



# VCU L. Douglas Wilder School of Government and Public Affairs

Embargoed until 11:30 a.m., Thursday, January 28, 2016

## 2016 COMMONWEALTH POLL:

### PUBLIC SAFETY

*A survey of Virginians conducted by the Center for Public Policy*

<http://www.vcu.edu/cppweb/cppservices>

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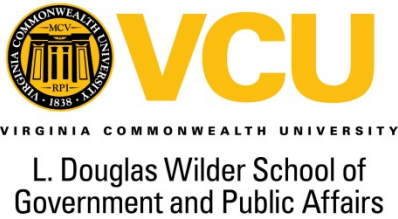
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#### CENTER FOR PUBLIC POLICY

L. DOUGLAS WILDER SCHOOL OF GOVERNMENT AND PUBLIC AFFAIRS

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**2016 COMMONWEALTH POLL:****PUBLIC SAFETY*****A survey of Virginians conducted by Center for Public Policy*****Embargoed until 11:30 a.m., Thursday, January 28, 2016****Contact:**

Dr. Robyn McDougle – Faculty Director, Office of Public Policy Outreach (OPPO);

Phone (804) 828-2759; Email: [rdmcdougle@vcu.edu](mailto:rdmcdougle@vcu.edu)**Public Shows Support for Public Safety Reforms in the Areas of Juvenile Justice; Parole; Sex Offender Registry and the Possession of Firearms**

With the General Assembly in its biannual budget session, many policymakers are focused on public safety reforms as an avenue to not only enhance the equity of the criminal justice system but also to ensure its fiscal efficiency.

The recent 2016 Commonwealth Poll: Public Safety conducted by the Office of Public Policy Outreach in the Center for Public Policy at the L. Douglas Wilder School of Government and Public Affairs at Virginia Commonwealth University, found strong support for the proposal put forth by the Department of Juvenile Justice to close the state's remaining two large, centralized juvenile correctional centers and replace them with a network of smaller, local community-based treatment alternatives.

More than eight out of 10 (84 percent) support juvenile justice reforms that would reduce the use of large, adult-style incarceration facilities and instead use smaller, community-based therapeutic centers for juvenile offenders. The support for such reforms was the strongest among Democrats (91 percent) and those residing in the Tidewater (80 percent) and Northern Virginia (91 percent) regions.

There was also strong support (81 percent) for localities to receive the cost savings back into community corrections if they choose to incarcerate fewer juveniles and utilize community-based programs. Moving toward community-based programs to treat juvenile offenders is not the only reform Virginians support, the poll shows.

“More than half the people polled think that juveniles convicted of nonviolent sex offenses should not be placed on the sex offender registry,” said Dr. Robyn McDougle, faculty director of the Office of Public Policy Outreach and an associate professor of Criminal Justice at the VCU Wilder School. “Citizens around the Commonwealth are supportive of treating most juvenile offenders differently than adults.”

The poll was conducted in a first-ever partnership with the office of the Virginia Secretary of Public Safety and Homeland Security.

“The poll confirms our belief that a strong, bipartisan majority of Virginians understand that we must treat juvenile offenders differently than adults in order to improve public safety, reduce recidivism and provide the best opportunity for these young people to become productive citizens,” said Brian Moran, Virginia Secretary of Public Safety and Homeland Security.

Along with juvenile justice, reforming the parole system in Virginia has also been the focus of recent debate. This past summer, the governor’s parole review commission examined the current policies and practices in an attempt to reform the state’s current process. Over three-quarters of Virginians (76 percent) polled agreed that parole should be reinstated in the state.

“However, the fact that more than 75 percent of those supporting reinstating parole limited it to nonviolent offenders, and the impact of ‘truth in sentencing’ highlights the complexities surrounding this policy debate,” McDougle said.

Lawmakers in Virginia and around the country regularly debate firearms ownership, and this year is no different. Several firearms bills are pending in both chambers of the General Assembly.

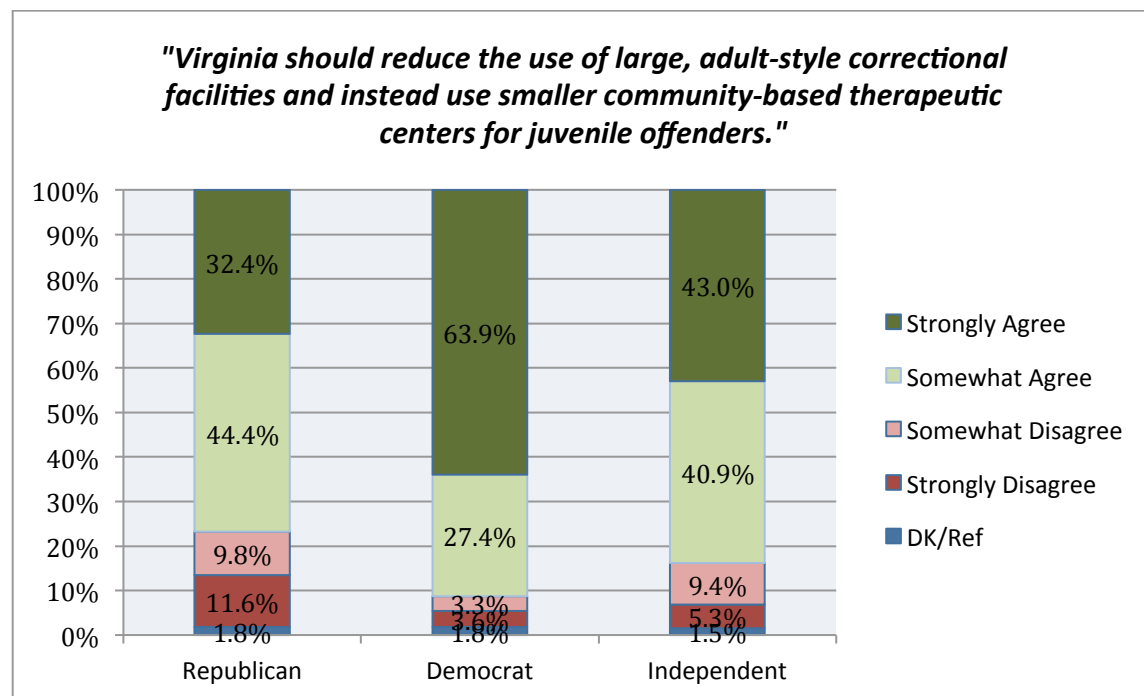
Poll responses indicate strong support for certain aspects of firearms purchase reforms, specifically, those focused on domestic violence. Most people (64 percent) support denying firearms purchases to people with outstanding restraining orders. Eighty-eight percent support current Virginia law denying firearms purchases to anyone with a domestic violence conviction.

The 2016 Commonwealth Poll: Public Safety, conducted by the Center for Public Policy at the L. Douglas Wilder School of Government and Public Affairs at Virginia Commonwealth University (VCU), obtained telephone interviews with a representative sample of 931 adults living in Virginia. The interviews were administered from January 4 to 12, 2016. The margin of sampling error for the complete set of weighted data is  $\pm 3.7$  percentage points.

Portions of the poll related to terrorism, emergency preparedness and police legitimacy will be released on Thurs., Feb. 4, and will be discussed at a press conference at 11:30 a.m. in the General Assembly Building’s House Briefing Room.

## Majority Support Juvenile Justice Reform, Reducing the Use of Adult-Like Incarceration Facilities, Treating Nonviolent Juvenile Offenders in Community-Based Programs

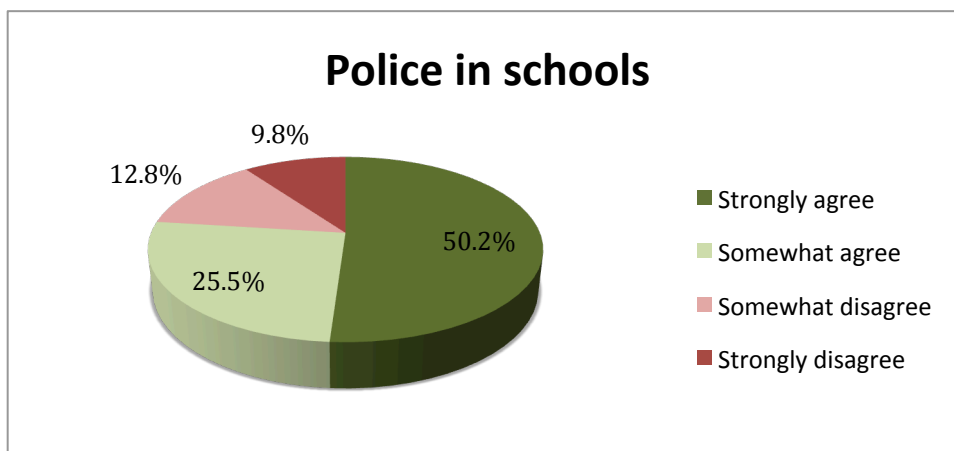
The Virginia Department of Juvenile Justice and the McAuliffe administration recently put forth a proposal to close the state's remaining two large, centralized juvenile correctional centers and replace them with a network of smaller, local community-based treatment alternatives. This poll indicates widespread bipartisan public support for such a proposal. Specifically, 84% of Virginians favored reducing the use of large, adult-style incarceration facilities and instead using smaller, community-based therapeutic centers for juvenile offenders. Levels of support for restructuring juvenile justice were consistently high across political parties. Ninety-one percent of Democrats agreed with a reduction in large, adult like correctional facilities for juvenile offenders (64% strongly agreed) and more than three-quarters of Republicans agreed (32% strongly agreed). Support for a movement toward smaller, localized treatment-based approaches to juvenile justice were consistently high across regions as well, ranging from 80% (Tidewater region) to 91% (Northern Virginia).



Virginians also expressed strong support for a different approach toward nonviolent juvenile offenders. When asked about specific alternatives to incarceration for nonviolent juvenile offenders, 86% somewhat or strongly favored small residential facilities, 88% favored community-based treatment centers, and 80% favored community supervision. Over 90% of both Republicans and Democrats supported community-based treatment centers instead of adult-style prisons for nonviolent juvenile offenders. With regard to community supervision, attitudes were consistently favorable across the state but varied slightly across regions, from 77% in the Tidewater area to 89% in Northern Virginia.

Public support was also high for reinvestment of cost savings into local community corrections. Virginians were asked whether the state should reward counties that incarcerate fewer nonviolent juvenile offenders by sharing some of the savings with the counties to reinvest in corrections programs in their local community. Overall, 81% of Virginians agreed with this reinvestment plan. Again, agreement was consistently high across Democrats (84%), Republicans (81%) and Independents (81%). Levels of agreement varied somewhat by region (80% in Tidewater to 91% in Northern Virginia) but remained high across the state. Among Virginians who somewhat or strongly disagreed with county reinvestment, 30% were from the Tidewater region, 22% from the West, 20% from Northern Virginia, 14% from the Northwest, and 13% from South Central Virginia.

Along with conversations around juvenile justice come questions regarding school safety. With the many safety issues that have occurred in schools around the country in recent years, questions regarding police presence in schools were strongly supported across the Commonwealth. A strong majority (76%) of Virginians support the placement of full-time police officers in schools, though about one-quarter disagreed. There were no significant differences by region or by respondents' age, level of education, or political affiliation.

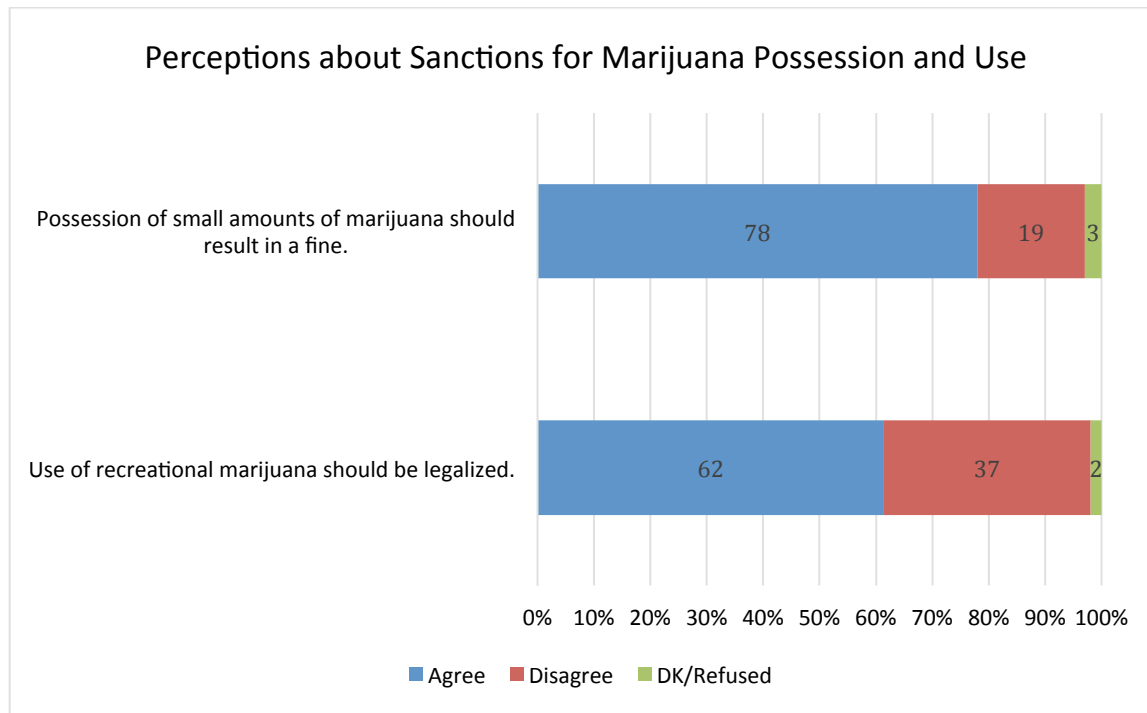


### **Majority Favor Reduced Sanctions for Possession of Marijuana; Strong Support for the Legalization for Recreational Use**

A growing number of states have decriminalized marijuana possession by either reducing criminal sanctions or legalizing recreational use of marijuana. In line with changes in other states, the majority of Virginians (78%) support reducing the penalty for possession of small amounts of marijuana to a fine of \$100 instead of a misdemeanor conviction. There were, however, demographic variations. Black respondents (88%) were more likely to strongly or somewhat agree with fines in place of a conviction in comparison to White (76%) and Hispanic (72%) respondents. Younger respondents (75%-82%) and those with incomes greater than \$100,000 (86%) were more supportive of reduced sanctions. Political affiliation also had a slight impact on responses with Democrats (83%) being more favorable of reduced sanctions than Republicans (71%).

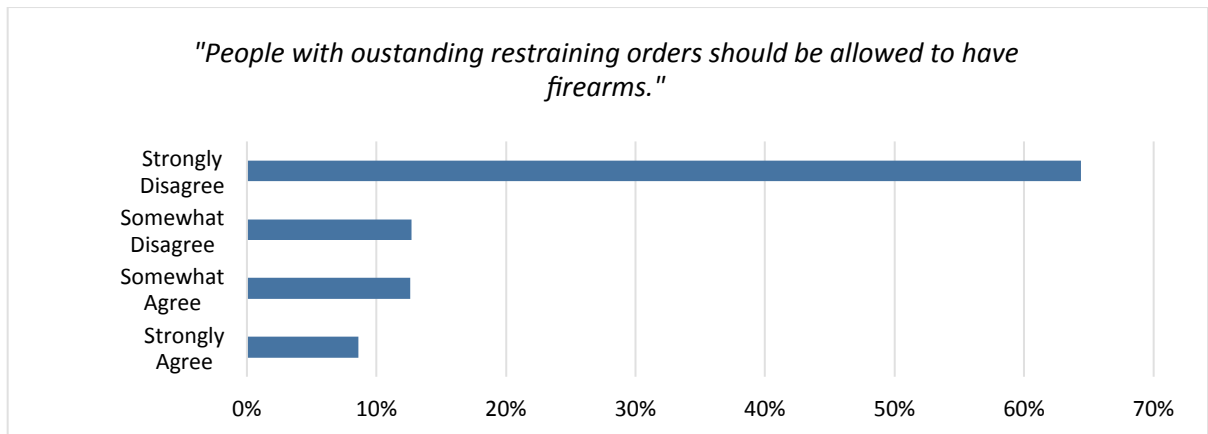
Virginians showed further support for the legalization of marijuana for recreational use. Again, a majority (62%) of respondents strongly or somewhat agreed that the use of

recreational marijuana should be legalized. Males (66%) were more likely to support legalization compared to females (58%). Individuals with incomes greater than \$100,000 (73%) were more supportive of legalization compared to those with an income between \$50,000 and \$100,000 (60%) and an income less than \$50,000 (64%) categories. Finally, Democrats (71%) and Independents (63%) favored legalization more than Republicans (48%). These findings suggest there is greater agreement among Virginians about reducing sanctions for marijuana, though many also believe marijuana should be legalized.



### **Majority Agree That People with Outstanding Restraining Orders and Those Convicted of Domestic Violence Should Not Be Allowed to Purchase Firearms**

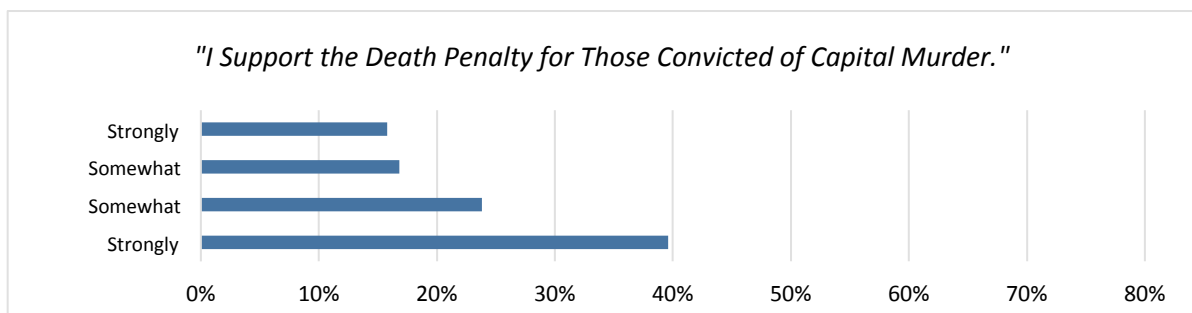
Lawmakers in Virginia and around the country regularly debate firearms ownership, and this year is no different. There are several firearms bills currently in both chambers of the Virginia General Assembly. As a result, respondents were asked several questions regarding gun ownership. A majority of Virginians (64%) strongly agreed that people with outstanding restraining orders should not be allowed to purchase or possess firearms. This belief was shared among respondents across all regions of the state, while women (74%) compared to men (55%) reported stronger agreement. Substantial agreement was also reported across races, with Blacks (68%) reporting slightly more agreement than Whites (65%). There were however, differences among political parties, with Democrats (72%) showing the strongest agreement, followed by Independents (63%) and Republicans (57%).



We also asked Virginians their views on people convicted of domestic violence being allowed to purchase a firearm. Respondents strongly supported (88%) the current law in Virginia to deny the right to purchase a firearm for individuals convicted of domestic violence. Residents from all regions echoed this preference. There were significant gender differences in which 80% of women supported such a measure while only 55% of men did. Although more Democrats were likely to strongly agree (72%), high percentages of Independents (63%) and Republicans (57%) also supported this measure.

### **Respondents Show Support for the Death Penalty in the Case of Capital Murder**

As states are addressing the issues associated with limited supplies of drugs used in lethal injections for inmates sentenced to death, the question regarding support for the death penalty as a sentencing outcome has come under debate as well. The majority of Virginia residents (64%) support utilizing the death penalty for those convicted of capital murder. Men (43%) were more supportive than women (36%) of the death penalty while Whites (45%) were more supportive than Blacks (26%). Also, older individuals (45%) were more supportive than younger (24%) individuals for utilizing the death penalty. Regionally, residents of South Central Virginia (70%) were the most supportive while those in the Northern region (56%) were the least supportive. In terms of educational attainment, highest support for the death penalty for those convicted of murder was found among those with a high school education or less (48%), followed by some college (37%) and college graduate or higher (32%). There were also significant differences in reported support for the death penalty across political party affiliation. Approximately 61% of Republicans, as compared to 24% of Democrats and 38% of Independents, strongly support the death penalty for those convicted of murder.



## Strong Support for Studying the Effectiveness of the Sex Offender Registry; Majority Support Juveniles NOT Being Included on the Registry for Nonviolent Sex Offenses

Virginia is required by federal law to maintain a public registry containing information about convicted sex offenders. Registrant name, address, employer location, and other identifying information are included in the registry: (<http://sexoffender.vsp.virginia.gov/sor/background.html>). Based on these federal requirements, respondents were asked about their use of Virginia's sex offender registry. Less than half those polled (41%) have ever accessed the state sex offender registry. Whites (44%) accessed the registry more often than Blacks (44%).

Women (48%) were more likely than men (34%) to have accessed the registry in the past. Parents were also more likely to disclose prior use of the registry. Over 59% of parents with young children have accessed the registry in the past, compared to only 33% of those with no minor children. There were few regional differences in registry use, although one region (Tidewater) reported higher use than the others.

**Table: Registry Use By Region**

VA Region	Percent	N
Northwest	39	128
Northern VA	41	277
West	40	163
South Central	40	159
Tidewater	45	199
Total	100	926

Of those who utilized the registry previously, most reported its use was personal (65%) while only 7% reported accessing the registry for professional reasons (e.g., background check of job applicant) and a little more than a quarter (27%) disclosed use that fulfilled personal and professional obligations. Whites (69%) accessed the registries for personal reasons more often than Blacks (61%). Also, those in South Central Virginia (75%) and Tidewater (74%) reported the highest levels of personal use of registries.

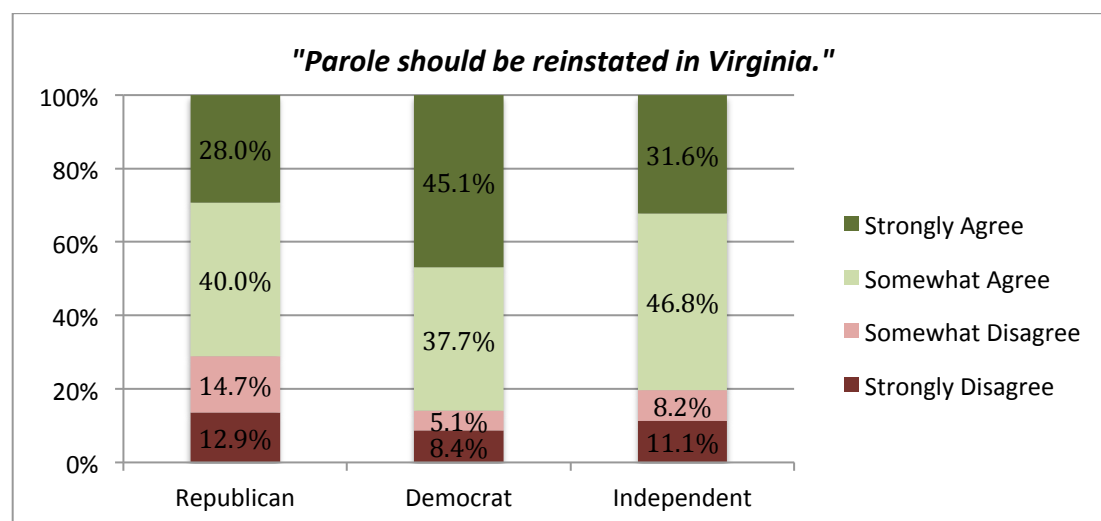
Respondents were also asked if the Commonwealth should study the effectiveness of the Sex Offender Registry. A strong majority (69%) agreed that such a study should be commissioned by the General Assembly. Non-white respondents (74%) expressed greater support for funding a study of the registry compared to White (68%) respondents. Residents in the Western region expressed the greatest support for funding a study of the sex offender registry system (76%) in comparison to those residing in South Central (63%) indicated the least support for such an evaluation.



The inclusion of juveniles on the registry is also a topic of regular debate. Regarding juvenile registrants, more than half of Commonwealth residents (54%) agree that juveniles convicted of nonviolent sex offenses should not appear on the registry alongside adults. However, a still significant minority (45%) disagrees and feels such individuals should be compelled to register. A greater proportion of Whites (57%) agree that juveniles should not have to register in the same way as adults compared to non-Whites (49%). Those without young children residing in the home (56%) were slightly more likely to agree that juveniles should not have to register like adults, compared to parents of minors (52%). Regional differences were also evident with residents living in the Western region (61%) being the most likely to agree that juveniles should not appear on the state registry similar to adults while residents of the Tidewater region (49%) being most like to agree that juveniles should appear on the registry similar to adults.

### Strong Support for Reinstating Parole in Virginia for Nonviolent Offender and for Juveniles Convicted as Adults Being Eligible for Parole

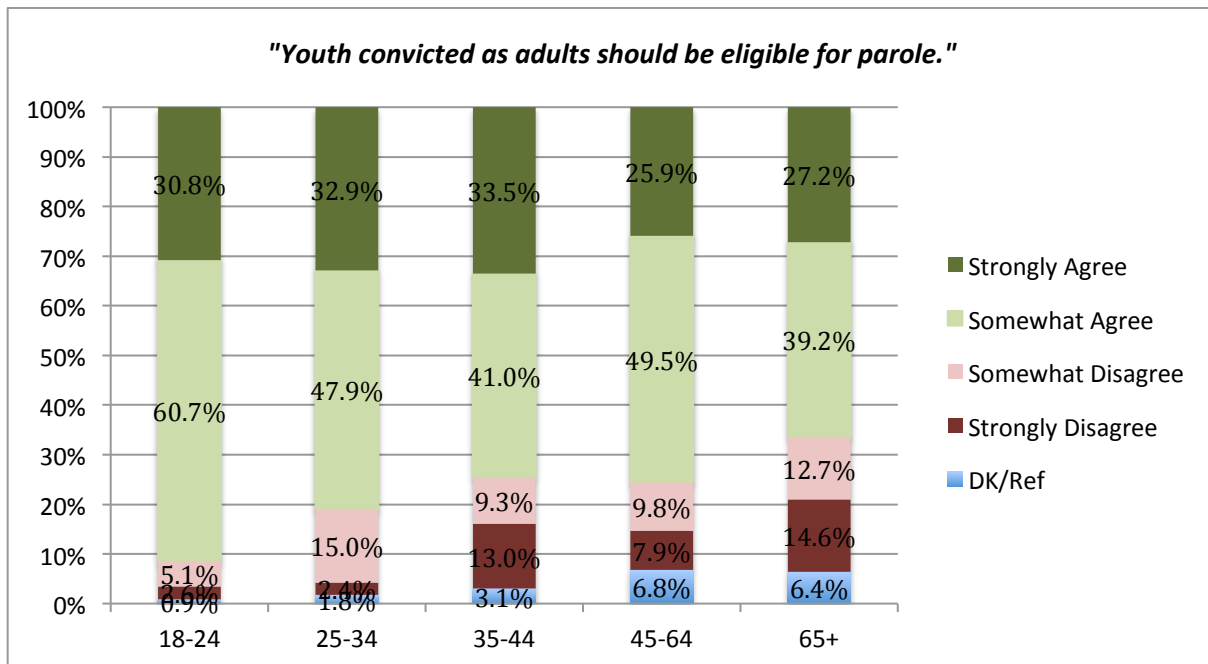
Over three-quarters of Virginians (76%) agreed that parole should be reinstated in Virginia with only 11% strongly disagreeing. There were no significant differences in agreement rates by region, age, gender, or level of education. Support for reinstating parole did differ slightly by race/ethnicity, with Black (88%) respondents agreeing more strongly that parole should be reinstated in Virginia, compared to White (77%) respondents.



However, a majority of Virginians (77%) believed that parole should be limited to nonviolent offenders. Only 8% strongly disagreed that only nonviolent offenders should be eligible for parole. Support for limiting parole to nonviolent offenders was highest among Republicans (86%) but also high among Democrats (75%) and Independents (76%). Support varied slightly by region. Respondents from Northwest Virginia (85%) were most likely to somewhat or strongly agree with limiting parole to nonviolent offenders only, while only 71% from the Tidewater region agreed. Support for limiting parole to nonviolent offenders increased with respondent education level: 75% of those with a high school degree or less indicated they somewhat or strongly agreed, compared to 78% of those with some college/associate's degree

and 85% of those with a college degree or higher. There were no significant differences across respondent age or gender.

Additionally, three-quarters of Virginians somewhat or strongly agreed that youth convicted as adults should be eligible for parole. Agreement was highest among Democrats (88%) but also high among Republicans (75%) and Independents (78%). Agreement varied slightly by region, ranging from 85% (Northern Virginia) and 75% (Western Virginia). Support for parole eligibility for youth convicted as adults decreased with respondents' age. The vast majority of respondents' ages 18-24 (92%) agreed that juveniles convicted as adults should be eligible for parole. However, support remained high across all age categories, including two-thirds of respondents ages 65 and older supporting parole for juveniles convicted as adults. Respondents with some college/associate's degree (84%) or a college degree or higher (83%) were more likely to agree than respondents with a high school degree or less (75%) to support parole for juveniles convicted as adults.



## Methodology of the Commonwealth Public Safety Poll

### DESIGN AND DATA COLLECTION PROCEDURES

#### Sample Design

The state was stratified into five regions: Northwest, Northern Virginia, West, South Central, and Tidewater (see [Appendix A](#) for county breakdown by region). Separate samples were drawn for each region in order to reach regional quotas. A combination of landline and cellular random digit dial (RDD) samples was used to represent all adults who have access to either a landline or cellular telephone. The samples were provided by Survey Sampling International, LLC (SSI) according to PSRAI specifications.

Within strata, numbers for the landline sample were drawn with equal probabilities from active blocks (area code + exchange + two-digit block number) that contained three or more residential directory listings. The cellular sample was not list-assisted, but was drawn through a systematic sampling from dedicated wireless 100-blocks and shared service 100-blocks with no directory-listed landline numbers.

#### Contact Procedures

Interviews were conducted from January 4 to 12, 2016. As many as seven attempts were made to contact every sampled telephone number. Sample was released for interviewing in replicates, which are representative subsamples of the larger sample. Using replicates to control the release of sample ensures that complete call procedures are followed for the entire sample. Calls were staggered over times of day and days of the week to maximize the chance of making contact with potential respondents. Interviewing was spread as evenly as possible across the days in field. When necessary, each telephone number was called at least one time during the day in an attempt to complete an interview.

For the landline sample, interviewers asked to speak with the youngest adult male or female currently at home based on a random rotation. If no male/female was available, interviewers asked to speak with the youngest adult of the other gender. This systematic respondent selection technique has been shown to produce samples that closely mirror the population in terms of age and gender when combined with cell interviewing. For the cellular sample, interviews were conducted with the person who answered the phone. Interviewers verified that the person was an adult and in a safe place before administering the survey. Both landline and cellular respondents verified they were a resident of Virginia and consented to take the survey.

### WEIGHTING AND ANALYSIS

Weighting is generally used in survey analysis to compensate for sample designs and patterns of non-response that might bias results. The sample was weighted to match the adult population parameters for each region. A three-stage weighting procedure was used to weight these dual-frame samples.

The first stage of weighting corrected for different probabilities of selection associated with the number of adults in each household and each respondent's telephone usage patterns.<sup>1</sup> This weighting also adjusts for the overlapping landline and cell sample frames and the relative sizes of each frame and each sample.

The first-stage weight for the  $i^{\text{th}}$  case within a stratum can be expressed as:

$$WT_i = \left[ \left( \frac{S_{LL}}{F_{LL}} \times \frac{1}{AD_i} \times LL_i \right) + \left( \frac{S_{CP}}{F_{CP}} \times CP_i \right) - \left( \frac{S_{LL}}{F_{LL}} \times \frac{1}{AD_i} \times LL_i \times \frac{S_{CP}}{F_{CP}} \times CP_i \right) \right]^{-1}$$

Where  $S_{LL}$  = the size of the landline sample

$F_{LL}$  = the size of the landline sample frame

$S_{CP}$  = the size of the cell sample

$F_{CP}$  = the size of the cell sample frame

$AD_i$  = Number of adults in household  $i$

$LL_i=1$  if respondent has a landline phone, otherwise  $LL=0$ .

$CP_i=1$  if respondent has a cell phone, otherwise  $CP=0$ .

The second stage of weighting balances sample demographics to population parameters within each region. The sample is balanced to match population parameters for sex, age, education, race, Hispanic origin, and telephone usage. The basic weighting parameters came from the U.S. Census Bureau's 2009-2013 American Community Survey data. The telephone usage parameters came from an analysis of recent dual-frame interviewing conducted in Virginia counties by PSRAI.<sup>2</sup>

Weighting was accomplished using SPSSINC RAKE, an SPSS extension module that simultaneously balances the distributions of all variables using the GENLOG procedure. Weights were trimmed to prevent individual interviews from having too much influence on the final results. The use of these weights in statistical analysis ensures that the demographic characteristics of the sample closely approximate the demographic characteristics of the population. Tables 1 through 5 compare weighted and unweighted sample distributions to each region's population parameters. The third and final stage of weighting adjusted regional population totals so that the entire dataset would be representative of the state as a whole.

**Table 1: Sample Demographics Northwest (Region 1)**

	Parameter	Unweighted	Weighted
<u>Gender</u>			
Male	48.4	44.4	48.0
Female	51.6	55.6	52.0
<u>Age</u>			

<sup>1</sup> i.e., whether respondents have only a landline telephone, only a cell phone, or both kinds of telephone.

<sup>2</sup> Data was from PSRAI Omnibus survey conducted January 2014 through December 2015.

18-24	14.1	4.8	10.7
25-34	15.4	13.9	16.1
35-44	16.4	11.2	17.1
45-64	35.4	40.1	36.7
65+	18.7	29.9	19.5
<u>Education</u>			
HS Grad or less	46.2	39.6	45.0
Some College/Assoc Degree	28.2	26.2	28.2
College Graduate	25.6	34.2	26.8
<u>Race/Ethnicity</u>			
White/not Hispanic	80.5	86.6	81.9
Black/not Hispanic	9.6	8.0	9.8
Hispanic/Other	9.9	5.3	8.3
<u>Individual Phone Use</u>			
LLO	5.6	4.3	5.6
Dual	53.9	59.4	54.6
CPO	40.5	36.4	39.8

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**Table 2: Sample Demographics Northern VA (Region 2)**

	<u>Parameter</u>	<u>Unweighted</u>	<u>Weighted</u>
<u>Gender</u>			
	Male	49.0	47.0
	Female	51.0	53.0
<u>Age</u>			
	18-24	10.9	9.3
	25-34	21.5	17.5
	35-44	21.1	15.3
	45-64	34.6	38.8
	65+	11.9	19.1
<u>Education</u>			
	HS Grad or less	25.4	17.5
	Some College/Assoc Degree	23.5	20.2
	College Graduate	51.1	62.3
<u>Race/Ethnicity</u>			
	White/not Hispanic	55.4	68.3
	Black/not Hispanic	11.8	12.6
	Hispanic	16.1	10.9
	Other, not Hispanic	16.7	8.2
<u>Individual Phone Use</u>			
	LLO	4.9	3.3
	Dual	52.1	66.7
	CPO	43.0	30.1

**Table 3: Sample Demographics West (Region 3)**

	<u>Parameter</u>	<u>Unweighted</u>	<u>Weighted</u>
<u>Gender</u>			
	Male	48.3	49.1
	Female	51.7	50.9
<u>Age</u>			
	18-24	13.8	13.9
	25-34	13.9	14.2
	35-44	15.5	14.4
	45-64	35.5	36.0
	65+	21.3	21.4
<u>Education</u>			
	HS Grad or less	49.0	47.3
	Some College/Assoc Degree	32.4	33.0
	College Graduate	18.6	19.7
<u>Race/Ethnicity</u>			
	White/not Hispanic	83.2	83.8
	Black/not Hispanic	11.4	10.6
	Hispanic/Other	5.4	5.6
<u>Individual Phone Use</u>			
	LLO	15.1	11.8
	Dual	45.4	47.4
	CPO	39.5	40.7

**Table 4: Sample Demographics South Central (Region 4)**

	<u>Parameter</u>	<u>Unweighted</u>	<u>Weighted</u>
<u>Gender</u>			
	Male	48.0	47.8
	Female	52.0	52.2
<u>Age</u>			
	18-24	12.9	12.6
	25-34	16.8	17.6
	35-44	17.2	16.6
	45-64	35.9	35.1
	65+	17.1	18.1
<u>Education</u>			
	HS Grad or less	42.8	40.7
	Some College/Assoc Degree	29.4	30.0
	College Graduate	27.8	29.3
<u>Race/Ethnicity</u>			
	White/not Hispanic	58.4	59.5
	Black/not Hispanic	31.4	32.1
	Hispanic/Other	10.2	8.4
<u>Individual Phone Use</u>			
	LLO	8.4	6.8
	Dual	49.9	52.4
	CPO	41.7	40.8



**Table 5: Sample Demographics Tidewater (Region 5)**

	<u>Parameter</u>	<u>Unweighted</u>	<u>Weighted</u>
<u>Gender</u>			
	Male	48.5	49.0
	Female	51.5	51.0
<u>Age</u>			
	18-24	15.0	15.1
	25-34	18.4	18.9
	35-44	16.1	16.2
	45-64	34.1	32.8
	65+	16.5	17.1
<u>Education</u>			
	HS Grad or less	38.8	38.2
	Some College/Assoc Degree	36.3	36.0
	College Graduate	24.9	25.8
<u>Race/Ethnicity</u>			
	White/not Hispanic	57.1	58.8
	Black/not Hispanic	30.7	29.6
	Hispanic	5.6	5.8
	Other /not Hispanic	6.6	5.8
<u>Individual Phone Use</u>			
	LLO	8.9	6.9
	Dual	55.4	56.8
	CPO	35.7	36.4

## Effects of Sample Design on Statistical Inference

Post-data collection statistical adjustments require analysis procedures that reflect departures from simple random sampling. PSRAI calculates the effects of these design features so that an appropriate adjustment can be incorporated into tests of statistical significance when using these data. The so-called "design effect" or *deff* represents the loss in statistical efficiency that results from systematic non-response.

PSRAI calculates the composite design effect for a sample of size  $n$ , with each case having a weight,  $w_i$  as:

$$deff = \frac{n \sum_{i=1}^n w_i^2}{\left( \sum_{i=1}^n w_i \right)^2} \quad \text{formula 1}$$

In a wide range of situations, the adjusted *standard error* of a statistic should be calculated by multiplying the usual formula by the square root of the design effect ( $\sqrt{deff}$ ). Thus, the formula for computing the 95% confidence interval around a percentage is:

$$\hat{p} \pm \left( \sqrt{deff} \times 1.96 \sqrt{\frac{\hat{p}(1-\hat{p})}{n}} \right) \quad \text{formula 2}$$

where  $\hat{p}$  is the sample estimate and  $n$  is the unweighted number of sample cases in the group being considered.

The survey's *margin of error* is the largest 95% confidence interval for any estimated proportion based on the total sample—the one around 50%. For example, the margin of error for the entire sample is  $\pm 3.7$  percentage points. This means that in 95 out every 100 samples drawn using the same methodology, estimated proportions based on the entire sample will be no more than 3.7 percentage points away from their true values in the population. It is important to remember that sampling fluctuations are only one possible source of error in a survey estimate. Other sources, such as respondent selection bias, questionnaire wording and reporting inaccuracy, may contribute additional error of greater or lesser magnitude.

Table 6 shows the design effects and margins of error for each region.

**Table 6: Design Effects and Margins of Error**

<u>Region</u>	<u>n</u>	<u>Design Effect</u>	<u>Margin of Error</u>
Northwest (1)	187	1.22	7.9 percentage points
Northern VA (2)	183	1.21	8.0 percentage points
West (3)	188	1.30	8.2 percentage points
South Central (4)	187	1.30	8.2 percentage points
Tidewater (5)	186	1.28	8.1 percentage points
Total Sample	931	1.35	3.7 percentage points

## RESPONSE RATE

Table 7 shows the response rates for each region by sample type. Tables 8 through 12 show the individual dispositions of all sampled telephone numbers ever dialed from the original telephone number samples. The response rate estimates the fraction of all eligible sample that was ultimately interviewed. Response rates are computed according to the American Association for Public Opinion Research standards.<sup>3</sup> Table 13 shows the total disposition for the all sampled telephone numbers.

**Table 7: Response Rates**

	<u>Landline</u>	<u>Cell</u>
Northwest (1)	7.4%	9.1%
Northern VA (2)	6.3%	9.6%
West (3)	10.0%	8.6%
South Central (4)	6.4%	7.1%
Tidewater (5)	6.8%	8.2%
Total	7.2%	8.5%

<sup>3</sup> The American Association for Public Opinion Research. 2011. Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 7th edition. AAPOR.

**Table 8: Sample Disposition Northwest Region 1**

<u>Landline</u>	<u>Cell</u>	
135	44	Non-residential/Business
0	----	Cell in landline frame
135	44	OF = Out of Frame
1,982	569	Not working
102	0	Computer/fax/modem
2,084	569	NWC = Not working/computer
290	93	UHUO <sub>NC</sub> = Non-contact, unknown if household/unknown other
470	761	Voice mail
3	3	Other non-contact
473	764	UO <sub>NC</sub> = Non-contact, unknown eligibility
403	586	Refusals
32	494	Callbacks
435	1,080	UO <sub>R</sub> = Refusal, unknown if eligible
3	28	O = Other
----	59	Child's cell phone
5	40	Screen out - Not VA resident
5	99	SO = Screen out
10	17	R = Refusal, known eligible
76	111	I = Completed interviews
3,511	2,805	T = Total numbers dialed
31.1%	77.4%	$e1 = (I+R+SO+O+UO_R+UO_{NC})/(I+R+SO+O+UO_R+UO_{NC}+OF+NWC)$ - Est. frame eligibility of non-contacts
94.5%	56.4%	$e2 = (I+R)/(I+R+SO)$ - Est. screening eligibility of unscreened contacts
48.4%	61.5%	$CON = [I + R + (e2*[O + UO_R])]/[I + R + (e2*[O + UO_R + UO_{NC}]) + (e1*e2*UHUO_{NC})]$
15.2%	14.7%	$COOP = I/[I + R + (e2*[O + UO_R])]$
7.4%	9.1%	<b>AAPOR RR3 = <math>I/[I+R+(e2*(UO_R+UO_{NC}+O))+(e1*e2*UHUO_{NC})] = CON*COOP</math></b>

**Table 9: Sample Disposition Northern VA Region 2**

<u>Landline</u>	<u>Cell</u>	
205	64	Non-residential/Business
0	----	Cell in landline frame
205	64	OF = Out of Frame
2,365	321	Not working
133	0	Computer/fax/modem
2,498	321	NWC = Not working/computer
449	54	UHUO <sub>NC</sub> = Non-contact, unknown if household/unknown other
587	763	Voice mail
3	3	Other non-contact
590	766	UO <sub>NC</sub> = Non-contact, unknown eligibility
400	761	Refusals
26	888	Callbacks
426	1,649	UO <sub>R</sub> = Refusal, unknown if eligible
19	119	O = Other
----	97	Child's cell phone
5	97	Screen out - Not VA resident
5	194	SO = Screen out
7	15	R = Refusal, known eligible
74	109	I = Completed interviews
4,273	3,291	T = Total numbers dialed
29.3%	88.1%	$e1 = (I+R+SO+O+UO_R+UO_{NC})/(I+R+SO+O+UO_R+UO_{NC}+OF+NWC)$ - Est. frame eligibility of non-contacts
94.2%	39.0%	$e2 = (I+R)/(I+R+SO)$ - Est. screening eligibility of unscreened contacts
42.4%	71.9%	$CON = [I + R + (e2*[O + UO_R])]/[I + R + (e2*[O + UO_R + UO_{NC}]) + (e1*e2*UHUO_{NC})]$
14.8%	13.4%	$COOP = I/[I + R + (e2*[O + UO_R])]$
<b>6.3%</b>	<b>9.6%</b>	<b>AAPOR RR3 = <math>I/[I+R+[e2*(UO_R+UO_{NC}+O)]+[e1*e2*UHUO_{NC}]] = CON*COOP</math></b>

**Table 10: Sample Disposition West Region 3**

<u>Landline</u>	<u>Cell</u>	
103	27	Non-residential/Business
0	----	Cell in landline frame
103	27	OF = Out of Frame
1,923	734	Not working
74	0	Computer/fax/modem
1,997	734	NWC = Not working/computer
198	77	UHUO <sub>NC</sub> = Non-contact, unknown if household/unknown other
268	671	Voice mail
5	2	Other non-contact
273	673	UO <sub>NC</sub> = Non-contact, unknown eligibility
367	539	Refusals
12	532	Callbacks
379	1,071	UO <sub>R</sub> = Refusal, unknown if eligible
3	10	O = Other
----	46	Child's cell phone
6	27	Screen out - Not VA resident
6	73	SO = Screen out
9	25	R = Refusal, known eligible
74	114	I = Completed interviews
3,042	2,804	T = Total numbers dialed
26.2%	72.1%	$e1 = (I+R+SO+O+UO_R+UO_{NC})/(I+R+SO+O+UO_R+UO_{NC}+OF+NWC)$ - Est. frame eligibility of non-contacts
93.3%	65.6%	$e2 = (I+R)/(I+R+SO)$ - Est. screening eligibility of unscreened contacts
59.2%	64.0%	$CON = [I + R + (e2*[O + UO_R])]/[I + R + (e2*[O + UO_R + UO_{NC}] + (e1*e2*UHUO_{NC})]$
16.8%	13.4%	$COOP = I/[I + R + (e2*[O + UO_R])]$
10.0%	8.6%	<b>AAPOR RR3</b> = $I/[I+R+(e2*(UO_R+UO_{NC}+O))+(e1*e2*UHUO_{NC})] = CON*COOP$

**Table 11: Sample Disposition South Central Region 4**

<u>Landline</u>	<u>Cell</u>	
196	54	Non-residential/Business
0	----	Cell in landline frame
196	54	OF = Out of Frame
2,695	459	Not working
140	1	Computer/fax/modem
2,835	460	NWC = Not working/computer
285	85	UHUO <sub>NC</sub> = Non-contact, unknown if household/unknown other
583	853	Voice mail
3	0	Other non-contact
586	853	UO <sub>NC</sub> = Non-contact, unknown eligibility
417	709	Refusals
26	844	Callbacks
443	1,553	UO <sub>R</sub> = Refusal, unknown if eligible
6	36	O = Other
----	74	Child's cell phone
3	32	Screen out - Not VA resident
3	106	SO = Screen out
10	29	R = Refusal, known eligible
74	113	I = Completed interviews
4,438	3,289	T = Total numbers dialed
27.0%	84.0%	$e1 = (I+R+SO+O+UO_R+UO_{NC})/(I+R+SO+O+UO_R+UO_{NC}+OF+NWC)$ - Est. frame eligibility of non-contacts
96.6%	57.3%	$e2 = (I+R)/(I+R+SO)$ - Est. screening eligibility of unscreened contacts
44.7%	66.5%	$CON = [I + R + (e2*[O + UO_R])]/[I + R + (e2*[O + UO_R + UO_{NC}]) + (e1*e2*UHUO_{NC})]$
14.3%	10.7%	$COOP = I/[I + R + (e2*[O + UO_R])]$
<b>6.4%</b>	<b>7.1%</b>	<b>AAPOR RR3 = <math>I/[I+R+[e2*(UO_R+UO_{NC}+O)]+[e1*e2*UHUO_{NC}]] = CON*COOP</math></b>

**Table 12: Sample Disposition Tidewater Region 5**

<u>Landline</u>	<u>Cell</u>	
164	54	Non-residential/Business
2	----	Cell in landline frame
166	54	OF = Out of Frame
2,719	428	Not working
123	0	Computer/fax/modem
2,842	428	NWC = Not working/computer
435	89	UHUO <sub>NC</sub> = Non-contact, unknown if household/unknown other
495	884	Voice mail
1	2	Other non-contact
496	886	UO <sub>NC</sub> = Non-contact, unknown eligibility
395	722	Refusals
31	839	Callbacks
426	1,561	UO <sub>R</sub> = Refusal, unknown if eligible
3	23	O = Other
----	64	Child's cell phone
4	67	Screen out - Not VA resident
4	131	SO = Screen out
15	14	R = Refusal, known eligible
73	113	I = Completed interviews
4,460	3,299	T = Total numbers dialed
25.3%	85.0%	$e1 = (I+R+SO+O+UO_R+UO_{NC})/(I+R+SO+O+UO_R+UO_{NC}+OF+NWC)$ - Est. frame eligibility of non-contacts
95.7%	49.2%	$e2 = (I+R)/(I+R+SO)$ - Est. screening eligibility of unscreened contacts
46.2%	65.7%	$CON = [I + R + (e2*[O + UO_R])]/[I + R + (e2*[O + UO_R + UO_{NC}]) + (e1*e2*UHUO_{NC})]$
14.6%	12.5%	$COOP = I/[I + R + (e2*[O + UO_R])]$
<b>6.8%</b>	<b>8.2%</b>	<b>AAPOR RR3 = <math>I/[I+R+(e2*(UO_R+UO_{NC}+O))+(e1*e2*UHUO_{NC})]</math> = CON*COOP</b>



**Table 13: Sample Disposition Total VA**

<u>Landline</u>	<u>Cell</u>	
803	243	Non-residential/Business
2	----	Cell in landline frame
805	243	OF = Out of Frame
11,684	2,511	Not working
572	1	Computer/fax/modem
12,256	2,512	NWC = Not working/computer
1,657	398	UHUO <sub>NC</sub> = Non-contact, unknown if household/unknown other
2,403	3,932	Voice mail
15	10	Other non-contact
2,418	3,942	UO <sub>NC</sub> = Non-contact, unknown eligibility
1,982	3,317	Refusals
127	3,597	Callbacks
2,109	6,914	UO <sub>R</sub> = Refusal, unknown if eligible
34	216	O = Other
----	340	Child's cell phone
23	263	Screen out - Not VA resident
23	603	SO = Screen out
51	100	R = Refusal, known eligible
371	560	I = Completed interviews
19,724	15,488	T = Total numbers dialed
27.7%	81.7%	$e1 = (I+R+SO+O+UO_R+UO_{NC})/(I+R+SO+O+UO_R+UO_{NC}+OF+NWC)$ - Est. frame eligibility of non-contacts
94.8%	52.3%	$e2 = (I+R)/(I+R+SO)$ - Est. screening eligibility of unscreened contacts
47.4%	66.3%	$CON = [I + R + (e2*[O + UO_R])]/[I + R + (e2*[O + UO_R + UO_{NC}]) + (e1*e2*UHUO_{NC})]$
15.1%	12.8%	$COOP = I/[I + R + (e2*[O + UO_R])]$
<b>7.2%</b>	<b>8.5%</b>	<b>AAPOR RR3 = <math>I/[I+R+(e2*(UO_R+UO_{NC}+O))+[e1*e2*UHUO_{NC}]] = CON*COOP</math></b>