



EVALUATING EFFICIENCY AND EFFECTIVENESS OF CELL PHONE SAMPLES

**PRESENTED AT THE
ANNUAL MEETING
AMERICAN ASSOCIATION OF
PUBLIC OPINION RESEARCH**

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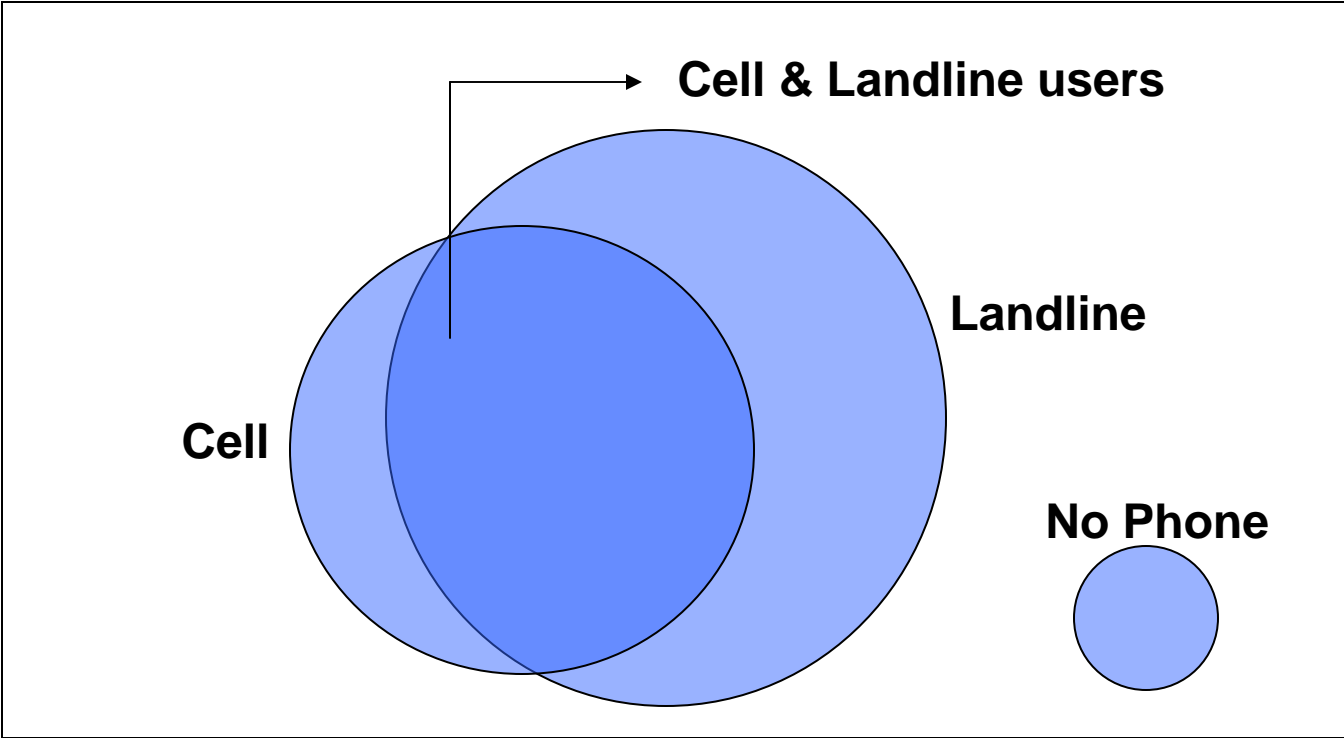
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Exploratory Evaluation of Two Sampling Frames

- **Address-based**
 - Residential locations
 - Passive Contact Method
- **Cell Phone**
 - Cell phone numbers
 - Active Contact Method

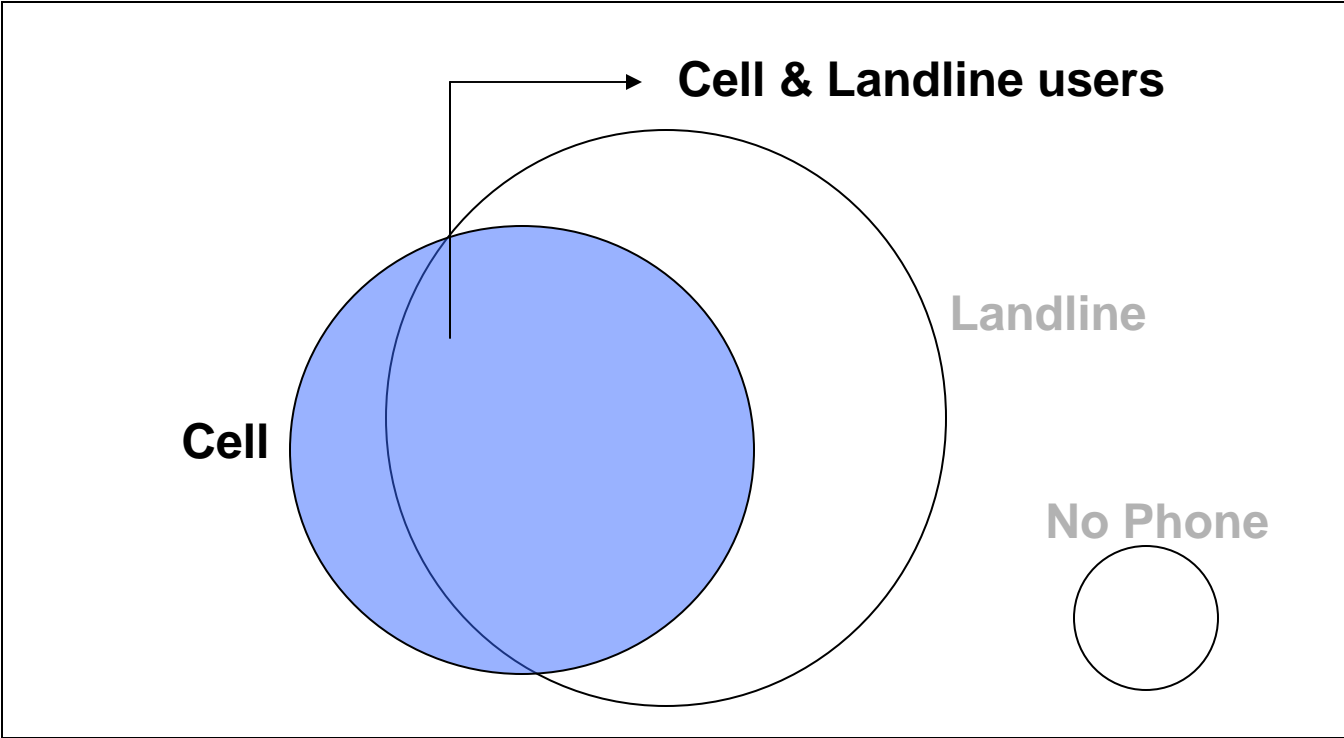
Coverage of Telephone Ownership Types

Address-based Sampling Frame



Coverage of Telephone Ownership Types

Cell Phone Sampling Frame



Data

- **Address-based Frame**
 - Metropolitan Washington Household Travel Survey
 - Two-Stage Regional Survey
 - Analysis focused on Stage 1: Recruitment
 - Mail-out with Multiple Completion Options
 - Single Frame:
 - Matched and Unmatched to Telephone Numbers
- **Cell Phone Frame**
 - National Traffic Safety Survey
 - Single Stage National Survey
 - Dual Frame: RDD landline and Cell phone samples

Response Rates

	Address-based Frame	Cell Phone Frame
AAPOR Response Rate (RR4)	18.5%	19.0%
Total Completed Interviews	5,015	719
Cell-Only households	1,532 (30%)	299 (42%)
Landline-Only households	1,287 (26%)	-
Cell and landline households	1,982 (40%)	420 (58%)
Other (VOIP)	214 (4%)	-

Coverage: Age

Address-based Frame: Metropolitan Washington Survey

Respondent Age

	Cell- Only	Dual	Landline- Only
18 - 34 years	56%	20%	15%
35 - 54 years	35%	51%	43%
55 years or older	9%	29%	42%
	100%	100%	100%

Coverage: Age

Cell Phone/RDD Landline Dual Frame: National Survey

Respondent Age

	Cell Phone Frame		RDD Frame	
	Cell-Only	Dual	Dual	Landline-Only
18 - 34 years	55%	48%	24%	23%
35 - 54 years	31%	35%	46%	34%
55 years or older	14%	17%	30%	43%
	100%	100%	100%	100%

Coverage: Age

Address-based Versus Cell Phone

Respondent Age

	Address-based Frame	Cell Phone Frame
	Cell-only	Cell-only
Less than 34 years	56%	55%
34 to 54 years	35%	31%
55 years or older	9%	14%
	100%	100%

Coverage: Household Size

Address-based Frame: Metropolitan Washington Survey

Household Size (with Mean Respondent Age)

	Cell- Only	Dual	Landline- Only
One	48% (38)	28% (49)	41% (57)
Two	35% (35)	38% (50)	32% (52)
Three	9% (35)	16% (43)	13% (44)
Four or more	8% (37)	18% (42)	14% (43)
	100% (36)	100% (47)	100% (52)

Coverage: Household Size

Cell Phone/RDD Landline Dual Frame: National Survey

Household Size (with Mean Respondent Age)

	Cell Phone Frame		RDD Frame	
	Cell-Only	Dual	Dual	Landline-Only
One	40% (39)	18% (40)	18% (58)	38% (65)
Two	30% (36)	32% (44)	40% (53)	35% (58)
Three	14% (35)	20% (36)	15% (44)	11% (42)
Four or more	16% (32)	30% (35)	27% (39)	16% (36)
	100% (36)	100% (39)	100% (46)	100% (51)

Coverage: Household Size

Address-based Sample Versus Cell Phone

Household Size (with Mean Respondent Age)

	Address-based Frame	Cell Phone Frame
	Cell-only	Cell-only
One	48% (38)	40% (39)
Two	35% (35)	30% (36)
Three	9% (35)	14% (35)
Four or more	8% (37)	16% (32)
	100% (36)	100% (36)

Coverage: Household Income

Address-based Frame: Metropolitan Washington Survey

Household Income

	Cell-Only	Dual	Landline-Only
Less than \$30,000	17%	11%	34%
\$30,000 to < \$75,000	44%	36%	39%
Greater than \$75,000	39%	54%	27%
	100%	100%	100%

Coverage: Education (Income Proxy)

Cell Phone/RDD Landline Dual Frame: National Survey

Respondent Education

	Cell Phone Frame		RDD Frame	
	Cell-Only	Dual	Dual	Landline-Only
No College	41%	44%	36%	54%
Some College	36%	28%	33%	28%
College Graduate	24%	29%	31%	18%
	100%	100%	100%	100%

Cost per Interview

- **Address-based Frame**

- Costs distributed cross mailing, telephone, incentive
- \$25.40/Completed Survey
 - \$2.00 Survey Material and Postage
 - \$23.40/ Recruitment Call
- \$50 incentive for completion of stages 1 & 2

- **Cell Phone Frame**

- Costs focused on telephone interviewing
- \$50.91/Completed Interview
- \$5 Remuneration

Conclusions

- Address-based frame is “information rich” compared to cell phone
- Coverage of telephone ownership types is broader in address-based frame
- Response rates are similar for both frames
- Aggregate cost per interview comparable
- Both frames capture the unique characteristics of cell-only users

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