



# ***Collaborative Data Projects* - New ways to drive sector learning & outcomes**

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L A T I T U D E

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### Esther Duflo - French Economist

- Nobel Prize for Economics, 2019
- Experimental method - try and test multiple solutions to a complex problem
- Use data to identify best performer
- Practical, on the ground experiments with good data
- Compare across solutions

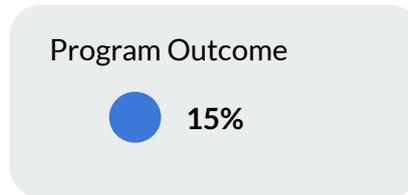


## The limits of individual program data / evaluations

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### The limits on individual program evaluations

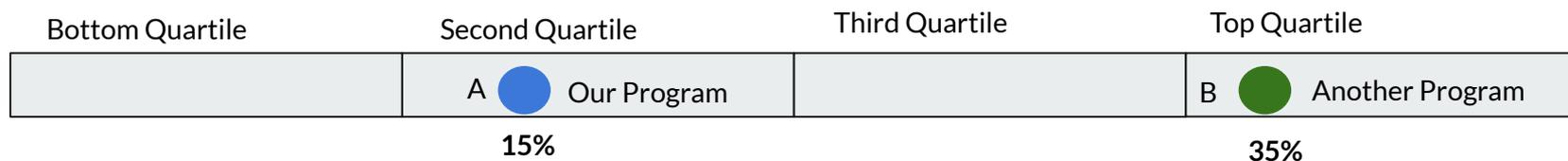
- 1 program's success rate
- How do we know if this is a great outcome or not?



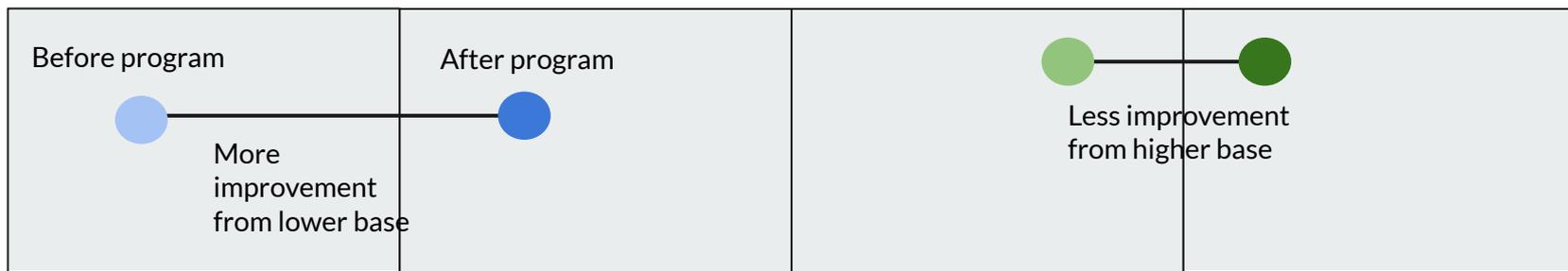
## The power of comparative data

As funding moves to an outcomes focus, understanding how different interventions compare on outcomes will matter more.

### Where is this program compared to other programs for same cohort?



### How does the end state compare with the starting point? - context matters



## The Challenge

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The recent Auditor-General's report into the VADC highlighted many of the shortcomings - in process but also in technical specification, of the current data system. The opportunity exists now to influence a revision of the VADC.

### Current state of data for Victorian AOD Sector\*

- 'Data in the Victorian Alcohol and Drug Collection (VADC) does **not accurately represent** what service providers are doing for their clients'
- '...there is a risk that DH's improvement program will **not address all the root causes** of the data quality issues...'
- '**Poor-quality data limits** DH's ability to use it to plan services...[which] means that service providers need to incur significant costs to address data quality issues'
- 'The VADC data specification and data collection model are **too complex** for service providers'



### Why should the sector do this now

- Current gaps in data system
- Government implementing changes due to VAGO report
- Ability for sector players to drive and shape the kinds of data, outcomes and evidence used for future decision making,
- Engage with IT system vendors as a group to influence system capabilities and costs
- Build knowledge, competence and capability in the use of data for outcomes across all providers

\*Source: Victorian Auditor-General's Office, Victoria's Alcohol and Other Drug Treatment Data, October 2022

### The 'Why'

- Drive **evidence-based learning** across the sector to improve client outcomes by understanding impact of different programs, locations, approaches for different cohorts
- Demonstrate the AOD **sector's impact as a whole** and its place in health / social services landscape
- Improve accessibility and **quality of data and make it useful** for service providers
- **Capability building** across the sector in use of data for decision making
- A true '**systems change**' **viewpoint** where insights are shared across different elements of a system
- Ability for the sector to **take leadership**, tell impact stories and shape policy direction

## How it works

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- 1 Conference common data metrics**

Agree what metrics to be aligned and universal for what cohorts; can include specialist advice, validated tools, practitioners - what's useful for practice
- 2 Establish data sharing standards and project governance / decision making**

Set up sharing structure, agreements, processes, continuous improvement method, decision making rules
- 3 Set up data collection systems**

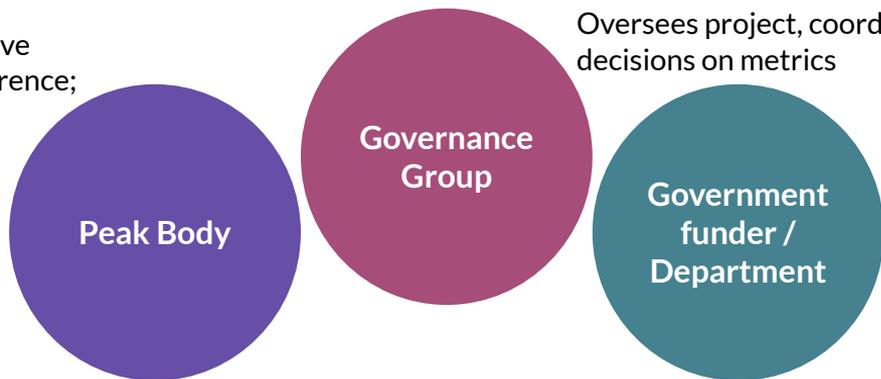
Enable common collection regardless of individual organisation's database / IT system + technical support  
Set up collection / export regime and 3rd party data warehouse and analysis team
- 4 Implement new metrics collection**

Implement in existing systems, automate survey collection
- 5 Data export, analysis, reporting & 'learning labs' for organisations**

Export based on data standards manual incl. meta data;  
3rd party analysis team clean, wrangle data into common datasets; deep dive analysis, reporting, dashboards;  
learning labs and insights shared and workshopped

## Roles in a Data Collaboration

Coordinates sector to achieve metrics agreement in conference; liaise with government



Oversees project, coordinates decisions on metrics

Participant in governance; receives agreed reports / data

Provide expertise; agree metrics in conference, collect data, receive reports / insights



Data exports



Insights / reports

Sets sharing standards, hosts data as independent party, processes data, produces reports, does analysis, supports conferencing, provides technical support

## Key Features of a Data Collaboration

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### A well-planned Data Collaboration addresses gaps and concerns and achieves agreement between multiple stakeholders

- Metrics are agreed in conference between **service providers** - a 'bottom up' not 'not down' approach
- **Government is a partner** but data is managed and shared by agent of the service providers
- Using a **3rd party Data Custodian / Analyst** means no organisation sees the detail of others' data - people see only the reports and comparisons that are agreed
- No need to change existing IT infrastructure or databases - **no/low IT change costs**
- Complete **anonymity of individuals** (all de-identified) and best practice in data security
- Can set **levels of anonymity** as negotiated - only aggregated data is reported
- Focus on insights, **learning and performance improvement** for outcomes
- Individual organisations free to **combine shared data with other internal data** to help drive performance improvement, efficiency and deeper needs analysis

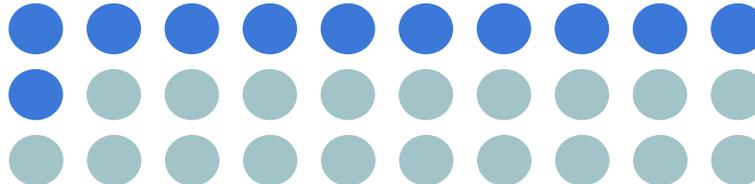
### Sector-wide Partnership



Education

### Sector Service Providers (Colleges)

11 Colleges currently  
30 Colleges this year



# Overview of Shared Data System

## Student Surveys



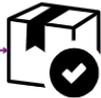
## Demographic Data (anonymised)



## Enrolment Data



Submit Data via secure "drop box"



Load (Ingest) data into common data model



Data Processing and Analysis



Industry Reports / Dashboards made available to participating colleges



## Case Study - Datasets

There are 5 de-identified datasets that form the shared data project.



Covers needs, risks, outcomes, service satisfaction

Covers key characteristics of students, segments

Covers services delivered, segments



### Start of course

Captures needs across domains  
Captures starting point for key outcomes / driver metrics

### End of course

2nd capture of outcomes / drivers  
Evaluation of course experience and satisfaction

### After course (2 mos)

Focus on employment and actions along a job ladder of activities

### Demographics

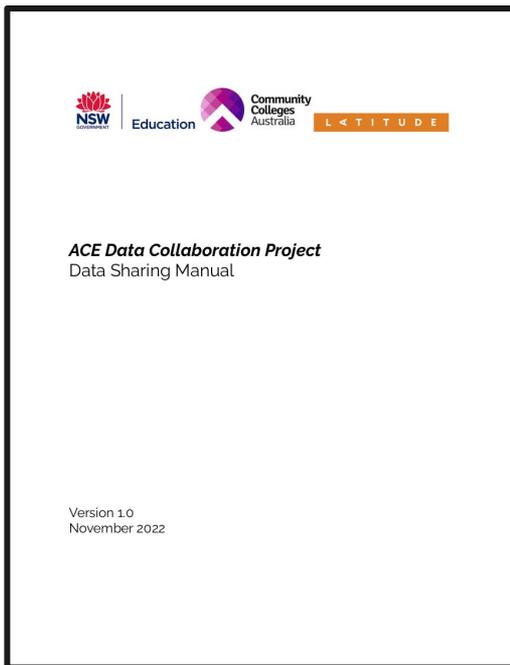
De-identified key categories including gender, year of birth, etc.

### Course enrolment / status

Dates, student ID and course enrolment, completion and withdrawal

## Balancing the need for standardisation with inherent diversity / complexity

A successful approach combines the need for data standardisation while recognising there is some unavoidable diversity in data.



### Standardise

- Common approach implementing the surveys (*ratings, checkboxes, names*)
- Common approach to data anonymisation/de-identification
- File formats and encoding (*csv, UTF8*)
- Common content for demographic and enrolment data
- Use codes where available

### Adapt

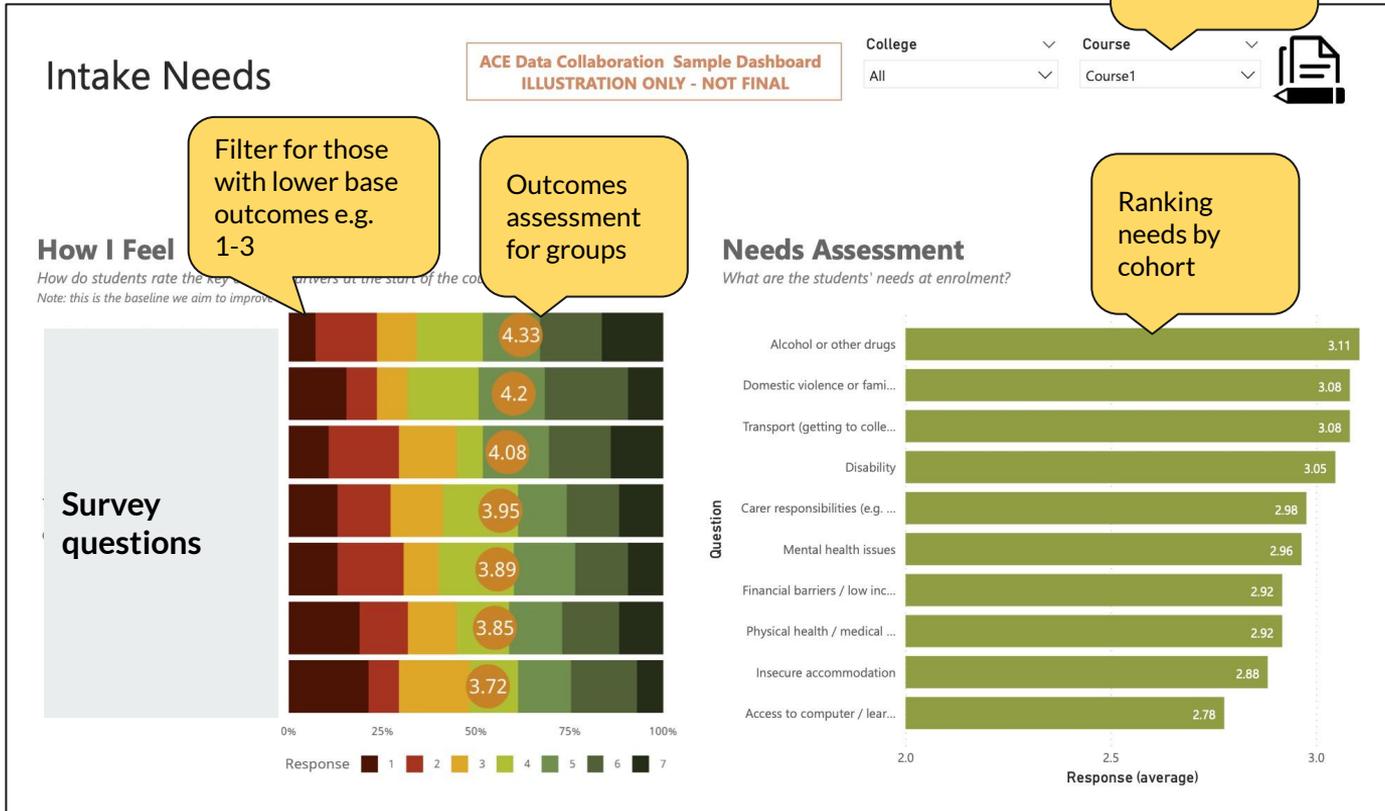
- Different systems and survey tools will export data differently
- System times and dates will be generated differently
- Attribute names will vary
- Some data outputs will vary

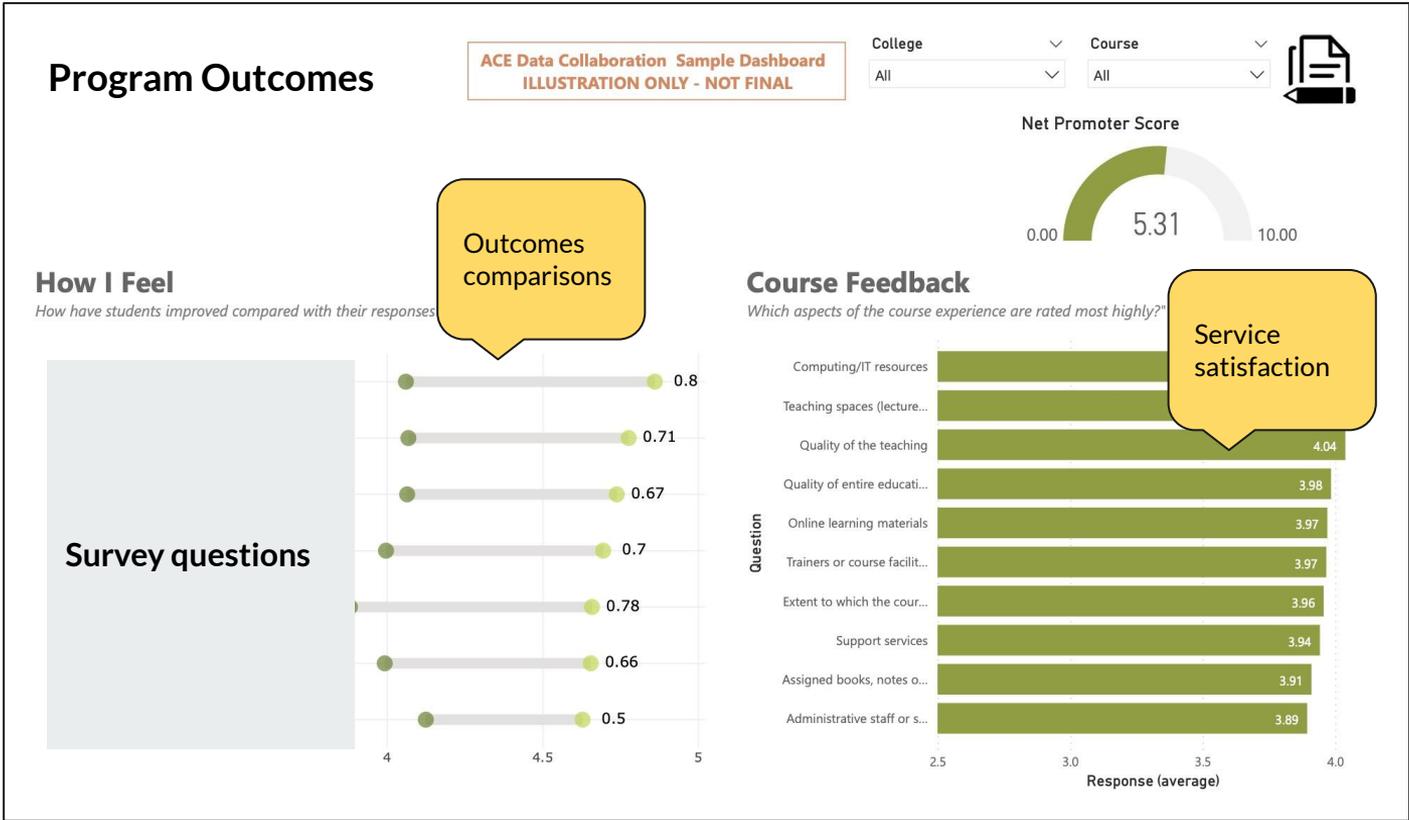
# Examples of data reports - College & Sector (1)

Compare courses or segments

Example Only

Dummy Data

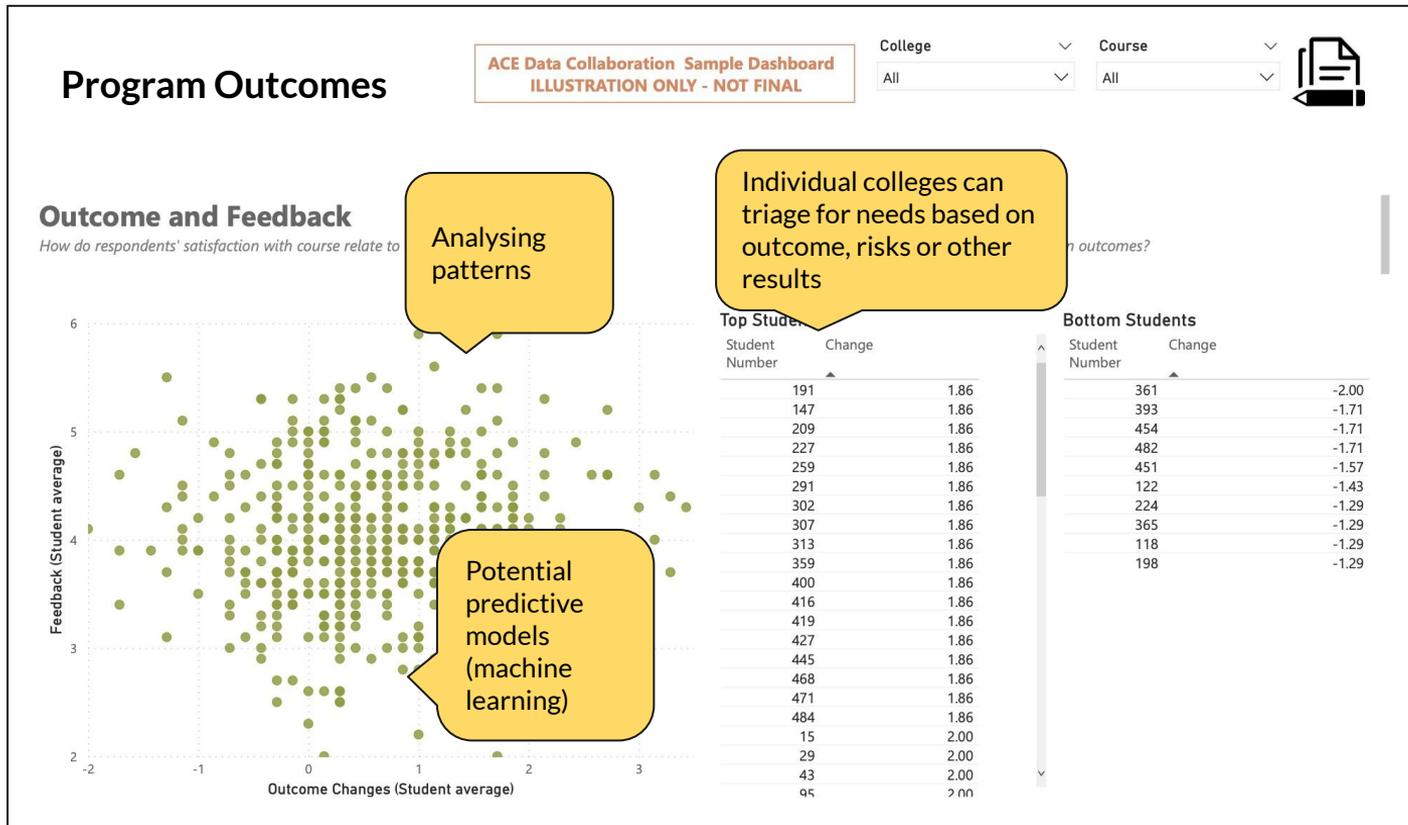




Survey questions

Question	Score
Q1	0.8
Q2	0.71
Q3	0.67
Q4	0.7
Q5	0.78
Q6	0.66
Q7	0.5

Question	Response (average)
Computing/IT resources	3.89
Teaching spaces (lecture...)	3.91
Quality of the teaching	4.04
Quality of entire educati...	3.98
Online learning materials	3.97
Trainers or course facilit...	3.97
Extent to which the cour...	3.96
Support services	3.94
Assigned books, notes o...	3.91
Administrative staff or s...	3.89



### Discussion and Questions



### Victorian Alcohol & Other Drug Sector should move to establish a Data Collaboration

- VAADA convene a pilot group of organisations
- Interested funders
- Conference on shared metrics

*Latitude Network*

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