

Voting Methods

Analysis from the Perspective of
the Elected Officials who
Administer Elections



UTAH
ASSOCIATION OF
COUNTIES
The Unifying Voice for County Government

Comparison between RCV and Approval Voting

	Subject	Ranked Choice Voting	Approval Voting
Voter Experience	Ballot Look and Feel		
	Voter Exhaustion		
	Gaming the System		
	Transparency		
	Voter Turnout		
	Impact on Minorities		
Election Processes	Logistical & Security Issues		
	Processing Time		
	Adjudication & Spoiled ballots		
	Tabulation of Results		
	Release of Results		
	Auditability		
	Plurality		
Costs	Voter Education		
	Primary Election		

	Subject	Ranked Choice Voting	Approval Voting
Voter Experience	Ballot Look and Feel		
	Voter Exhaustion		
	Gaming the System		
	Transparency		
	Voter Turnout		
	Impact on Minorities		

Comparison between RCV and Approval Voting

Voter Experience & Confidence

Ballot Look and Feel



Ranked Choice Voting	Approval Voting
Doubles (or more) the ballot length – some races RCV, some not	Same length as traditional format. One additional line of instruction
New ballot look (grid format)	Same format as traditional ballot

Current / Approval Voting (1 card front and back -- 1 ½ pages)

**Official Ballot for
Weber County, Utah
Tuesday, November 8, 2016
Clerk/Auditor of Weber County**

INSTRUCTIONS TO VOTERS:

- To vote, fill in the oval next to your choice.
- Use ballpoint pen with dark ink (not red). Do not use pencil.
- If not marked properly your ballot may not be counted. If you tear, deface, or wrongly mark this ballot, contact the County Clerk's Office or a Poll Worker for a new ballot.
- If you cannot mark your choice completely, you may ask for help.

VOTE LIKE THIS: CORRECT **DO NOT VOTE LIKE THIS:**

<p>Voting this Straight Party Race is optional. You may vote for candidates of various political parties in this election.</p> <p style="text-align: center;">STRAIGHT PARTY</p> <p><input type="radio"/> INDEPENDENT AMERICAN PARTY (IAP)</p> <p><input type="radio"/> DEMOCRATIC PARTY (DPA)</p> <p><input type="radio"/> REPUBLICAN PARTY (RPA)</p> <p><input type="radio"/> CONSTITUTION PARTY (CPA)</p> <p><input type="radio"/> LIBERTARIAN PARTY (LPA)</p>	<p style="text-align: center;">U.S. HOUSE OF REPRESENTATIVES CONGRESSIONAL DISTRICT 1 (Vote for one)</p> <p><input type="radio"/> ROB BISHOP (RPP)</p> <p><input type="radio"/> CRAIG BOWDEN (RPP)</p> <p><input type="radio"/> CHADWICK H. FAIRBANKS III (DPA)</p> <p><input type="radio"/> PETER C. CLEMENS (DPA)</p> <p><small>*CANDIDATE NOT AFFILIATED WITH A STATE REGISTERED POLITICAL PARTY</small></p> <p style="text-align: center;">GOVERNOR/LT. GOVERNOR (Vote for one)</p> <p><input type="radio"/> GARY R. HERBERT (RPP)</p> <p><input type="radio"/> SPENCER J. COX (RPP)</p> <p><input type="radio"/> SUPERDELL SCHANZE (IAP)</p> <p><input type="radio"/> GREGORY C. DIERDEN (IAP)</p> <p><input type="radio"/> BRIAN E. KAMERATH (RPP)</p> <p><input type="radio"/> BARRY EVAN SHORT (RPP)</p> <p><input type="radio"/> MIKE WEINHOLTZ (DPA)</p> <p><input type="radio"/> JIM BOWMAN (DPA)</p> <p><input type="radio"/> WRITE-IN:</p>
<p style="text-align: center;">FEDERAL RACES</p> <p style="text-align: center;">U. S. PRESIDENT VICE PRESIDENT (Vote for one)</p> <p><input type="radio"/> "ROCKY" ROGUE DELA FUENTE (IAP)</p> <p><input type="radio"/> MICHAEL STENBERG (IAP)</p> <p><input type="radio"/> JILL STEIN (IAP)</p> <p><input type="radio"/> ALAMU BARAKA (IAP)</p> <p><input type="radio"/> ALYSON KENNEDY (IAP)</p> <p><input type="radio"/> OSBORNE HART (IAP)</p> <p><input type="radio"/> GARY JOHNSON (RPP)</p> <p><input type="radio"/> BILL WELD (RPP)</p> <p><input type="radio"/> ROCKY GORDANI (IAP)</p> <p><input type="radio"/> FARLEY ANDERSON (IAP)</p> <p><input type="radio"/> DONALD J. TRUMP (RPP)</p> <p><input type="radio"/> MICHAEL R. PENCE (RPP)</p> <p><input type="radio"/> DARRRELL L. CASTLE (IAP)</p> <p><input type="radio"/> SCOTT N. BRADLEY (IAP)</p> <p><input type="radio"/> HILLARY RODHAM CLINTON (DPA)</p> <p><input type="radio"/> TIMOTHY MICHAEL KAINE (DPA)</p> <p><input type="radio"/> MONICA MOOREHEAD (IAP)</p> <p><input type="radio"/> LAMONT LILLY (IAP)</p> <p><input type="radio"/> EVAN McMULLIN (IAP)</p> <p><input type="radio"/> NATHAN JOHNSON (IAP)</p> <p><input type="radio"/> WRITE-IN:</p> <p><small>*CANDIDATE NOT AFFILIATED WITH A STATE REGISTERED POLITICAL PARTY</small></p>	<p style="text-align: center;">ATTORNEY GENERAL (Vote for one)</p> <p><input type="radio"/> MICHAEL W. ISBELL (IAP)</p> <p><input type="radio"/> JOHN V. HARPER (DPA)</p> <p><input type="radio"/> SEAN D. REYES (RPP)</p> <p><input type="radio"/> W. ANDREW MCCULLOUGH (RPP)</p> <p style="text-align: center;">STATE AUDITOR (Vote for one)</p> <p><input type="radio"/> JOHN DOUGALL (RPP)</p> <p><input type="radio"/> JARED GREEN (IAP)</p> <p><input type="radio"/> MIKE MITCHELL (DPA)</p> <p style="text-align: center;">STATE TREASURER (Vote for one)</p> <p><input type="radio"/> RICHARD PROCTOR (IAP)</p> <p><input type="radio"/> NEIL A. HANSEN (RPP)</p> <p><input type="radio"/> DAVID DAMSCHEN (RPP)</p> <p style="text-align: center;">STATE SENATOR STATE SENATE DISTRICT 20 (Vote for one)</p> <p><input type="radio"/> GREGG BLIXTON (RPP)</p> <p><input type="radio"/> ALAN G. YORGASON (DPA)</p> <p style="text-align: center;">STATE HOUSE OF REPRESENTATIVES DISTRICT 20 (Vote for one)</p> <p><input type="radio"/> LEE B. PERRY (RPP)</p> <p><input type="radio"/> ANGELA B. URSEA (DPA)</p>
<p style="text-align: center;">STATE RACES</p> <p style="text-align: center;">U. S. SENATE (Vote for one)</p> <p><input type="radio"/> MISTY K SNOW (DPA)</p> <p><input type="radio"/> BILL BARRON (IAP)</p> <p><input type="radio"/> STONEY FONGUA (IAP)</p> <p><input type="radio"/> MIKE LEE (RPP)</p> <p><small>*CANDIDATE NOT AFFILIATED WITH A STATE REGISTERED POLITICAL PARTY</small></p>	<p style="text-align: center;">COUNTY RACES</p> <p style="text-align: center;">WEBER COUNTY COMMISSION SEAT C (Vote for one)</p> <p><input type="radio"/> JIM HARVEY (RPP)</p>

<p style="text-align: center;">JUDICIAL RETENTION</p> <p>Shall ERNEST W. JONES be retained in the office of Judge of the District Court of the Second Judicial District?</p> <p><input type="radio"/> YES</p> <p><input type="radio"/> NO</p> <p>Shall GLEN R. DAWSON be retained in the office of Judge of the District Court of the Second Judicial District?</p> <p><input type="radio"/> YES</p> <p><input type="radio"/> NO</p> <p>Shall MICHAEL G ALLPIN be retained in the office of Judge of the District Court of the Second Judicial District?</p> <p><input type="radio"/> YES</p> <p><input type="radio"/> NO</p> <p>Shall JAMES L. BEESLEY be retained in the office of Justice Court Judge for the Plain City Justice court?</p> <p><input type="radio"/> YES</p> <p><input type="radio"/> NO</p> <p>Shall PATRICK E. LAMBERT be retained in the office of Justice Court Judge for the Fair West Justice court?</p> <p><input type="radio"/> YES</p> <p><input type="radio"/> NO</p> <p>Shall PATRICK E. LAMBERT be retained in the office of Justice Court Judge for the North Ogden Justice court?</p> <p><input type="radio"/> YES</p> <p><input type="radio"/> NO</p> <p>Shall PATRICK E. LAMBERT be retained in the office of Justice Court Judge for the Pleasant View Justice court?</p> <p><input type="radio"/> YES</p> <p><input type="radio"/> NO</p> <p>Shall PATRICK E. LAMBERT be retained in the office of Justice Court Judge for the Uintah/Huntsville Justice court?</p> <p><input type="radio"/> YES</p> <p><input type="radio"/> NO</p> <p>Shall PATRICK E. LAMBERT be retained in the office of Justice Court Judge for the Washington Terrace/Merriott-Slaterville Justice court?</p> <p><input type="radio"/> YES</p> <p><input type="radio"/> NO</p> <p>Shall REUBEN J. RENSTROM be retained in the office of Justice Court Judge for the South Ogden Justice court?</p> <p><input type="radio"/> YES</p> <p><input type="radio"/> NO</p>	<p style="text-align: center;">CONSTITUTIONAL AMENDMENT C</p> <p>Shall the Utah Constitution be amended to allow a property tax exemption for tangible personal property that is leased by the state or by a county, city, town, school district, or other political subdivision of the state?</p> <p><input type="radio"/> FOR</p> <p><input type="radio"/> AGAINST</p>
<p>MEASURES SUBMITTED TO VOTERS</p>	
<p style="text-align: center;">CONSTITUTIONAL AMENDMENT A</p> <p>Shall the Utah Constitution be amended to make a technical wording change in the oath of office that elected and appointed officers are required to take?</p> <p><input type="radio"/> FOR</p> <p><input type="radio"/> AGAINST</p>	
<p style="text-align: center;">CONSTITUTIONAL AMENDMENT B</p> <p>Shall State School Fund provisions of the Utah Constitution be amended to:</p> <ul style="list-style-type: none"> • modify the description of what can be distributed from the State School Fund from "interest and dividends" to "earnings"; • limit annual distributions from the State School Fund to 4% of the Fund; and • modify the standard governing how the state is required to invest money in the Fund. <p><input type="radio"/> FOR</p> <p><input type="radio"/> AGAINST</p>	

Ranked Choice Voting (2 cards front and back -- 4 pages)

Official Ballot for Weber County, Utah Tuesday, November 8, 2016 Clerk/Auditor of Weber County

INSTRUCTIONS TO VOTERS:
 • To vote, fill in the oval next to your choice.
 • Use ballpoint pen with dark ink (not red). Do not use pencil.
 • If not marked properly your ballot may not be counted. If you tear, deface, or wrongly mark this ballot, contact the County Clerk's Office or a Poll Worker for a new ballot.
 • If you cannot mark your choice completely, you may ask for help.

VOTE LIKE THIS: **DO NOT VOTE LIKE THIS:**

CORRECT

Voting for this Straight Party Race is optional. You may vote for candidates of various political parties in this election.

STRAIGHT PARTY

INDEPENDENT AMERICAN PARTY (IAP)	<input type="radio"/>
DEMOCRATIC PARTY (DEM)	<input type="radio"/>
REPUBLICAN PARTY (REP)	<input type="radio"/>
CONSTITUTION PARTY (CON)	<input type="radio"/>
LIBERTARIAN PARTY (LIB)	<input type="radio"/>

FEDERAL RACES

U.S. PRESIDENT VICE PRESIDENT (Vote for one)	2nd Choice	3rd Choice	4th Choice	5th Choice	6th Choice	7th Choice	8th Choice	9th Choice	10th Choice	11th Choice
"ROCKY" ROQUE DE LA FUENTE MICHAEL STEINBERG (UNA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
JILL STEIN AJAMU BARAKA (UNA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ALYSON KENNEDY OSBORNE HART (UNA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GARY JOHNSON BILL WELD (LIB)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ROCKY GIORDANI FARLEY ANDERSON (IAP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
DONALD J. TRUMP MICHAEL R. PENCE (REP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
DARRELL L. CASTLE SCOTT N. BRADLEY (CON)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
HILLARY RODHAM CLINTON TIMOTHY MICHAEL KAINE (DEM)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
MONICA MOOREHEAD LAMONT LILLY (UNA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EVAN McMULLIN NATHAN JOHNSON (UNA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WRITE-IN:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

STATE RACES

U. S. SENATE (Vote for one)	2nd Choice	3rd Choice	4th Choice	
BILL BARRON (UNA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
STONEV FONUA (IAP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
MIKE LEE (REP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
MISTY K SNOW (DEM)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
U.S. HOUSE OF REPRESENTATIVES U.S. CONGRESSIONAL DISTRICT 1 (Vote for one)	2nd Choice	3rd Choice	4th Choice	
CHADWICK H. FAIRBANKS III (UNA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
CRAIG BOWDEN (LIB)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
ROB BISHOP (REP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
PETER CLEMENS (DEM)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
GOVERNOR/LT. GOVERNOR (Vote for one)	2nd Choice	3rd Choice	4th Choice	5th Choice
BRIAN E KAMERATH BARRY EVAN SHORT (LIB)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GARY R. SCHANZE GREGORY C. DUERDEN (IAP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GARY R. HERBERT SPENCER J. COX (REP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
MIKE WEINHOLTZ KIM BOWMAN (DEM)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WRITE-IN: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ATTORNEY GENERAL (Vote for one)	2nd Choice	3rd Choice	4th Choice	
W. ANDREW MCCULLOUGH (LIB)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
MICHAEL W. ISBELL (IAP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SEAN D. REYES (REP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
JON V. HARPER (DEM)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

STATE RACES

STATE AUDITOR (Vote for one)	2nd Choice	3rd Choice
JARED GREEN (IAP)	<input type="radio"/>	<input type="radio"/>
JOHN DOUGALL (REP)	<input type="radio"/>	<input type="radio"/>
MIKE MITCHELL (DEM)	<input type="radio"/>	<input type="radio"/>
STATE TREASURER (Vote for one)	2nd Choice	3rd Choice
DAVID DAMSCHEN (REP)	<input type="radio"/>	<input type="radio"/>
RICHARD PROCTOR (CON)	<input type="radio"/>	<input type="radio"/>
NEIL A. HANSEN (DEM)	<input type="radio"/>	<input type="radio"/>
STATE HOUSE OF REPRESENTATIVES DISTRICT 10 (Vote for one)	2nd Choice	3rd Choice
DERRYCK GORDON (LIB)	<input type="radio"/>	<input type="radio"/>
DIXON M. PITCHER (REP)	<input type="radio"/>	<input type="radio"/>
JESUS (JESSIE) GARCIA (DEM)	<input type="radio"/>	<input type="radio"/>

COUNTY RACES

WEBER COUNTY COMMISSION SEAT C (Vote for one)	
JIM HARVEY (REP)	<input type="radio"/>

LOCAL SCHOOL BOARD

OGDEN CITY SCHOOL BOARD DISTRICT 5 (Vote for one)	2nd Choice
SUE ANN BURTON	<input type="radio"/>
NANCY BLAIR	<input type="radio"/>

JUDICIAL RETENTION

Shall ERNEST W. JONES be retained in the office of Judge of the District Court of the Second Judicial District?	YES	<input type="radio"/>
	NO	<input type="radio"/>
Shall GLEN R. DAWSON be retained in the office of Judge of the District Court of the Second Judicial District?	YES	<input type="radio"/>
	NO	<input type="radio"/>

JUDICIAL RETENTION

Shall MICHAEL G ALLPHIN be retained in the office of Judge of the District Court of the Second Judicial District?	YES	<input type="radio"/>
	NO	<input type="radio"/>
Shall ANDREA W. LOCKWOOD be retained in the office of Justice Court Judge for the Ogden City Justice Court?	YES	<input type="radio"/>
	NO	<input type="radio"/>
Shall JAMES L. BEESLEY be retained in the office of Justice Court Judge for the Plain City Justice Court?	YES	<input type="radio"/>
	NO	<input type="radio"/>
Shall PATRICK E. LAMBERT be retained in the office of Justice Court Judge for the Farr West Justice Court?	YES	<input type="radio"/>
	NO	<input type="radio"/>
Shall PATRICK E. LAMBERT be retained in the office of Justice Court Judge for the North Ogden Justice Court?	YES	<input type="radio"/>
	NO	<input type="radio"/>
Shall PATRICK E. LAMBERT be retained in the office of Justice Court Judge for the Pleasant View Justice Court?	YES	<input type="radio"/>
	NO	<input type="radio"/>
Shall PATRICK E. LAMBERT be retained in the office of Justice Court Judge for the Uintah/Huntsville Justice Court?	YES	<input type="radio"/>
	NO	<input type="radio"/>
Shall PATRICK E. LAMBERT be retained in the office of Justice Court Judge for the Washington Terrace/Marriott-Slaterville Justice Court?	YES	<input type="radio"/>
	NO	<input type="radio"/>
Shall REUBEN J. RENSTROM be retained in the office of Justice Court Judge for the South Ogden Justice Court?	YES	<input type="radio"/>
	NO	<input type="radio"/>
MEASURES SUBMITTED TO VOTERS		
CONSTITUTIONAL AMENDMENT A Shall the Utah Constitution be amended to make a technical wording change in the oath of office that elected and appointed officers are required to take?	FOR	<input type="radio"/>
	AGAINST	<input type="radio"/>
CONSTITUTIONAL AMENDMENT B Shall State School Funding provisions of the Utah Constitution be amended to: • modify the description of what can be distributed from the State School Fund from "interest and dividends" to "earnings"; • limit annual distributions from the State School Fund to 4% of the Fund; and • modify the standard governing how the state is required to invest money in the Fund.	FOR	<input type="radio"/>
	AGAINST	<input type="radio"/>
CONSTITUTIONAL AMENDMENT C Shall the Utah Constitution be amended to allow a property tax exemption for tangible personal property that is leased by the state or by a county, city, town, school district, or other political subdivision of the state?	FOR	<input type="radio"/>
	AGAINST	<input type="radio"/>

RCV - More than 10 Candidates

TEST BALLOT RCV Election California Certification Tuesday, November 8, 2016

Instructions to Voters:

Please rank your candidate choices from ONE to TEN by filling the Oval beside only 1 candidate for each choice column. Fill in no more than 1 oval per candidate.



IRV - Preferential Choices

Rank no more than TEN Choices
ONE Candidate to be Elected

	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	Rank 8	Rank 9	Rank 10
Candidate 1 <i>Party 1</i> <i>Occupation 1</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 2 <i>Party 2</i> <i>Occupation 2</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 3 <i>Party 3</i> <i>Occupation 3</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 4 <i>Party 4</i> <i>Occupation 4</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 5 <i>Party 5</i> <i>Occupation 5</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 6 <i>Party 6</i> <i>Occupation 6</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 7 <i>Party 7</i> <i>Occupation 7</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 8 <i>Party 8</i> <i>Occupation 8</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 9 <i>Party 9</i> <i>Occupation 9</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 10 <i>Party 10</i> <i>Occupation 10</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 11 <i>Party 11</i> <i>Occupation 11</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 12 <i>Party 12</i> <i>Occupation 12</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

VOTE BOTH SIDES OF BALLOT

STV - Preferential Choices

Rank no more than TEN Choices
FOUR Candidates to be Elected

	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	Rank 8	Rank 9	Rank 10
Candidate 13 <i>Party 13</i> <i>Occupation 13</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 14 <i>Party 14</i> <i>Occupation 14</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 15 <i>Party 15</i> <i>Occupation 15</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 16 <i>Party 16</i> <i>Occupation 16</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 17 <i>Party 17</i> <i>Occupation 17</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 18 <i>Party 18</i> <i>Occupation 18</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 19 <i>Party 19</i> <i>Occupation 19</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 20 <i>Party 20</i> <i>Occupation 20</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 21 <i>Party 21</i> <i>Occupation 21</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 22 <i>Party 22</i> <i>Occupation 22</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 23 <i>Party 23</i> <i>Occupation 23</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Candidate 24 <i>Party 24</i> <i>Occupation 24</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Write-in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

VOTE BOTH SIDES OF BALLOT

Voter Experience & Confidence

Voter Exhaustion



Ranked Choice Voting	Approval Voting
Exhaustion rate between 9% – 27% ¹	Near 0% exhaustion rate
¹ Burnett & Kogan, (2015) “Ballot (and voter) “exhaustion” under Instant Runoff Voting: An examination of four ranked-choice elections” Electoral Studies, Vol. 15 pp. 41-49	

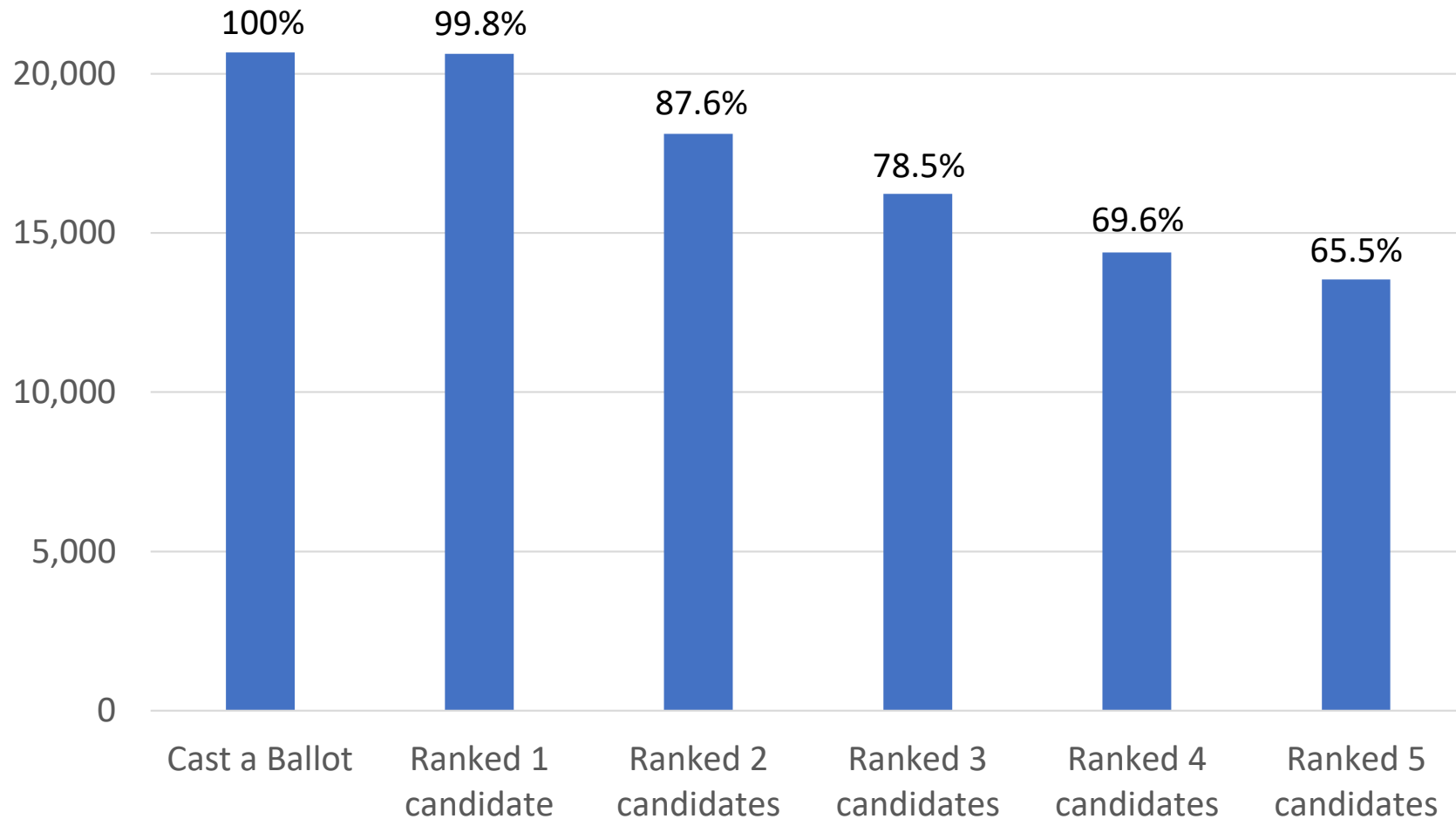
Table 3

Rate of ballot exhaustion.

	Oakland	Pierce county	San Francisco	San Leandro
First-Round Votes	119,408	298,912	194,046	22,421
Rate of Exhaustion	11.6%	10.2%	27.1%	9.6%

Ballot Exhaustion – Santa Fe, 2018

Percentage of voters who ranked up to five candidates



Voter Experience & Confidence

Gaming the System/Vote Splitting/Spoiler Effect



Ranked Choice Voting

Better than traditional voting

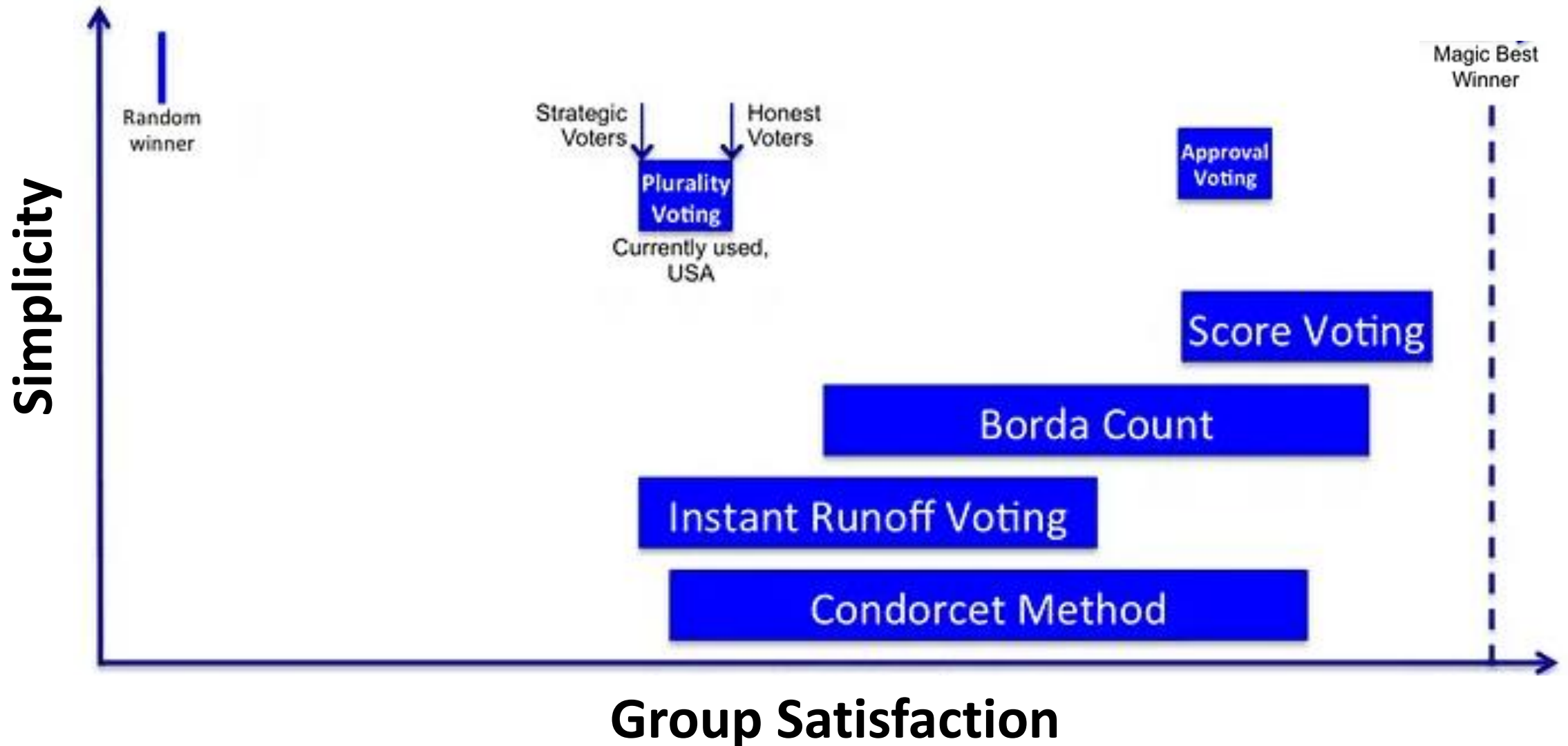


Approval Voting

Better than traditional voting

Voter Satisfaction

Bayesian Regret computer simulation with 2.2M trials



Voter Experience & Confidence

Transparency



Ranked Choice Voting	Approval Voting
<p>“The candidate with the fewest votes is eliminated, and voters who picked that candidate as ‘number 1’ will have their votes count for their next choice. This process continues until there’s a majority winner or a candidate won with more than half of the vote.”</p>	<p>“The candidate with the most votes wins.”</p>
<p>For multi-winner races (“Utah Method”): If a candidate has enough votes to win in a round, then they are elected and a new round begins. Voters who picked that candidate as ‘number 1’ will have their votes count for their next choice. If no candidate has enough votes to win in a round, then the candidate with the fewest votes is eliminated and a new round begins. Voters who picked that candidate as ‘number 1’ will have their votes count for their next choice.</p>	<p>“The candidates with the most votes win.”</p>

Voter Confidence and Transparency

Voter Turnout



Ranked Choice Voting	Approval Voting
<p>Reduces turnout 3-5%¹ Turnout reduction not as strong for minorities² Increases turnout 9.6%³ Limited impact on turnout, but increases turnout 10% over replaced primaries⁴</p>	<p>Unknown</p>
<p>¹2019 San Francisco Univ. study of 200 RCV elections from 1990 to 2018 ²2012 Stanford Univ. thesis ³2020 Univ. of Technology Sydney study of Minneapolis elections ⁴2016 study Univ. of Missouri-St. Louis</p>	

Voter Experience & Confidence

Impact on Minorities



Ranked Choice Voting	Approval Voting
Stanford 2012 study – Minority voters complete less of an RCV ballot than other voters ¹	Survey: 74% of voters of color said they are more likely to vote under approval voting ²
Opposed by: Memphis NAACP; Black, Latino, Asian Caucus of NYC	
¹ 2012 Stanford Thesis - Holtzman	² 2019 Poll by Change Research of 502 St. Louis registered voters. Margin of error 4.4%

	Subject	Ranked Choice Voting	Approval Voting
Voter Experience	Ballot Look and Feel	✗	✓
	Voter Exhaustion	✗	✓
	Gaming the System	✓	✓
	Transparency	✗	✓
	Voter Turnout	?	?
	Impact on Minorities	?	?

Comparison between RCV and Approval Voting

Subject	Ranked Choice Voting	Approval Voting
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Comparison between RCV and Approval Voting

Election Processes	Logistical & Security Issues		
	Processing Time		
	Adjudication & Spoiled ballots		
	Tabulation of Results		
	Release of Results		
	Auditability		
	Plurality		

Election Processes

Processing Time



Ranked Choice Voting	Approval Voting
If only one card is needed:	
Minor increase in processing (adjudication)	No change
If more than one card is needed:	
Reconciliation challenges: 1 voter = multiple cards	Reconciliation – no change: 1 voter = 1 card
Ballot extraction, handling & scanning – 15%-20% increase in cost of election	Ballot extraction and handling – no change

Election Processes

Adjudication & Spoiled Ballots



Ranked Choice Voting	Approval Voting
<p>Rate of spoiled/incorrect ballots: Santa Fe – 4.5% Payson & Vineyard – 5.0% Oakland – 5.7% *7.4% for predominantly African American/Latino communities *1.6% for predominantly White communities</p>	<p>No more overvotes (most common cause of adjudication).</p> <p>Drawback: system does not catch corrected overvotes</p>
<p>Utah law prevents counting after skipped round</p>	

Election Processes

Tabulation of Results



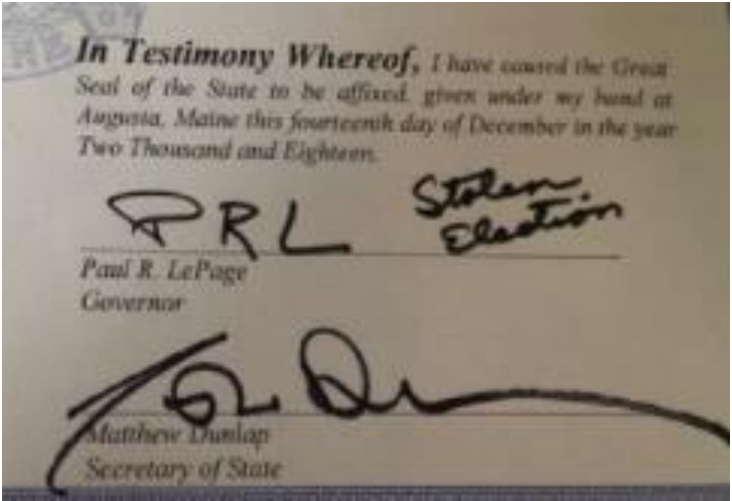
Ranked Choice Voting	Approval Voting
Single winner – negligible increase	Single winner – no change
Multi winner – requires manual manipulation for each round	Multi winner – no change

Election Processes

Release of Results



Ranked Choice Voting	Approval Voting
Results could vary widely with each new round of ballots. The outcome could change in the any round, invalidating previously released results (i.e., Maine, 2018).	No change from current system – All new ballot counts are additive.
Statewide results: must wait for all counties	Statewide results: same as current



Election Processes

Auditability



Ranked Choice Voting	Approval Voting
1 to 1 comparison (compare ballot to system-generated “cast vote record”)	1 to 1 comparison (compare ballot to system tabulation of ballot)
Must audit: *the elimination of candidates *the redistribution of votes *the integrity of the transfer of the “cast vote record” file (for state, 29 files X 5)	Must audit: *the aggregation of all votes (same as current system)
Best practice: Run “cast vote record” through independent system	All auditable processes are performed within the fully EAC-certified system.

Election Processes

Plurality



Ranked Choice Voting	Approval Voting
Generally solves plurality. Possible to have winners without majority.	Generally solves plurality. Possible to have winners without majority.
2018 San Francisco Mayor (8 candidates): Winner: 51% of final round (46% of total votes)	Fargo 2020 City Commission (7 candidates): Two winners: 55% & 53% approval (3 rd place had 49% approval)

Subject	Ranked Choice Voting	Approval Voting
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Comparison between RCV and Approval Voting

Election Processes	Logistical & Security Issues	✗	✓
	Processing Time	✗	✓
	Adjudication & Spoiled ballots	✗	✓
	Tabulation of Results	✗	✓
	Release of Results	✗	✓
	Auditability	✗	✓
	Plurality	✓	✓

Subject	Ranked Choice Voting	Approval Voting
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Comparison between RCV and Approval Voting

Costs	Voter Education		
	Primary Election		

Election Cost

Voter Education



Ranked Choice Voting	Approval Voting
Significant Voter Education Required	Minimal Voter Education Required

City	Cost per Voter	Cost per Voter	City
San Francisco	\$ 1.96		
Santa Fe	\$ 1.19		
Payson/Vineyard	\$ 0.80		
		\$ 0.55	Fargo
		\$ 0.17	St. Louis
Salt Lake County (est.)	\$ 0.46	\$ 0.15	Salt Lake County (est.)

Salt Lake County Cost Estimate

Estimated costs to educate voters

Category	Ranked Choice Voting	Approval Voting
Voter Education	\$283,600	\$94,533

Factors Influencing Cost

- Approval voting is more familiar to voters than RCV
- Estimate includes cost for:
 - Design
 - Digital Ads
 - Printed Collateral
 - Instructional Video

Salt Lake County Cost Estimate

Estimated additional costs to run an election

Category	Ranked Choice Voting	Approval Voting
Labor	\$26,324	\$0
Annual Software Licensing	\$25,000	\$0
Printing	\$10,572	\$0
Two-Card Ballot	\$194,000	\$0
TOTAL	\$255,896	\$0

Election Cost

Primary Election



Ranked Choice Voting

Could avoid primary election, if desired



Approval Voting

Could avoid primary election, if desired

Salt Lake County Cost Comparison

Estimated savings without a primary election

Category	Ranked Choice Voting	Approval Voting
Savings - No Primary Election	\$623,000	\$623,000
Cost - Voter Education	(\$283,600)	(\$94,533)
Cost - Additional Costs	(\$255,896)	(\$0)
NET SAVINGS	\$83,504	\$528,467
% SAVINGS	15%	85%

Subject	Ranked Choice Voting	Approval Voting
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Comparison between RCV and Approval Voting

Costs	Voter Education	✗	✓
	Primary Election	✓	✓

Comparison between RCV and Approval Voting

	Subject	Ranked Choice Voting	Approval Voting
Voter Experience	Ballot Look and Feel	✗	✓
	Voter Exhaustion	✗	✓
	Gaming the System	✓	✓
	Transparency	✗	✓
	Voter Turnout	?	?
	Impact on Minorities	?	?
Election Processes	Logistical & Security Issues	✗	✓
	Processing Time	✗	✓
	Adjudication & Spoiled ballots	✗	✓
	Tabulation of Results	✗	✓
	Release of Results	✗	✓
	Auditability	✗	✓
	Plurality	✓	✓
Costs	Voter Education	✗	✓
	Primary Election	✓	✓