



Australian Government
Australian Institute of Family Studies



Discovering what
works for families

Data Linkage

Helping you paint the big picture

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A nighttime cityscape with numerous illuminated skyscrapers and buildings. Overlaid on the scene are several white, glowing arcs that connect different points across the city, symbolizing data linkage. The arcs are of varying lengths and heights, creating a sense of dynamic movement and connection.

Linking data from the
Longitudinal Surveys of
Australian Youth (LSAY)
to administrative data sources

AIFS's purpose

We create and communicate knowledge to accelerate positive outcomes for families and communities.



Data Linkage

Data linkage can build resources to support the wellbeing of children, adults and families through

- enhance research
- produce valuable data assets and
- support policy evaluation and development



Answering research and policy questions



How can we assess educational factors over lifetimes?
What pathways, policies, and programs lead to the best outcomes?

How can we observe transitions through the education system?

Benefits to LSAY

- provide more accurate and objective data
- increase the richness and depth of the dataset
- addressing attrition bias
- creating room in the survey to ask other questions

AIFS Data Linkage Capabilities

Data
scoping



Integrating
data



Analysis and
research using
linked data



Longitudinal Study of Australian Children Linkages



- Medical services (MBS)
- Pharmaceutical Services (PBS)
- Immunisations (ACIR)

My School[®]

- School performance and profile



- Area based socio-economic indicators

Growing Up
in Australia



NAPLAN

NATIONAL ASSESSMENT PROGRAM
Literacy and Numeracy

- School literacy and numeracy results



Discovering what works for families



centrelink

- Income support payments
- Family tax benefits payments

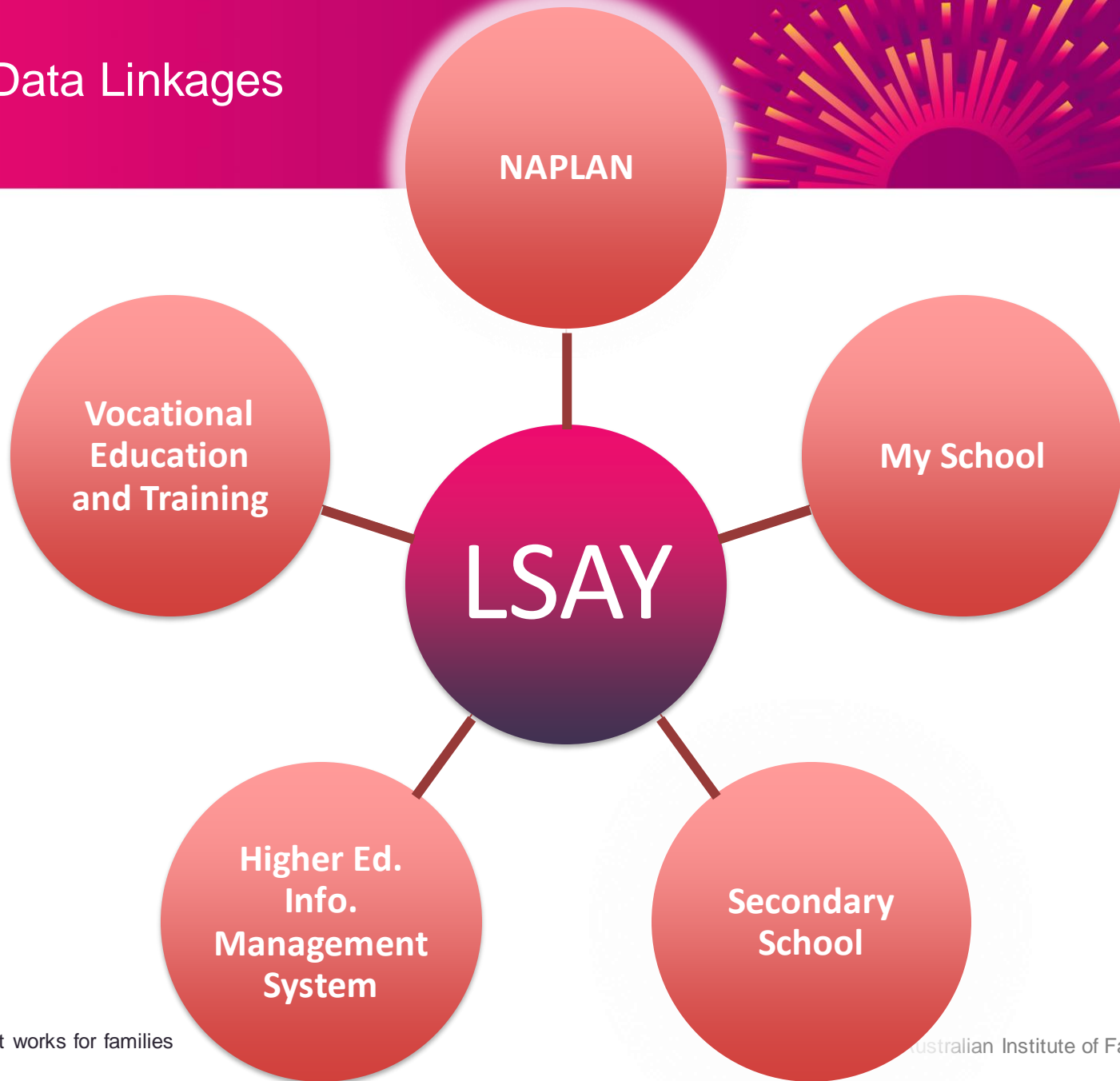
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Linkage Methodologies



- Probabilistic
 - Full name, date of birth and sex
 - Address/postcode
 - Date of last contact
- Deterministic - e.g. Medicare Person ID Number, Tax File Number
- 'Key-based linkage'
 - Community services statistical linkage key (SLK851)
 - Additional information, e.g. Postcode
- Event-based
 - Dates of service provision
 - Date of birth and sex
- Hash keys
- Machine learning

LSAY Data Linkages



Consent

- Designed
- Approved
- Sought
- Collected



Linkage Process Using Separation (e.g. NAPLAN)

1. Link ID attached to identifier data
2. Create concordance file to link LSAY content to NAPLAN content
3. The jurisdictions perform the match and extract the NAPLAN data.
4. The jurisdictions remove the identifiable information from the file
5. The jurisdictions send the file to AIFS
6. The AIFS integrates data LSAY and NAPLAN data



Next Steps

VET data

- Approvals received
- Consent arrangements
- To be conducted by NCVER

HEIMS

- Awaiting Approvals



THANK
YOU