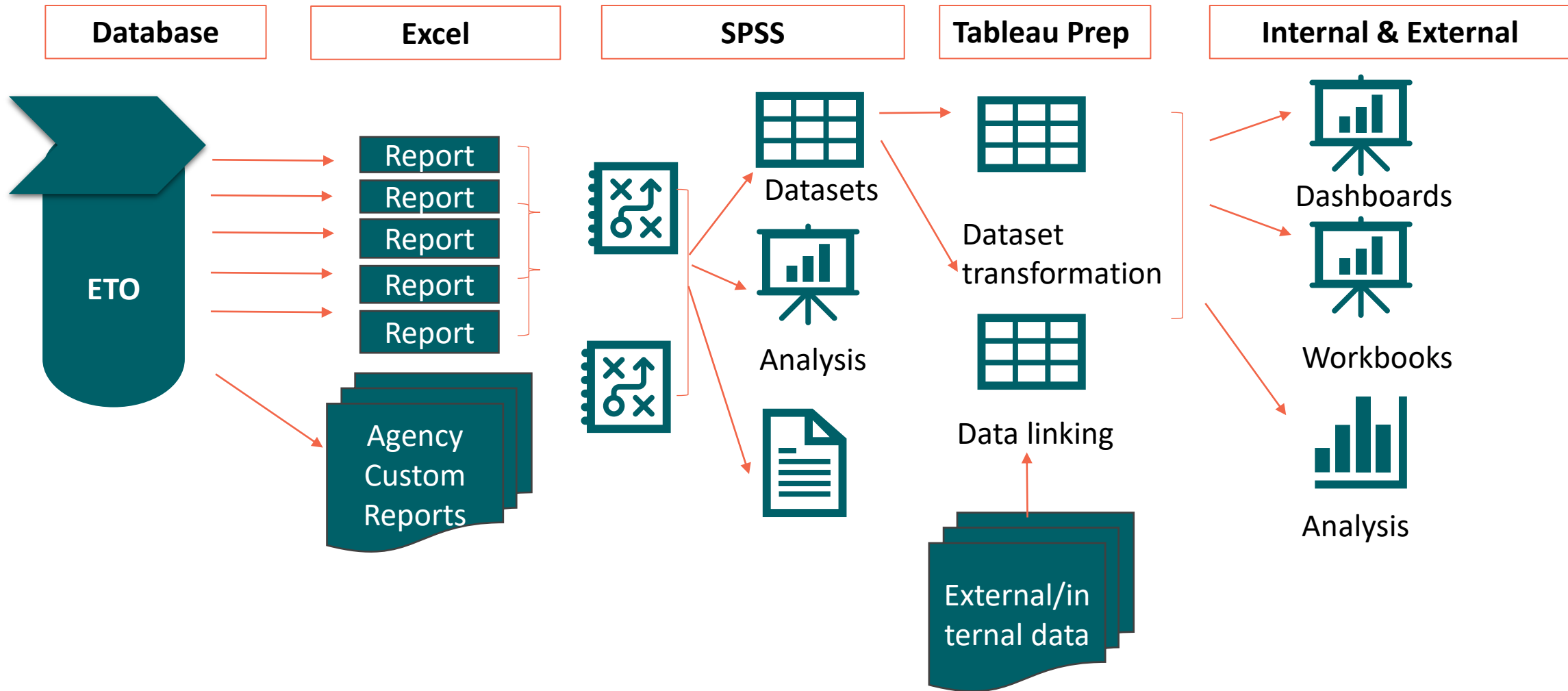


Decision making and resource allocation:

System view of what's effective, ensuring there is no duplication of work so that public dollars are invested in programs that are delivering.

The challenge.

Current Data Ecosystem



Current Data Eco-system

This means more staff time, slow response to needs, and limited adaptability.

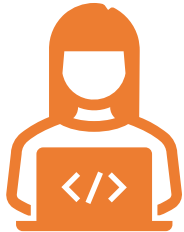
Solution?

Build a new data pipeline.

Data Capture – Client Journey Timeline



Sets the stage for matching Coordinated Access to Intake to Housing

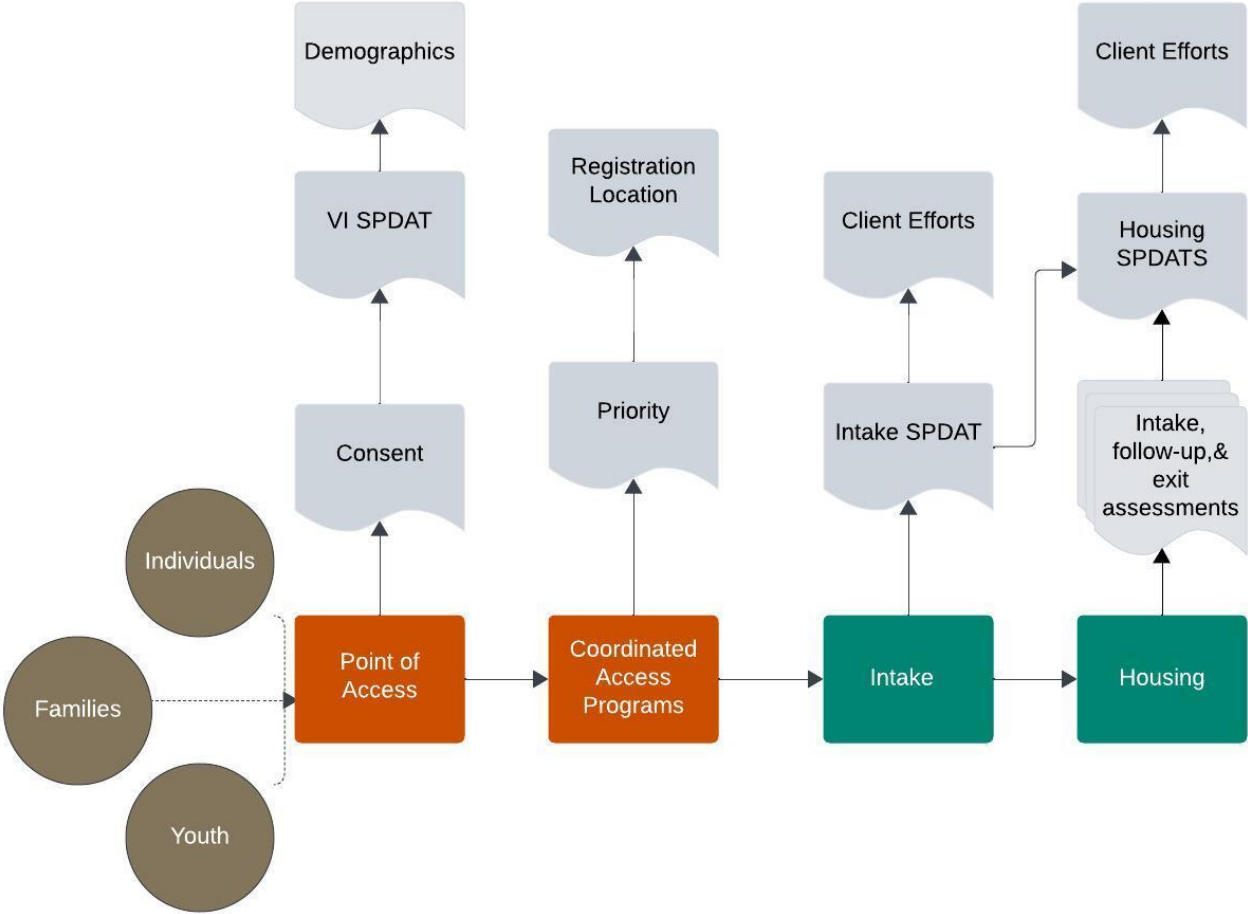


Informs code organization



Associates supplementary data to the appropriate stage of the housing continuum

Data Capture: Client Journey Timeline



Data Merging

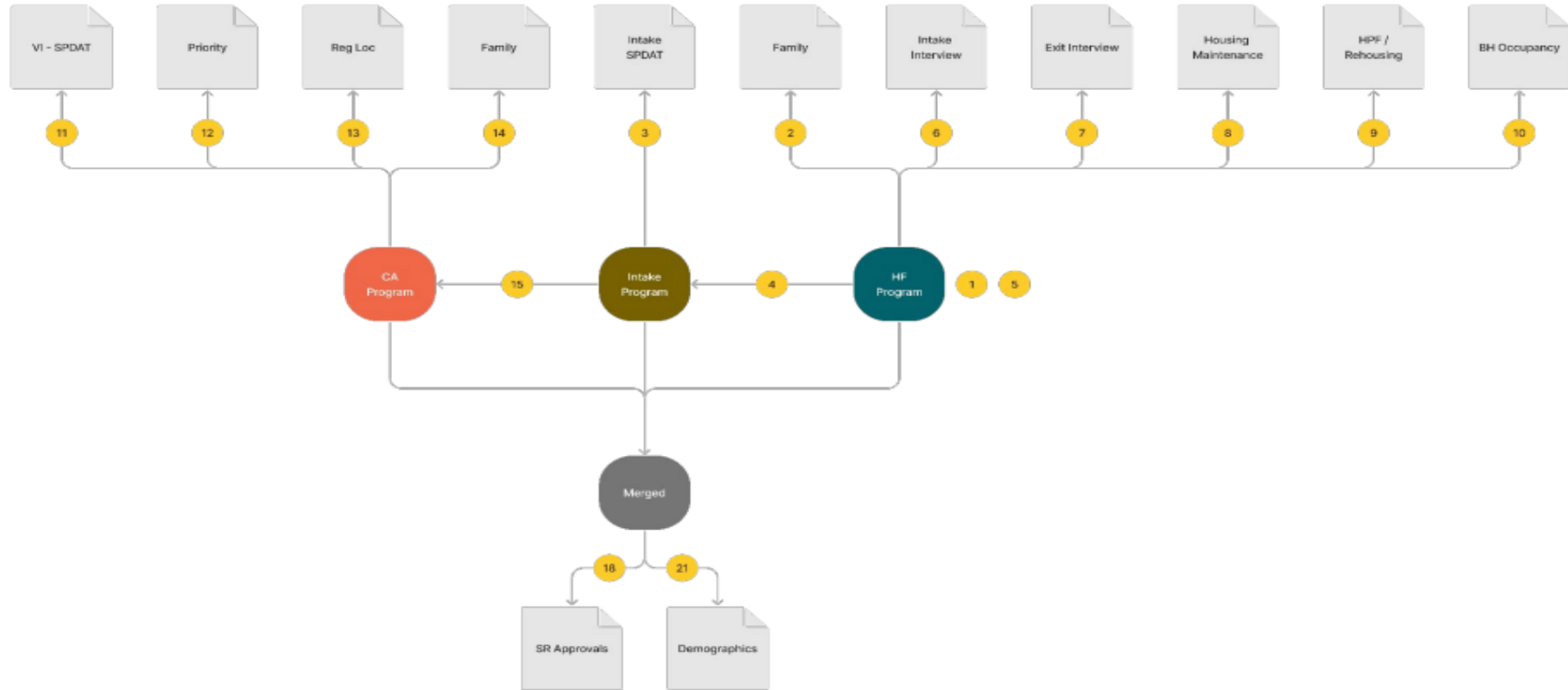


Supplementary data joined to each program data set.

Program data merged.

Each joint made as per set business logic.

Data Merging



The outcome.

A Data Set Ready for Immediate Utilization

itrn	ENTID	CA Program	CA Start Date	Intake Program	Intake Start Date	HF Program	HF Start Date
1	450	CA	2015-01-01	x		x	
2	450	CA	2016-01-01	INT	2016-02-01	x	
3	450	CA	2017-01-01	INT	2017-02-01	HF	2017-03-01
4	450	x		INT	2018-01-01	HF	2018-02-01
5	450	x		x		HF	2019-01-01
6	450	x		INT	2020-01-01	x	

System Reports: Real Time Data Visualization

Housing Overview

as of Apr 17, 2023

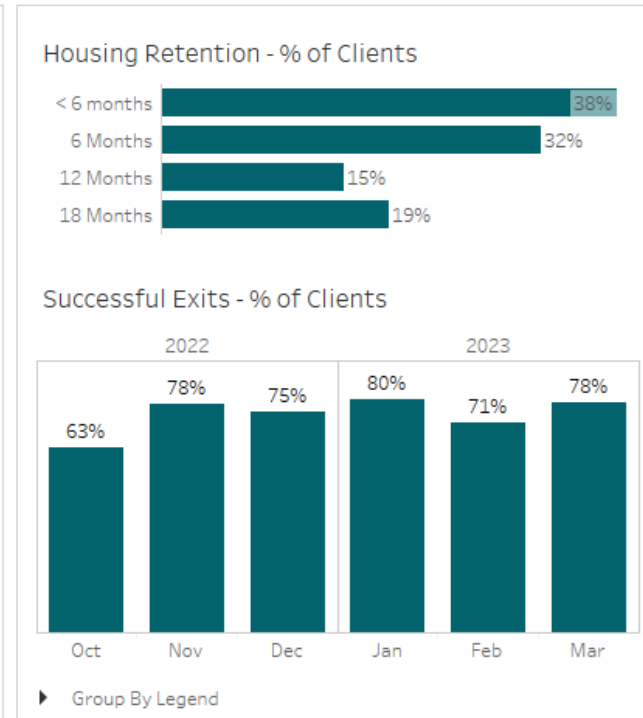
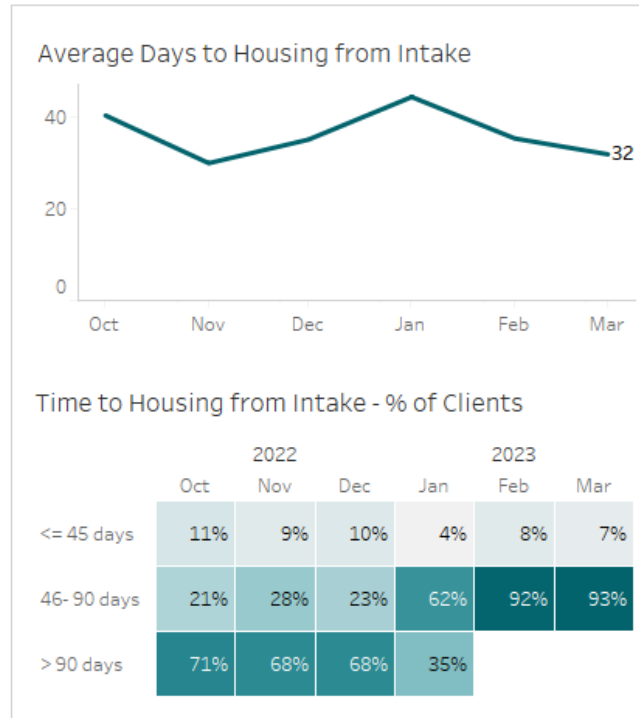
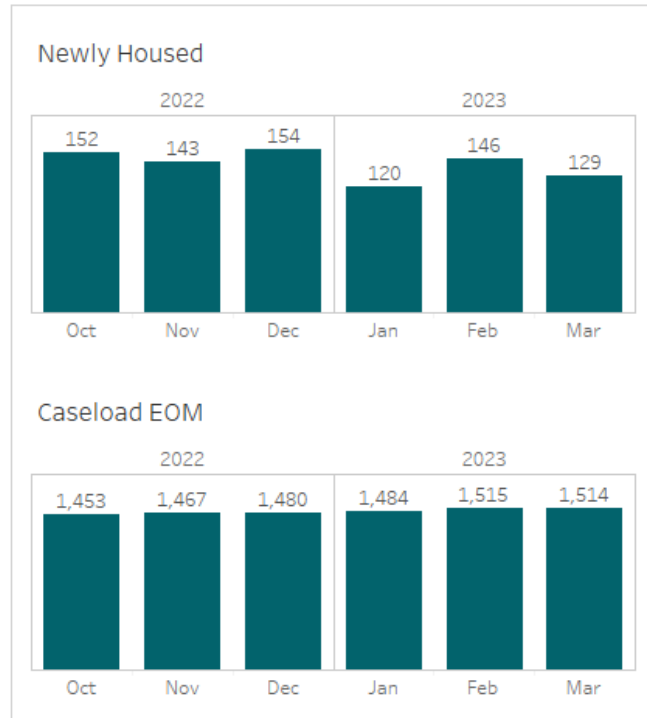
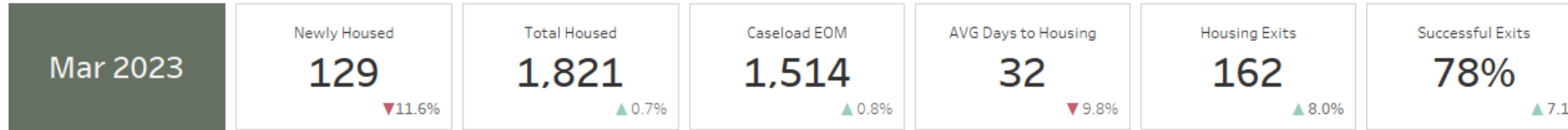
Period Ending
Mar 2023

Months to Show
6

Variance to Show
MoM

Unit
Individuals

Group By
None



Data Visualization: Agency Dashboards

Housing Detail

as of Apr 17, 2023

Period Ending
Mar 2023

Months to Show
6

Variance Unit
MoM

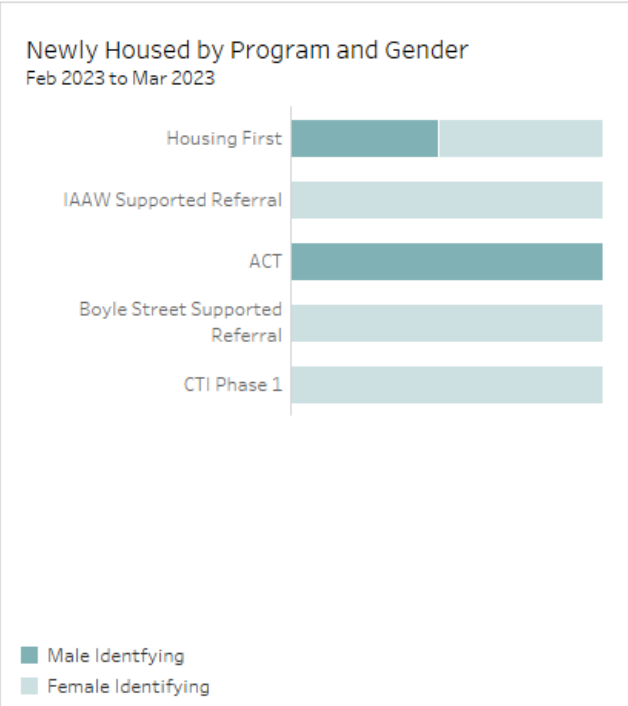
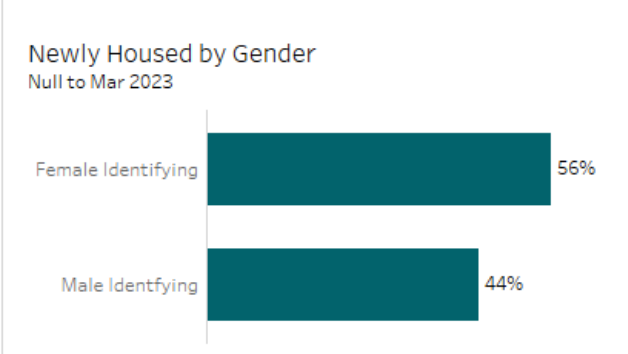
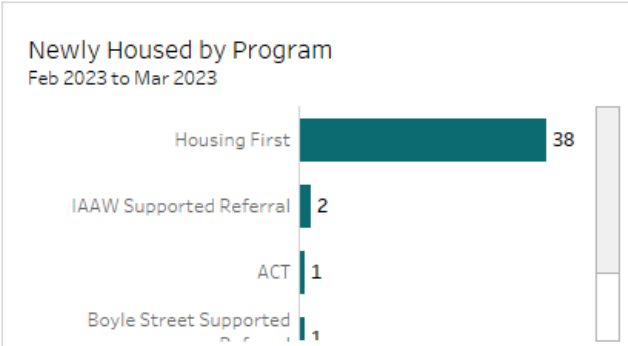
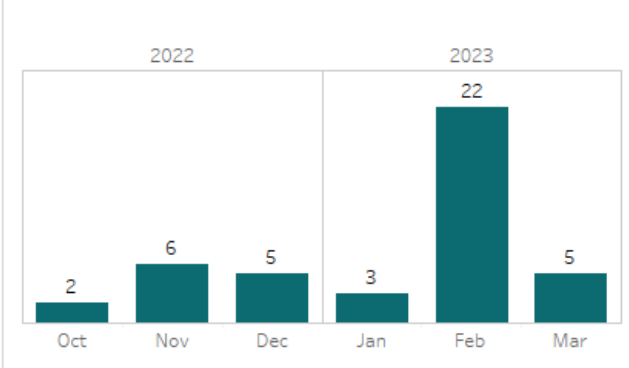
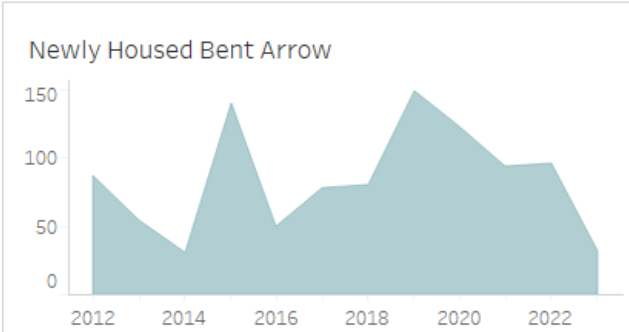
View By
Housing Team

Bent Arrow

Measure
Total Housed

Group By
Gender

Mar 2023	Newly Housed 5 ▼77.3%	Total Housed 121 ▼0.8%	Caseload EOM 112 0.0%	AVG Days to Housing 60 ▲63.8%	Housing Exits 5 ▼16.7%	Successful Exits 40% ▼10.0
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Evolving Data Approaches:



CURRENT STATE:

SPSS

6000 lines of code

Data set limited to 30 months

Limited report and analytic capability

Limited externalization of data



FUTURE STATE:

Python

2000 lines of code

Clean, time-unlimited data set

Dynamic system reporting

Self-serve agency dashboards



Lessons Learned & Next Steps

- Dynamic, rapidly changing environments require agile solutions.
- Get business logic right.
- Build consistent and standard data language.
- Consider end users in every decision.

Thank You!

— Alain Ndayishimiye

Manager, Data & Analytics

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