

# VOTER REGISTRATION IN A DIGITAL AGE: ARIZONA

## BACKGROUND

The Arizona Secretary of State authorized online voter registration in the spring of 2002 and launched it that July at a cost of under \$100,000.<sup>1</sup> In 2005, officials further devoted several months' work and approximately \$30,000 to developing an automated system of voter registration at the Motor Vehicles Division (MVD), allowing branch offices to electronically transmit the registration data they collected to county election officials.<sup>2</sup>

Online voter registration was a new and untested concept in 2002. The MVD, however, had been offering driver's license renewals for several years through its website, ServiceArizona.com, and even had a program for verifying submissions against the MVD database in real time. This provided an important foundation for online registration: programmers built the new online portal directly into ServiceArizona.com, and adapted its verification program for voter registration purposes.<sup>3</sup>

Online registration in turn laid the foundation for the automated transmission of voter registrations by the MVD, since both systems use the same process for retrieving data from driver's license and ID records and forwarding them to election officials, as further described below.<sup>4</sup>

Until recently the state sent electronic registrations to most county offices in PDF form, which required local officials to manually copy data into their computers.<sup>5</sup> The exception was Maricopa County, which developed the capacity to receive direct data transfers in 2002.<sup>6</sup> In 2009 Arizona introduced a new version of its statewide voter registration database system which has allowed it to establish direct data transfers with all its counties, eliminating data entry.<sup>7</sup>

## OUTCOMES

### Voter Registration

#### *1. A New Landscape*

The innovations of automated and online registration have transformed the process of voter registration in Arizona. Mail-in registration, which made up 60 percent of all transactions as recently as 2001-02, fell below 20 percent in 2007-08.<sup>8</sup> Now online registrations predominate in election years and MVD registrations in off years. Over time the impact of these two methods of registration has been roughly equal, and together they account for 70 percent of all registrations received between 2007 and 2009.<sup>9</sup>

Voters were quick to embrace both systems. Officials reported receiving 158,000 MVD registrations in 1999-2000 and 88,000 in 2001-02, compared to 212,000 in 2006, the first full year following automation.<sup>10</sup> Whereas 5.1 percent of the citizen voting-age population registered or made updates through the MVD in 1999-2000, and 2.7 percent in 2001-02, at least 9.8 percent did so in 2007-08.<sup>11</sup>

Online registrations have followed a similar upward trajectory. In its first full year, 2003, the online system processed one in every four transactions, a total of over 95,000.<sup>12</sup> That number reached 255,000 in 2004, and 485,000 in 2008—over 39 percent of all transactions made that year.<sup>13</sup>

## *2. Who Uses Paperless Registration?*

While existing voters have driven much of this transformation, they have not been alone. From 2000 to 2004 the percentage of adult citizens registered to vote in Arizona grew from 60.1 percent to 70.8 percent, declining slightly in 2008 to 68.9 percent.<sup>14</sup> Within the 18-24 year old age group, however, registration rates have risen consistently, from 28.7 percent in 2000 to 47.8 percent in 2004 and 52.7 percent in 2008.<sup>15</sup>

In Maricopa County, home to over half of all Arizona residents, officials have found that young voters are particularly drawn to online registration. They recently determined that 18 to 34 year-olds, an age group that accounts for only some 25 percent of registered voters nationwide, have submitted 36 percent of all updates made through the online portal.<sup>16</sup> With regard to party preference, Maricopa County's data suggest that online users are fairly typical of the general population.<sup>17</sup>

## **Efficiency**

### *1. A More Accurate Process*

Maricopa County officials have found that electronic registrations are far less prone to defects than paper forms. On August 17, 2009, they surveyed all records then “on suspense”—applications that contain incomplete, inaccurate, or illegible information, and which require further input from applicants.<sup>18</sup> Paper applications, which made up only 15.5 percent of all the county's registrations in 2009, accounted for over half of these suspended records.<sup>19</sup>

Conversely, electronic submissions were a minority in the suspense pool despite accounting for over 84 percent of all registrations.<sup>20</sup> Most require no manual review at all; the rest draw attention due to non-matching addresses or potential duplication, as further described below. According to Tammy Patrick, Maricopa County's Federal Compliance Officer, these issues are often simple to resolve.<sup>21</sup>

Paperless registrations also offer greater transparency. If voters have questions, officials can pull up a full history of an electronic transaction from the time it entered state computers. But they rarely need to. Both Ms. Patrick and Craig Stender, HAVA Program Manager for the Secretary of State, report that their offices have received fewer calls about registration problems in recent years—“far, far fewer,” according to Mr. Stender. Neither is aware of any instance in which the online or MVD systems were used to make a false registration, or to improperly alter an existing one.<sup>22</sup>

### *2. Cost Efficiency*

Maricopa County automatically reviews and accepts about 90 percent of the electronic transactions it receives, and officials there estimate they spend an average of 3¢ to process an electronic application compared to 83¢ per paper form.<sup>23</sup> As the county received 462,904 applications electronically in 2008, this represents savings of over \$370,000 in that year.<sup>24</sup>

Total savings were even greater. The reduced volume of paper applications has allowed Maricopa County to eliminate one full-time position for scanning signatures, at a savings of \$36,000 per year. The county's costs for printing paper registration forms in fiscal years 1999-2000 and 2000-01 were \$157,965.07, while in 2007-08 and 2008-09, these costs were zero: the county made its most recent printing order in 2006-07, and paid only \$62,814. When these costs are factored in as well, Maricopa County saved well over \$450,000 in 2008.<sup>25</sup>

Staffing needs have fallen as a result. In addition to the scanning position already cut, Maricopa County officials currently plan to eliminate four vacant positions for registration clerks.<sup>26</sup> They also hired eight fewer temporary staff to prepare for the 2006 election, and in 2008 hired four fewer in the summer and ten fewer in the run-up to Election Day. Officials reduced the amount of overtime work in both years.<sup>27</sup>

Outcomes at the MVD have also been positive. According to Mr. Stender, automation has resulted in modest savings on the cost of sorting and mailing registrations, as well as less confusion and fewer complaints from applicants.<sup>28</sup> And because the online system applies each address change it receives to MVD files, it has helped keep them more up-to-date.<sup>29</sup>

In return for these benefits, state officials estimate they spend a total of at most \$125,000 annually to operate, enhance, and maintain the online and MVD systems.<sup>30</sup>

## **Track record**

Election officials recently upgraded their state-to-county transfer process, as noted above, but otherwise their supplemental work on the paperless system has been limited to fine-tuning. After the online system debuted, for example, they did some further work to improve the quality of the MVD's digitized signatures and to more accurately direct registrations to the proper counties.<sup>31</sup>

In seven years the paperless system has only once suffered a disruption.<sup>32</sup> On the day before the deadline to register for Arizona's 2008 presidential primary, problems in the national AAMVAnet network disabled the online portal for several hours.<sup>33</sup> Service was restored in the course of the day, and users submitted over 16,000 online applications before the deadline.<sup>34</sup>

## **HOW PAPERLESS REGISTRATION WORKS IN ARIZONA**

### **Motor Vehicle Registration**

#### *1. For Visitors*

Visitors to MVD offices fill out and submit paper application forms in order to apply for or update a driver's license or photo I.D. card. The application form includes the yes/no question, "Are you a United States citizen who wishes to register to vote or update your existing voter registration?"<sup>35</sup> A box next to this allows people to indicate party preference.

Handing in a signed and completed MVD application marked “yes” for voter registration is now all a visitor must do to register to vote when she submits an application. In contrast, before 2005 a person who checked “yes” for voter registration was merely indicating to MVD employees that she wished to receive a separate voter registration form.<sup>36</sup>

Visitors at most MVD offices can also use self-service kiosks to access the state’s online registration portal. The primary purpose of these kiosks is to serve visitors who are not completing MVD applications themselves; for example, someone who merely accompanies a spouse who has business with the MVD.<sup>37</sup> People who use the MVD’s website to change their address or request a duplicate license are also provided links to the registration portal.<sup>38</sup>

## *2. For Motor Vehicle and Election Officials*

MVD employees scan signatures from the applications they receive and copy data into a computer program that requires them to note whether a person has checked “yes” for voter registration.<sup>39</sup> If so, a separate field opens in which to enter party preference. Once an employee keys in an application marked for registration, the MVD computer system automatically copies all the data that election officials require to a separate “Voter” table.<sup>40</sup>

Each night, the MVD system collects the registrations in this table, pairs them with digitized signatures, and posts the full applications to a secure FTP site. The state’s voter registration database system then automatically retrieves the applications and makes them available to county election offices the following morning.<sup>41</sup> County officials are responsible for verifying each person’s address, assigning her a precinct, and searching for duplicates—that is, determining whether she is already registered.<sup>42</sup>

Officials in most counties perform these tasks themselves. Maricopa County officials decided to automate their review process: the county computer system searches for duplicates and matches addresses automatically, and automatically accepts those applications that do not require further review.<sup>43</sup>

The Maricopa County system will flag an application for manual review in two instances. The first is where it cannot match the address given against local records. Because the system only recognizes exact matches, this typically occurs because some detail has been omitted or misstated in the application—for example, an apartment number is missing, or N. Oak Ave. has been written as Oak Ave. or N. Oak Rd.<sup>44</sup>

The county system also flags applications that produce a “soft” duplicate match. To avoid registering the same person twice, the county system searches the statewide voter registration database for records that match an application’s name, birth date, and license or I.D. number. Where it finds no match, it treats the application as a new registration; where it finds an exact (or “hard”) match, it treats the application as an update to the matching record. A “soft” match is one that is close but not exact—for example, in the case of a person whose birth date and license or I.D. number match, but who has recently changed her last name.<sup>45</sup>

All county systems automatically forward accepted applications to the statewide voter registration system for additional verification and eligibility checks.<sup>46</sup> Any irregularities trigger further review; otherwise the registration is complete, and the county will mail the voter a confirmation card.<sup>47</sup>

## Online Registration

### *1. For Users*

Only residents who have a driver's license or non-driver's identification card issued by the MVD can access Arizona's online registration system. A person who navigates to the EZ Voter Registration page on the MVD's Service Arizona site first chooses a language (English or Spanish), proceeds to an introductory page that explains the online process, and begins.<sup>48</sup> The first page that opens requires her to click boxes indicating that she is an Arizona resident and a U.S. citizen; will be at least 18 years of age before the next general election; has not been adjudicated incompetent; and is not presently deprived of her civil rights due to a felony conviction. The individual cannot proceed without affirming each of these statements.<sup>49</sup>

On the following page she enters her name, date of birth, and driver's license or state identification card number.<sup>50</sup> Alternately, she may supply her name, date of birth, eye color, address, and Social Security number.<sup>51</sup> The online system attempts to authenticate this information in real time by searching the MVD database for a record that exactly matches it. If it finds a matching record, the system searches it to confirm that the individual 1) is old enough to register; 2) has a digitized signature on file; and 3) has a license type indicating she provided proof of citizenship when obtaining it.<sup>52</sup>

If the system cannot verify any of these three requirements, it displays a message to the user stating that her transaction could not be processed, and provides a link to a paper registration form.<sup>53</sup> If it cannot find a matching record at all, the online system returns a message stating "Record Not Found" and allows the user to return to the previous page to re-submit her information.<sup>54</sup> She has two opportunities to do so; if she submits non-matching information three times, she will be locked out of the online registration system for 24 hours.<sup>55</sup>

If the online system finds a valid match, the user continues to a page that asks if she would like to update the residential address she has on file with the MVD, and which will be attached to her online registration. To help her determine whether this is necessary, the page displays the name of the city and the first few characters of the street address currently on file, as well as the date on which she last updated her address. If the user proceeds to change her residential address, she is informed that the update will also apply to her MVD record. She may also provide or update a separate mailing address.<sup>56</sup>

The user then enters her registration information. Because the online system has retained her name, birth date, and identification number and will retrieve her address from the MVD, party preference is the only required field; the user may also choose to fill in optional fields regarding her contact information and registration history, or to indicate a name change.<sup>57</sup> Finally, the user reviews her information, submits it, and receives an electronic receipt.<sup>58</sup>

### *2. For Election Officials*

Once a user submits a complete application, the online system instantly retrieves the address from her MVD file and copies it, along with the application itself, to the same "Voter" table in the MVD computer system where the agency posts its own registrations.<sup>59</sup> From this point forward, online transactions are forwarded and reviewed in exactly the same way described above for MVD transactions.<sup>60</sup>

## ENDNOTES

<sup>1</sup> ARIZ. SEC'Y OF STATE, ARIZONA'S ELECTRONIC VOTER REGISTRATION PROGRAM (EZ VOTER) 17 (updated Aug. 19, 2009) (on file with the Brennan Center) [hereinafter ARIZ. SUMMARY]; Telephone Interview with Craig Stender, HAVA Project Manager, Ariz. Sec'y of State (Nov. 18, 2009) [hereinafter Craig Stender Nov. 18]; Notice of Final Rulemaking, 8 Ariz. Admin. Reg. 1905 (Apr. 19, 2002), *available at* <http://www.azsos.gov/aar/2002/16/final.pdf>. When it implemented the National Voter Registration Act in 1994, the Arizona legislature provided for “the manual or electronic generation and transmittal of voter registrations.” *See* 1994 Ariz. Legis. Serv. Ch. 378 (S.B. 1206) (West) (amending ARIZ. REV. STAT. § 16-112). According to Mr. Stender, both the online and automated systems met little resistance; some people voiced security concerns, but in time were generally convinced of the programs' reliability. Telephone Interview with Craig Stender (Jan. 27, 2010) [hereinafter Craig Stender Jan. 27].

<sup>2</sup> The automated system launched in September 2005. According to Mr. Stender, the success of the state's online system encouraged election officials to begin discussing automation in 2003. MVD officials, for their part, hoped a more efficient process would reduce workloads and complaints, while also putting them at the forefront of e-government and cross-agency initiatives. MVD and election officials did not reach a final agreement until 2005 because of the need first to build a consensus and work through details, and then to manage the demands of the 2004 presidential election. Implementation costs were borne primarily by MVD. Telephone interview with Craig Stender, HAVA Project Manager, Ariz. Sec'y of State, Dec. 21, 2009 [hereinafter Craig Stender Dec. 21]; Craig Stender Jan. 27, *supra* note 1. The state adopted enabling legislation in April 2005. Ariz. Legis. Serv. Ch. 98 (S.B. 1218) (West).

<sup>3</sup> Craig Stender Nov. 18, *supra* note 1. Other aspects of the process, such as signature retrieval, had to be built from the ground up. Work on ServiceArizona.com was undertaken in cooperation with the vendor that had first developed the site. Craig Stender, Jan. 27, *supra* note 1.

<sup>4</sup> Craig Stender Dec. 21, *supra* note 2. Programmers' only other major task was to add registration and party preference fields to MVD's data entry program. *Id.*

<sup>5</sup> Telephone Interview with Craig Stender, HAVA Project Manager, Ariz. Sec'y of State (Dec. 24, 2009) [hereinafter Craig Stender Dec. 24]; Craig Stender Jan. 27, *supra* note 1.

<sup>6</sup> E-mail from Tammy Patrick, Federal Compliance Officer, Maricopa County Elections Dep't (Apr. 12, 2010).

<sup>7</sup> Telephone Interview with Craig Stender, HAVA Project Manager, Ariz. Sec'y of State (Apr. 9, 2010).

<sup>8</sup> FED. ELECTION COMM'N, THE IMPACT OF THE NATIONAL VOTER REGISTRATION ACT ON THE ADMINISTRATION OF ELECTIONS FOR FEDERAL OFFICE 2001-2002, at 39 [hereinafter 2001-02 NVRA REPORT]; U.S. ELECTION ASSISTANCE COMM'N, THE IMPACT OF THE NATIONAL VOTER REGISTRATION ACT ON THE ADMINISTRATION OF ELECTIONS FOR FEDERAL OFFICE 2007-2008, at 38-9 [hereinafter 2007-08 NVRA REPORT]. Both are available at <http://www.eac.gov/program-areas/research-resources-and-reports/completed-research-and-reports/national-voter-registration-act-studies>.

<sup>9</sup> E-mail from Craig Stender, HAVA Project Manager, Ariz. Sec'y of State (Dec. 18, 2009). From October 2005 through November 2009, officials processed approximately 997,000 registrations from MVD and 986,000 from the online portal. ARIZ. SEC'Y OF STATE, ARIZ. VOTER REGISTRATION TOTALS 2003-2009 (on file with the Brennan Center) [hereinafter ARIZ. VOTER REGISTRATION TOTALS]. MVD and online transactions combined accounted for 70.25 percent of all registrations in 2007, 60.54 percent in 2008, and

79.87 percent in 2009. Online registrations tend to surge in election years and tumble in odd years, similar to mail-in forms, while MVD numbers show substantial continuity. ARIZ. SEC'Y OF STATE, EZ VOTER REGISTRATION STATISTICS 2002-2009 (on file with the Brennan Center) (providing monthly tallies of online and automated MVD registrations) [hereinafter EZ VOTER REGISTRATION STATISTICS].

<sup>10</sup> FED. ELECTION COMM'N, THE IMPACT OF THE NATIONAL VOTER REGISTRATION ACT ON THE ADMINISTRATION OF ELECTIONS FOR FEDERAL OFFICE 1999-2000, Table 2 at 1, *available at* [http://www.eac.gov/files/clearinghouse/reports\\_surveys/The percent20Impact percent20of percent20the percent20NVRA percent20of percent201993 percent20on percent20Admin percent20of percent20Elections percent20for percent2099-00.pdf](http://www.eac.gov/files/clearinghouse/reports_surveys/The%20Impact%20of%20the%20NVRA%20of%201993%20on%20Admin%20of%20Elections%20for%2099-00.pdf) [hereinafter 1999-2000 NVRA REPORT]. More accurate reporting, post-automation, may also play a role in this increase, as electronic records eliminate the potential for manual reporting errors. Note also that Arizona remains one of the nation's fastest-growing states. Its population grew 26.7 percent from 2000 to 2008, from an estimated 5.1 million to 6.5 million residents. U.S. CENSUS BUREAU, STATE & COUNTY QUICKFACTS: ARIZONA, <http://quickfacts.census.gov/qfd/states/04000.html>.

<sup>11</sup> See 1999-2000 NVRA REPORT, *supra* note 10; 2001-02 & 2007-08 NVRA REPORTS, *supra* note 8; U.S. CENSUS BUREAU, VOTING AND REGISTRATION, REPORTED VOTING AND REGISTRATION OF THE CITIZEN VOTING-AGE POPULATION, FOR STATES: NOVEMBER 2000, *available at* <http://www.census.gov/hhes/www/socdemo/voting/publications/p20/2000/tables.html>, Table 4b [hereinafter 2000 Census Registration & Population Figures]; U.S. CENSUS BUREAU, REPORTED VOTING AND REGISTRATION OF THE CITIZEN VOTING-AGE POPULATION, FOR STATES: NOVEMBER 2002, *available at* <http://www.census.gov/hhes/www/socdemo/voting/publications/p20/2002/tables.html>, Table 4c; U.S. CENSUS BUREAU, REPORTED VOTING AND REGISTRATION OF THE CITIZEN VOTING-AGE POPULATION, FOR STATES: NOVEMBER 2008, *available at* <http://www.census.gov/hhes/www/socdemo/voting/publications/p20/2008/tables.html>, Table 4c [hereinafter 2008 Census Registration & Population Figures]. The DMV registration numbers that provide the basis for these percentages are incomplete for 2007-08. See 2007-08 NVRA REPORT, *supra* note 8, at 41. Figures maintained by the Secretary of State's office show a larger number of motor vehicle registrations in calendar years 2007 and 2008, equal to 11.06 percent of the citizen voting-age population—but note that the NVRA Reports follow federal election cycles rather than calendar years. EZ VOTER REGISTRATION STATISTICS, *supra* note 9. Unfortunately the DMV registration numbers reported in the 2003-4 and 2005-6 NVRA Reports cannot be used for making comparisons. NVRA Report surveys only began providing a separate category for online transactions with the 2007-08 report, and prior to this time Arizona officials included those figures in their motor vehicle totals. E-mail from Tammy Patrick, Federal Compliance Officer, Maricopa County Elections Dep't (Dec. 29, 2009); Craig Stender Dec. 24, *supra* note 5. Thus, for example, the total of 444,000 motor vehicle transactions listed by the 2003-04 NVRA Report includes some 300,000 online transactions.

<sup>12</sup> EZ VOTER REGISTRATION STATISTICS, *supra* note 9. The online system accounted for approximately one in three transactions in 2005 and 2007, and one in five in 2009. *Id.*

<sup>13</sup> *Id.* Again, in reviewing raw numbers one should bear in mind that Arizona is a high-growth state. See *supra* note 10.

<sup>14</sup> Nationwide the registration rates for adult citizens in these years were 69.5 percent, 72.1 percent, and 71 percent, respectively. U.S. CENSUS BUREAU, REPORTED REGISTRATION FOR TOTAL AND VOTING-AGE POPULATION BY STATE: PRESIDENTIAL ELECTIONS 1972 TO 2008; U.S. CENSUS BUREAU, REPORTED VOTING AND REGISTRATION BY RACE, HISPANIC ORIGIN, SEX, AND AGE GROUPS: NOVEMBER 1964 TO 2008, *available at* <http://www.census.gov/hhes/www/socdemo/voting/publications/historical/index.html>, Tables 1 & 5b.

<sup>15</sup> Note that because specific figures for 18-24 year-old citizens are unavailable for earlier years, we use those for all 18-24 year-olds. Nationwide registration rates among this same group were 45.4 percent in 2000, 51.5 percent in 2004, and 53.4 percent in 2008. For citizens only, registration rates among 18-24 year-olds in 2008 were 58.5 percent nationwide and 58.7 percent in Arizona. 2000 & 2008 Census Registration & Population Figures, *supra* note 11; U.S. CENSUS BUREAU, REPORTED VOTING AND REGISTRATION OF THE CITIZEN VOTING-AGE POPULATION, FOR STATES: NOVEMBER 2004, *available at* <http://www.census.gov/hhes/www/socdemo/voting/publications/p20/2004/tables.html>, Table 4b.

<sup>16</sup> The survey tallied records that had been modified through the online system at least once, and so avoided counting individuals multiple times. MARICOPA COUNTY ELECTIONS DEP'T, ONLINE VOTER REGISTRATION MODIFICATIONS: A CUMULATIVE ANALYSIS OF MARICOPA COUNTY VOTER FILES AS OF 1/25/2010, 22 (2010) (on file with the Brennan Center) [hereinafter MARICOPA COUNTY CUMULATIVE ANALYSIS]; 2008 Census Registration & Population Figures, *supra* note 11. In its voting and registration election tables the Census Bureau unfortunately does not break down the 25-44 age-group at the state level, as it does nationally. But Arizona's age distribution appears to be close to national norms. In 2008, 18 to 44 year-olds accounted for 44 percent of registered voters in Arizona, compared to 43 percent nationally.

<sup>17</sup> In a survey of all records on file that had been modified through the online system at least once, officials found that 31.5 percent were Democrat-affiliated and 36.5 percent Republican-affiliated, while the remaining 32 percent were almost all unaffiliated (the Libertarian Party, Arizona's largest third party, accounted for 1.4 percent). MARICOPA COUNTY CUMULATIVE ANALYSIS, *supra* note 16 at 20. As of October 2009, 30.7 percent of all active registrations in Maricopa County were Democrat-affiliated and 38.3 percent Republican-affiliated. ARIZ. SEC'Y OF STATE, STATE OF ARIZONA REGISTRATION REPORT: 2009 OCTOBER VOTER REGISTRATION – OCTOBER 1 (2009), *available at* <http://www.azsos.gov/election/voterreg/2009-10-01.pdf>.

<sup>18</sup> Because Maricopa County does not track suspense record totals over time, officials undertook this one-day survey in order to identify general trends. According to Tammy Patrick, Federal Compliance Officer at the Maricopa County Elections Department, the suspense pool's composition is unlikely to vary over time except shortly before a major election, when registration drives would tend to drive up the proportion of defective paper forms. Telephone Interview with Tammy Patrick (Dec. 29, 2009) [hereinafter Tammy Patrick Dec. 29]. Officials will usually only discard suspense records after a major election (unless they have been on file for less than 60 days), so this sample will have comprised all unresolved suspense files received from late 2008 through the time of the review. Telephone Interview with Tammy Patrick (January 29, 2010) [hereinafter Tammy Patrick Jan. 29].

<sup>19</sup> Tammy Patrick Dec. 29, *supra* note 18. Paper registrations made up 15.5 percent of all applications received by the county from the beginning of 2009 until the date of the survey, August 17, and 51.43 percent of registrations on suspense on that day. Most often they were suspended due to problems with their signature (22.7 percent), address (34.9 percent), and DMV or Social Security number (40.8 percent). The county rejects outright those applications that fail to provide information proving citizenship. *Id.*; MARICOPA COUNTY ELECTIONS DEP'T, ONLINE VR VS. PAPER VR: QUALITY OF REGISTRATION 5, 10 (2009) (on file with the Brennan Center) [hereinafter MARICOPA COUNTY QUALITY SURVEY]. Ms. Patrick believes that defective online and paper forms are about equally likely to end up on suspense and to remain there for an equivalent amount of time, so that their relative weight in the suspense pool is probably an accurate indication of the overall error rate of each relative to the other. E-mails from Tammy Patrick, Federal Compliance Officer, Maricopa County Elections Dep't (Mar. 23 & Mar. 24, 2010).

<sup>20</sup> MARICOPA COUNTY QUALITY SURVEY, *supra* note 19, at 5.

<sup>21</sup> Tammy Patrick Dec. 29, *supra* note 18. For further explanation of the review process, see *infra*, text accompanying notes 42-47.

<sup>22</sup> Tammy Patrick Jan. 29, *supra* note 18; Craig Stender Nov. 18, *supra* note 1.

<sup>23</sup> Tammy Patrick Dec. 29, *supra* note 18.

<sup>24</sup> *Id.*; Tammy Patrick Jan. 29, *supra* note 18; see also MARICOPA COUNTY ELECTIONS DEP'T., VOTER REGISTRATION IN 2008: ON-LINE IMPACT & ON-THE-GROUND EFFORTS 52 (2009) [hereinafter Maricopa COUNTY 2008 OVERVIEW], available at <http://recorder.maricopa.gov/outreach/pdf/2-2009%20Voter%20Registration%20in%202008.pdf>. The calculation is that if a worker earning \$10/hr spends five minutes processing one paper form, she has been paid 10 x 1/12 dollars for that task. The cost of processing 462,904 applications on paper is then \$385,753, compared to \$13,887 with an average cost of \$0.03. This latter estimate assumes workers spend 2 minutes reviewing one out of every ten electronic forms; thus, 10 x 1/300 dollars per form. Ms. Patrick believes that 83 cents may be a conservative estimate for the cost of entering and reviewing paper forms. Tammy Patrick Dec. 29, *supra* note 18.

<sup>25</sup> E-mails from Tammy Patrick, Federal Compliance Officer, Maricopa County Elections Dep't (Mar. 3, 2010). In addition, Maricopa's population grew by approximately 28.7 percent from 2000 to 2008, and registration rates were up as well, so that printing the same proportion of forms to potential applicants in later period would have cost tens of thousands of dollars more. U.S. CENSUS BUREAU, STATE & COUNTY QUICKFACTS: MARICOPA COUNTY, ARIZONA, <http://quickfacts.census.gov/qfd/states/04/04013.html>. In calculating printing savings for 2008 specifically we used a conservative estimate of \$60,000, taking the average annual cost fiscal years 1999-2000 through 2001-02, approximately \$80,000, and subtracting the average cost of \$20,000 for fiscal years 2006-07 through 2008-09.

<sup>26</sup> Tammy Patrick Dec. 29, *supra* note 18.

<sup>27</sup> *Id.* The county hired eight fewer temporary staff to process registrations in 2006, at a savings of approximately \$70,000 (not counting overtime). In 2008 the county anticipated high levels of participation and hired only four fewer temporary employees; but as they completed registration work a week before the election, the county was then able to reassign personnel to election administration work for which ten other temporary employees would normally have been hired. *Id.*

<sup>28</sup> Craig Stender Nov. 18, *supra* note 1; Craig Stender Dec. 21, *supra* note 2.

<sup>29</sup> Craig Stender Dec. 21, *supra* note 2.

<sup>30</sup> *Id.*; ARIZ. SUMMARY, *supra* note 1, at 18.

<sup>31</sup> Craig Stender Nov. 18, *supra* note 1; Craig Stender Dec. 21, *supra* note 2. Beginning June 6, 2010, voters will also be able to use the online system to sign up for Arizona's Permanent Early Voting List. Telephone Interview with Craig Stender, HAVA Project Manager, Ariz. Sec'y of State (Apr. 30, 2010).

<sup>32</sup> The system does have scheduled maintenance periods in which it is briefly unavailable, usually in the early hours of a Sunday morning. Craig Stender Jan. 27, *supra* note 1.

<sup>33</sup> Anne Ryman, *Thousands Go Online for Voter Sign-Ups*, ARIZONA REPUBLIC, Jan. 9, 2008; E-mail from Craig Stender, HAVA Project Manager, Ariz. Sec’y of State (Nov. 10, 2009). The American Association of Motor Vehicle Administrators (AAMVA) maintains a network that state DMVs use to process applications, and the outage created difficulties nationwide. See Posting of Jason D. King to AAMVA blog, <http://blog.aamva.org/2008/01/09/couldnt-do-business-with-dmv-on-monday.aspx> (Jan. 9, 2008, 10:06 AM). See also, e.g., *Computer Glitch Turns Thousands Away at Ohio License Offices*, TOLEDO BLADE, Jan. 9, 2008. Arizona’s online system uses AAMVAnet to conduct its real-time matching checks against motor vehicles records, though officials are now planning to replace this reliance on AAMVAnet with an internal protocol. E-mail from Craig Stender, Nov. 12, 2009.

<sup>34</sup> EZ VOTER REGISTRATION STATISTICS, *supra* note 9.

<sup>35</sup> See, e.g., ARIZ. DEP’T OF TRANSP. MOTOR VEHICLES DIV., DRIVER LICENSE / IDENTIFICATION CARD APPLICATION [hereinafter ARIZ. MVD APPLICATION], *available at* <http://mvd.azdot.gov/mvd/formsandpub/viewPDF.asp?lngProductKey=1238&lngFormInfoKey=1238>.

<sup>36</sup> Craig Stender Dec. 21, *supra* note 2. The unified application now contains a statement above the signature line that reads, “Voter Registration: I certify that I am not a convicted felon or my civil rights have been restored, and that I have not been adjudicated incompetent. I certify that I am a United States citizen. Submitting a false voter registration is a class 6 felony.” ARIZ. MVD APPLICATION, *supra* note 35.

<sup>37</sup> Craig Stender Dec. 21, *supra* note 2. Paper applications are also still made available in MVD offices for the same reason, and MVD employees continue to accept them.

<sup>38</sup> Craig Stender Dec. 24, *supra* note 5. A screenshot can be seen in the Maricopa County 2008 Overview, *supra* note 24, at 48.

<sup>39</sup> MVD will not process unsigned forms. However, visitors hand in their forms to MVD representatives who check to ensure signatures have been given. Telephone Interview with Craig Stender, HAVA Project Manager, Ariz. Sec’y of State (Apr. 14, 2010).

<sup>40</sup> Craig Stender, Dec. 21, *supra* note 2; Craig Stender Jan. 27, *supra* note 1.

<sup>41</sup> *Id.* Applications occasionally go to the wrong county; when they do, local officials print and mail them to the proper county. E-mail from Tammy Patrick, Federal Compliance Officer, Maricopa County Elections Dep’t (Jan. 29, 2010).

<sup>42</sup> Tammy Patrick Dec. 29, *supra* note 18.

<sup>43</sup> Tammy Patrick Jan. 29, *supra* note 18.

<sup>44</sup> *Id.*; Tammy Patrick Dec. 29, *supra* note 18. The Phoenix area’s rapid growth also accounts for some inconsistencies, as residents of new developments may submit registrations before their new addresses are added to county records. Applications from Indian reservations and rural areas that lack standard-form addresses also usually fail to produce automatic matches.

<sup>45</sup> Tammy Patrick Dec. 29, *supra* note 18.

<sup>46</sup> Craig Stender Jan. 27, *supra* note 1. The statewide system checks applications against state lists of people convicted of felonies and recently deceased. It also attempts to match them against DMV or Social Security records as required by HAVA.

<sup>47</sup> E-mail from Craig Stender, HAVA Project Manager, Ariz. Sec’y of State (Oct. 27, 2009).

<sup>48</sup> ARIZ. SUMMARY, *supra* note 1, at 5; *see also* ServiceArizona.com, EZ Voter Registration, <https://servicearizona.com/webapp/evoter/>. The introductory page also provides the registration deadline for the next statewide election.

<sup>49</sup> ARIZ. SUMMARY, *supra* note 1, at 6.

<sup>50</sup> *Id.* at 7. The page carries instructions at the top that specifically state, “The information you provide must match the information that is currently on your Arizona Driver License or Identification Card.”

<sup>51</sup> The user may enter this alternate set of information if she follows a link at the bottom of the main “Personal Information” page that reads, “What if I don’t know my Driver License or Identification Card number?” *Id.*; Screenshots provided by Tammy Patrick, Federal Compliance Officer, Maricopa County Elections Dep’t (Dec. 29, 2009) (on file with the Brennan Center).

<sup>52</sup> *Id.* at 7. The search is performed using AAMVA’s EDL protocol, in the same way a driver’s license verification would be done. Officials added the verification of license type after Arizona voters approved Proposition 200 in 2004, requiring proof of citizenship in order to register. According to Craig Stender, the adjustment required only a few lines of programming and was easily made. Craig Stender Jan. 27, *supra* note 1.

<sup>53</sup> Craig Stender Jan. 27, *supra* note 1.

<sup>54</sup> ServiceArizona.com, *supra* note 48.

<sup>55</sup> After the third failed attempt, a message appears that states, “You are only allowed to try 3 times to authenticate to the Motor Vehicle Division system. To register to vote, please complete and mail an application from the following site <<http://www.azsos.gov/election/voterregistration.htm>>. If you have questions about Registering to Vote, you may email the Secretary of State’s office at [elections@azsos.gov](mailto:elections@azsos.gov) or call them toll free within Arizona at 1 (877) THE-VOTE.” Screenshots e-mailed by Tammy Patrick, Federal Compliance Officer, Maricopa County Elections Dep’t (Dec. 29, 2009). The system blocks further access by sending a cookie to the user’s computer, so that any further attempt to access the system in the next 24 hours will bring up the same message. Craig Stender Nov. 18, *supra* note 1.

<sup>56</sup> ARIZ. SUMMARY, *supra* note 1, at 8, 9.

<sup>57</sup> The optional fields include telephone number, state or county of birth, and Indian Census number. *Id.* at 10.

<sup>58</sup> *Id.* at 11-14. The receipt includes a confirmation number which is an exact date and time stamp—for example, 20090529080554, where the first eight numbers indicate the date, and the following six the time, at which the transaction occurred. Users are also given the opportunity to complete an optional feedback survey about the online system.

<sup>59</sup> The data passes from ServiceArizona.com to MVD through the national AAMVAnet network, one of the legacies of building the online portal into a site developed for MVD. As noted above, state officials plan to replace this with an internal protocol. Craig Stender Jan. 29, *supra* note 1.

<sup>60</sup> ARIZ. SUMMARY, *supra* note 1, at 26 (providing a diagram of the system’s architecture); Craig Stender Dec. 21, *supra* note 2.