

The National Do Not Call Registry and State-Level Response Rates: Taking Another Look

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National Do Not Call Registry

- **Background:**

- Designed to reduce unsolicited calls from some segments of telemarketing industry
- Effective October 1, 2003
- Enforced by Federal Trade Commission (FTC)



NATIONAL
DO NOT CALL
REGISTRY



- **Register up to 3 telephone numbers**
 - Landline or cell phone
- **Surveys are not covered by DNC Registry**

What effect has DNC Registry had on response rates?

- **DNC Registrants:**
 - Behaviorally different from non-registrants: they registered their telephone numbers
- **Hypothesis 1:**
 - Fewer unwanted calls will increase willingness to participate in surveys
- **Hypothesis 2:**
 - Individuals want to reduce all unsolicited calls which will decrease willingness to participate in surveys



Behavioral Risk Factor Surveillance System (BRFSS)

- Monthly state-based RDD survey of health issues
- 50 states, District of Columbia, Puerto Rico, Guam, and Virgin Islands
- 350,000+ adult interviews conducted in 2006
- From 2002 to 2006:
 - completed 1,517,000 interviews
 - Dialed 14,381,000 telephone numbers



Findings from initial investigation

- Examined state-level response rate trends from Jan. 2002 – June 2005
- Significant declining trends for 33 of 47 states
 - Median decline: 2.2% per year
- Time series modeling:
 - Percentage of households on DNC Registry was not significantly related to changes in response rates



New analysis

- Extended time series by 18 months
 - January 2002 through December 2006
- More state-level detail
- Refined measurement of percentage of **households** on DNC Registry



Original calculation (from article)

Percentage of Households with 1 or more
telephone numbers on DNC Registry

$$= \frac{\text{\# telephone numbers on DNC Registry} / 1.3 \text{ numbers per HH}}{\text{Number of households with telephones (March 2003)}}$$



Refined calculation

Percentage of Households with 1 or more telephone numbers on DNC Registry

$$\begin{aligned} & \text{(Screened \# telephone numbers on DNC Registry /} \\ & = \frac{\text{Average number of landline telephones in HH}}{\text{(Estimated housing units * Estimated landline HHs)}} \end{aligned}$$

- DNC numbers screened to purge known business, out of service, and cell phones;
- DNC count adjusted to determine number of households with 1+ numbers registered;
- Yearly estimates of housing units used;
- Number of housing units adjusted to reflect estimate of households with landlines (based on National Health Interview Survey estimates)



Variables and Analysis

- Examine trends in response rates
 - Using AAPOR #4 RR calculation
- Time series analysis of response rates:
 - % households on DNC Registry
 - Level of effort (sqrt of dialings per case)
 - Use of advance letter
 - Change in data collector

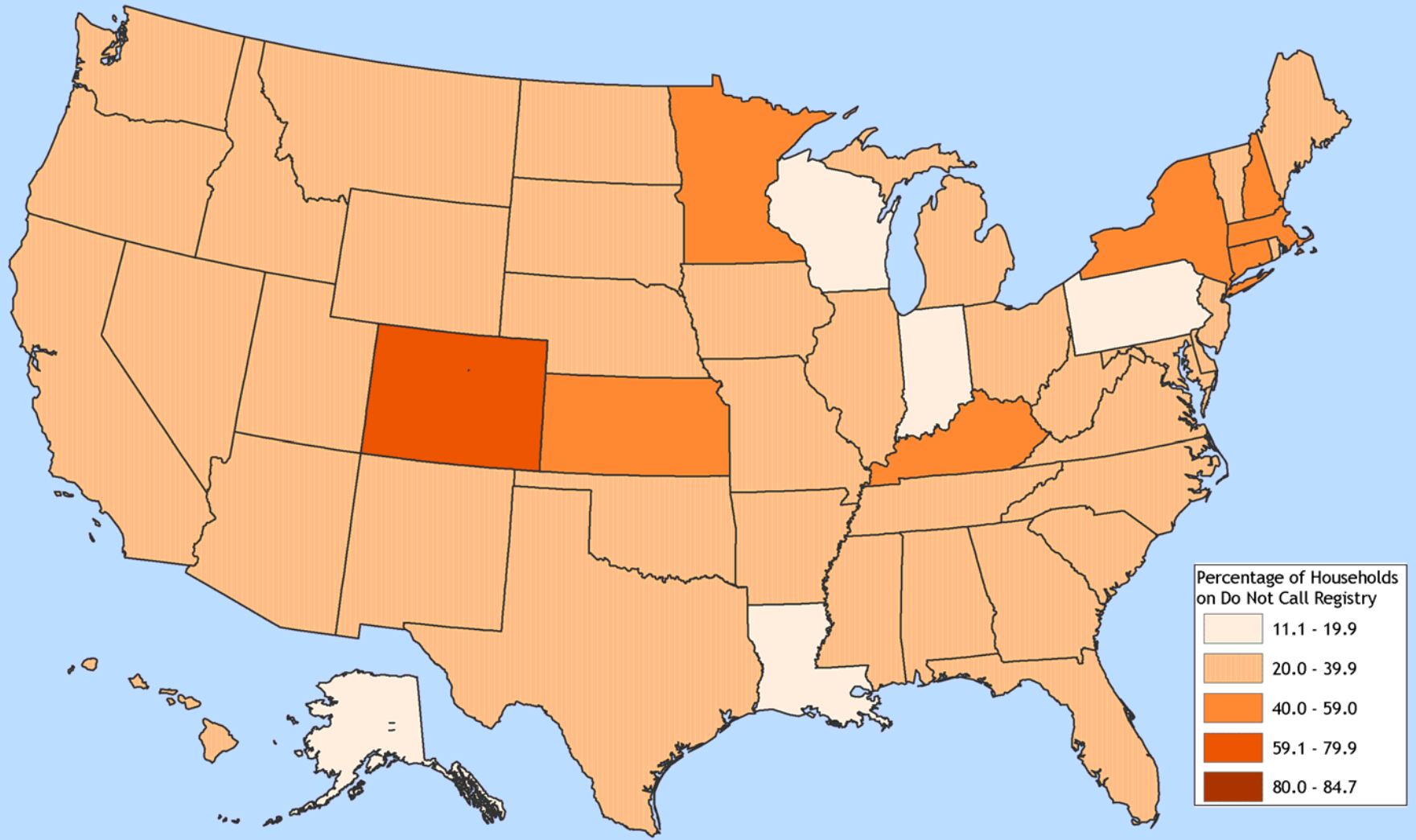




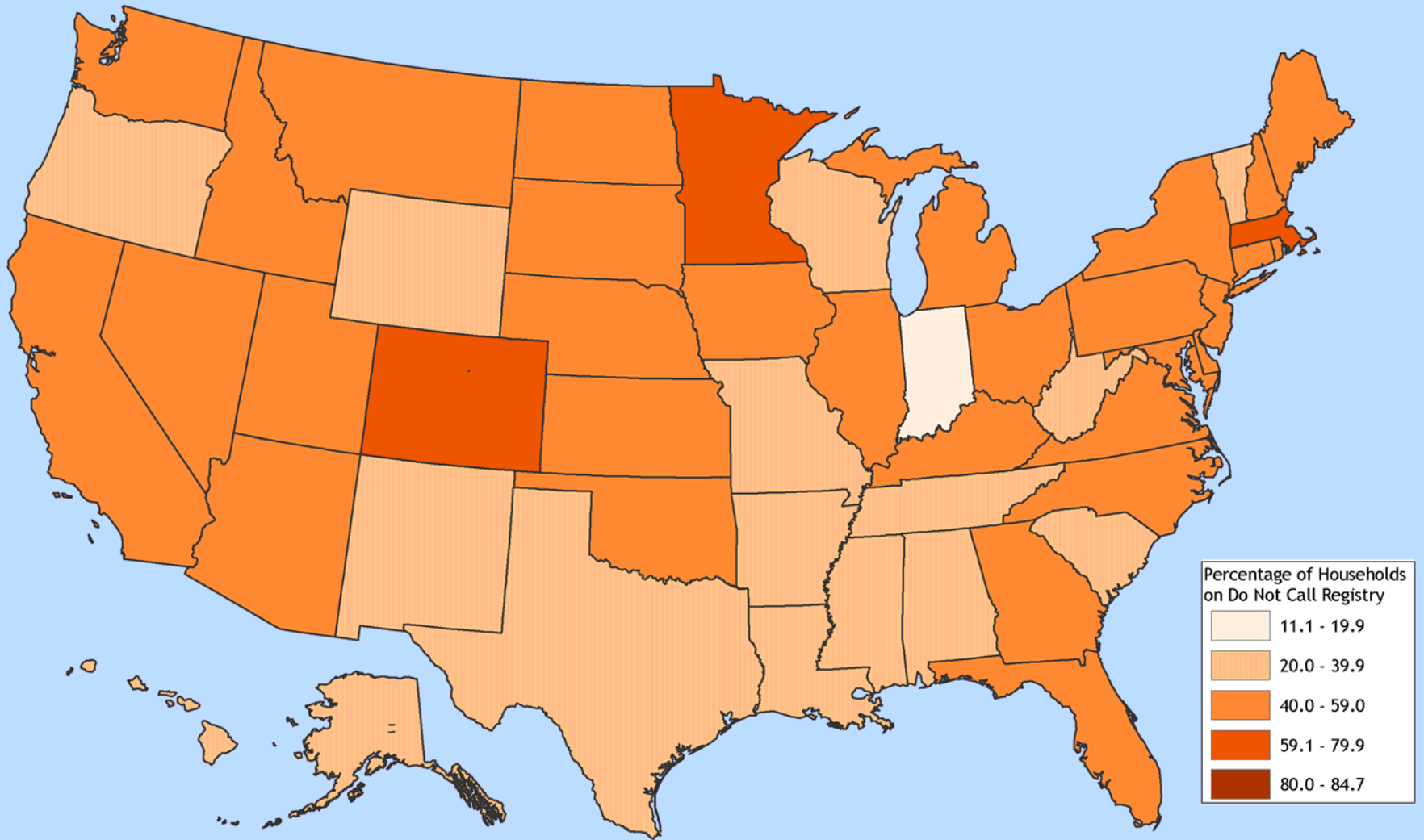
Findings



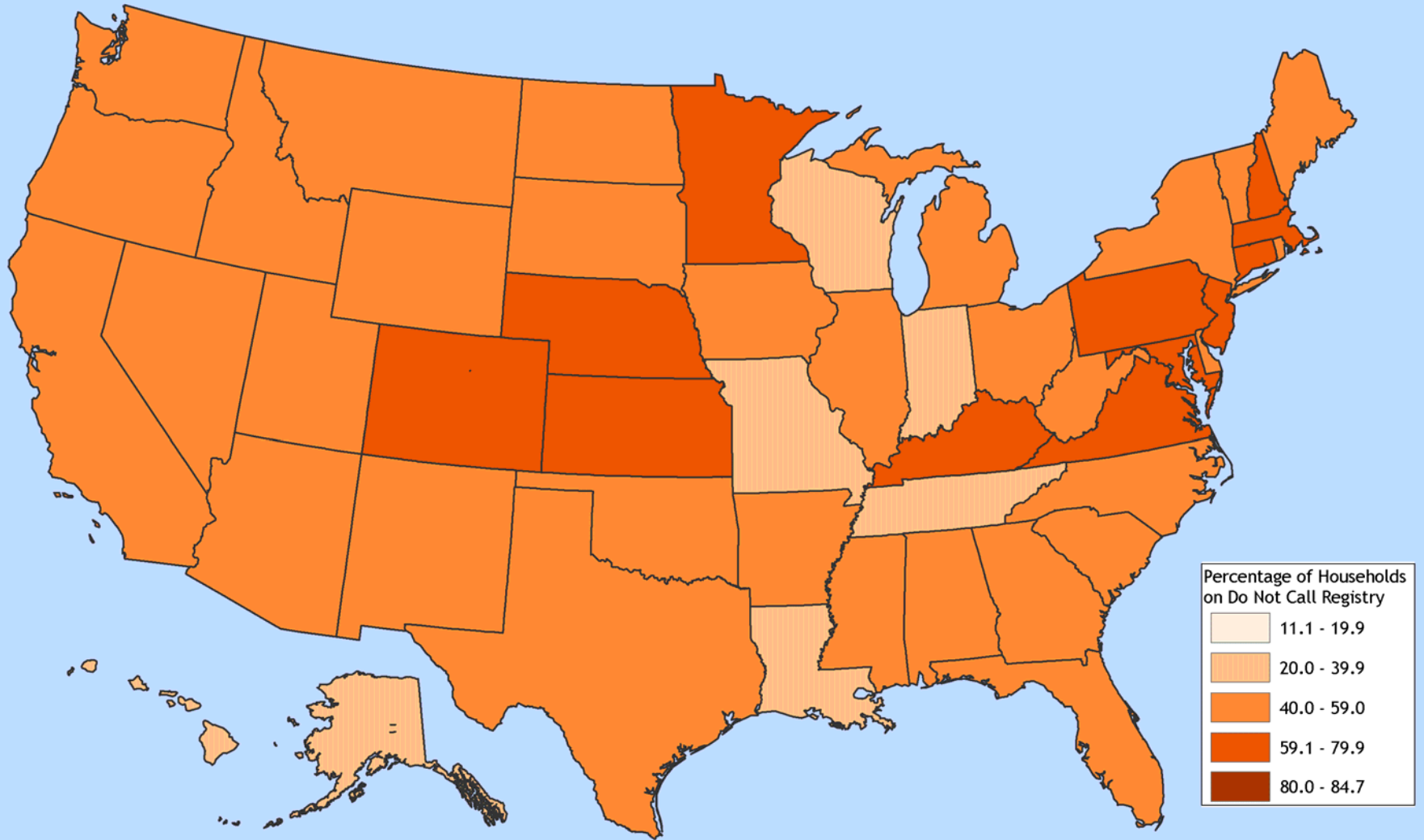
2003



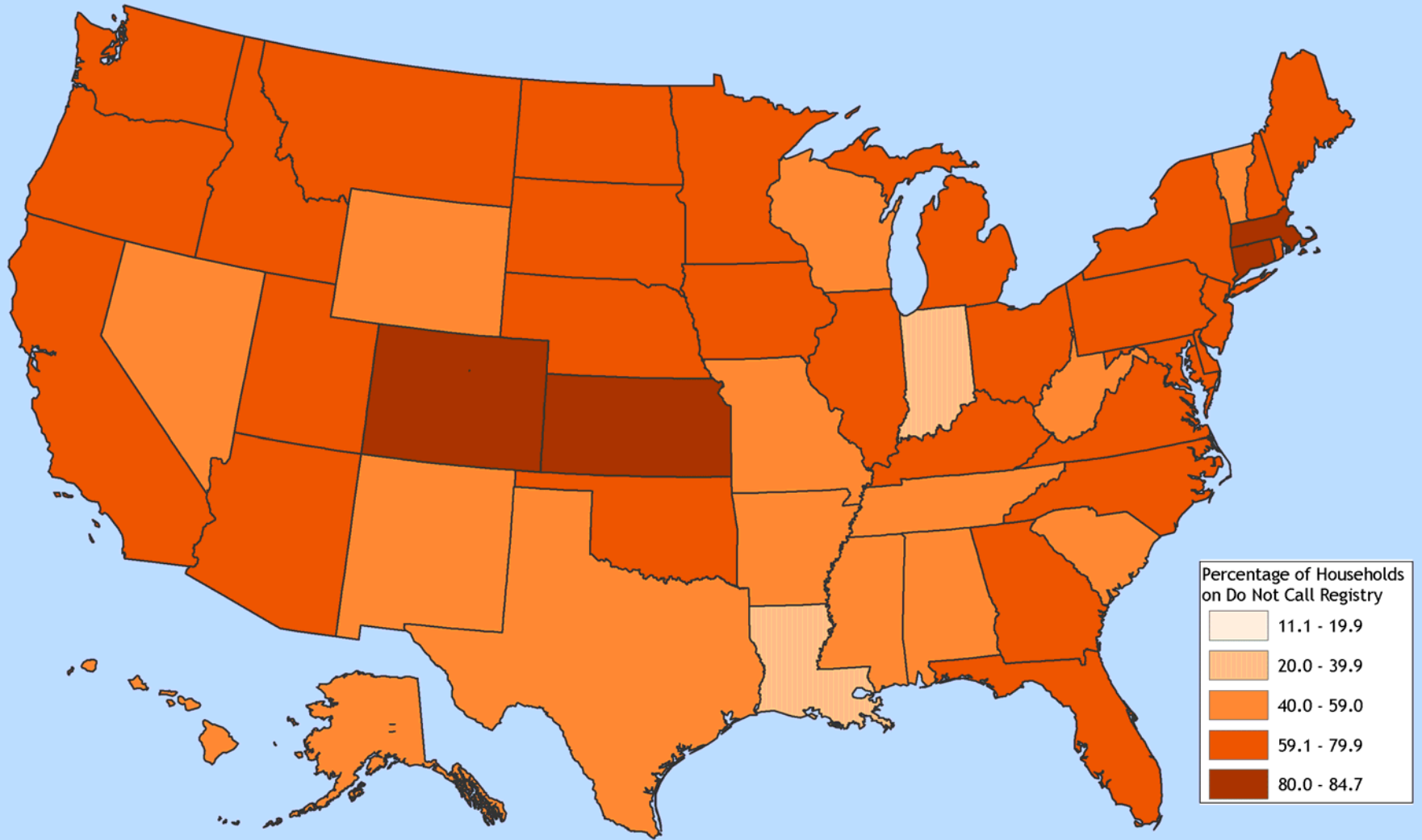
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2005

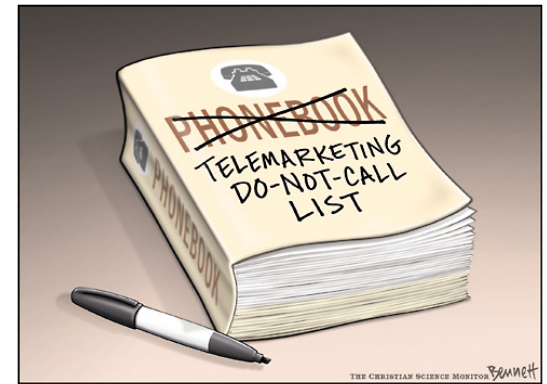


2006



National Figures as of December 2006

- Total number of telephone numbers on the DNC Registry: **132M**
- Number of landline telephone numbers estimated to be residential household lines: **73.6M**
- Percentage of households with 1+ landlines on DNC Registry: **62.9%**



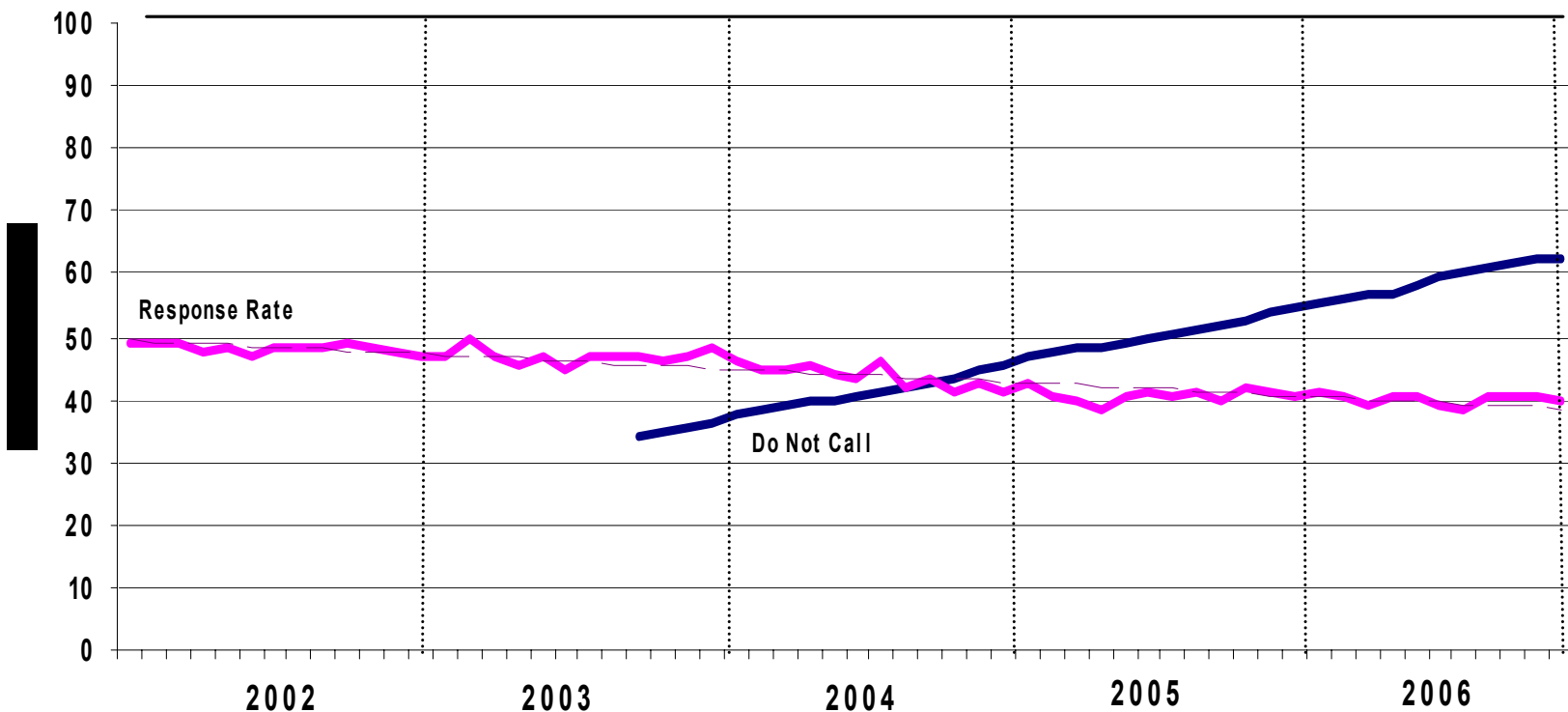


State level cross-time trends



Median state-level response rate and percentage of households on DNC Registry

State median, 2002-2006



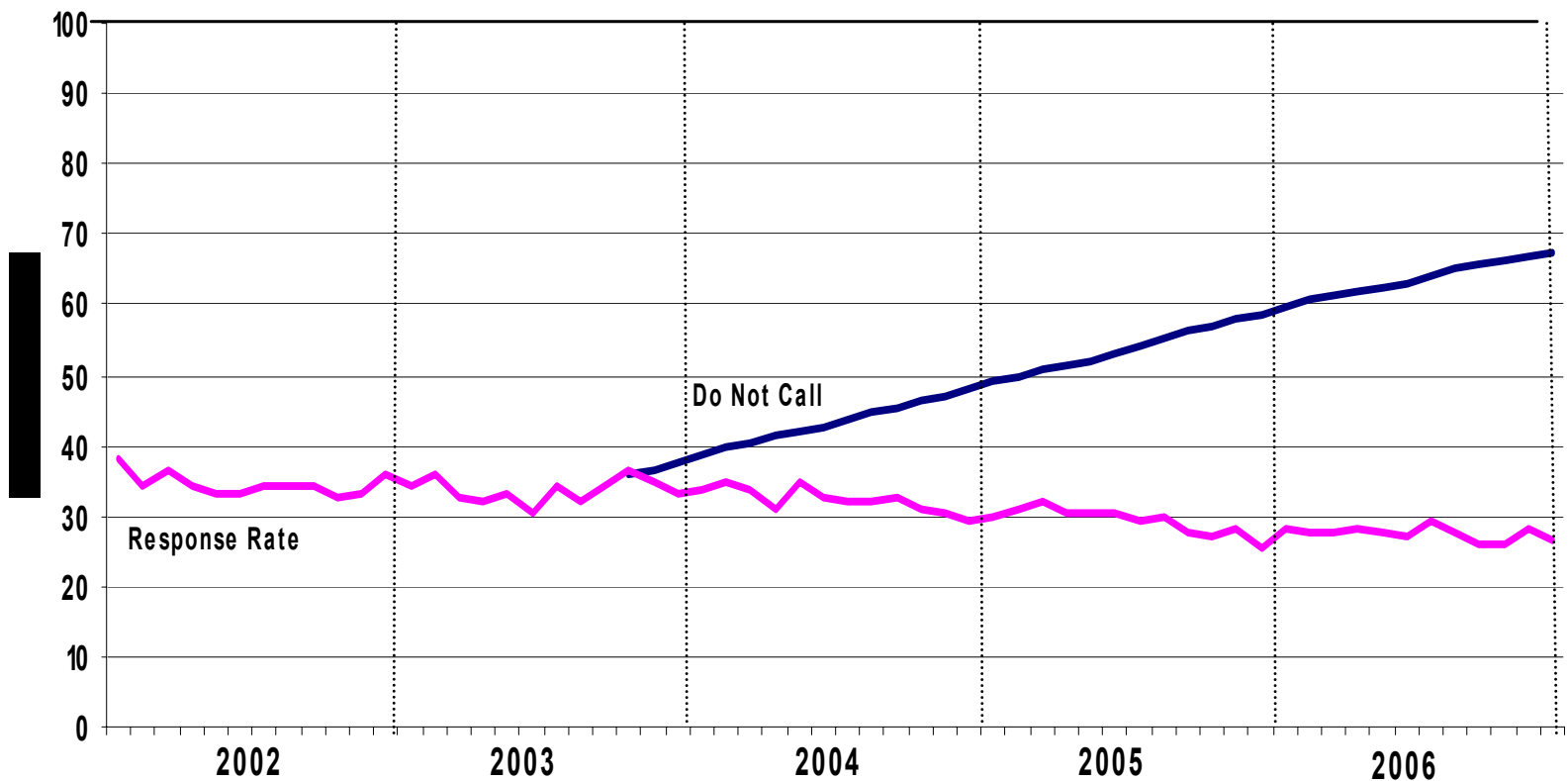
Trend and time series results

- Significant trending in response rates:
 - 40 states negative
 - 3 state positive
 - 4 no significant trending
- ARIMA Models:
 - DNC Registry: positive effect in 1 state
 - Advance letters: positive effect in 8 of 16 states
 - Increased effort: positive effect in 6 of 47 states
 - New data collector: negative effect in 1 of 6 states



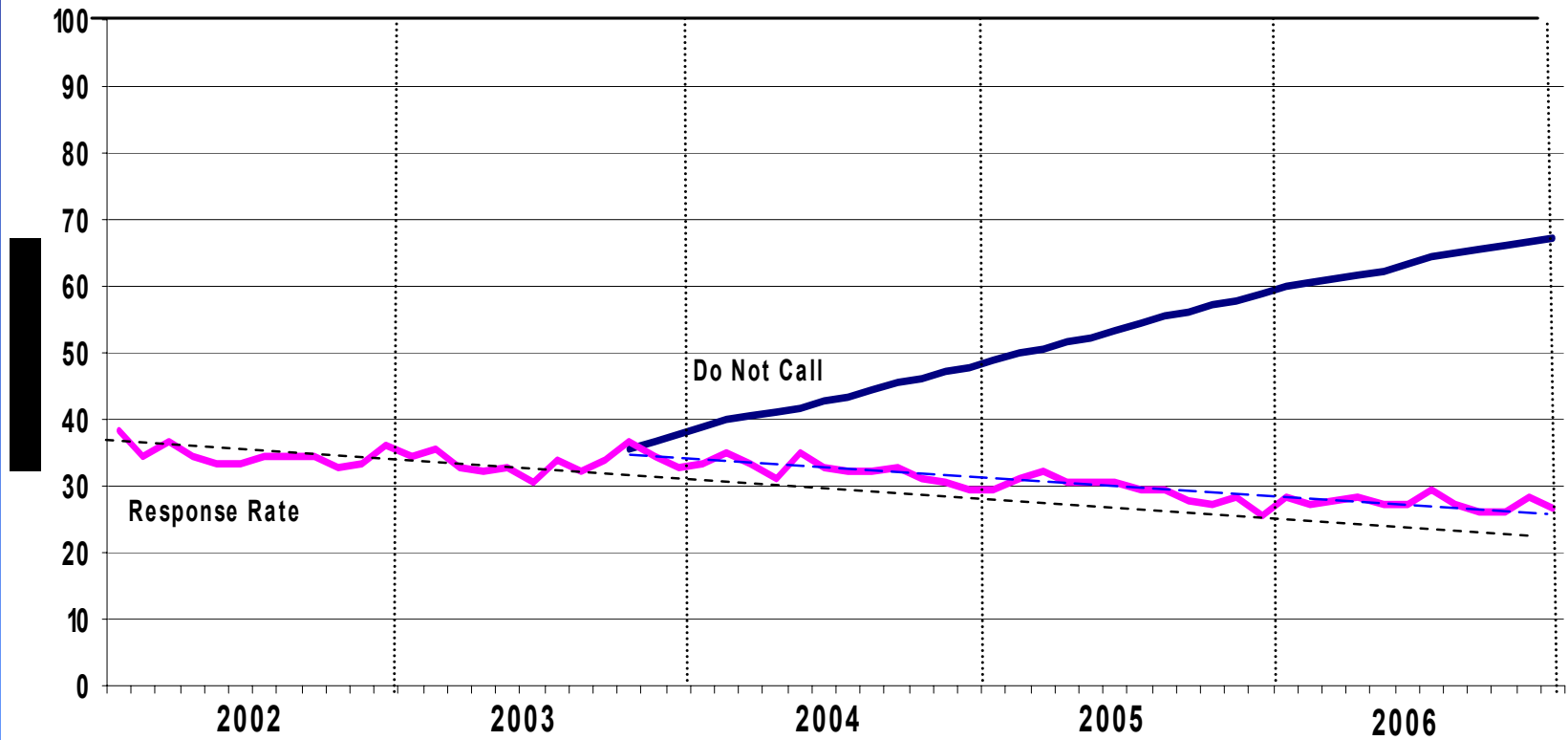
State where DNC Registry had significant positive effect: California

California, 2002-2006



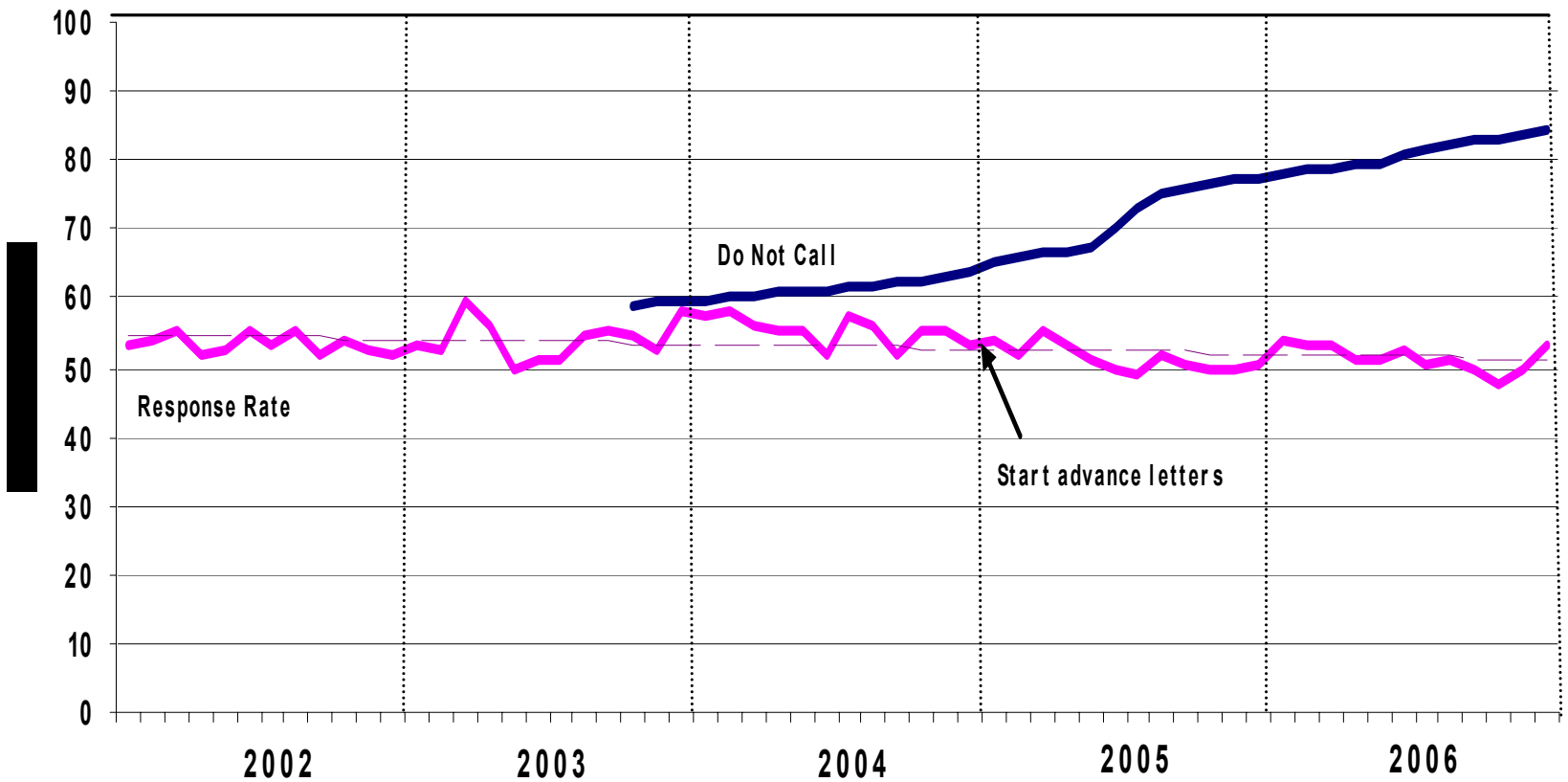
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California, 2002-2006



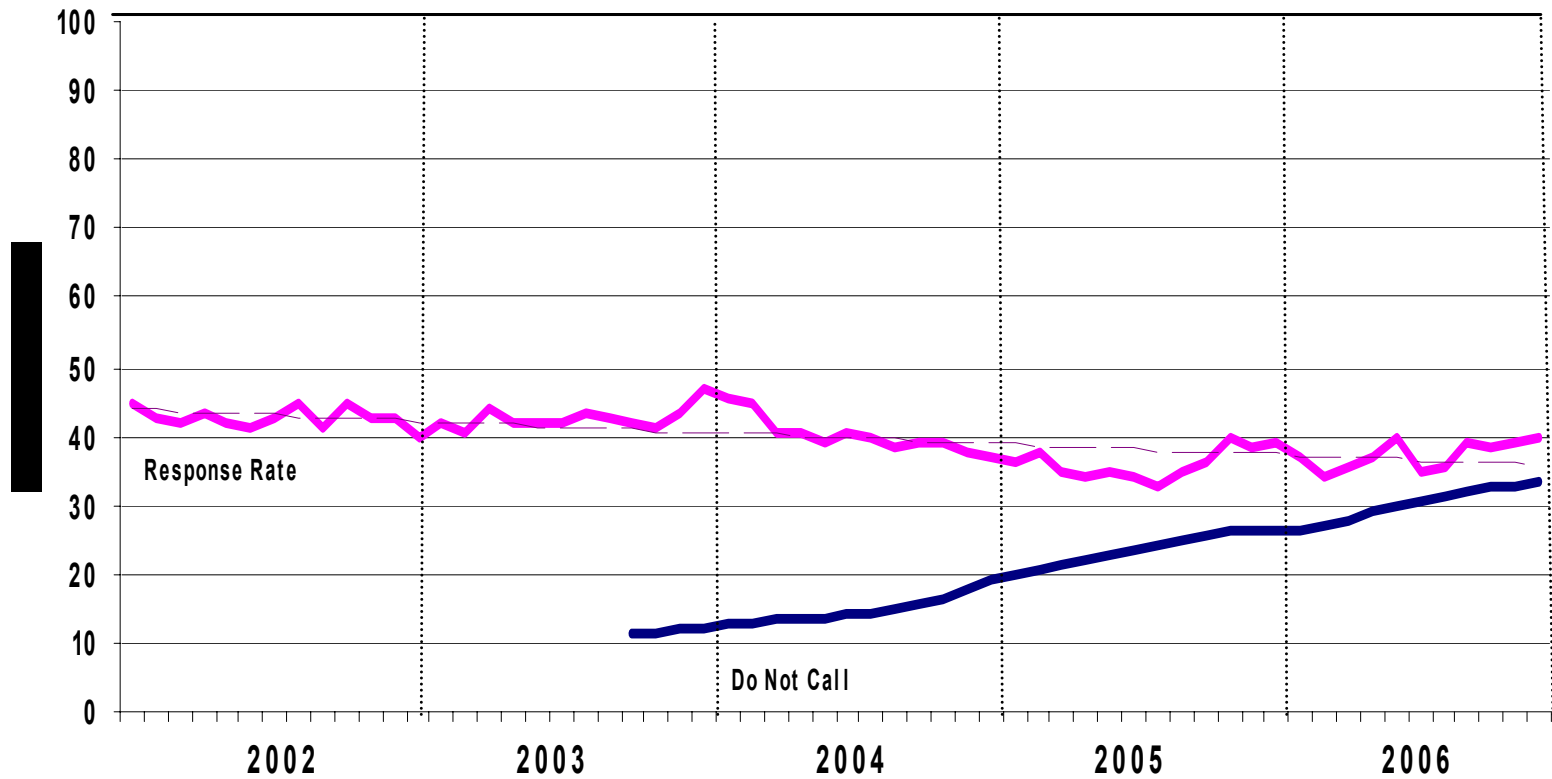
Highest percentage of households on DNC Registry: Colorado

Colorado, 2002-2006



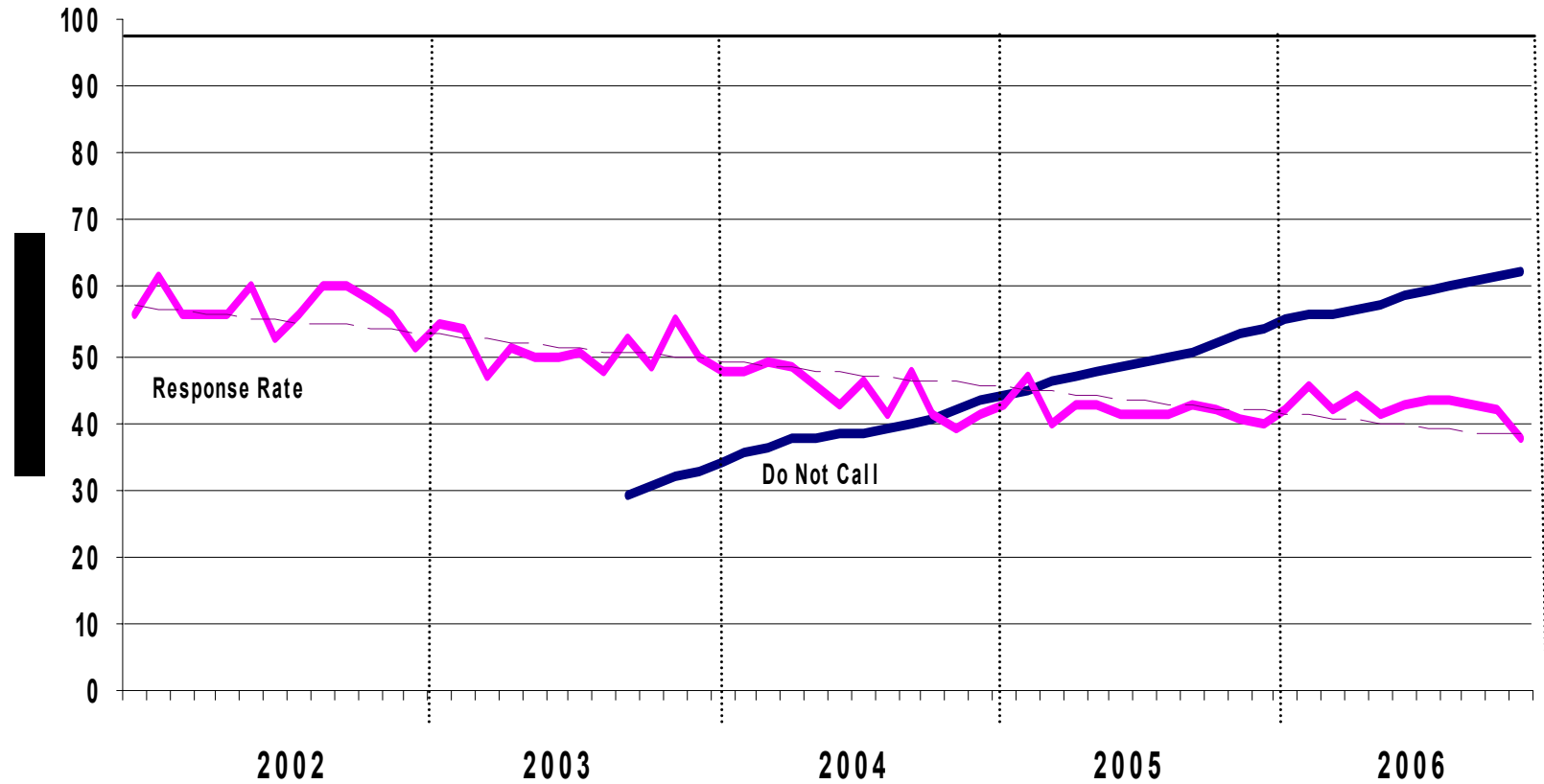
Lowest percentage of households on DNC Registry: Indiana

Indiana, 2002-2006



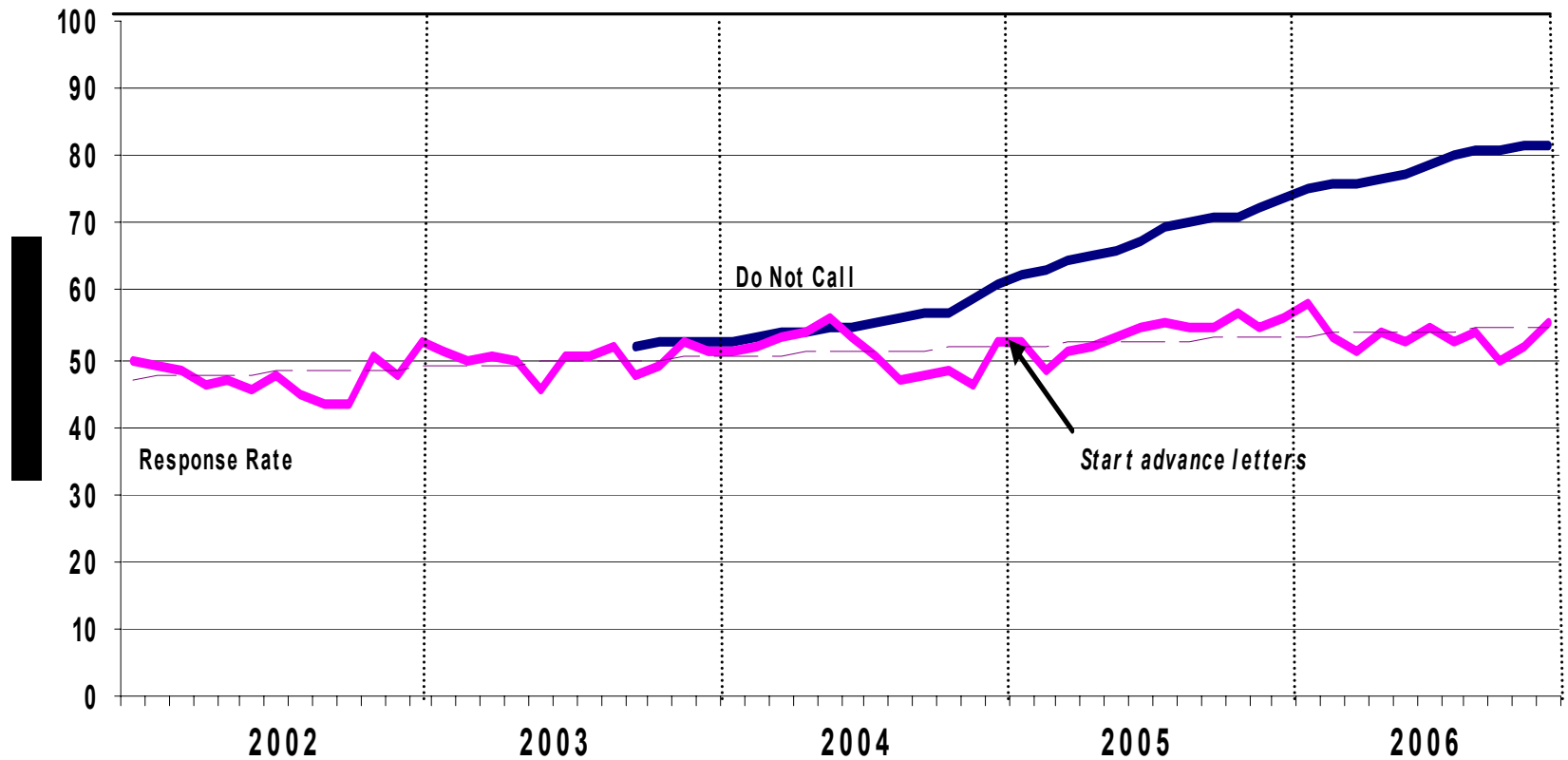
Steepest decline in response rate: Montana

Montana, 2002-2006

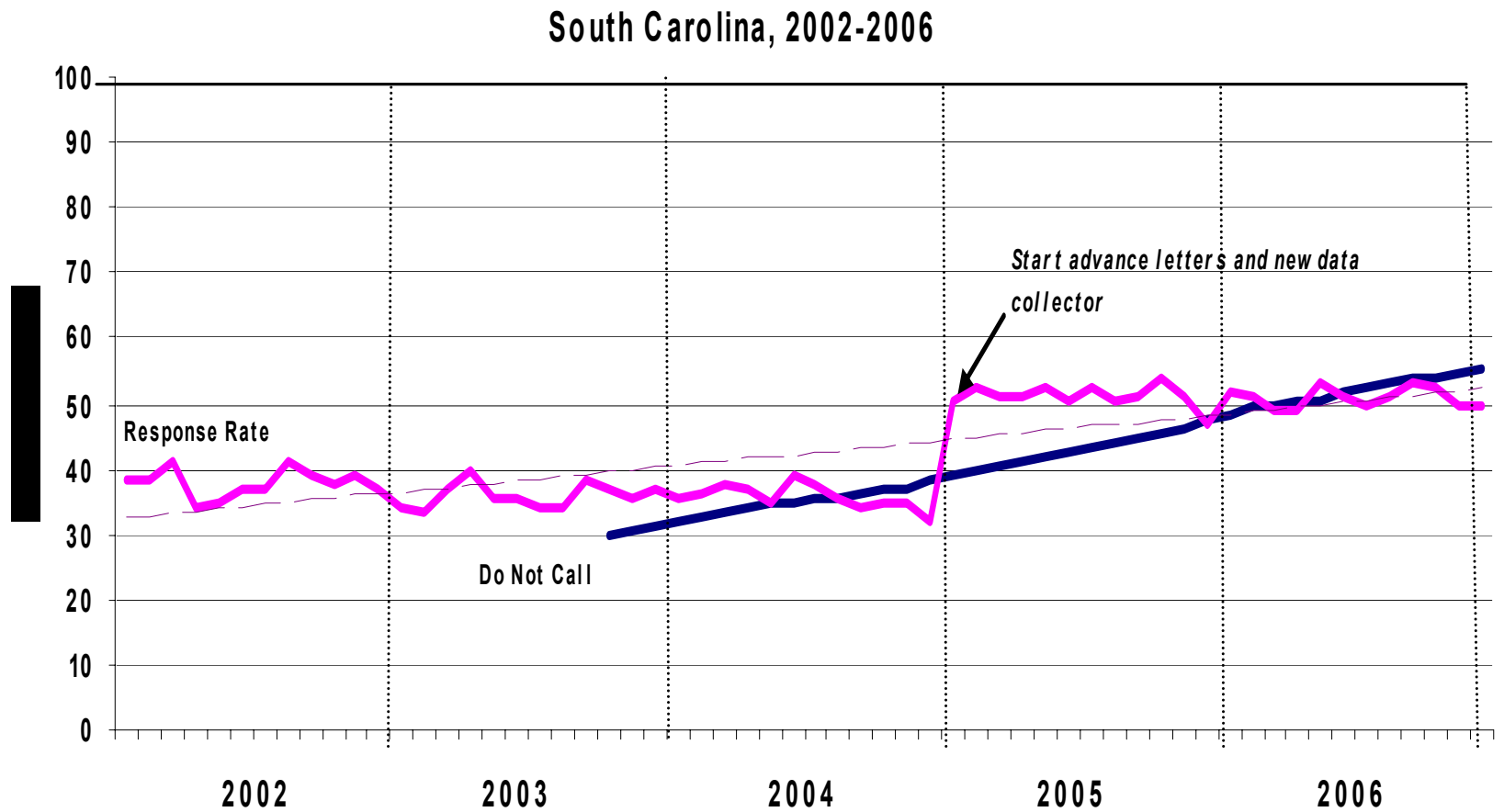


Use of advance letters: Kansas

Kansas, 2002-2006

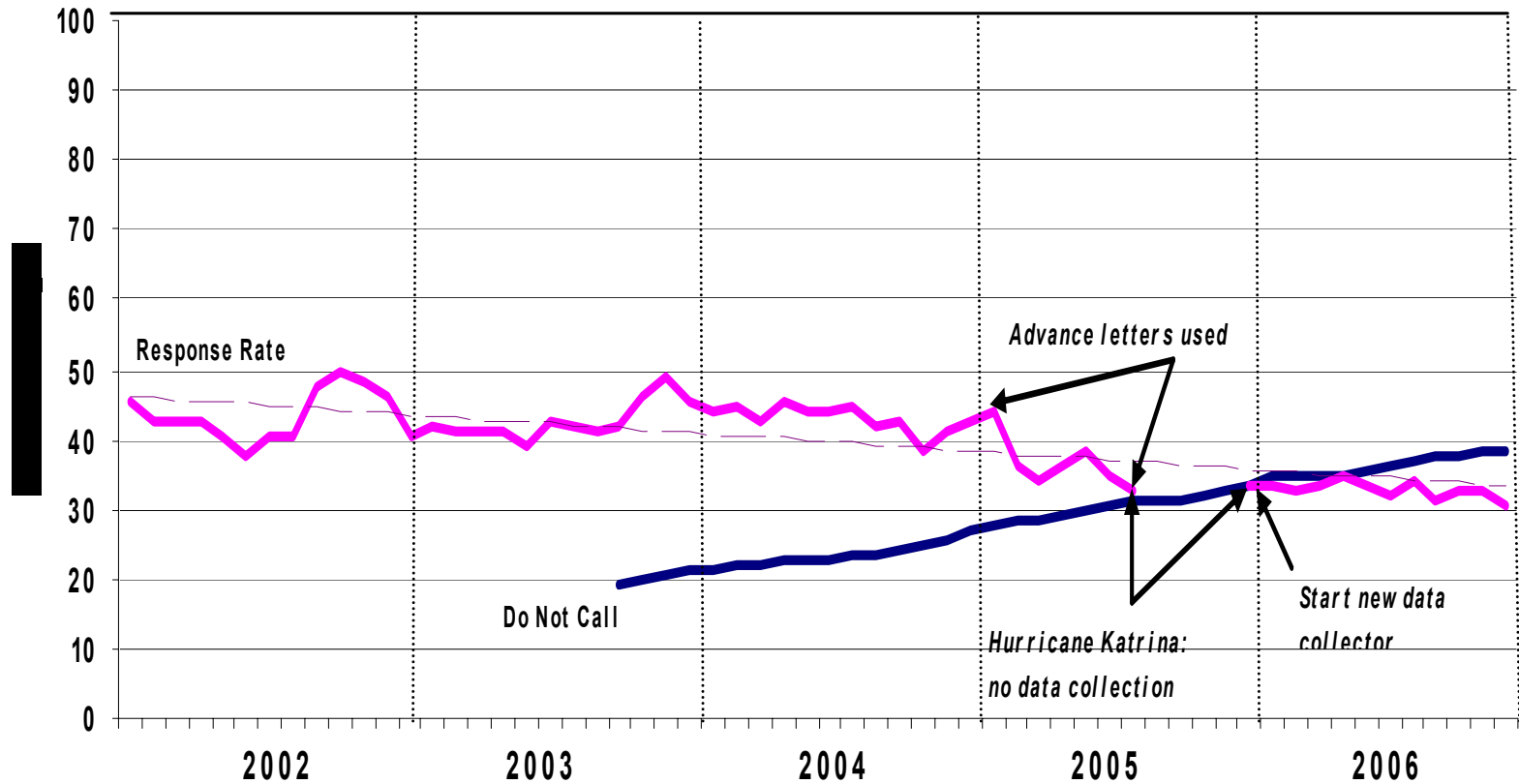


Use of advance letters and new data collector : South Carolina



Hurricane Katrina Effect? Louisiana

Louisiana, 2002-2006



Implications

- To date DNC Registry has neither helped nor hurt survey response rates
 - Seems to simply reflect pre-existing sentiment
 - May have longer-term effect, but unlikely



- Operational and other factors more important:
 - Advance letters & increased effort
 - But effects vary greatly across states

Future directions?

- Continue monitoring trends in response rates and DNC registration
- Examine other factors which may influence trends and may be controllable:
 - Sample size / cases worked per month
 - Interviewer effects
 - Other organizational variables
 - Societal variables?



For More information

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