

The Decennial Census and the ACS: Looking Back and Looking Ahead

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United States
Census
2020

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Agenda

- 2010 Census and the American Community Survey Plan
- American Community Survey
- Hints about the Quality of the 2010 Census
- 2020 Planning
- Summary



2010 and the American Community Survey Plan

- In response to the lessons of Census 2000 and in striving to better meet the nation's ever-expanding needs for social, demographic, and geographic information, the U.S. Census Bureau developed a multiyear effort to completely modernize and reengineer the 2010 Decennial Census Program.
- Given the rapid demographic changes experienced in recent years, the once-a-decade data collection approach of a decennial census is no longer acceptable for producing much of the data required by the federal government, states, municipalities, and tribal governments. To meet the needs and expectations of the nation, we developed the American Community Survey (ACS).

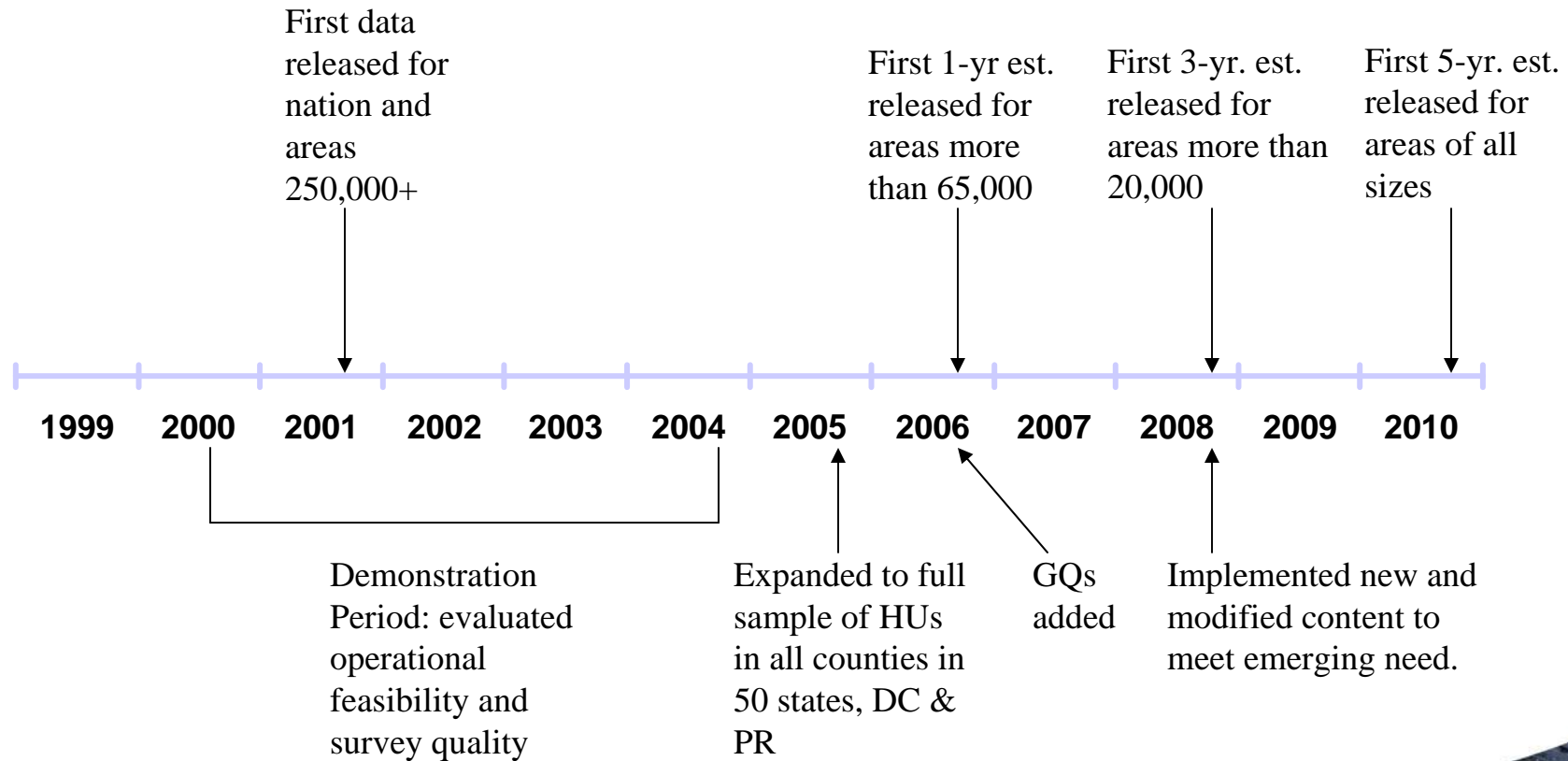


ACS Survey Design

- Annual workload = 3.5 Million Households in 2012
- Three modes of data collection:
 - Mail (month 1)
 - Computer Assisted Telephone Interview (month 2)
 - Computer Assisted Personal Interview (month 3)
- Data Products include:
 - 1-year estimates – for areas with populations over 65,000
 - 3-year estimates – for areas with populations over 20,000
 - 5-year estimates – for geographic areas of all sizes plus census tracts and block groups



History of the ACS



ACS

What is next for the ACS?

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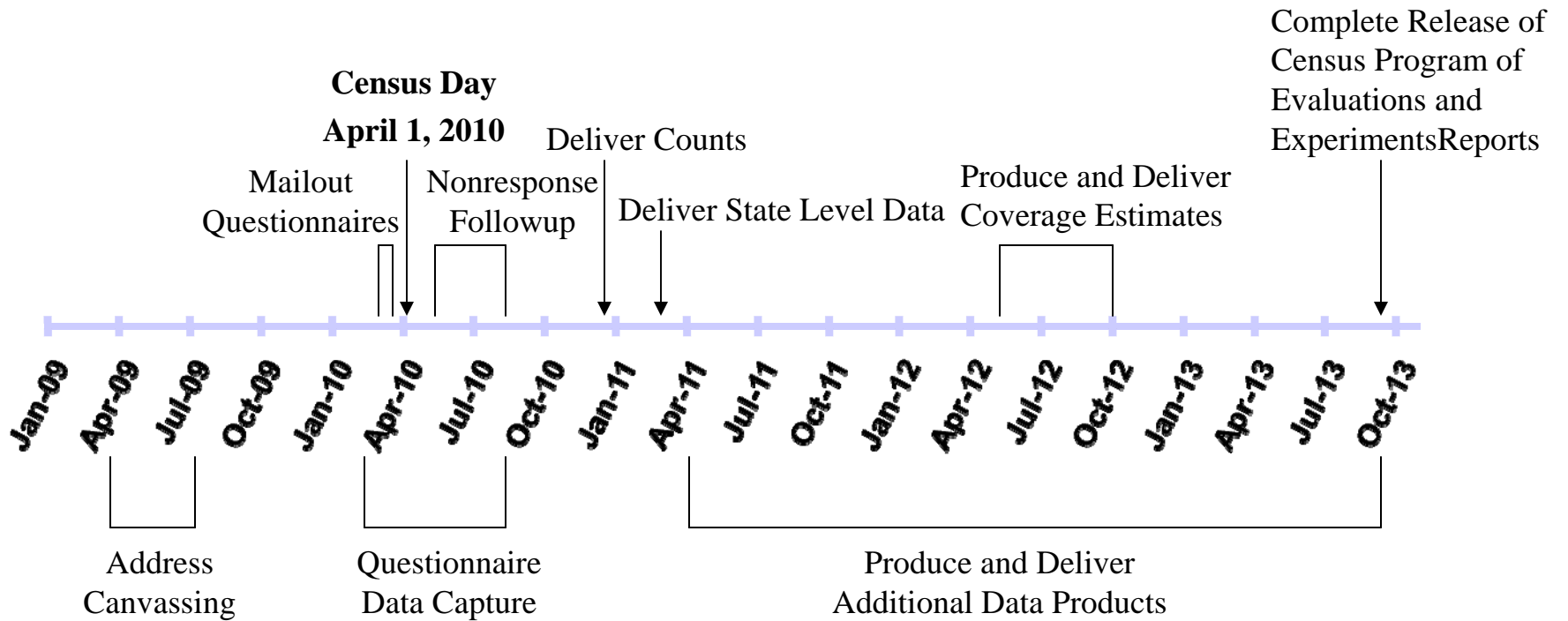


ACS Program Review

- Strategic Review (goals, objectives, mission...)
- Product Line Review – statistics & format
- Methodology Improvements and Processing Efficiencies (introducing an internet option for self-response)
- Program Management Improvements
- Interaction with 2020 Census, including a test of an internet response option (more cross-program system development)



2010 Census Timeline



What Do We Know About The Quality Of The 2010 Census?

- Similarity to an Alternative Measure
- Soundness of Process of Data Collection

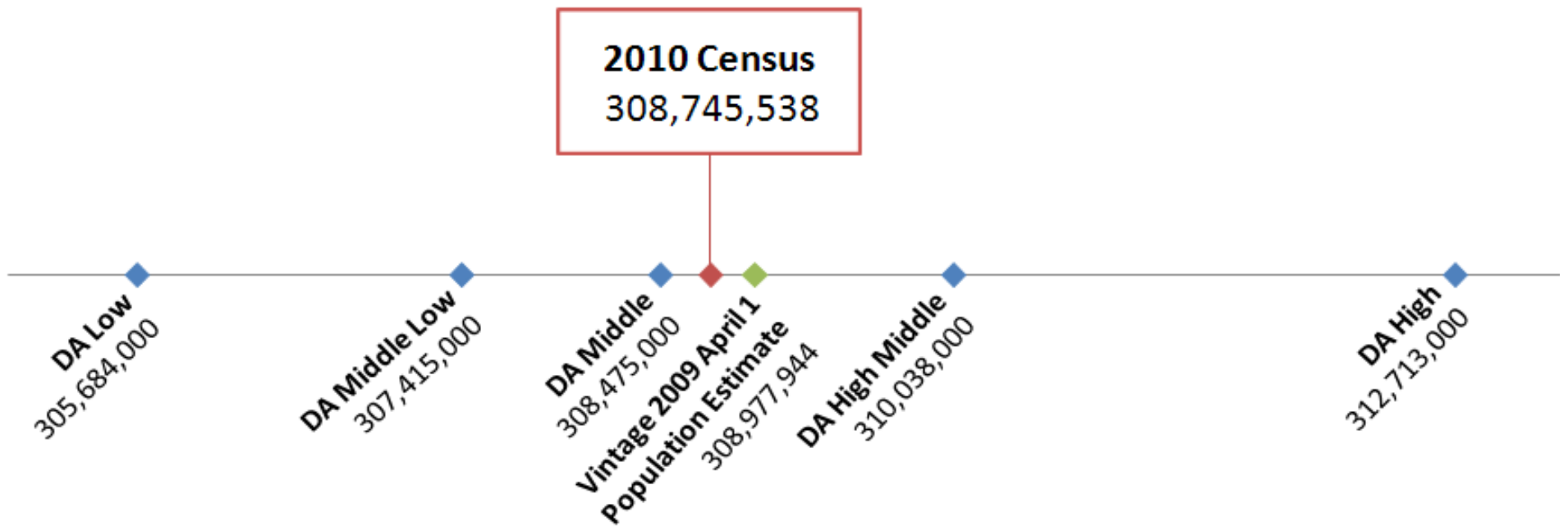


Similarity to an Alternative

- Demographic Analysis
 - Vital registration system supplies births, deaths
 - Emigration and immigration from records and diverse other sources
- National totals for age by gender by race/ethnicity
- Weaknesses
 - Undocumented immigration
 - Ethnicity measurement on records



2010 Census, Demographic Analysis and Population Estimates



Similarity to an Alternative (contd.)

- Post-enumeration sample survey (2012)
 - Matches and nonmatches to census
- Estimates of matches and nonmatches for states and larger areas
- Weaknesses
 - Subject to sampling variance
 - “correlation bias”
 - Recall error re April 1 status



Preliminary Results from the Post-Enumeration Survey

- Unweighted housing unit match of sample to master address file (2010 – 96.5%; 2000 – 91.4%)
- Percent of sample cases correctly enumerated (2010 – 96.3%; 2000 – 89.9%)
- Percent of sample cases found duplicated in census (2010 – 0.79%; 2000 – 1.05%)

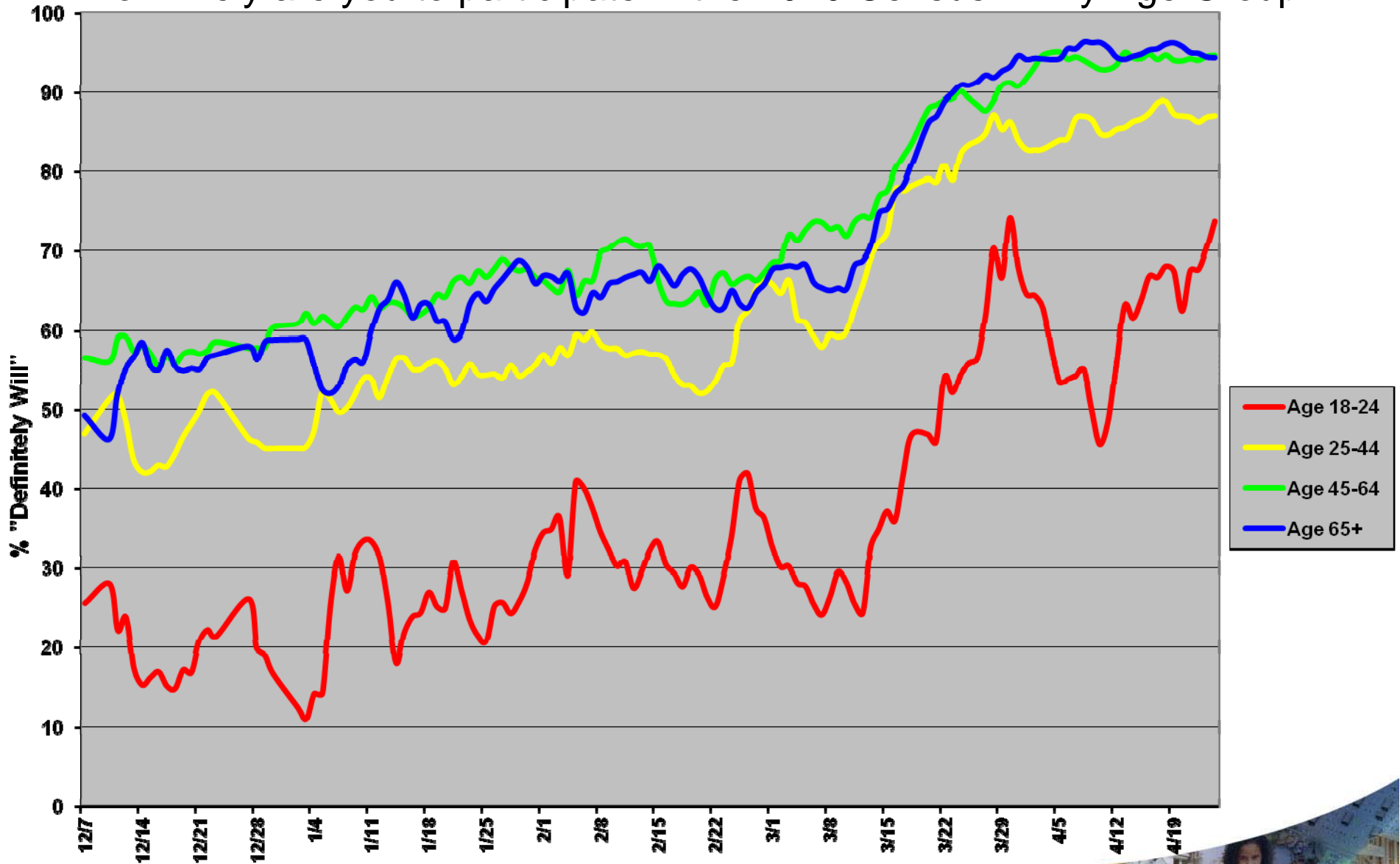


Soundness of Process of Data Collection

Feature	Evaluative Indicator Relative to 2000
Local government participation in Update of Census Addresses	Percentage of governments is lower; percentage of population represented is similar
Continuous update of Address List	Total housing units closer to independent estimate; fewer deleted listings (4 million vs 6 million in 2000); fewer additions in followup phase (635K vs 689K)
Communications campaign	Similar awareness, intention to participate



How likely are you to participate in the 2010 Census? – By Age Group

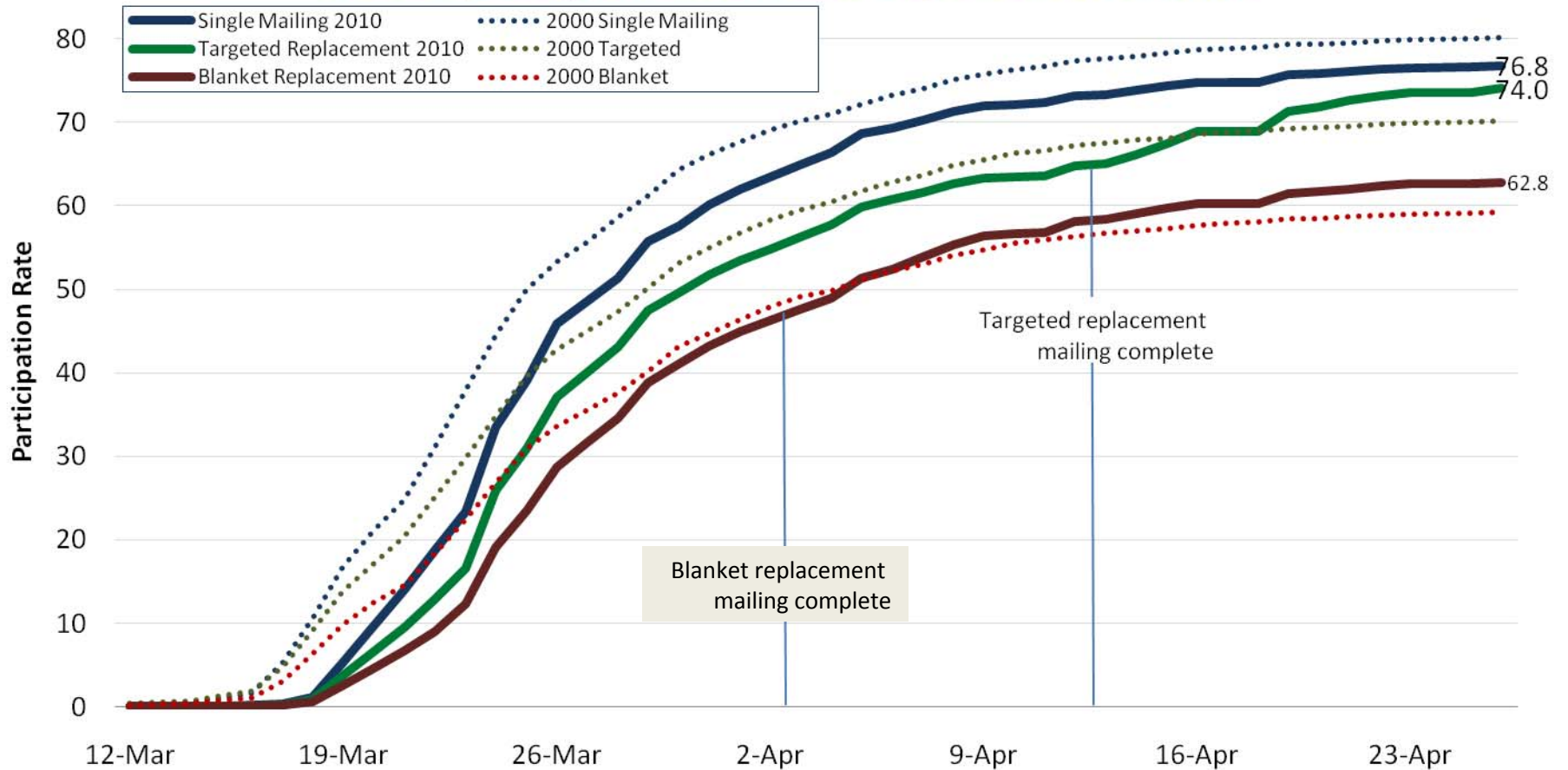


Soundness of Process of Data Collection

Feature	Evaluative Indicator Relative to 2000
Short-form only design	Higher participation rates than long form (overall 72% in 2010 vs. combined short-long 69% in 2000)
Bilingual questionnaire to 13 million households with >20% Spanish-speakers	Increased participation rate by about 2 percentage points
Replacement form sent to 40 million households, targeting hard to enumerate	Increased participation in hard to enumerate areas



2000 and 2010 Average Mailback Participation Rates for Census Tracts by Assignment of 2010 Replacement Forms



Source: Take 10 Participation Rates, Decennial Management Division



Soundness of Process of Data Collection

Feature	Evaluative Indicator Relative to 2000
Verification of composition for households with dynamic membership	Recontact with more households (7.5 million versus 2.5 million)
Assignment to enumerators	Fewer miles per interview
Nonresponse followup visiting rules the same	Higher percentage of population counts in households from proxy respondents



Soundness of Process of Data Collection

Feature	Evaluative Indicator Relative to 2000
Unit and Person Imputation Rates	Slightly lower rates of unit and person imputation than 2000
Quality control reinterviews	Essentially all enumerators subject to reinterviews (vs. 75% in 2000); smaller percentage of enumerators failing to meet quality standards
Meeting deadlines on data collection	All 11 operations since mid-2009 on schedule and significantly under budget (\$1.87 billion returned)

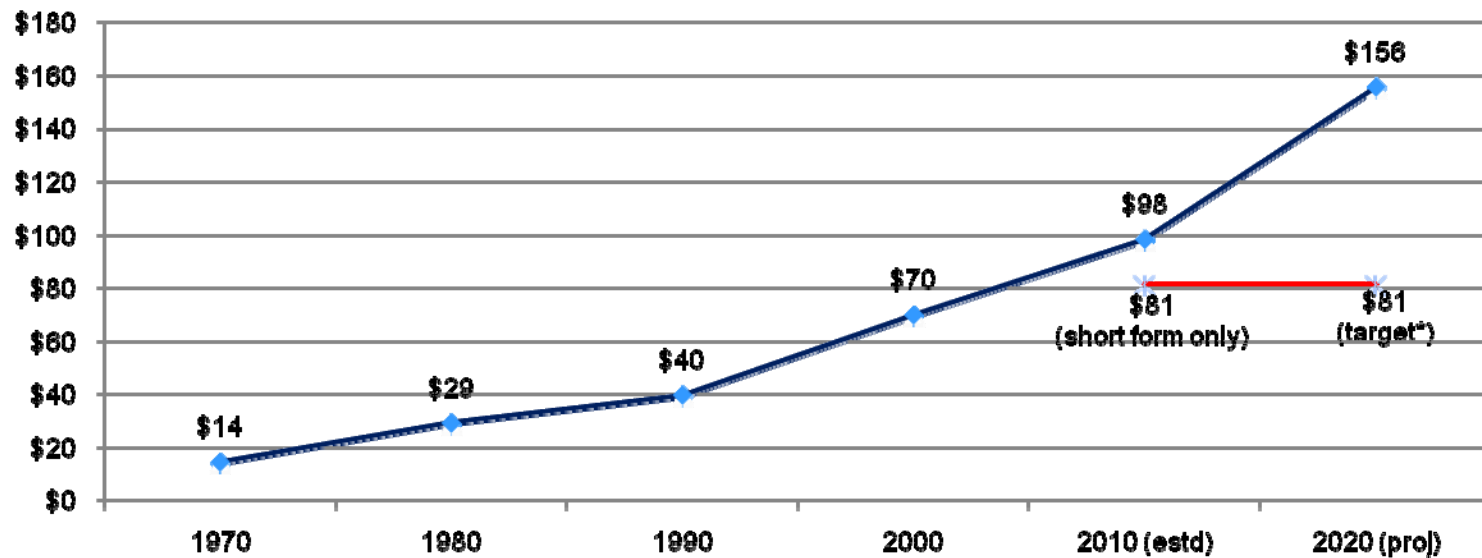


Much Evaluation Remains

- Many formal evaluation projects
- Final post-enumeration survey results in 2012
- Of note
 - Post-hoc administrative record census simulation

The Challenge and the Target

Census Cost per Housing Unit (2010\$)



Notes:

Adjusted for projected FY 2010 savings of \$1.6 billion; projected cost per housing unit for 2020 assumes no change in design and real cost growth from 1990-2000 and 2000-2010 averaged (58.3%); includes the costs for the 2002-2012 MAF/TIGER Enhancement Program and 2001-2013 American Community Survey.

(*) One of the goals of the 2020 Census is to conduct the census at a lower cost than the 2010 Census (per housing unit on an inflation-adjusted basis), while maintaining quality.



Four Cost-Drivers

Cost-Driver #1

Increased population diversity and decreased willingness to cooperate with self-response and non-response follow-up

Potential Cost Reducer #1

Expanding, automating, and tailoring self-response methods, including an Internet option, and using administrative records for follow-up

Cost-Driver #2

Limited 2000-2009 updating of the Master Address File and TIGER maps led to a design incorporating “last-minute” (2009) updates

Potential Cost Reducer #2

Continuously updating the address frame and targeting address canvassing and map updates using multiple sources and geographic partnerships, as described in FY 2011 Geographic Support Systems budget initiative



Four Cost-Drivers cont'd.

Cost-Driver #3

Failure to link acquisitions, schedule, and budget

Potential Cost Reducer #3a

A rolling approach to planning, budget, and schedule

Potential Cost Reducer #3b

Strong program management strategies to reduce program risk

Cost-Driver #4

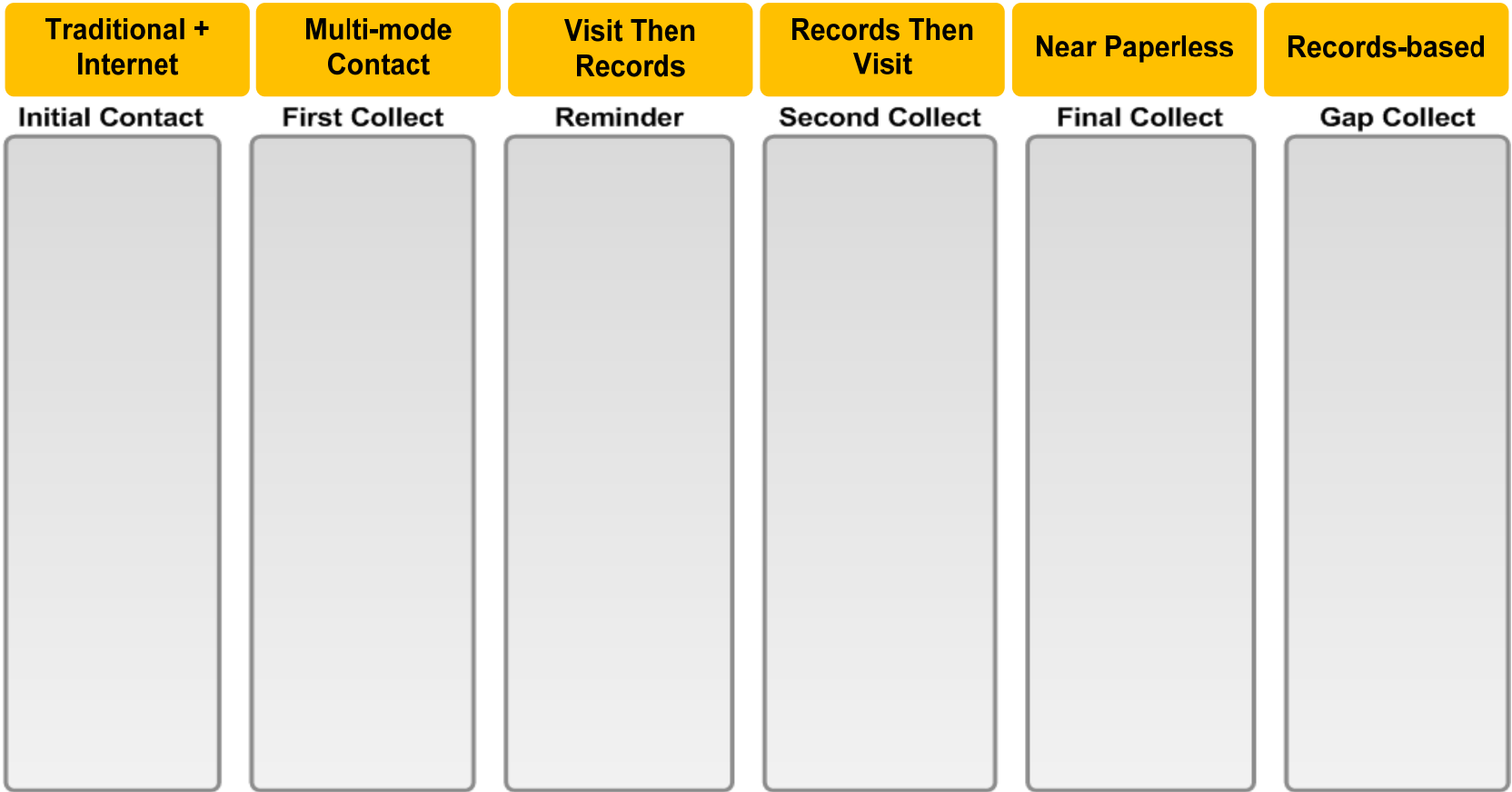
Demand for absolute accuracy

Potential Cost Reducer #4

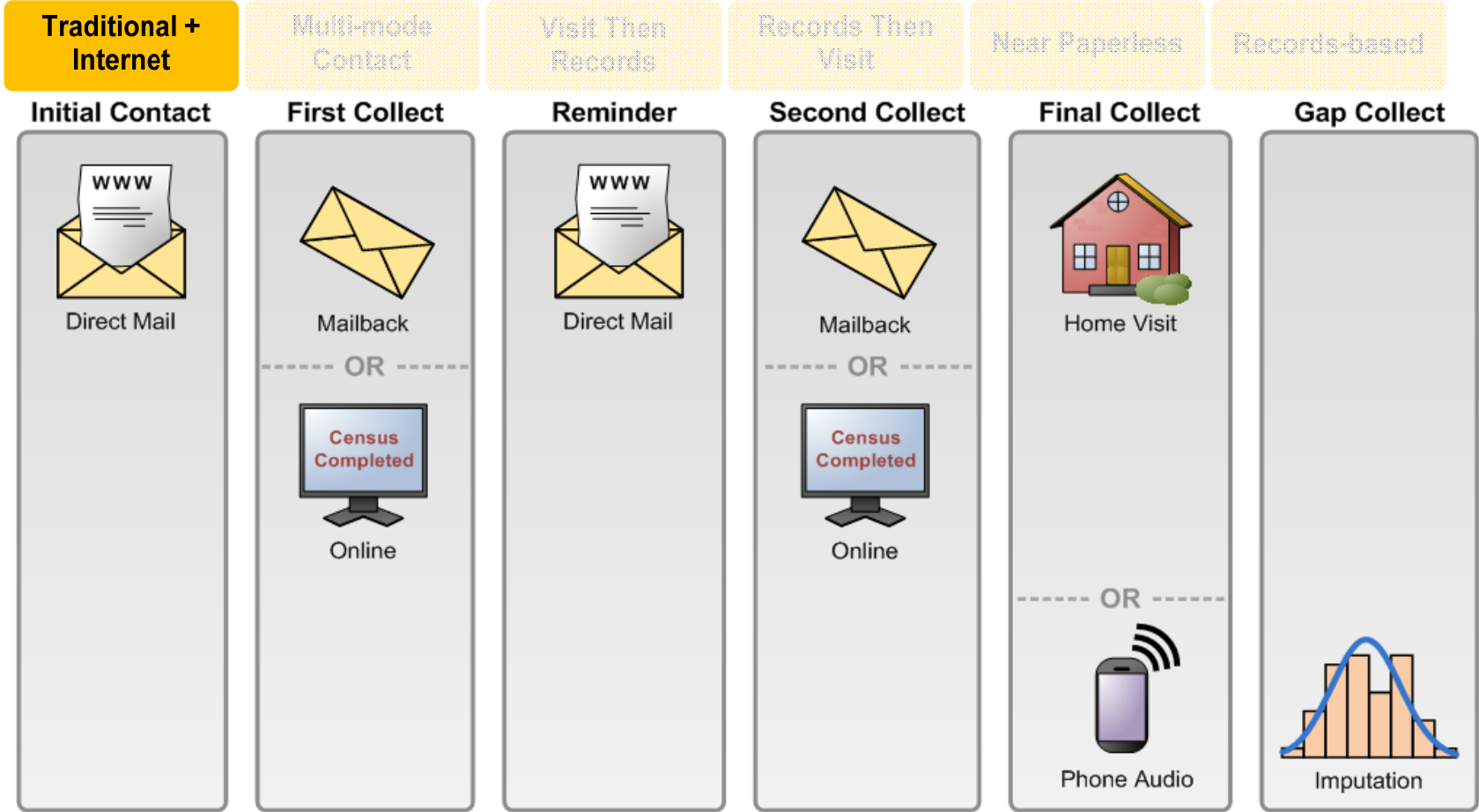
Building consensus among stakeholders regarding tradeoff between accuracy and cost

Enumeration

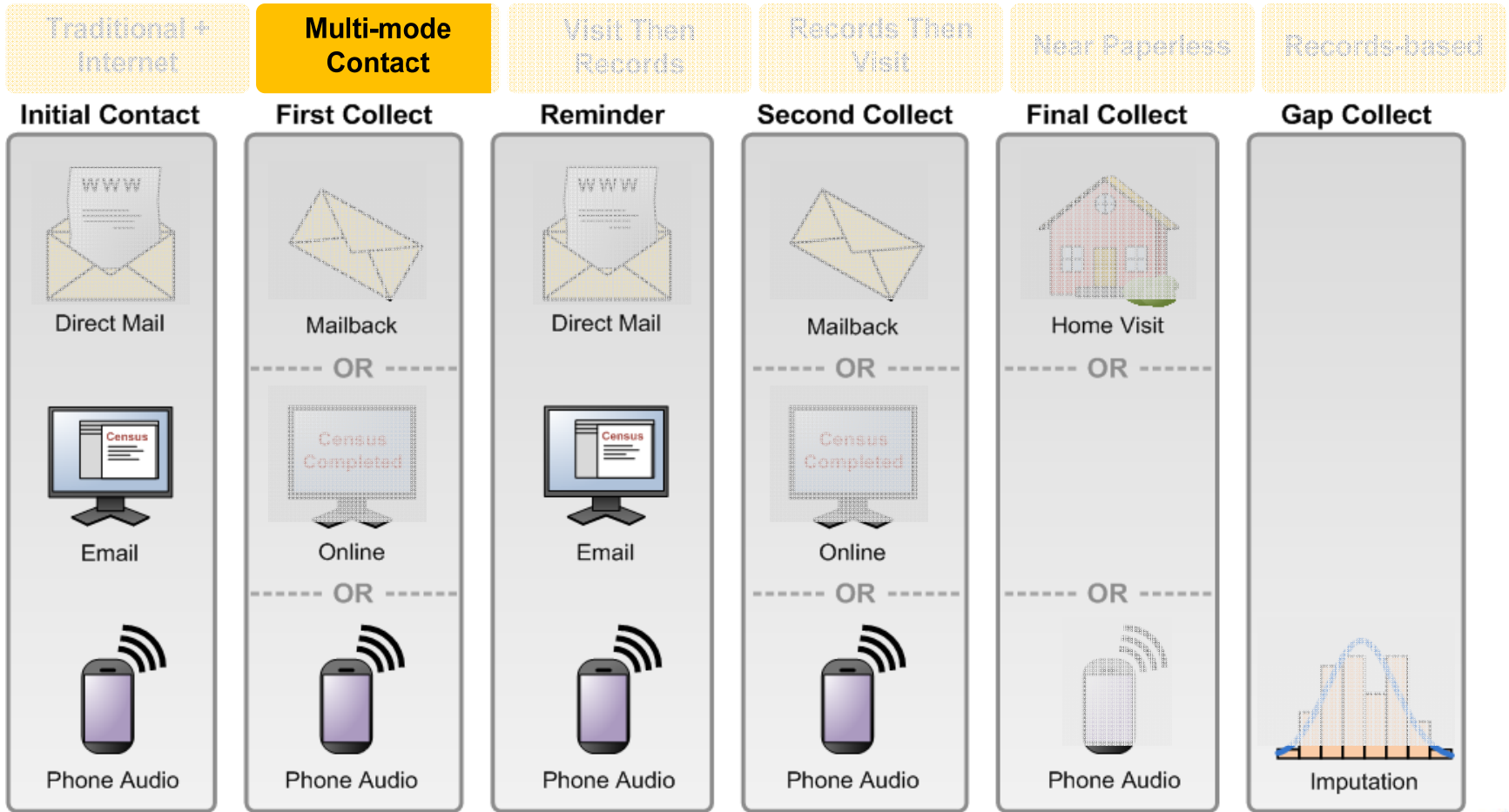
Six Options



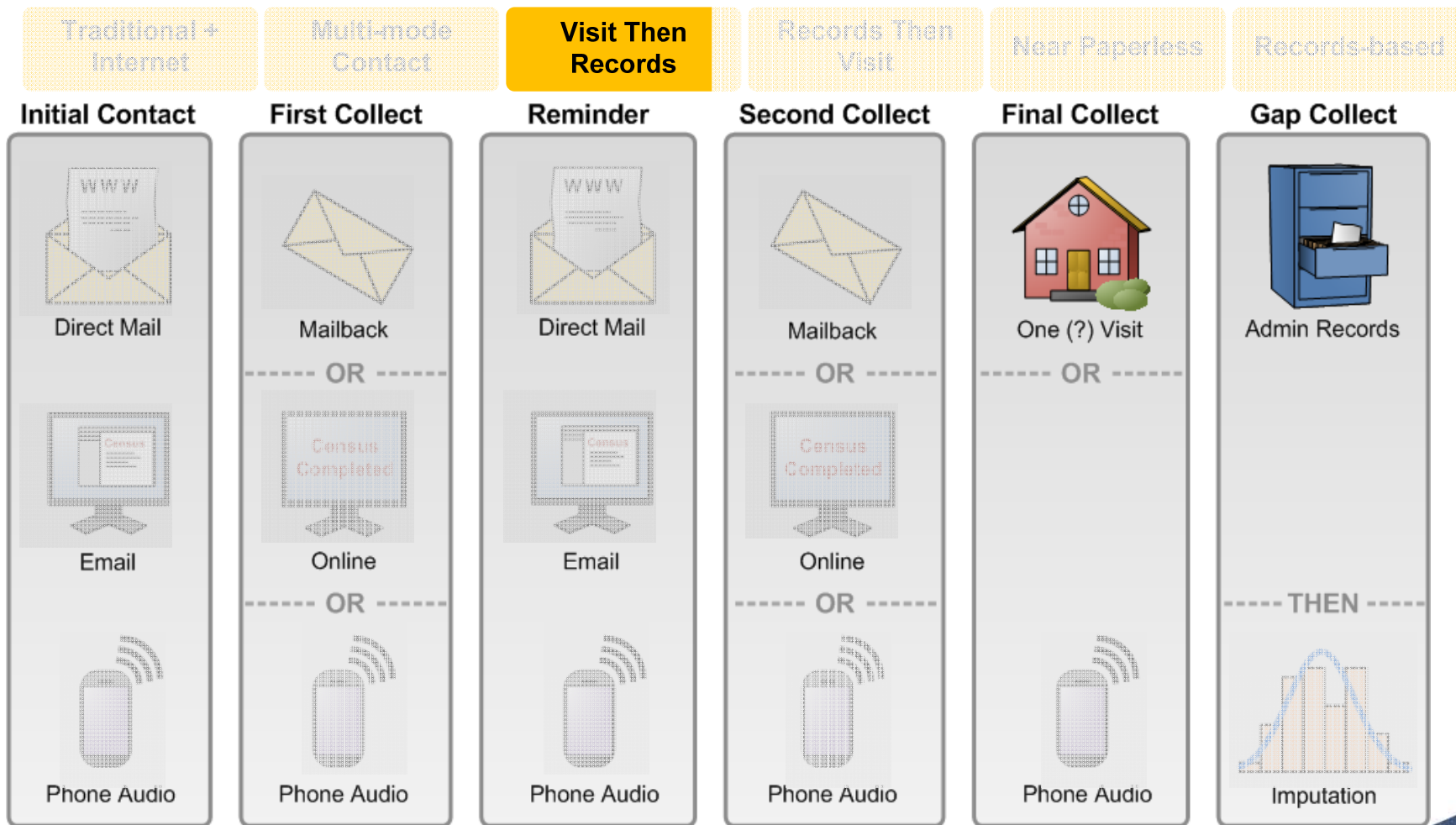
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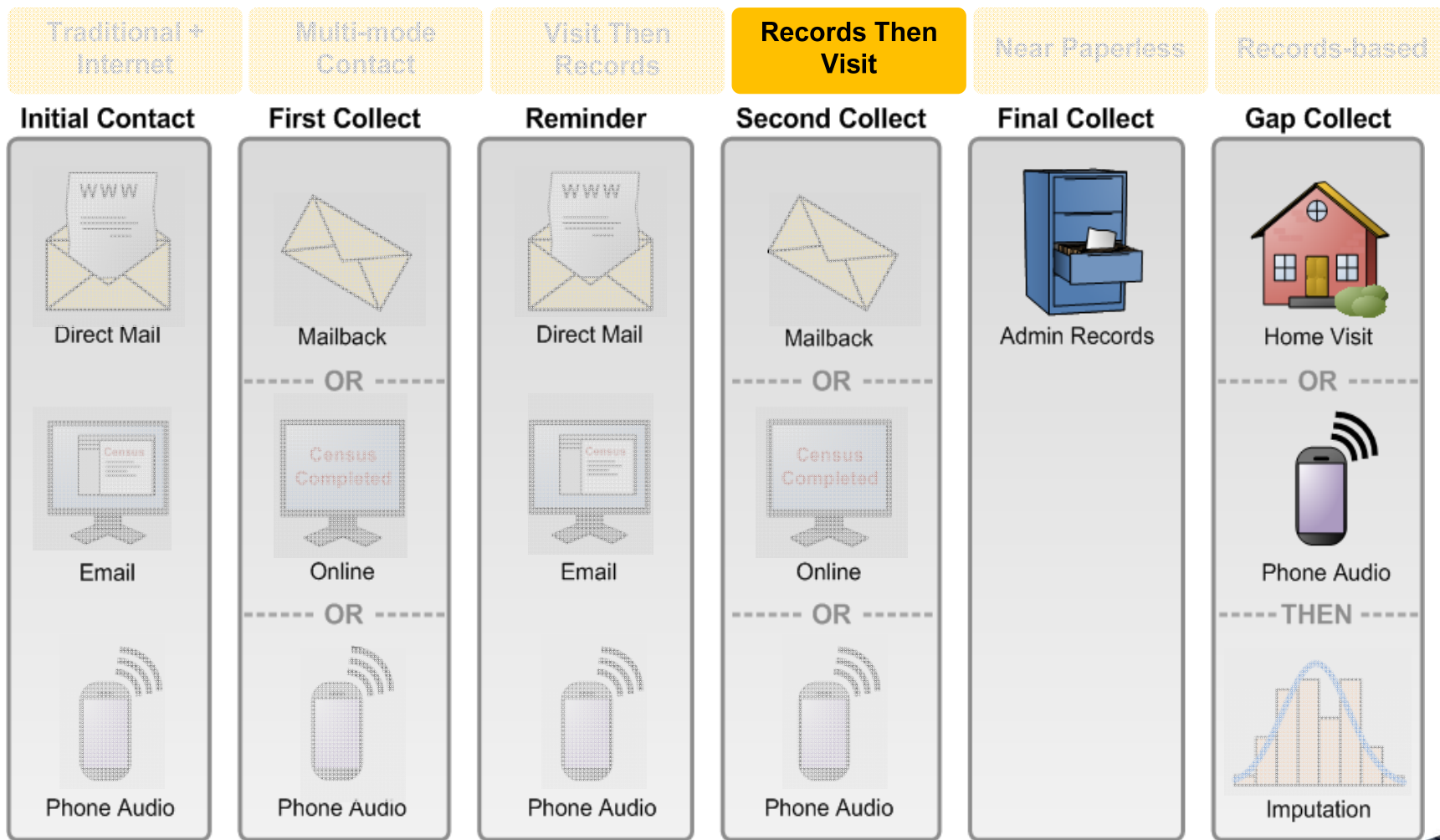
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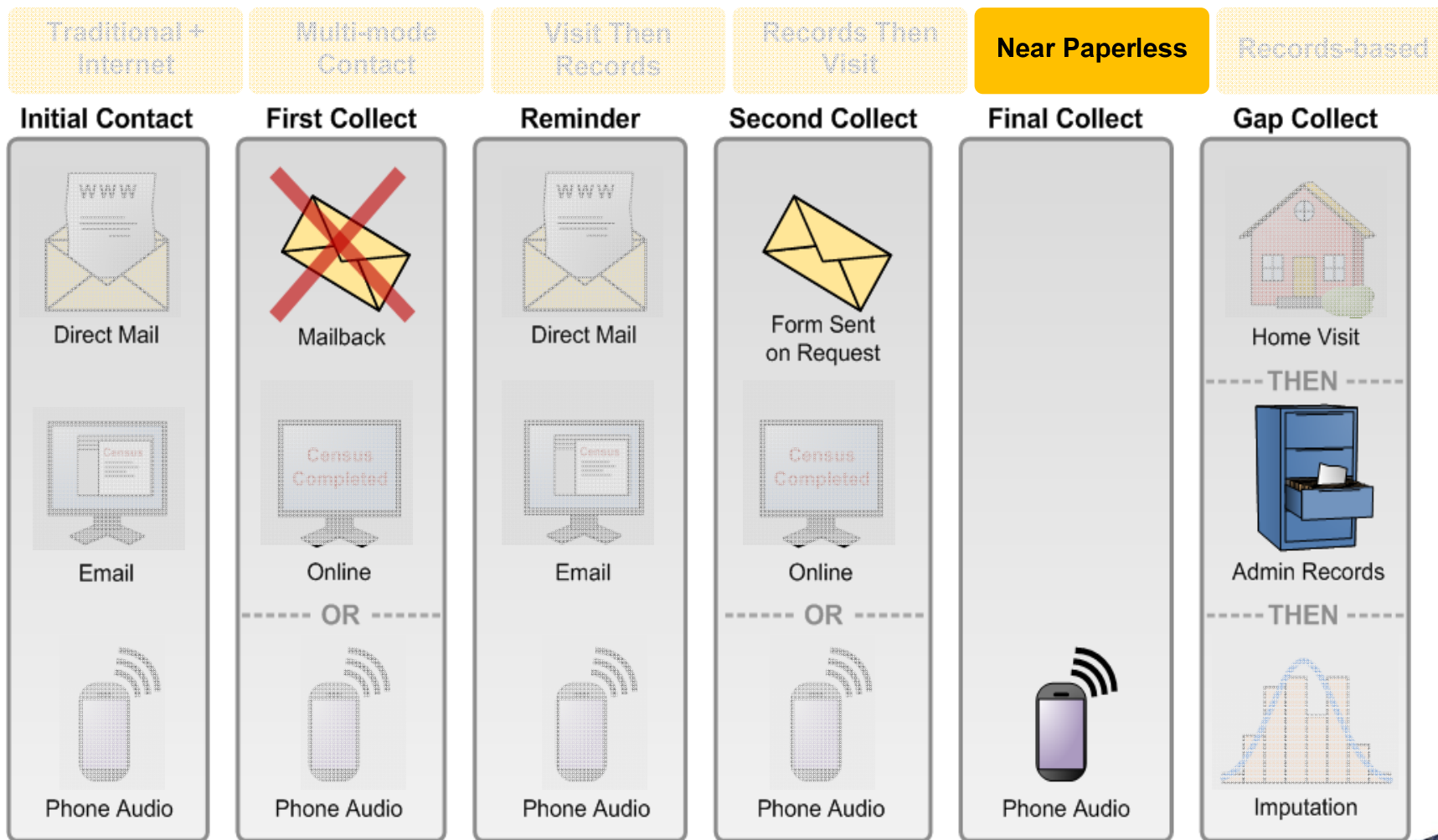
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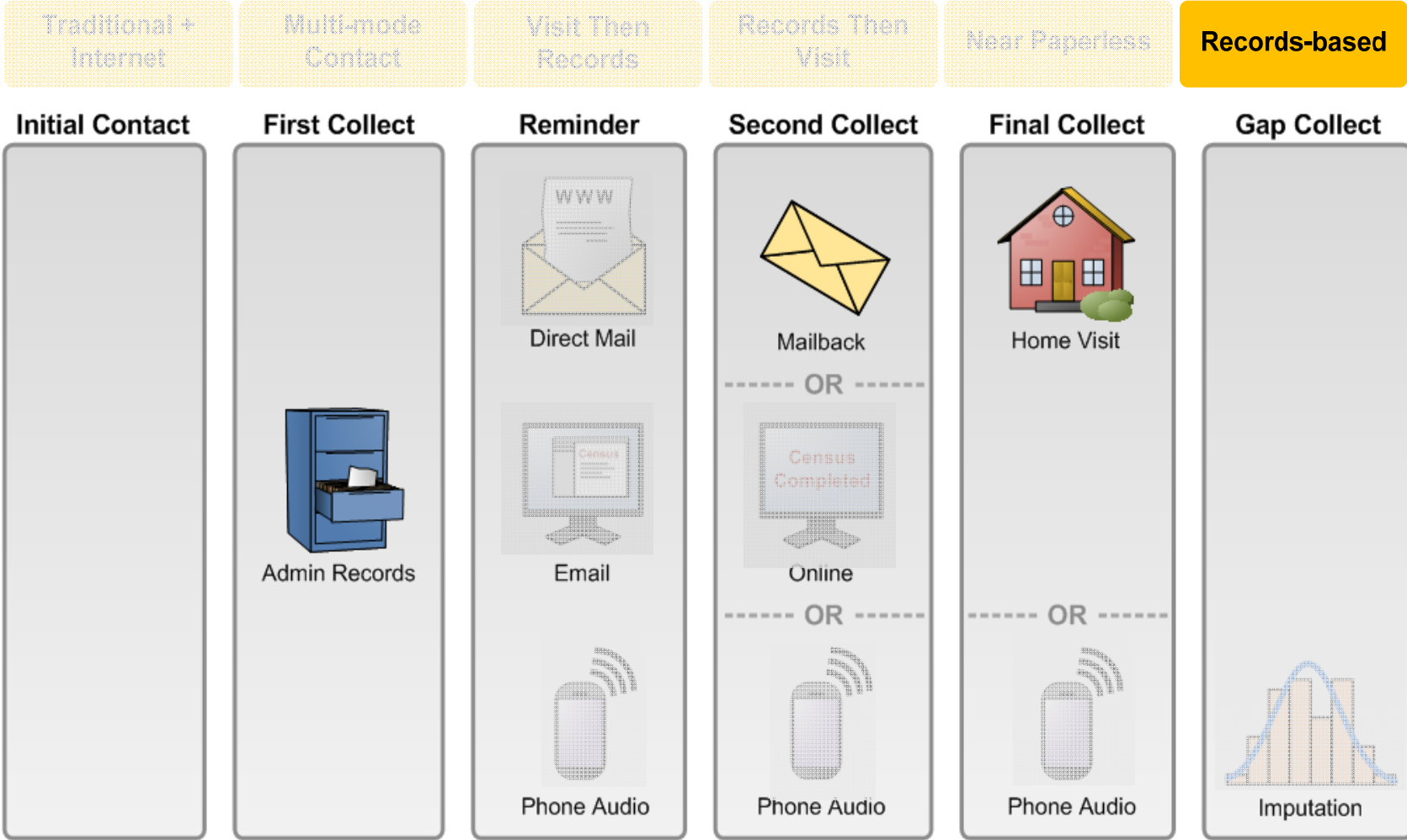
Enumeration



Enumeration



Enumeration



2020 Census Lifecycle

