

Second Regular Session
Seventieth General Assembly
STATE OF COLORADO

INTRODUCED

LLS NO. 16-1071.02 Jane Ritter x4342

HOUSE BILL 16-1383

HOUSE SPONSORSHIP

Singer and Fields,

SENATE SPONSORSHIP

(None),

House Committees

Public Health Care & Human Services
Appropriations

Senate Committees

A BILL FOR AN ACT

101 CONCERNING A PREDICTIVE DATA ANALYTIC TECHNOLOGY FOR CHILD
102 WELFARE PILOT PROGRAM.

Bill Summary

(Note: This summary applies to this bill as introduced and does not reflect any amendments that may be subsequently adopted. If this bill passes third reading in the house of introduction, a bill summary that applies to the reengrossed version of this bill will be available at <http://www.leg.state.co.us/billsummaries>.)

The bill requires the department of human services (department) to develop, on or before September 1, 2016, a state-of-the-art data analytic system for child welfare pilot program (pilot program) to access, integrate, and analyze data sources for the purpose of calculating a child's risk for abuse or neglect. The pilot program must be able to integrate data from various state and county sources, use various types of technology to

Shading denotes HOUSE amendment. Double underlining denotes SENATE amendment.
Capital letters indicate new material to be added to existing statute.
Dashes through the words indicate deletions from existing statute.

accurately and precisely calculate child risk scores, and provide mechanisms to alert and assist caseworkers to changes in the environment of a child at risk.

The department shall report to the health and human services committee of the senate and the public health care and human services committee of the house of representatives, or any successor committees, on the progress and status of the pilot program.

1 *Be it enacted by the General Assembly of the State of Colorado:*

2 **SECTION 1.** In Colorado Revised Statutes, **add** article 5.1 to title
3 26 as follows:

4 **ARTICLE 5.1**

5 **Implementation Plan for a Predictive Data Analytic**

6 **System for Child Welfare**

7 **26-5.1-101. Legislative declaration.** (1) THE GENERAL
8 ASSEMBLY FINDS AND DECLARES THAT:

9 (a) CHILD ABUSE AND NEGLECT IS A CRISIS THAT AFFECTS THE
10 SAFETY AND WELFARE OF VULNERABLE CHILDREN ON GLOBAL, NATIONAL,
11 STATE, AND COUNTY LEVELS;

12 (b) IN THE UNITED STATES ALONE, MORE THAN ONE THOUSAND
13 FIVE HUNDRED CHILDREN DIE EACH YEAR AS A DIRECT RESULT OF ABUSE
14 OR NEGLECT;

15 (c) IN COLORADO BETWEEN 2007 AND 2012, ONE HUNDRED
16 SEVENTY-FIVE CHILDREN DIED AS A DIRECT RESULT OF ABUSE OR NEGLECT.
17 SEVENTY-TWO OF THOSE CHILDREN WERE KNOWN TO THE CASEWORKERS
18 WHO WERE TASKED WITH PROTECTING THEM.

19 (d) CHILD PROTECTIVE AGENCIES IN COLORADO RECEIVE
20 APPROXIMATELY EIGHTY THOUSAND REFERRALS PER YEAR FOR POSSIBLE
21 ABUSE OR NEGLECT, AND, OF THOSE, APPROXIMATELY ONLY THIRTY
22 THOUSAND ARE INVESTIGATED;

1 (e) CASEWORKERS IN COLORADO ARE BURDENED WITH LARGE
2 CASELOADS, AND CHILD PROTECTIVE AGENCIES FACE HIGH TURNOVER
3 RATES;

4 (f) INFORMATION EXISTS IN STATE AND COUNTY DATABASES THAT
5 CAN HELP DETERMINE WHICH INDIVIDUALS MIGHT HAVE ACCESS TO A
6 CHILD AND THE RISKS THOSE INDIVIDUALS POSE TO THE CHILD;

7 (g) MODERN TECHNOLOGIES AND BEST PRACTICES EXIST, AND
8 HAVE BEEN UTILIZED SUCCESSFULLY IN OTHER STATES, THAT CAN ACCESS,
9 INTEGRATE, AND ANALYZE DATA ABOUT A CHILD AND HIS OR HER
10 ENVIRONMENT IN NEAR REAL TIME TO PROVIDE A MORE TIMELY,
11 ACCURATE, AND PRECISE MEASURE OF A CHILD'S RISK OF TRAGIC
12 OUTCOMES AS A RESULT OF ABUSE OR NEGLECT;

13 (h) BY USING TECHNOLOGY TO MONITOR A CHILD'S ENVIRONMENT
14 AND CONTINUOUSLY UPDATE THE CHILD'S RISK PROFILE, CASEWORKERS
15 ARE ABLE TO FOCUS BETTER ON THE HIGHEST RISK CASES AND THOSE THAT
16 HAVE THE MOST IMMEDIATE NEED FOR INTERVENTIONS, THUS BETTER
17 EQUIPPING CASEWORKERS TO PREVENT TRAGIC OUTCOMES; AND

18 (i) PROVIDING APPROPRIATE, USER-FRIENDLY TOOLS AND
19 TECHNOLOGY TO CASEWORKERS CAN DRAMATICALLY IMPROVE
20 OUTCOMES, INCREASE PRODUCTIVITY, AND REDUCE EMPLOYEE TURNOVER
21 RESULTING FROM BURNOUT, STRESS, AND FRUSTRATION.

22 (2) THEREFORE, THE GENERAL ASSEMBLY DECLARES THAT IT IS IN
23 THE BEST INTERESTS OF THE CHILDREN OF COLORADO TO ESTABLISH AN
24 IMPLEMENTATION PLAN FOR A STATE-OF-THE-ART PREDICTIVE DATA
25 ANALYTIC SYSTEM FOR CHILD WELFARE THAT IS COMPATIBLE WITH THE
26 COLORADO CHILD WELFARE MANAGEMENT SYSTEM AND THE STATE'S
27 INFORMATION TECHNOLOGY ENVIRONMENT.

1 26-5.1-102. Predictive data analytic technology for child
2 welfare pilot program - capabilities - contract with independent

3 vendor. (1) ON OR BEFORE SEPTEMBER 1, 2016, THE STATE DEPARTMENT
4 SHALL INITIATE A PREDICTIVE DATA ANALYTIC TECHNOLOGY FOR CHILD
5 WELFARE PILOT PROGRAM, REFERRED TO IN THIS ARTICLE AS THE "PILOT
6 PROGRAM", TO IMPLEMENT A STATE-OF-THE-ART DATA ANALYTICS
7 TECHNOLOGY SYSTEM TO ACCESS, INTEGRATE, AND ANALYZE STATEWIDE
8 DATA SOURCES FOR THE PURPOSE OF CALCULATING A CHILD'S RISK SCORES
9 FOR ABUSE OR NEGLECT.

10 (2) THE DATA ANALYTIC SYSTEM MUST PROVIDE THE FOLLOWING
11 CAPABILITIES:

12 (a) THE ABILITY TO INTEGRATE DATA FROM VARIOUS STATE AND
13 COUNTY DATA SOURCES;

14 (b) ADVANCED MATCHING AND ENTITY RESOLUTION TO
15 ACCURATELY MERGE DATA FROM DIFFERENT DATABASES;

16 (c) ADVANCED SOCIAL NETWORK OR LINK ANALYSIS TO
17 DETERMINE BOTH KNOWN AND HIDDEN RELATIONSHIPS THAT THE CHILD
18 MAY HAVE WITH OTHER PEOPLE;

19 (d) USE OF THE LATEST ADVANCED ANALYTICAL TECHNIQUES,
20 INCLUDING PREDICTIVE MODELING; COMPLEX PATTERN ANALYSIS; SOCIAL
21 NETWORK ANALYSIS; TEXT MINING; AND GEOSPATIAL ANALYSIS, TO MORE
22 ACCURATELY AND PRECISELY CALCULATE CHILD RISK SCORES;

23 (e) THE ABILITY TO REGULARLY MONITOR DATA SOURCES TO
24 AUTOMATICALLY IDENTIFY CHANGES TO A CHILD'S ENVIRONMENT AND
25 RECALCULATE THE CHILD'S RISK ACCORDINGLY;

26 (f) AN ALERTING MECHANISM THAT NOTIFIES CASEWORKERS WHEN
27 CHILD RISK FACTORS EXCEED PRESET TOLERANCE LEVELS;

1 (g) AN INTUITIVE USER INTERFACE FOR CASEWORKERS TO EASILY
2 PRIORITIZE AND VISUALIZE CASES AND RELATED INFORMATION ABOUT THE
3 CHILD AND HIS OR HER ENVIRONMENT; AND

4 (h) THE ABILITY FOR FEEDBACK AND SELF-LEARNING THAT
5 CAPTURES OUTCOMES AND UTILIZES THE INFORMATION TO IMPROVE
6 ANALYTIC ACCURACY OVER TIME.

7 (3) ON OR BEFORE NOVEMBER 1, 2016, THE STATE DEPARTMENT
8 SHALL SELECT AND ENTER INTO A VENDOR CONTRACT FOR THE PILOT
9 PROGRAM IN AN AMOUNT NOT TO EXCEED FIVE HUNDRED THOUSAND
10 DOLLARS WITH A TECHNOLOGY VENDOR WITH EXPERIENCE IN
11 IMPLEMENTING DATA ANALYTICS TECHNOLOGY TO ACCESS, INTEGRATE,
12 AND ANALYZE ENTERPRISE HUMAN SERVICES DATA TO CALCULATE RISK
13 SCORES.

14 (4) UNLESS OTHERWISE PRECLUDED BY STATE OR FEDERAL
15 STATUTE OR RULES OR REGULATIONS, STATE AGENCIES SHALL MAKE THEIR
16 DATA AVAILABLE TO THE STATE DEPARTMENT FOR THE SPECIFIC PURPOSE
17 OF THE PILOT PROGRAM. DATA SHARING AGREEMENTS OR MEMORANDA OF
18 UNDERSTANDING MUST BE EXECUTED BETWEEN AGENCIES TO PROTECT
19 THE PRIVACY AND CONFIDENTIALITY OF THE DATA.

20 **26-5.1-103. Reporting and recommendations.** (1) ON OR
21 BEFORE NOVEMBER 1, 2016, AND EVERY QUARTER THEREAFTER UNLESS
22 OTHERWISE DIRECTED BY THE COMMITTEE CHAIRS, THE STATE
23 DEPARTMENT SHALL SUBMIT A WRITTEN REPORT TO THE HEALTH AND
24 HUMAN SERVICES COMMITTEE OF THE SENATE AND THE PUBLIC HEALTH
25 CARE AND HUMAN SERVICES COMMITTEE OF THE HOUSE OF
26 REPRESENTATIVES, OR ANY SUCCESSOR COMMITTEES, ON THE PROGRESS
27 AND STATUS OF THE PILOT PROGRAM. THE REPORT MUST INCLUDE, AT A

1 MINIMUM:

2 (a) THE OVERALL PILOT PROGRAM STATUS, MILESTONES, AND
3 BUDGETARY REPORTS;

4 (b) THE DATA SOURCES THAT HAVE BEEN INCORPORATED, AS WELL
5 AS ADDITIONAL DATA SOURCES THAT WOULD ADD VALUE TO THE OVERALL
6 GOALS OF THE PILOT PROGRAM;

7 (c) ANALYTICAL RESULTS AND ACCURACY;

8 (d) EXAMPLES OF CASE INTERVENTIONS;

9 (e) PRODUCTIVITY IMPROVEMENTS; AND

10 (f) AGENCY PROCEDURAL CHANGES OR BEST PRACTICES
11 IDENTIFIED BY THE PILOT PROGRAM.

12 (2) AT THE CONCLUSION OF THE PILOT PROGRAM, THE STATE
13 DEPARTMENT SHALL, IN ADDITION TO THE QUARTERLY REPORTING
14 REQUIRED PURSUANT TO SUBSECTION (1) OF THIS SECTION, PROVIDE A
15 RECOMMENDATION, PLAN, AND COST ESTIMATE FOR A STATEWIDE
16 IMPLEMENTATION OF THE PILOT PROGRAM.

17 **26-5.1-104. Repeal.** THIS ARTICLE IS REPEALED, EFFECTIVE
18 JANUARY 1, 2018.

19 **SECTION 2. Safety clause.** The general assembly hereby finds,
20 determines, and declares that this act is necessary for the immediate
21 preservation of the public peace, health, and safety.