# MADIP – What is it and where is it headed?



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Australian Bureau of Statistics Informing Australia's important decisions

#### Overview of MADIP



The Multi-Agency Data Integration Project (MADIP) is a secure, person based research data asset combining information on health, education, government payments, income and taxation, employment, and population demographics to create a comprehensive picture of Australia over time..





- Answer policy questions
- Program evaluation
- Empirical research on socio-economic issues
- No identification of individuals
- Used only for statistical and research purposes (never for compliance)



#### MADIP Partner Agencies

- Australian Bureau of Statistics
- Australian Taxation Office
- Department of Health
- Department of Social Services
- Department of Education
- Services Australia



Nationally important datasets



MADIP data is securely held by the ABS – access is only made available to approved researchers for approved purposes.



### MADIP - Data







### Current MADIP data asset (2006 – 2020)



2006 – 2020 Medicare Consumer Directory (MCD)



Information on persons enrolled with Medicare

### 2014-15, 2017-18 National Health Survey (NHS)

Information on Australian's health and wellbeing such as medical conditions, health and lifestyle risk-factors, mental health, use of health services 2011 – 2020 Pharmaceutica

Pharmaceutical Benefits Scheme (PBS)

Information about the use of prescription medications & services subsidised under the PBS

2018

Survey of Disability, Ageing, and Carers

Information about people with a disability, older people (aged 65 and over) and their carers

2006 - 2019

Australian Apprenticeships

**Incentives Program and** 

**Training Contracts** 

Information on apprenticeships and traineeships, AAIP payments, and Trade Support Loan (TSL) payments

2009, 2012, 2015, 2018 Australian Early Development Census



Measures how well children in their 1<sup>st</sup> year of full-time school are developing across 5 important domains

2011, 2016
Census of
Population and Housing

Demographic information such as family composition, education attainment, marital status & household income

2011 – 2016 Centralised Register of Medical Practitioners

Information about registered medical practitioners, including specialities

2011 - 2016 Australian Census Longitudinal Dataset

Links 5% sample data from the 2011 and 2016 Censuses

2015 - 2020 Total VET Activity



Information on students and their activity as reported by all Registered Training Organisations.

2011 – 2020 Medicare Benefits Schedule (MBS)

Information on the usage of Medicaresubsidised health care services 2006 – 2020 Client Register

People who were active on the Client Register from 2006 - 2020

2009 – 2020 DOMINO Centrelink Administrative Data

Snapshots of characteristics of recipients of government payments such as Age Pension and Newstart
Allowance

2015 – 2020 Data Exchange Data



Information on clients who receive social services as reported by various DSS grant programs

2007 – 2019 Death Registrations



Information relating to registered death records from Australian States and Territories

2010-11 – 2018-19 Personal Income Tax (PIT)

Information about taxpayers' occupation and income such as wages and salaries

2010/11-2019/20 Payment Summary

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Information regarding Payment Summaries

2000 – 2018 Migrants data

Information about permanent migrants, temporary migrants, and movements data

2006 – 2019 Higher Education



Information on higher education



### New Opportunity – Integrated Person and Business Data



- ABS has enabled the integration of some MADIP datasets with information about employee data to employer characteristics within the Business Longitudinal Analysis Data Environment (BLADE) asset over time
- Business and person-level data are brought together via the ABN of a person's employer, where this is recorded on a MADIP dataset
- ▶ BLADE data linked with MADIP is limited to BLADE Core and the Business Characteristics Survey (BSC) with limitations on the use of BCS and Business Income Tax to the creation of flags

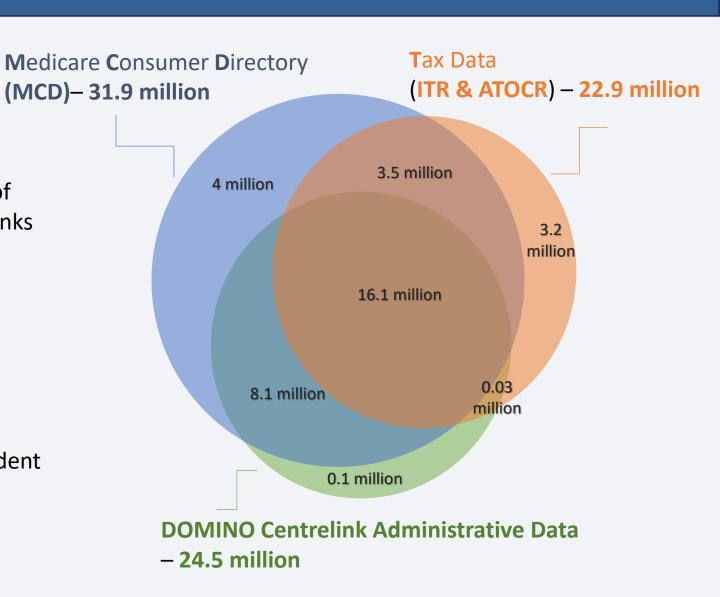


### Person Linkage Spine (June 2019 reference period)



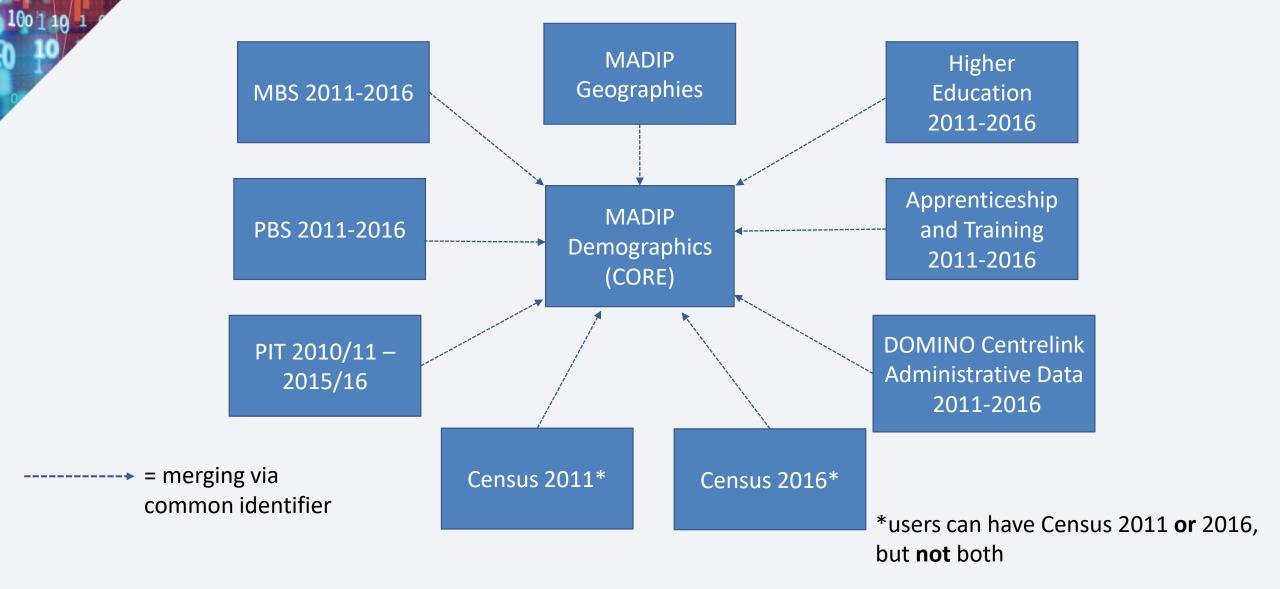
## Spine contains 35.2 million elements

- The Person Linkage Spine is an enduring piece of data linking infrastructure that represents the links between the three core MADIP datasets
- All datasets which are linked to the spine are indirectly linked to each other in a secure and consistent way that protects and ensures the privacy of individuals
- Each element representing a **single person** resident in **Australia** at any point between **2006 2019**



### The MADIP Modular Product









- MADIP Modular Product (MMP) refresh is expected to be complete early 2021
- The 2020 Refresh will expand to include people up to **June 2019**, and reference periods for some data up to **June 2020**
- MADIP Modular Product (2011-2016) is available now for access on approved projects via the ABS DataLab.
- Access to standard MADIP modular product is covered under Project Establishment charges.



### Access to MADIP data (extracts)



10 1		MADIP Standard Products, ie. MADIP Modular Product, MADIP Basic Longitudinal Extracts	Customised MADIP extracts
	What	<ul> <li>Data Items from</li> <li>Medicare, Pharmaceutical Benefits Scheme, Social Security, Income tax, Education, Deaths and Census data from 2011-2016,</li> </ul>	<ul> <li>Creation of new custom extracts, defined by the user</li> </ul>
	When	Available now via the ABS DataLab.	Contact us to discuss your data needs.
	Who	<ul> <li>Government employees</li> <li>Non-government approved researchers</li> </ul>	<ul> <li>Government employees</li> <li>Government contractors &amp; Individuals sponsored by government.</li> <li>Academics and researchers from public policy research institutes</li> </ul>



### ABS Access Process – Microdata in DataLab



#### 1. Preparing to apply 3. ABS reviews proposal 2. Researcher submits • Researchers discuss project 3a. Cost quote • ABS 'Safe Project' review project proposal with ABS • Five Safe Assessment checklist ABS technical assessment – • Review available/suitable data • Integrated Data Project milestones and costs item lists Proposal • Develop and send quote • ABS advises training is •ie. MADIP/ BLADE projects • Project lead accepts quote required Invoice issued and paid • ABS provide Initial cost guidance provided 4. Relevant approvals 5. Researcher onboarding • Release, Project, Access and File and setup 6. Access Granted approvals 7. Amendments DataLab Safe Researcher Output vetting/Auditing • Data custodian consent Training • Differs depending on the dataset and Finalise Safe People checks type of project

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### Introduction of User Charging

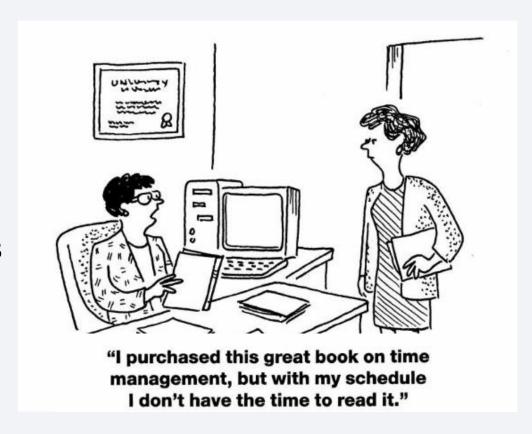


- The ABS began user charging for DataLab access from 1 October 2020, and will review DataLab pricing by early 2021.
- DataLab access costs will not apply until end June 2021 for members of participating universities covered by the ABS/Universities Australia Agreement
- In recognition of the contributions of data custodians in providing both data and governance effort, MADIP and BLADE enduring data custodian agencies are also covered for DataLab access in 2020-21.
- User charges already apply to <u>custom data integration</u> services for all projects.

### New Service offering: Customised Aggregate Data



- This offering aims to provide a data solution for researchers who do not have the time, capability or resources to undertake their own analytical work in the ABS DataLab
- Consultancy Services can provide **aggregate outputs** from standard microdata available in the DataLab to better support users who are constrained from doing the analysis themselves.



### MADIP Interoperability



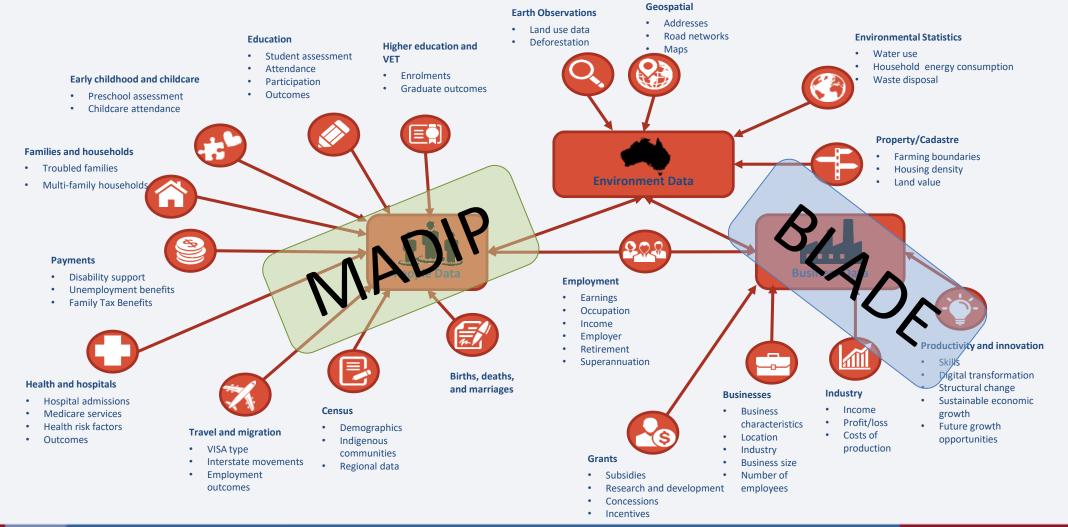
- MADIP is just one important integrated data asset in the national data landscape
- Bringing MADIP together with other pre-integrated data assets
  - Minimises replication of effort across agencies
  - Forms a broader evidence base for policy and research
- To establish interoperability between assets:
  - Identify the unique population from each asset (e.g. the Spine)
  - Link these populations together to establish a 'relationship map' between the assets
  - Use the relationship map to bring analytical data together from the two assets (subject to approvals)
  - De-identified linked analytical data can then be accessed via the ABS DataLab

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### Data expansion







### Cloud DataLab for analysis and APS data sharing



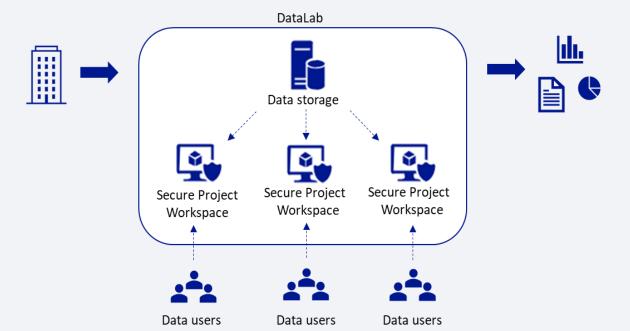


Agency uploads sensitive data for specific project and users

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Users access data, perform analysis, create non-sensitive outputs 3

Agency vets and releases non-sensitive outputs





#### Contact us



- Send general enquiries to <u>data.services@abs.gov.au</u>
- Explore the list of <u>projects using</u> MADIP data here
- For more information contact Deepa Wright Director, Data Services deepa.wright@abs.gov.au
- Explore the MADIP products available

Microdata: Multi-Agency Data Integration Project, Australia



