



Scope and Coverage of Landline and Cell Phone Numbers Appended to Address Frames

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RDD, Cell Phones, and Address-Based Sampling

- Traditional landline telephones giving way to cell phone usage for many households (Blumberg and Luke, 2012), creating bias problems for RDD surveys.
- One alternative to RDD is ABS (Iannacchione 2011) with CATI/multi-mode surveys.
- However, phone matching is incomplete, often inaccurate, and usually limited to landline numbers.

Research Issues for ABS with CATI

- ABS frame coverage of population of housing units
 - Shook-Sa et al. (2012), McMichael et al. (2012), Iannacchione et al. (2003), O’Muircheartaigh et al. (2003)

- **Availability of matched phone numbers for the frame**
 - Murphy et al. (2010)

- Reliability of matched phone numbers
 - Murphy et al. (2010), McMichael, Roe, and Lappin (2012)

- ABS/CATI in the context of multi-mode surveys

Vendors Provide Address Frames Based on USPS Computerized Delivery Sequence (CDS) File and No-Stat File

- Nationally:

- Valassis
- CIS

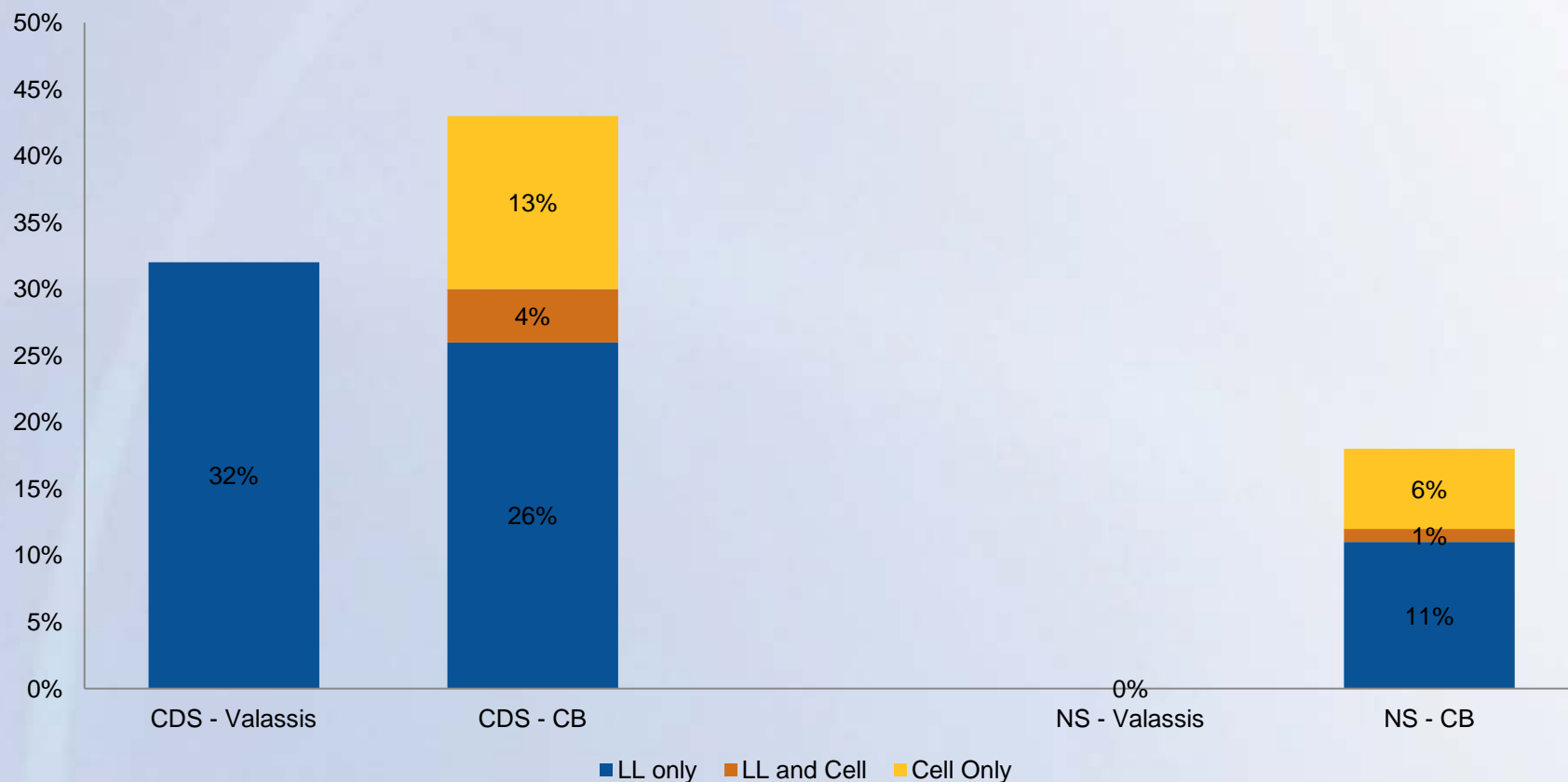
For more on the No-Stat file, see Shook-Sa et al. (2012), Session 633, Thursday, 10:30

Vendors Match Telephone Numbers to Addresses – Availability Changing

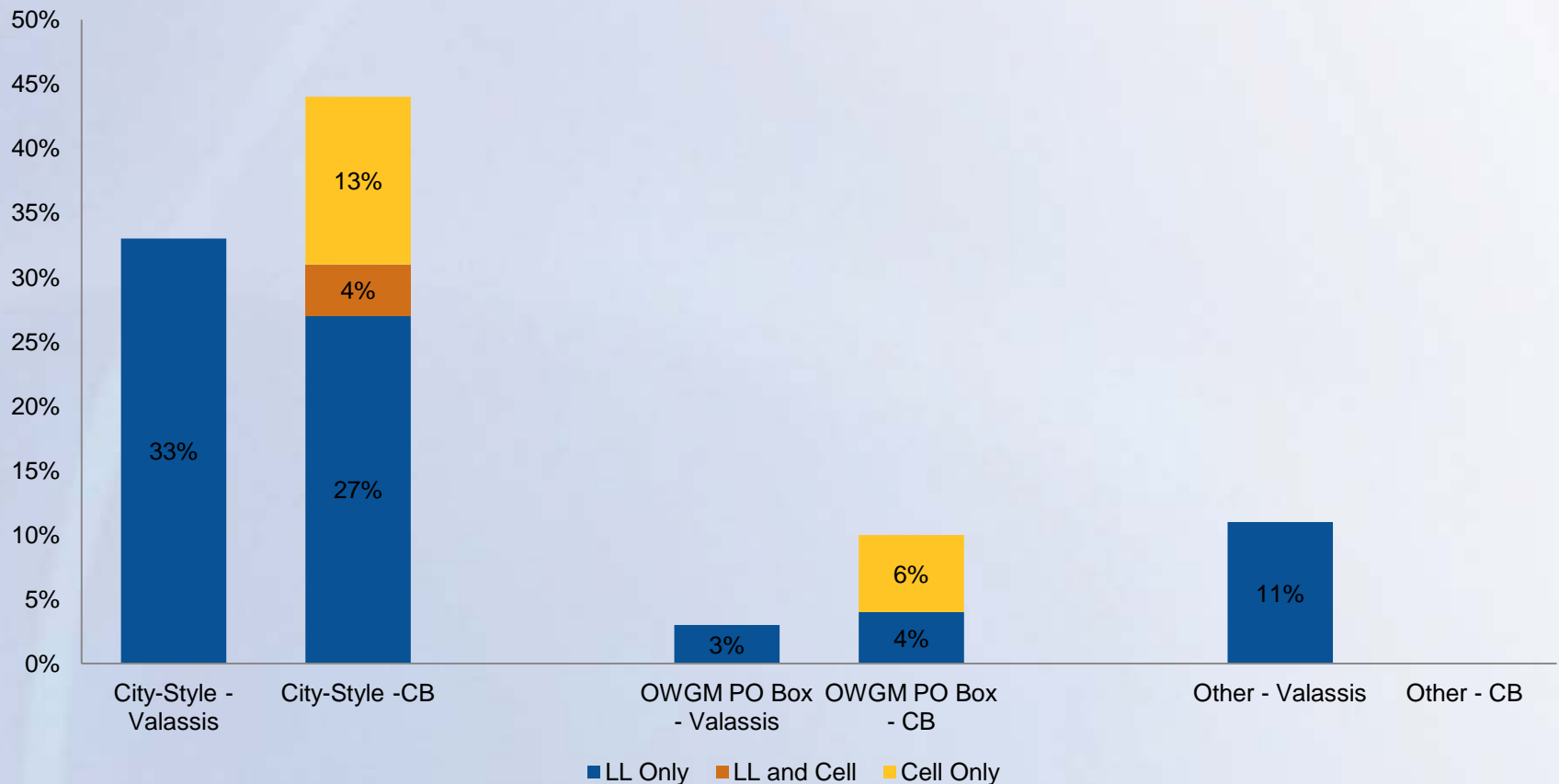
Methodology

- Selected systematic sample of 12 million addresses from Valassis CDS file and No-Stat file, for Feb 2012.
- Excluded business addresses and PO boxes except “only way to get mail” (OWGM).
- Matched phone flags from Valassis (LL) and Consumer Base (LL and cell).
- Characterized percentage of addresses in frame with flags for available numbers.
- Drilled down using Consumer Base data.
 - 50 states + DC
 - NHIS small areas reported in Blumberg and Luke (2012)

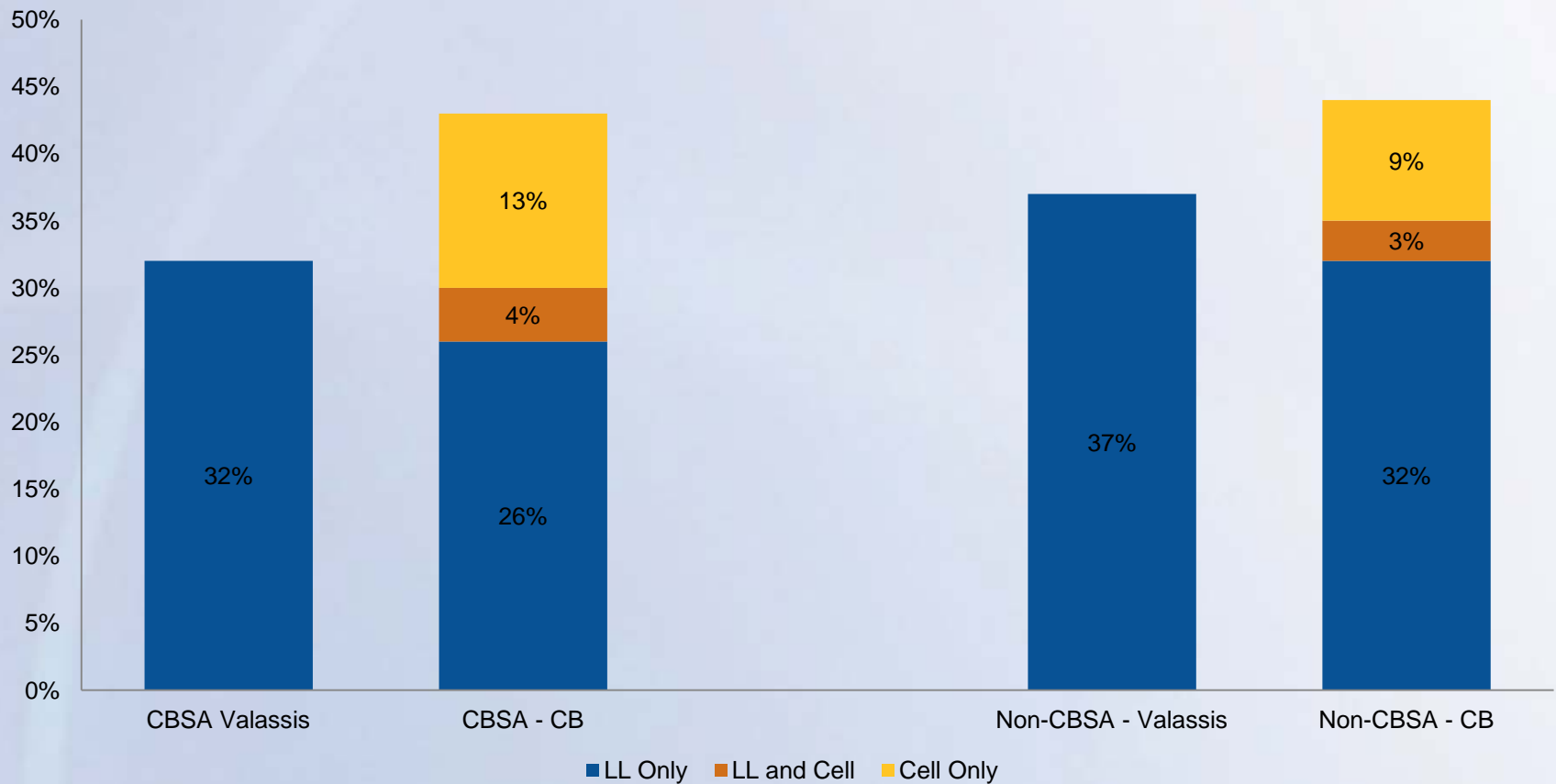
Nationally, Percentage of Frame Addresses with Phone Matches by File



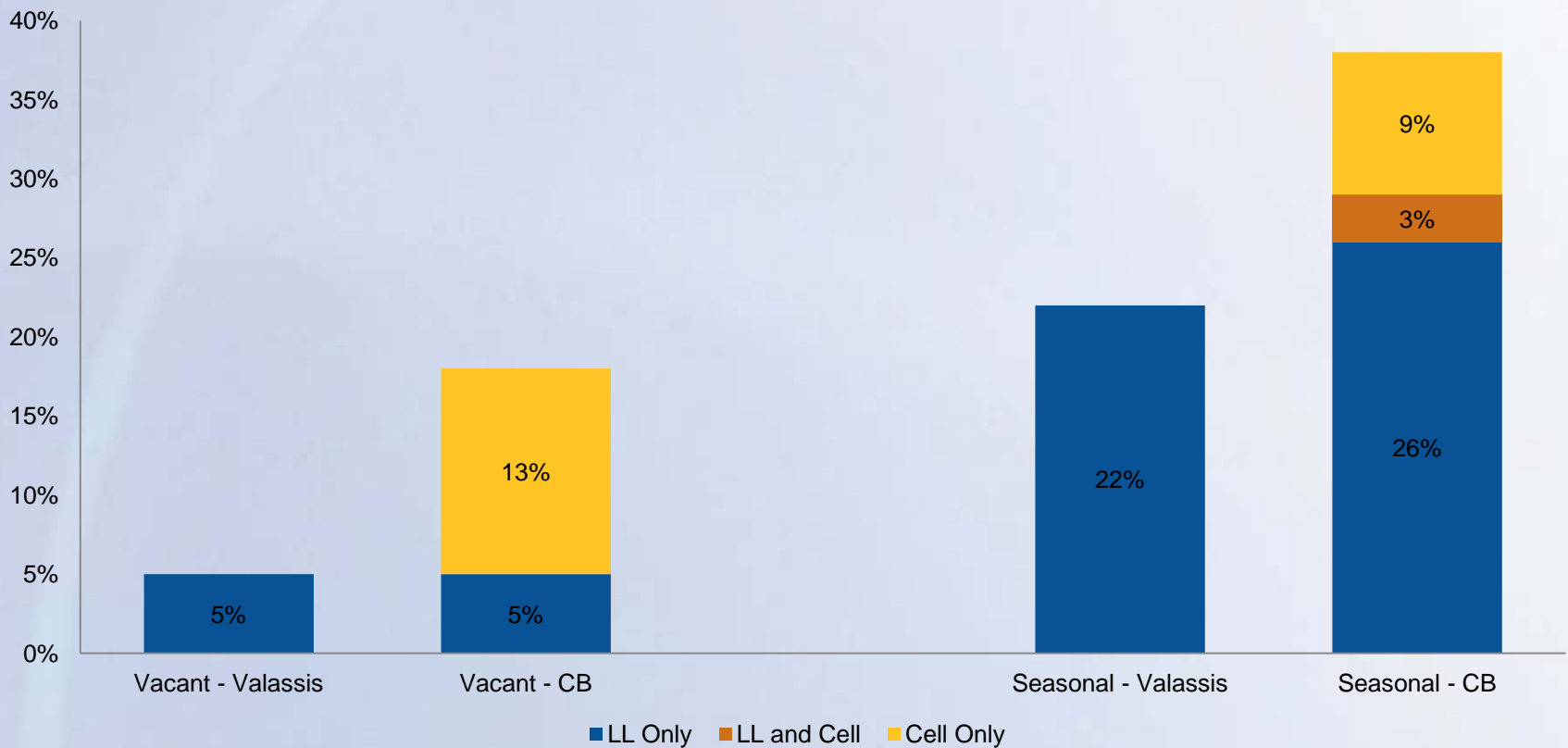
Nationally, Percentage of CDS Addresses with Phone Matches by Address Type



Nationally, Percentage of CDS Addresses with Phone Matches by CBSA Status

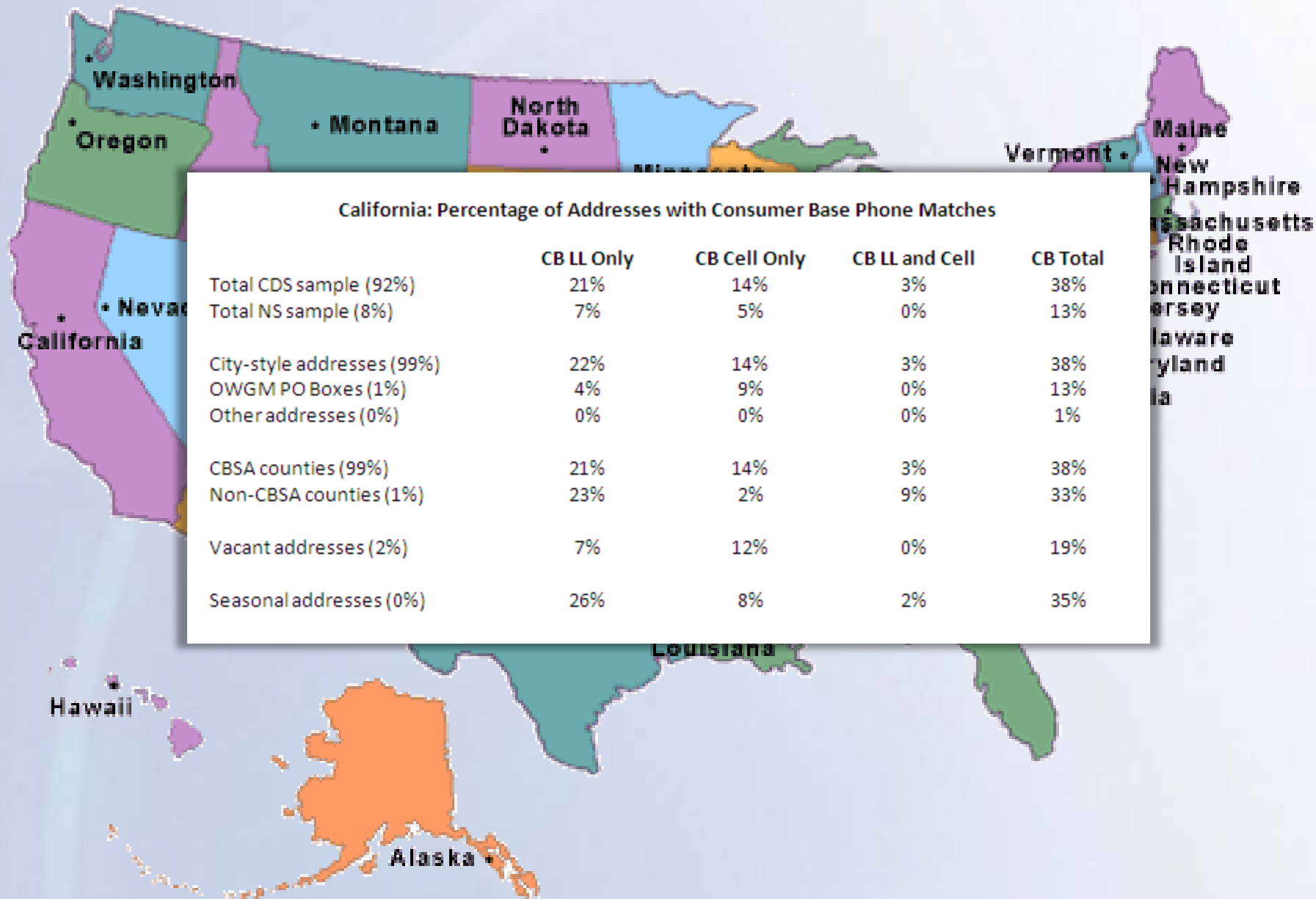


Nationally, Percentage of CDS Vacant and Seasonal Addresses with Phone Matches



State Level Summary Statistics

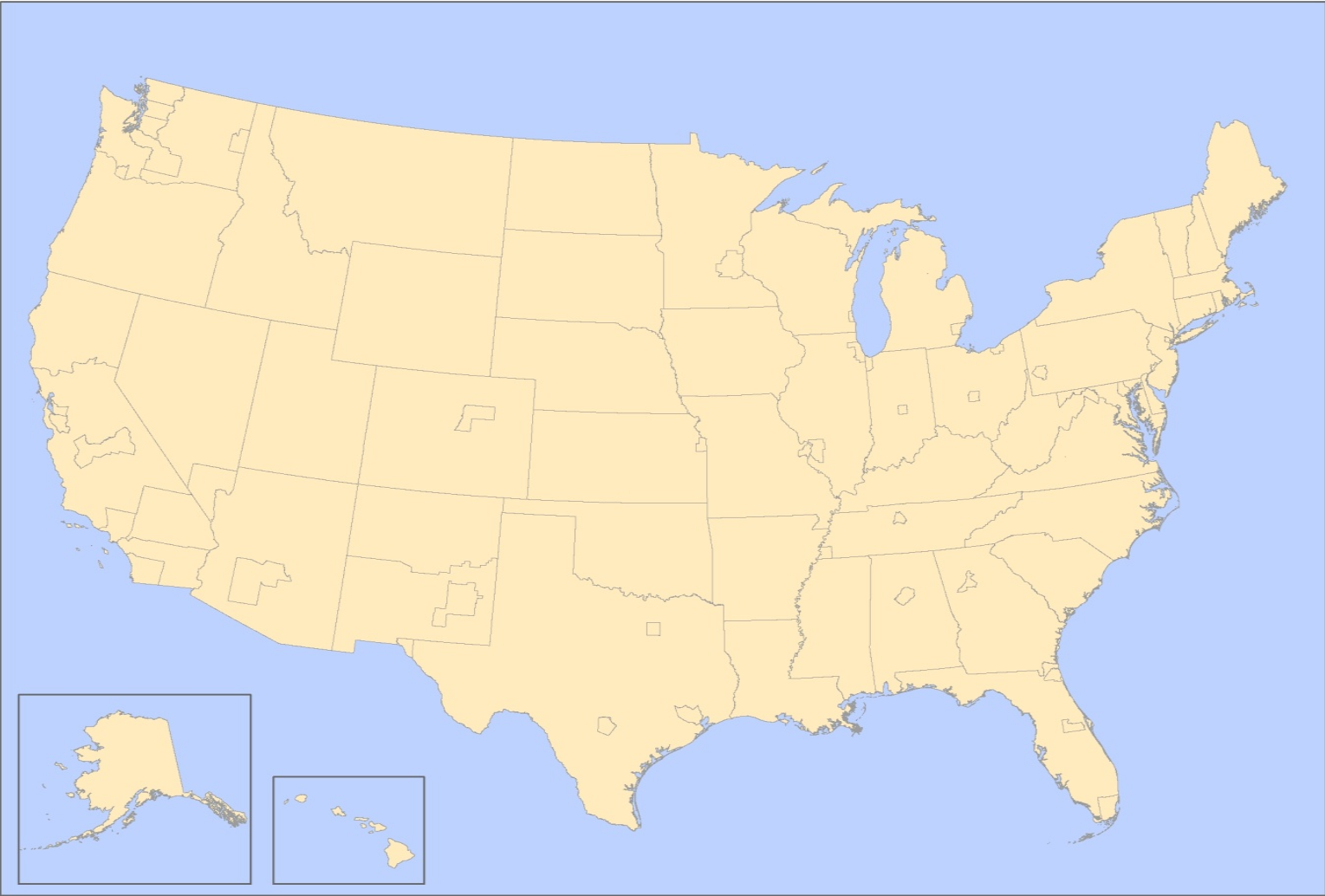




California: Percentage of Addresses with Consumer Base Phone Matches

	CB LL Only	CB Cell Only	CB LL and Cell	CB Total
Total CDS sample (92%)	21%	14%	3%	38%
Total NS sample (8%)	7%	5%	0%	13%
City-style addresses (99%)	22%	14%	3%	38%
OWGM PO Boxes (1%)	4%	9%	0%	13%
Other addresses (0%)	0%	0%	0%	1%
CBSA counties (99%)	21%	14%	3%	38%
Non-CBSA counties (1%)	23%	2%	9%	33%
Vacant addresses (2%)	7%	12%	0%	19%
Seasonal addresses (0%)	26%	8%	2%	35%

Blumberg and Luke Areas



San Diego County: Percentage of Addresses with Consumer Base Phone Matches

	CB LL Only	CB Cell Only	CB LL and Cell	CB Total
Total CDS sample	20%	14%	2%	36%
City-style addresses (100%)	20%	14%	2%	36%
OWGM PO Boxes (0%)	3%	11%	0%	14%
Other addresses (0%)	0%	0%	0%	0%
Vacant addresses (1.4%)	8%	13%	1%	22%
Seasonal addresses (.2%)	14%	14%	3%	30%

Summary Points

- Coverage of phone matches to frame varies by vendor.
- Cell phone matches are possible—increases coverage.
- Using multiple sources might also increase coverage.
- Phone matches are best for city-style addresses, but possible for other types of addresses.
- Survey planners should take summary stats into account in planning an ABS/CATI mixed mode survey.
- *Reliability* of phone numbers should not be assumed.

Next Step – Reliability of Phone Numbers

- Matched phone numbers often unreliable:
 - Not working residential numbers
 - Not associated with address
- Murphy et al. (2010) reported reliability for one project, one vendor.
- McMichael, Roe, and Lappin (2012) report reliability for one project, different vendors.

More Information

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References available upon
request.

References

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