

## An Analysis of the Impact of CBI's Interpretation and Implementation of SB 17-189 on Colorado Public Education

by Jack Harper, CEO

Secure Outcomes Inc.  
2942 Evergreen Parkway, Suite 300  
Evergreen, Colorado 80439

303.670.8375

*harper@secureoutcomesinc.com*

15 November 2018

### **Executive Summary**

For years, Colorado school districts have had the option to scan fingerprints of job applicants by livescan<sup>1</sup> in their own facilities and transmit the fingerprints to CBI<sup>2</sup> electronically for the fastest and cheapest possible return of teacher/employee background check information as required by state law.

SB 17-189 passed by the Colorado House/Senate and signed into law in 2017 was intended to expand the options for all job applicants and employers by *allowing* non-law enforcement fingerprints to be taken and transmitted electronically by all private *fingerprint for fee* vendors in a competitive landscape.

However, as being implemented by CBI, school districts are losing the right to use their efficient, cost-effective existing in-house livescan equipment and will instead be *forced* to pay for and send their applicants to offsite private vendors. That was *NOT* the intent of SB 17-189.

The effect will be a dramatic increase in cost – millions of dollars over the life of the program – and a dramatic decrease in efficiency. School systems will have to send employees/teachers to outside locations scattered about the state for background fingerprint checks rather than completing the scans in their own facilities with very limited or zero wait times. Schools will be

---

<sup>1</sup> *What is livescan?* Livescan replaces the old classic ink roll and paper methods of collecting fingerprints with new digital technology. Advantages of livescan over ink and paper include far better accuracy with fewer fingerprint rejections; far faster return of background/rap sheet checks; and instant and error free fingerprint entry into federal/state databases with no loss of data resolution.

<sup>2</sup> The *Colorado Bureau of Investigation* ("CBI") handles and manages all fingerprint data and lookup for agencies and businesses in the State of Colorado. Schools submit fingerprint information to CBI either in the form of the old classic paper fingerprint cards or increasingly by transmitting the scanned fingerprints as encrypted data traffic through the Internet.

forced to discard their substantial capital investments already made in livescan systems. In addition, rather than being able to control and manage their own fingerprint background check data, most of that control will now move to CBI.

The new CBI program being put in place is, in our view, a misinterpretation of the original intent of the Colorado House/Senate, which clearly intended to lower the teacher/employee background check costs for Colorado schools. The CBI implementation is having the opposite effect on Colorado schools by imposing dramatically higher costs and longer delays in background check processing.

The new SB 17-189 law includes specific carve outs for state agencies such as the *Colorado Department of Revenue*. Those state agencies will be able to continue to use their existing in-house livescan systems and will be able to continue to purchase additional livescan to maximize their efficiency.

Why not modify the new law slightly to get a similar exemption for Colorado schools to enable them, if they wish, to continue to save money and retain the current background check efficiencies? This would bring the new CBI implementation back in line with the clear stated intent of the original SB 17-189 and not hurt Colorado schools.

## **Discussion**

Prior to February 2017, Colorado had required job applicants in forty-seven occupations to submit to background checks initiated by submitting fingerprints to CBI<sup>3</sup>. Thirteen occupations were required to be fingerprinted by a law enforcement agency and thirty occupations were permitted to have fingerprints taken by either law enforcement or a private service provider. Public school districts and charter and private schools had been afforded a unique third option—the governing statutes allowed schools to take fingerprints themselves for teacher/employee applicants for non-licensed positions<sup>4</sup>.

For years, school districts throughout Colorado – now up to at least twenty districts<sup>5</sup> – have invested significant capital funds and implemented their own low-cost, fast and convenient on-site electronic fingerprinting of their applicants. Most of those twenty+ districts purchased livescan equipment prior to February 2017 and received, in many cases years ago, formal CBI approval to take and transmit to CBI employee-applicant fingerprints electronically.

---

<sup>3</sup> Hearing of the *Senate Judiciary Committee*, 28 February 2017.

<sup>4</sup> C.R.S. § 22-30.5-110.7 (charter school employee applicants); C.R.S. §22-32-109.8 (public school non-licensed employee applicants); C.R.S. § 22-1-121 (non-public schools) Teachers are separately required to submit fingerprints to the Colorado Department of Education in order to obtain their teaching credentials. C.R.S. § 22-60.5-103.

<sup>5</sup> Source: *Colorado Association of School Executives*. Private e-mail.

*Denver Public Schools* is the state leader in adopting livescan. The district has purchased ten livescan systems from a Colorado-based manufacturer at the very cost-effective price of roughly \$6,300 per machine<sup>6</sup>. DPS scans about 17,500 fingerprint sets per year or just over 2,500 sets per machine<sup>7</sup>. Assuming a five-year life of a machine, the cost of each set of livescan fingerprints is about \$0.50/scan to DPS; assuming a normal expected ten-year life, the cost is \$0.25/scan. The scans can be done immediately while the applicant is in the office either to submit paperwork or to participate in an interview and return of background check information is usually almost immediate.

During the 2017 legislative session, the Colorado legislature adopted SB 17-189, entitled "*Concerning Elimination of the Requirement that a Law Enforcement Agency is the Only Entity Authorized to Take Fingerprints for Purposes of a Background Check.*" The Bill's sponsor, Senator Cooke intended the Bill to provide *more* options to job applicants and to employers (schools); it was intended to be a consumer choice, pro-business bill<sup>8</sup>. The Bill authorized any third party *fingerprint for fee* service provider approved by CBI to take fingerprints electronically for the thirteen occupational categories that previously could only have fingerprints taken by their local police or sheriff's department.

In expanding the options for the thirteen occupational categories, the unique option previously available to the school districts was not considered. As an unintended consequence, that low-cost and efficient option is being destroyed by administrative action.

For example, C.R.S. § 22-32-109.8, governing applicants selected for non-licensed positions provides that an applicant selected for employment

...shall submit a complete set of fingerprints of such applicant taken by a qualified law enforcement agency, *authorized employee of such school district* and notarized, or any third party approved by the Colorado Bureau of Investigation, in a completed form as specified in subsection (2) of this section. If an approved third party takes the person's fingerprints, the fingerprints may be electronically captured using Colorado Bureau of Investigation-approved livescan equipment.

Although prior to the adoption of SB 17-189, CBI had approved the use of livescan by school district employees, CBI seized on the ambiguity of the statute to *rescind* that approval and to require that all applicants be fingerprinted by one of two private vendors<sup>9</sup>. See, *CBI/Identification Unit* website: <https://www.colorado.gov/pacific/cbi/identification-unit> and

---

<sup>6</sup> These low cost systems are sold by Secure Outcomes, Inc., an Evergreen company, which manufactures hardened livescan machines for use by law enforcement and military, but also far lower-cost livescan systems for the education market.

<sup>7</sup> Source: Private e-mail.

<sup>8</sup> Hearing of the *Senate Judiciary Committee*, 28 February 2017.

<sup>9</sup> CBI awarded contracts to two vendors effective as of 24 September 2018. Use of one of the two vendors becomes mandatory in 2021. However, Secure Outcomes was notified just last week by CBI informally that CBI is now telling schools that they may no longer purchase their own systems. Source: verbal communication.

*Colorado Department of Education* website: <http://www.cde.state.co.us/cdeprof/fingerprints>. Presumably school employees will still be permitted to take fingerprints by the old ink-and-paper card method, but the CBI website makes it clear that such submissions will take far longer to process than electronically-submitted fingerprint sets.

SB 17-189 was intended to simplify and speed up the fingerprinting process for job applicants by providing more locations at which fingerprints could be taken and by allowing increased use of electronic livescan equipment. As of February 2017, only law enforcement agencies and school districts were able to electronically capture and transmit fingerprints to CBI for processing. Fingerprints could be taken by private service providers but those fingerprints were printed on paper cards that the applicant then mailed to CBI. CBI data specialists in the Identification Unit reviewed the cards for quality. If a card passed the visual review, the card was scanned into the CBI system to create an electronic record. As part of SB 17-189 authorizing third parties to take fingerprints, the Bill also authorized the third parties to capture and transmit fingerprints electronically, using CBI-approved livescan equipment.

At the hearing of the Senate Judiciary Committee on SB 17-189, CBI took a “neutral” position in order to avoid taking what might be perceived as a “political” stand<sup>10</sup>. CBI Deputy Director Chris Andrist testified that permitting private service providers to submit fingerprints to CBI electronically would allow CBI to be more efficient and cost-effective. Mr. Andrist testified that CBI would adopt standards for service providers using best practices derived, in part, from the standards set in other states. In response to Senate Judiciary Committee Chairman Gardner’s expressed concern that the State should not be limiting options by choosing one vendor over another, CBI represented that *six* vendors are approved for livescan sales in Colorado<sup>11</sup>. Nothing was said about restricting options to just two vendors, or, especially, about revoking the school districts’ existing and future approvals to use their own livescan to save time and money.

At the Senate Judiciary Committee hearing, one industry representative, Mr. David Bradley of *Denver Fingerprinting* (one of the two subsequently CBI approved vendors) testified in favor of the Bill. As of February 2017, Denver Fingerprinting used livescan equipment that could either transmit electronically, for example to the FBI, or print on paper cards mailed to CBI. Mr. Bradley testified livescan is an electronic technology, not a proprietary trademark, and that several manufacturers sell livescan equipment. Denver Fingerprinting charged \$15 per paper fingerprint card and expected to charge a “reasonable” fee for livescan. The statute, as passed, limits private providers to a maximum of a \$10 fee per electronic fingerprint.

---

<sup>10</sup> Testimony of *Chris Andrist*, Hearing of the *Senate Judiciary Committee*, 28 February 2017.

<sup>11</sup> One of the six livescan equipment vendors formerly approved by CBI is Secure Outcomes.

SB 17-189 was approved by the Colorado Legislature on April 24, 2017 and became effective August 9, 2017. On December 7, 2017, CBI published a Request for Proposals (RFP) seeking vendor proposals for the new *Colorado Applicant Background Services Program (CABS)* to implement the third-party livescan service provider provisions of the Bill. CBI subsequently selected *IDEMIA*, a foreign French company with an American-based subsidiary, and Denver Fingerprinting as the sole vendors authorized to provide livescan fingerprinting services. CBI then advised all Colorado school districts that they could no longer use their in-house, previously-approved livescan machines to transmit applicant finger prints. That action will negate the hundreds of thousands of dollars of capital equipment costs that the school districts have already invested in their own on-site livescan equipment.

In addition, instead of \$0.25 to \$0.50 per scan, every school district, or its employee-applicants, will now be required to pay an additional \$10.00 per scan to the third-part vendor. For Denver Public Schools (“DPS”) alone, that cost is the difference between \$4,375 per year using the in-house livescan system (17,500 print sets per year x \$0.25/set) and \$175,000 per year using an outside vendor. Over five years, that difference to DPS totals \$853,125. DPS is just one of the 181 Colorado school districts.

Added to that tangible cost is the intangible cost of the school districts’ losing the ability to fingerprint their applicants on-site and transmit the prints electronically from on-site yielding the fastest possible turnaround of background check information<sup>12</sup>.

SB 17-189 was intended to *increase* the options and the convenience to schools and teacher/employees. *As applied to Colorado school districts, the opposite is being imposed administratively to their severe detriment.*

The sponsors of SB 17-189, and the legislature as a whole, were not made aware of the unique cost-effective option that had been afforded to school districts for many years. The Fiscal Notes to the Bill concluded that school districts would choose *not* to invest in livescan equipment based on the assumption that the machines cost \$40,000 each and that the schools would need to invest \$2,500 per year in high-speed data lines. The sponsors apparently were not made aware that lower-cost new technology livescan machines were available and had already been purchased by 20+ school districts throughout Colorado or that high-speed Internet for data transmission is the norm these days rather than expensive dedicated lines made obsolete years ago.

As implemented by CBI, SB 17-189 is dramatically reducing the options for Colorado schools and is increasing their costs of processing teacher/employee applications as required by state law. The result is contrary to the intent of the sponsors of the Bill in 2017.

---

<sup>12</sup> *Denver Public Schools* informed Secure Outcomes that a major benefit they have seen from using their own livescan systems is the fast immediate return of background check information. Literally, in the past, they have lost prospective employees because of the long lag time in receiving the timely background checks as required by law. Source: Verbal communication.

## **Recommendation**

Secure Outcomes was asked by a number of groups to analyze its view of the costs and detriments to Colorado schools of the implementation of the CBI CABS program.

The costs and numerous detriments are detailed in this report.

*Our recommendation is simple: Modify the unintended negative effects of SB 17-189 simply by providing a carve out for Colorado schools similar to the carve out for state agencies that was originally included in SB 17-189. Schools will then not have to discard their existing livescan systems and will be able to continue to purchase and use their own time and money efficient in-house systems to minimize their tangible and intangible costs.*

## **About Secure Outcomes**

Secure Outcomes is a venture-funded Colorado technology company headquartered in Evergreen, west of Denver, that designs, manufactures and markets new technology digital livescan fingerprinting systems.

We have 400+ customers<sup>13</sup> that include 125+ police departments<sup>14</sup>, 125+ public schools<sup>15</sup>, federal and state agencies<sup>16</sup>, four large federal airports for flight crew background checks, *U.S. Army* and *U.S. Air Force* (e.g., *Al-Jaber* and *Ali Al Salem* U.S. Air Force bases, both in Kuwait), *Fortune 500* companies and many others.

All of our livescan systems are formally *FBI Certified* for electronic transmission<sup>17</sup> of fingerprint information to state and federal authorities and also similarly certified formally by numerous state agencies – including the *Colorado Bureau of Investigation* (“CBI”) – as well as by other federal agencies (e.g., *SWFT/OMB* for military/government; *TSA* for flight crews).

Our systems scan and generate the *forensic quality*<sup>18</sup> fingerprint data that feeds the FBI, DHS, DOD, TSA and other federal/state fingerprint databases. Our systems are designed for law

---

<sup>13</sup> Colorado customers make up less than 10% of total Secure Outcomes revenue to date.

<sup>14</sup> Colorado law enforcement customers include *Sheridan Police*, *Commerce City Police*, *University of Colorado Campus Police/Colorado Springs*, *Anschutz Medical Center Police* and about ten others.

<sup>15</sup> Colorado schools that depend on livescan fingerprinting systems provided by Secure Outcomes for teacher/employee background checks include *Denver Public Schools* with a total of ten systems as well as *Adams 12 Five Star*, *Adams County Schools*, *Aurora Public Schools*, *Boulder Valley Schools*, *Cherry Creek Schools*, *Community Partnership for Childhood Development*, *Douglas County School District*, *DPS Career Connect*, *Durango K12*, *El Paso County School District 49*, *Imagine Classical Academy*, *Jefferson County Schools*, *Poudre School District*, *Pueblo County Schools*, *Pueblo SD 60*, *Rocky Mountain Classical Academy*, *Brighton School District 27J*, *School District 2 Harrison Colorado Springs*, *St. Vrain Schools*, *Strive Prep* and *Weld County School District 6*.

<sup>16</sup> Colorado state agencies that use Secure Outcomes livescan systems include the *Colorado Department of Revenue* with a total of twelve systems used for employee background checks, marijuana licensing, racetrack licensing etc. Federal government customers include the *U.S. Veterans Administration*, the *Federal Home Loan Bank/Dallas* with over \$1.0-Trillion assets and others.

<sup>17</sup> *Electronic transmission* of fingerprint data to the FBI/CBI is critically important as it enables, for example, schools to get near instant return of criminal background checks back to their own HR facilities rather than waiting for days, weeks or even months.

<sup>18</sup> *Forensic Quality* means that the fingerprints stand up in a court of law. Our technology and market is not simple *biometrics*, which identifies people that want to be identified, for example, to open a door or access a smart phone, but, rather, our systems identify people that do NOT want to be identified – murderers, rapists, terrorists etc.

enforcement criminal booking, military, government and civilian/commercial background check fingerprinting.<sup>19</sup>

Secure Outcomes holds four issued U.S. patents<sup>20</sup> that cover various aspects of digital livescan fingerprinting, Artificial Intelligence applied to fingerprinting, crypto security to protect fingerprint data and information and others.

Secure Outcomes is a closely held *Colorado C* corporation with a total of 30 private shareholders in nine states.

Our Board of Directors includes several prominent Colorado citizens such as *Richard A. Kirk*, who is former Chairman, President, and CEO of *United Banks of Colorado*, the largest bank group in the Rocky Mountains until it sold to Norwest/Minneapolis; former President of the *American Bankers Association*, headquartered in Washington, D.C.; former President of the *Greater Denver Chamber of Commerce*; former Commissioner of the *Denver Water Board* and former President of the *Denver Botanical Society*. Jack Harper/CEO and Kirk have been business partners for over 25 years.

Law firm for Secure Outcomes is *Ireland, Stapleton/Denver*. Patent counsel is *Kilpatrick, Townsend and Stockton* of San Francisco.

Jack Harper/Secure Outcomes CEO has a strong thirty-year history of defining and implementing new security, biometrics, AI and crypto-related products and getting those to market. He has been in the livescan fingerprinting market for about ten years.

Harper is the founder of *Secure Outcomes* and led the successful efforts to get, to date, over 400 paying customer sites for the Secure Outcomes products placed. In the past, Harper has worked, consulted and sold systems in 22 countries and has made over fifty presentations at product conferences and tradeshow as well as several radio and television interviews. He spends half his time on the road selling and promoting the products of the Company.

Harper has an *MBA* degree from the University of Denver (1992) and a *B.S. Electrical Engineering* and a *B.A Mathematics* with a three-year minor in *Russian Language and Studies* from the University of Houston. He lived and worked in the *Federal Republic of Germany* during the *Cold War* as a civilian contractor to NATO.

---

<sup>19</sup> For example: Schools for comprehensive teacher/employee background checks.

<sup>20</sup> U.S. patents held by Secure Outcomes: U.S. Patent 9,569,655 *Digital Voting Logic for Manufacturable Finger Asperity Wafer-Scale Solid State Palm Print Scan Devices*; U.S. Patent 9,342,732 *Artificial Intelligence Methods for Difficult Forensic Fingerprint Collection*; U.S. Patent 8,676,046 *Fingerprint Scanning Systems and Methods Redux* and U.S. Patent 8,331,775 *Fingerprint Scanning Systems and Methods*. Other patents soon pending.

Harper holds eight issued patents. He previously held numerous high-level security clearances under NATO, DHS, and NASA and recently passed a formal fingerprint-based background check conducted by the *Colorado Bureau of Investigation* (CBI – the Colorado state-level “FBI”).