

Disclosure Avoidance and the American Community Survey

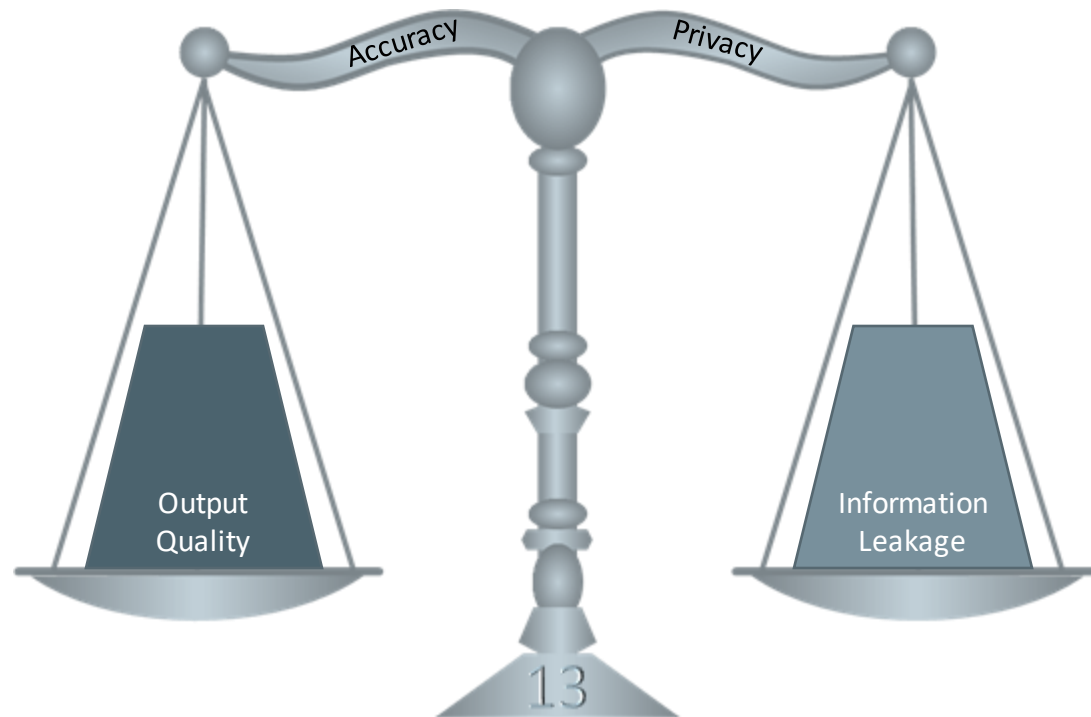
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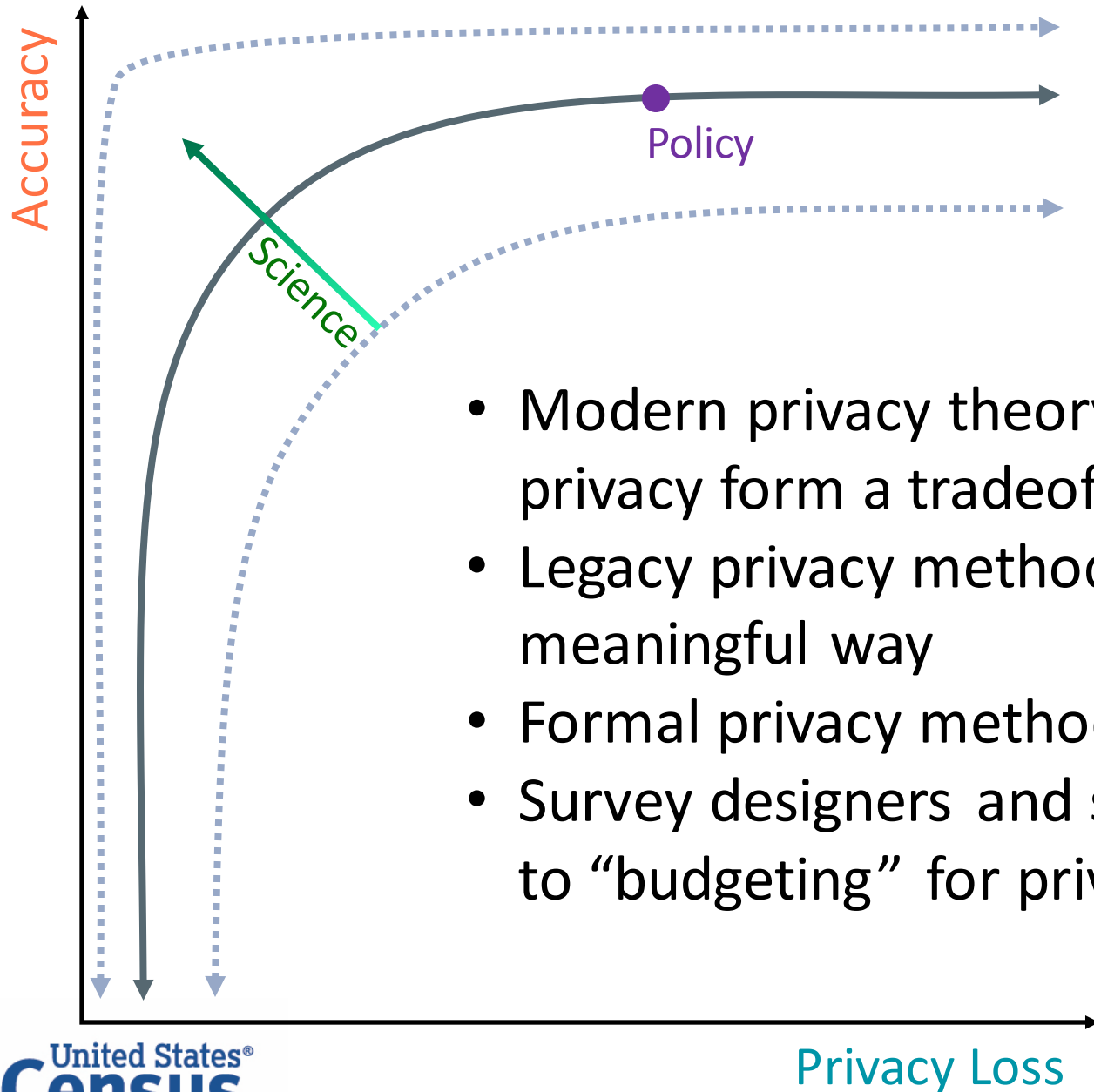
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Balancing data release under Title 13



- Census Bureau surveys have competing requirements
 - Release statistics
 - Protect privacy
- Quality of ACS releases are supported by numerous metrics
- Privacy of ACS releases is not currently quantified

There is no free lunch



- Modern privacy theory makes clear that accuracy and privacy form a tradeoff
- Legacy privacy methods could not quantify privacy loss in a meaningful way
- Formal privacy methods **can**
- Survey designers and stewards are not accustomed to “budgeting” for privacy

When privacy needs lead privacy science

- Re-identification of respondent information is a Census Bureau issue[†]
- Respondents deserve better protection across products now
- Other paradigms, such as synthetic data, can help fill the gap between swapping and formal privacy



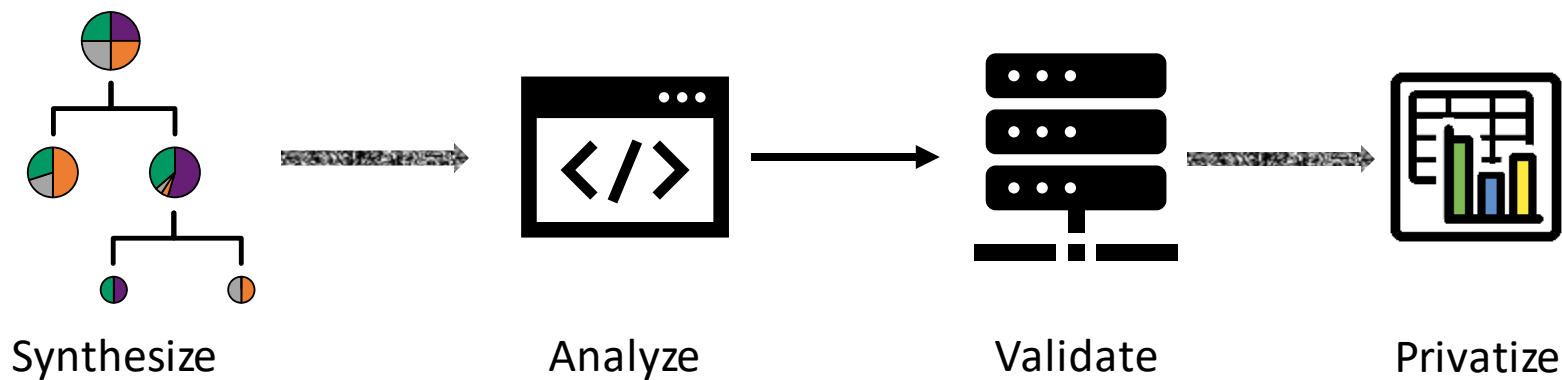
Making public microdata synthetically

- Synthetic data methods are well-known to stats community
 - In use for certain surveys (SIPP[†], ACS)
 - Software packages already available (e.g., synthpop in R)
- ACS will research a new fully-synthetic data product
- Data will be based on an Internal Reference File (IRF), with no other privacy methods applied

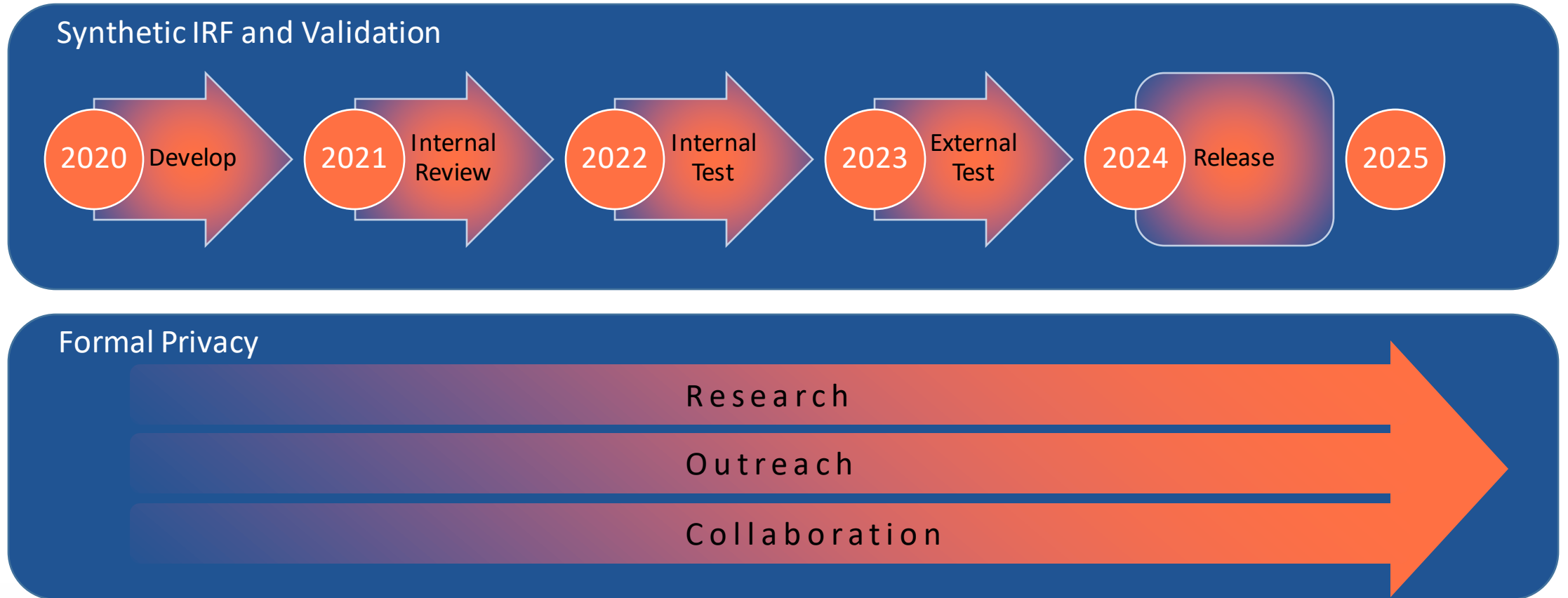


Trust but verify

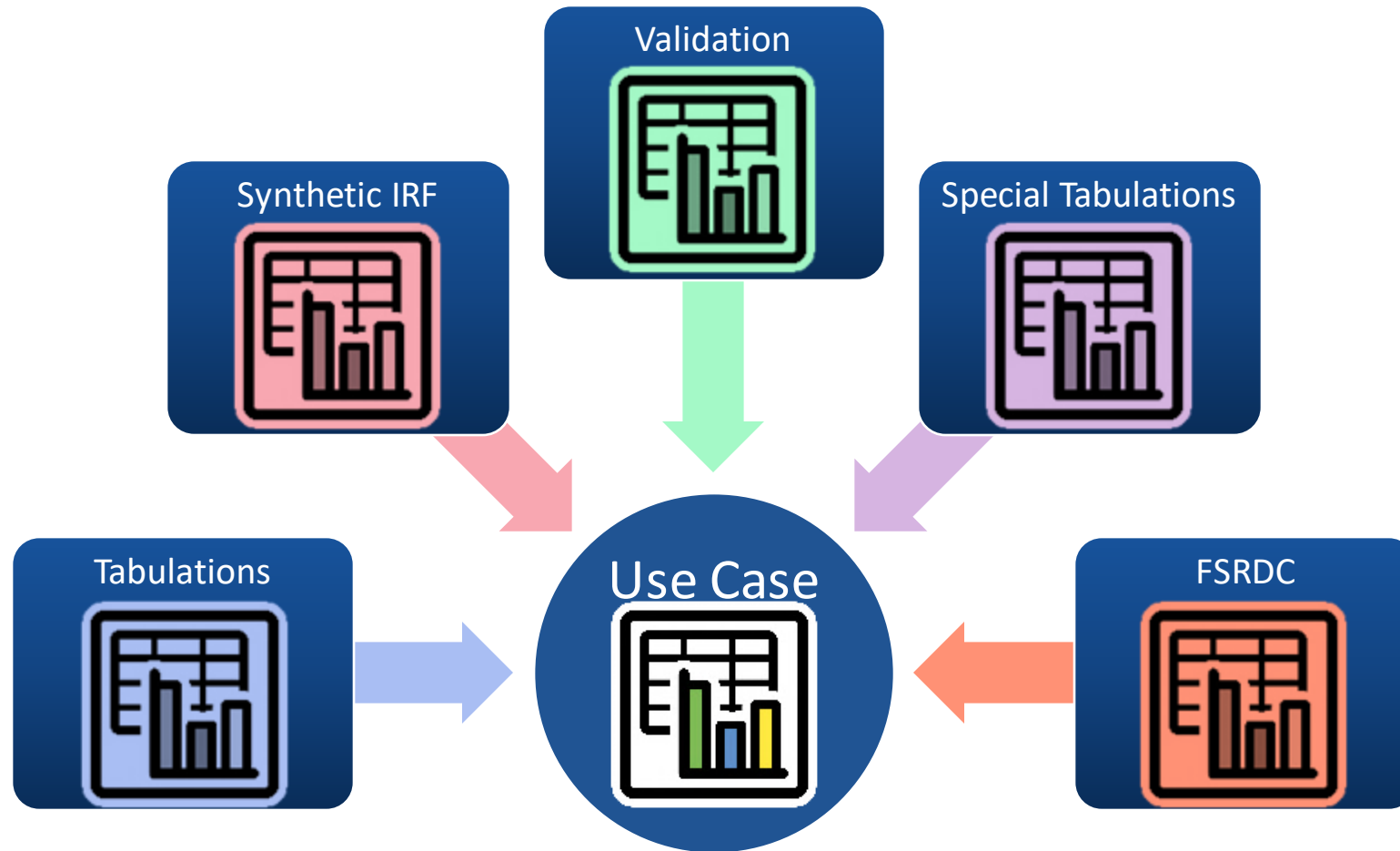
- Making synthetic data to satisfy all use cases is impossible
- Current research uses classification trees to create synthetic data
- Results of trees are assessed on a generalized marginal metric
- Users will be able to validate synthetic output against internal data



ACS Privacy Modernization Timeline



Data users will have numerous routes to obtain the ACS results they want and need



Contact us

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