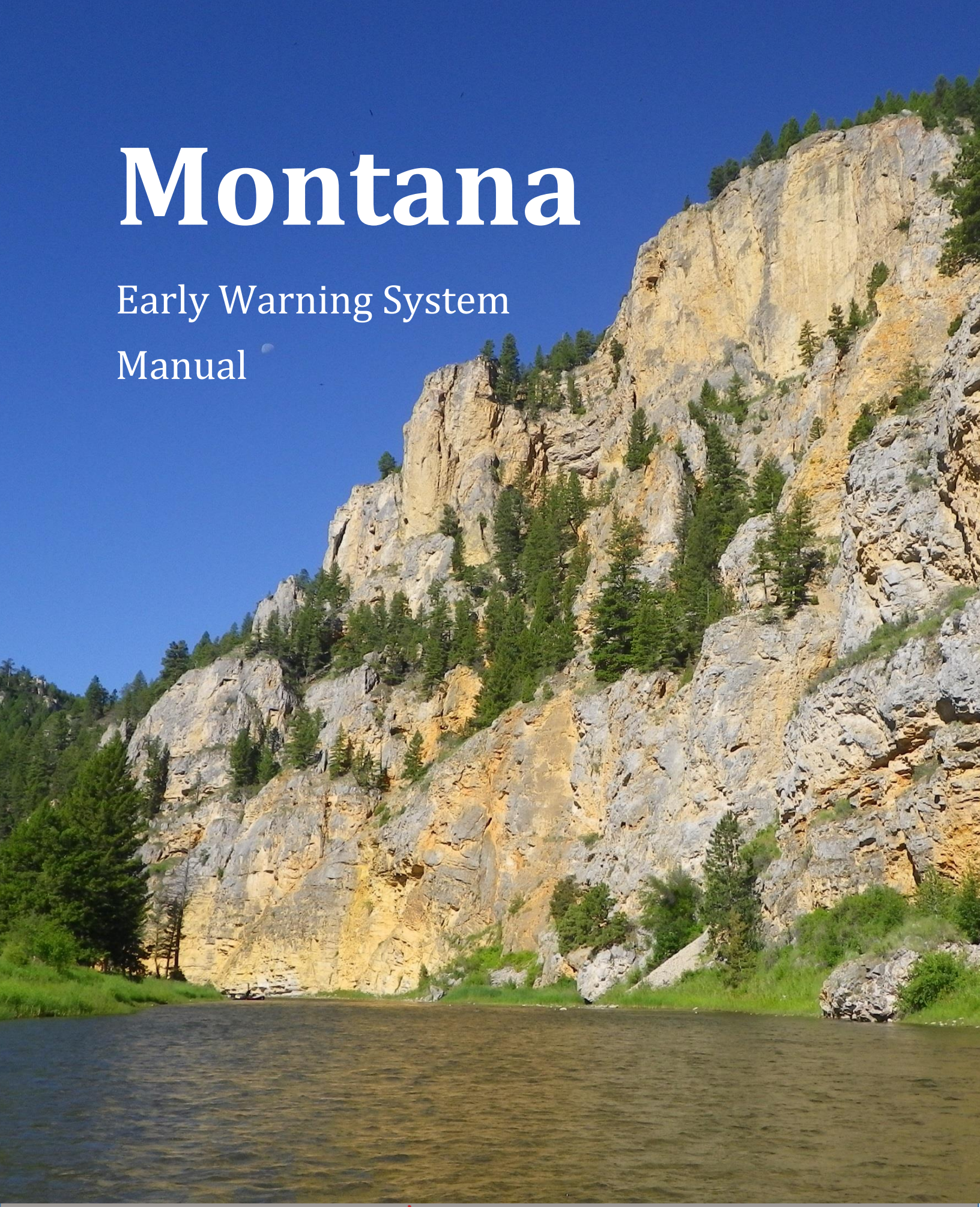
Montana

Early Warning System Manual



Montana
Office of Public Instruction
opi.mt.gov Elsie Arntzen, Superintendent

Montana

Early Warning System Manual

Published by the Montana Office of Public Instruction

Montana Early Warning System Manual

Table of Contents

Introduction

Montana historically has had one of the highest graduation rates and lowest dropout rates in the nation. Annually, over 9,000 students graduate from a public high school in Montana. However, roughly 1,500 students drop out annually from K-12 public schools in Montana. Anything we as educators can do to encourage more students to graduate from high school and decrease the number of dropouts has benefits that extend from the individual to the community and on to the state and national level.

The Montana Early Warning System (EWS) has been developed with the idea in mind that if students at-risk of dropping out are identified well before they drop out, educators can intervene in various ways to help the student graduate with a high school diploma.

The Montana EWS model uses readily available school, student, and other live data to identify students who are at risk of dropping out of school. Students are identified early on so that action can be taken by school officials to help keep the student on track to graduate. The Montana EWS is a statistical model that uses attendance, behavior, grades, mobility, and other data to determine if a student is at risk. The model will identify students in grades 6-12 that are at risk and also provide indicators for why each student is at risk. The end result of the model is that for each student you will know the percentage chance that student will drop out, based on their current data.

Since the Montana EWS uses live data it can be run at any time during the school year or summer. The use of live data allows educators to see how a student is progressing or regressing over time. Tracking over time also allows educators to track any interventions they are administering with students to determine if the interventions are in fact working.

School reports are also available on the Montana EWS that allow educators to track their schoolwide EWS results over time. The school reports also allow schools to compare their results to the statewide average results to get an idea of where their school is.

The information in this manual is also covered in videos and lessons through the OPI's teacher learning hub at: http://learninghub.mrooms.net/. 4 OPI renewal units may be earned taking the self-paced course titled "Using the Montana Early Warning System".

Getting Access to the Montana EWS

The Montana EWS is only available within the Growth and Enhancement of Montana Students (GEMS) data warehouse. There are two versions of the GEMS website, the public and secure versions. The EWS must be in the secure version of GEMS due to the sensitive nature of student level data. To access the secure area of the GEMS website you must first obtain a login and password for the site. To obtain a login and password you must fill out the first page of the form provided with the following link:

https://gems.opi.mt.gov/uploads/attachments/ckk71quq71bz52obi2blfebk4-gems-access-request-form.pdf

When granted access to the secure version of GEMS, access is granted based on different areas of the website. Fill out the form (up to two people can be granted access per form) with the GEMS Access Area of "Early Warning System" checked. Have your Authorized Representative sign it and provide the form to the OPI in any of the ways listed on the request form. It may take up to two before you have access to the requested area due to schedules and demand.

Getting Started on the EWS

The Montana EWS is located in GEMS. You can find it by going to the GEMS website (http://gems.opi.mt.gov) and logging into the secure version. Then scroll down to the bottom of the page and select the "Student" button. Once on the "Student" page, scroll down to where the "Early Warning System (EWS)" report is located, then click on the "Learn More about EWS" button. A screenshot of the location of the EWS in the menu is provided below in Figure 1 with the link to the Early Warning System circled in red.

You may also go directly to the page using this link if you are logged into GEMS:

https://gems.opi.mt.gov/early-warning-system-ews

You will then arrive on the EWS Overview page. There are two buttons located on this page, one to request access to GEMS and another that brings up the page where EWS data can be uploaded and the reports can be viewed. There are several supporting documents located on the "Upload a File & View Reports" page to help with the EWS, including a copy of this document.

The EWS Overview page is available on the public site for users that do not have access to the EWS page within the secure version of GEMS. However only the Overview page is available on the public site and data can't be uploaded through the public version of GEMS.

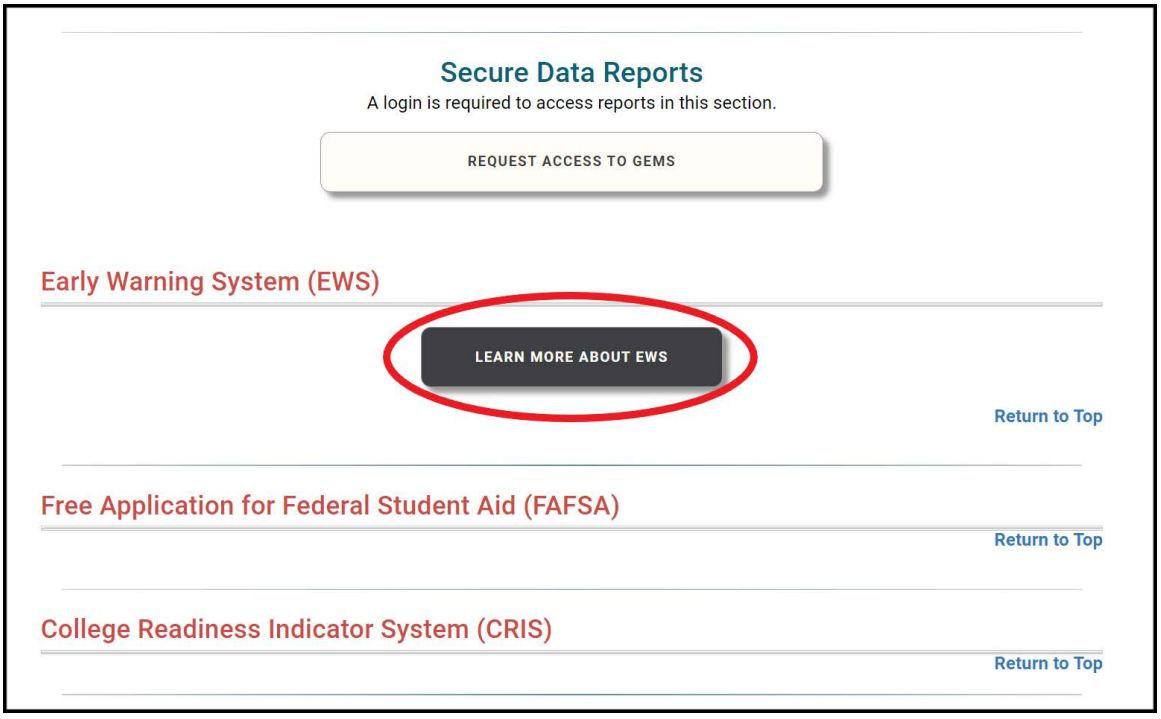


Figure 1: EWS location within the GEMS website

Uploading Data

In order to use the EWS there are specific student data that will need to be provided by the user for any students that EWS results are wanted. The data file must be an excel spreadsheet and in a specific format, which is detailed on the next page. The Upload a File & View Reports" page is where the student data will up uploaded to GEMS. A screenshot of the file upload area is provided below in Figure 2:

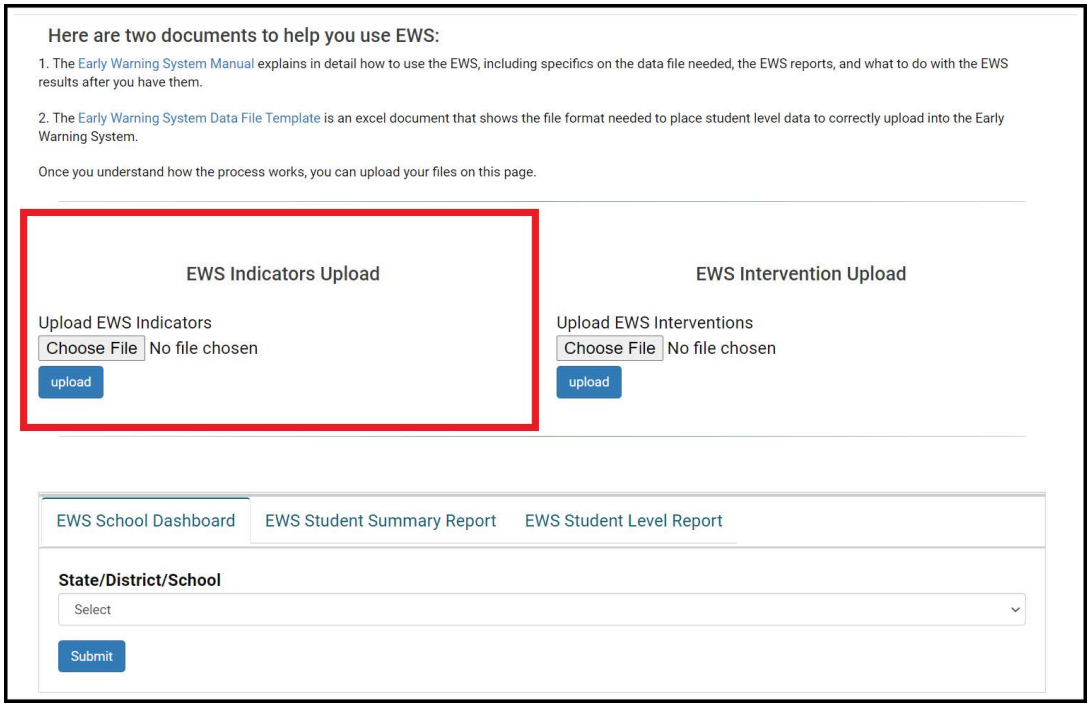


Figure 2: EWS File Upload On Overview Page

In the EWS data file are 10 data variables that need to be uploaded for each student. The 10 data variables are provided in Figure 3 below.

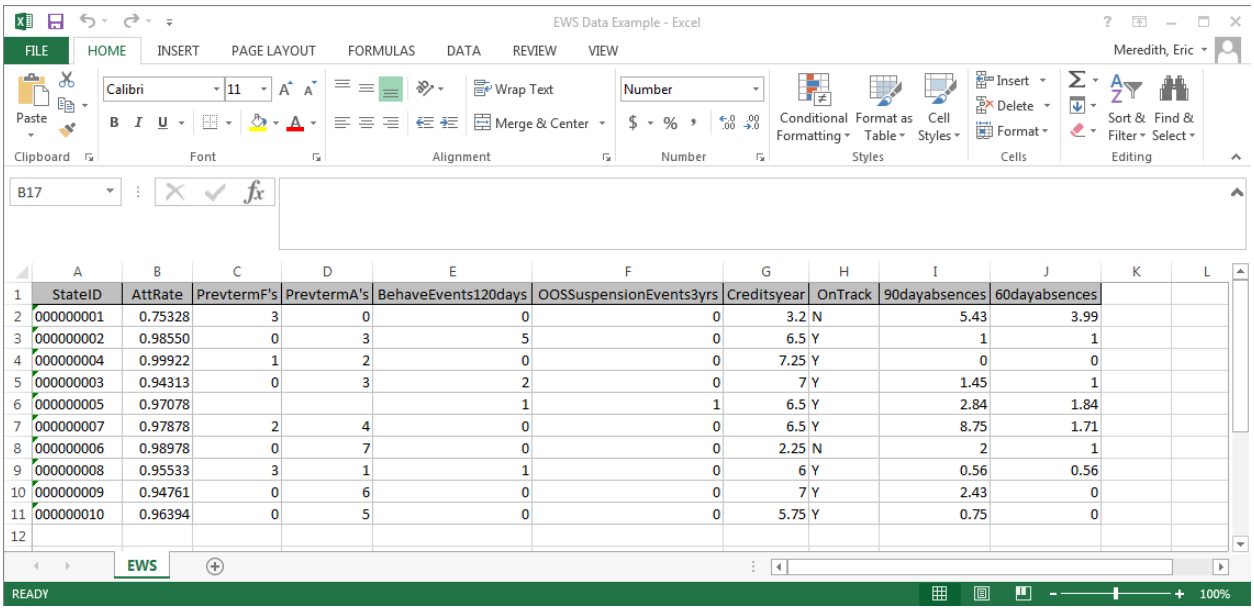
Variable Name	Variable Explanation	Example
StateID	State student number to identify the student	123456789
AttRate	Attendance Rate of the current school year for that student (should have 5 decimal places).	0.90256
PrevtermF's	Number of F Grades received during the previous term (usually quarters) for that student.	0
PrevtermA's	Number of A Grades received during the previous term (usually quarters) for that student.	4
BehaveEvents120days	Number of behavior events recorded by the school during the previous 120 days (calendar days, not school days).	2
OOSSuspensionEvents3yrs	Number of Out-of-school suspensions recorded by the school during the past 1095 days (calendar days).	1
Creditsyear	Number of credits the student has earned per year up to that point. (updated at the end of each semester)	6.25
OnTrack	Whether student is on track to graduate (Y or N) according to the number of credits they have earned so far. The number of credits needed to be on Track is determined by the number of credits needed to graduate HS in your district (i.e. if 22 credits are needed to graduate then 22/4=5.5 credits are needed per year to be on track to graduate).	Y
60dayabsences	Number of absences during the previous 60 days (calendar days)	5
90dayabsences	Number of absences during the previous 90 days (calendar days)	9

Figure 3: Data Variables Explanation for EWS Upload File

There are several things of note about the format of the data in the file. Each row of the data file represents a different student, which is identified by their State ID. The column names and order ***must*** be exactly as presented in order for GEMS to correctly analyze the file.

It is also very important to understand that there is a difference between a blank space in the data file and a 0. A blank space designates that the specific data variable for that student is unknown. A 0 designates that the count of that data variable is in fact 0. For example a student with no A grades received in the previous term will have a 0 in the column for "PrevtermA's" and a student where it is not known how many A's the student received the previous term will have a blank space in that column. This is an important difference in getting the correct EWS results.

The EWS model will still run with blank spaces in the data file for missing variables. For any missing data, the statewide average value will be substituted for the missing data. This is so you will still get a EWS result for these students. It is highly recommended that as much data as possible is provided for the best results.



EWS Data Example - Excel

	A	B	C	D	E	F	G	H	I	J
1	StateID	AttRate	PrevtermF's	PrevtermA's	BehaveEvents120days	OOSSuspensionEvents3yrs	Creditsyear	OnTrack	90dayabsences	60dayabsences
2	000000001	0.75328	3	0	0	0	3.2	N	5.43	3.99
3	000000002	0.98550	0	3	5	0	6.5	Y	1	1
4	000000004	0.99922	1	2	0	0	7.25	Y	0	0
5	000000003	0.94313	0	3	2	0	7	Y	1.45	1
6	000000005	0.97078			1	1	6.5	Y	2.84	1.84
7	000000007	0.97878	2	4	0	0	6.5	Y	8.75	1.71
8	000000006	0.98978	0	7	0	0	2.25	N	2	1
9	000000008	0.95533	3	1	1	0	6	Y	0.56	0.56
10	000000009	0.94761	0	6	0	0	7	Y	2.43	0
11	000000010	0.96394	0	5	0	0	5.75	Y	0.75	0
12										

Figure 4: EWS Data file example (fake student data)

Figure 4 shows an example Excel spreadsheet data file for 10 students before being uploaded. One other formatting piece that needs to be done in this data file is that the sheet name in the bottom left hand corner must be named "EWS" in order for GEMS to accept this file. You can see the sheet name in Figure 4 is called "EWS".

A new data set may be uploaded to the EWS each day. If you upload a data set twice in one day, the first upload will be over-written. This is helpful to know so if you upload data and find something was incorrect in the data, you can correct the issue and re-upload the data later that day.

District Edition of Infinite Campus users

If you are a District Edition user of Infinite Campus there is an easy way to get the data file needed for the EWS. The Office of Public Instruction (OPI) has worked with Infinite Campus to develop a data extract that will pull the exact data you need for the EWS in the correct format. The extract only works if you are entering the needed data into Infinite Campus, such as grades, attendance, and behavior. Figure 5, at the right, shows where the EWS extract is located within the Infinite Campus Index menu.

Figure 5: Infinite Campus Menu

In order for the extract to work correctly all your settings in Infinite Campus must be set up a certain way; such as telling Infinite Campus exactly which grades are considered an "A" so that it can count all the

previous term A's correctly in the data extract. Infinite Campus has created and EWS Extract Manual that details all the settings and what needs to be done. This is a one-time setup process and once done will greatly simplify the process of getting the EWS data. The Infinite Campus manual can be found at: http://opi.mt.gov/Leadership/Data-Reporting/AIM-Achievement-in-Montana/AIM-Additional-Resources

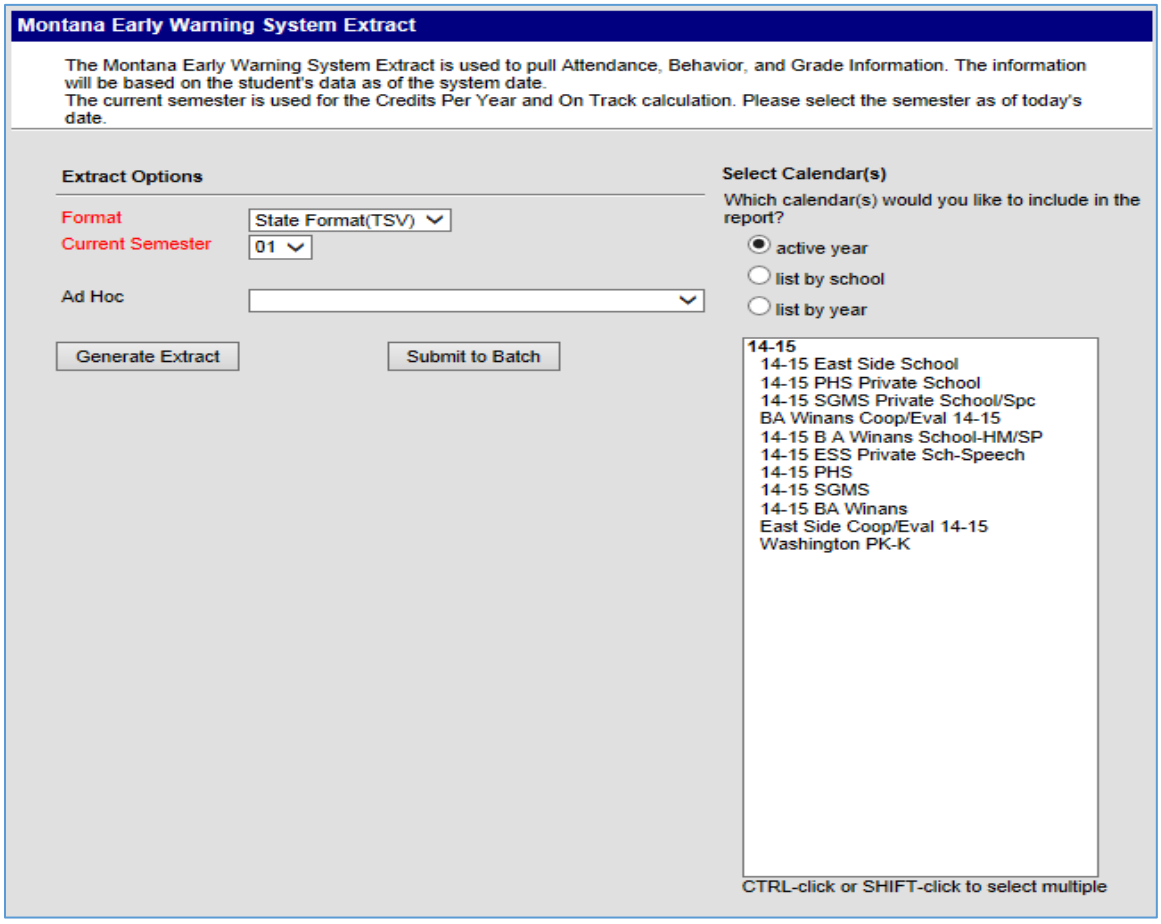


Figure 6: MT EWS Extract Screenshot in Infinite Campus

Figure 6 shows a screenshot of the Infinite Campus screen within the MT EWS extract. There are three things that need to be done here before clicking Generate Extract. They are:

1. Change the Format of the extract to a .csv file in the format dropdown.
2. Designate if the school year is currently during the 1st or 2nd semester using the "Current Semester" dropdown box.
3. Click on the Calendars you want the student's data from. It is recommended to download the data for all students you are interested in at once, so there is only one EWS file that contains all students.

Then to finish, click on "Generate Extract" and save the file somewhere secure since it has student level data in it. The final step before uploading to GEMS is to save the file as an excel file, since that is the only type of file GEMS will accept. The file is now ready to be submitted to GEMS.

PowerSchool Users

The OPI has worked with several districts across the state that use PowerSchool in order to develop a script that will pull the data from your system that is needed for the EWS. Since PowerSchool is highly customizable the script will require some slight changes that are specific for your system. Please contact Kaitlyn Greenhalgh at the OPI by phone (406-444-1610) or email (Kaitlyn.Greenhalgh@mt.gov) to get a copy of the script. The OPI can provide some technical support along with connecting PowerSchool users with the districts and individuals that developed the script for additional help. Once the script is changed for your system, there will only be minimal changes and time needed to run the script anytime you want in the future.

Other Student Information System (SIS) Users

Because of the number of SIS's available and being used across the state, the OPI can't develop extracts for each one. However we can help identify the data in your system that you need in order to use the EWS. No matter what SIS a district uses, the data eventually needs to be in an excel spreadsheet in order to uploaded into the EWS within GEMS. This can be done in multiple ways. If you need help deciding the exact data that should go into the spreadsheet, please contact OPI.

EWS Reports

There are 3 reports available in the EWS, the School Dashboard, Student Summary Report, and the Student Level Report. Each one is designed a little differently and for a specific purpose. The 3 reports, located on the EWS Overview page, make up the entire EWS system. All 3 reports are explained in detail in the following pages.

The Montana EWS is a logistic regression model that produces a percent as its end result. In this case, the percent is the percentage chance that particular student will drop out based on their current data. The model assigns different weights to all the variables in the model to account for the importance of the variable in determining a student's chance of dropping out.

School Dashboard Report

The School Dashboard was designed for the purpose at being able to look at school results and trends. On the next page, Figure 8 shows an example EWS School Dashboard Report.

Figure 7 shows the dashboard that can be used for this report. In this dashboard the report can be saved as a word, pdf, or other file formats. You may also use the print icon to print a copy of this report. This report has conveniently been formatted to print on one page.

If you are granted access to more than one school (School District users may find this to be the case) you may also use the dropdown box to select the school or schools you want to see data for. You can select multiple schools at once to sum up data from all schools or see each individual school on their own.

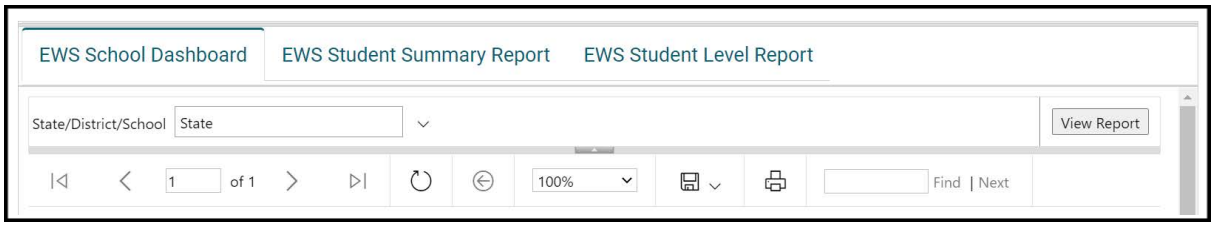


Figure 7: School Report Dashboard

At the upper left hand corner of Figure 8, the School Dashboard, is a table that summarizes the risk status of students dropping out at your school. All rows in this table allow you to compare your school results to that of the statewide average. The top row of this table lists the number of students at your school that are missing data for at least one variable in the EWS upload file.

The next 3 rows in the table show the number of students identified as being potential dropouts. The Montana EWS assigns two levels for potential dropouts, At-Risk and Extreme-Risk (Students Identified in the table is the sum of all At-Risk and Extreme-Risk students). Students with an Extreme-Risk level are any students that have a 40% probability or higher of dropping out while At-Risk students have between

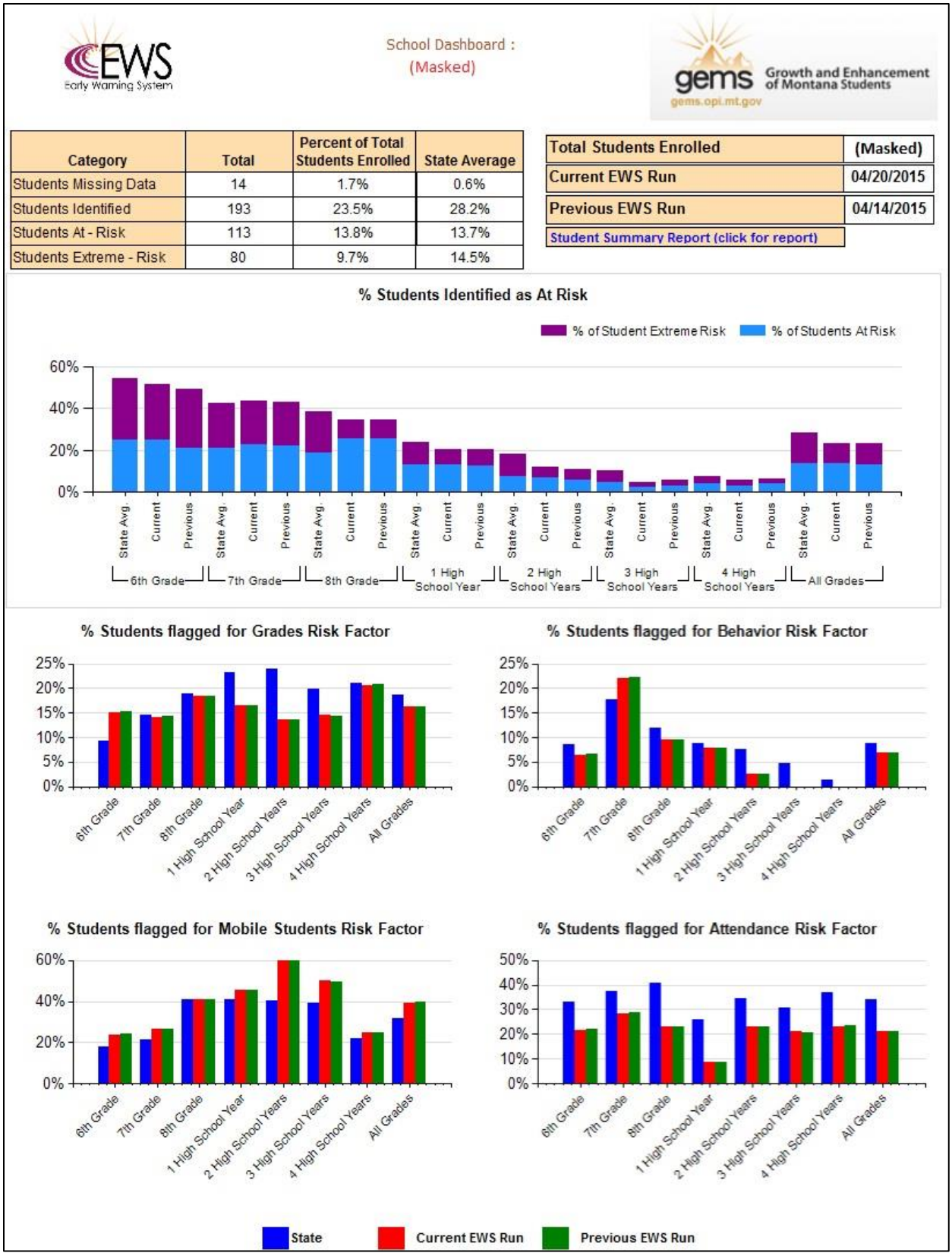


Figure 8: Example EWS School Report

15% and 40% probability of dropping out based on their current data. These cut-off values were determined using statistical analysis of historical data.

The table on the upper right of the School Dashboard gives some background about the report. "Total Students Enrolled" is not actually the number of students enrolled in the school, but the number of students that EWS data was uploaded into GEMS. Below this, the dates of the last two EWS data uploads are provided. A link to the Student Summary Report is also available in this table.

Each graph in the school report is broken down in a similar way. First, the graphs show the results for each age group of students. Take note, the graph breakdown is not actually by grade after 8th grade. The graph breaks down pre-high school students by grade and breaks down high school students by the number of years they have been in high school. The last breakdown of the graph is for all students. Keep in mind that the all student's state average is for all grades 6-12. For each age group the graphs show three bars, one for the statewide average, one for the current EWS run at your school, and one for the previous EWS run at your school. There is a separate model for students with more than 4 years of high school, but the data for those students is not shown in the school dashboard since this is such a small group of students.

Displaying these graphs in this kind of breakdown allows you to compare several things. You can first compare your school results to the state average, you can compare your results to your previous results, and each of these comparisons can be made at the different age groups.

The first graph in the school report shows the breakdown of a student's dropout percentage at your school. Remember the model gives each student a percentage chance of dropping out, ranging from 0 to 100%. This graph, titled "% Students Identified as At-Risk", shows the percentage of students at each age group that are identified as "At-Risk" or "Extreme Risk". You will notice two colors in each bar. The light blue is the percent of students identified as "At-Risk" and the purple is the percent of students identified as "Extreme Risk". In the printout, such as shown in Figure 8 the exact percent's are not shown. However if you are looking at this report in GEMS you can hover the mouse cursor over the bars in each graph, and the percent's will show in a pop up screen.

Each of the 4 lower graphs displays the same type of data, except for individual risk factors, instead of the dropout percentage. There is a graph for each of the following risk factors: Grades, Behavior, Mobile Students, and Attendance. These graphs show the percent of students that have been identified as having those respective risk factors. For a student to be identified as having one of those risk factors they must have a risk factor calculation of above 1.25. There is more information about the risk factor calculation in the section in this manual for the Student Level Report.

Student Level Report

The Student Level Report is designed to allow you to look into the specifics of each individual student. Each student that is enrolled in your school and that you have uploaded EWS data into, will have a Student Level Report Available. To get to the Student Level Report click on "Student Level Report" on the Early Warning System page GEMS. You should then see the report menu shown in Figure 9.

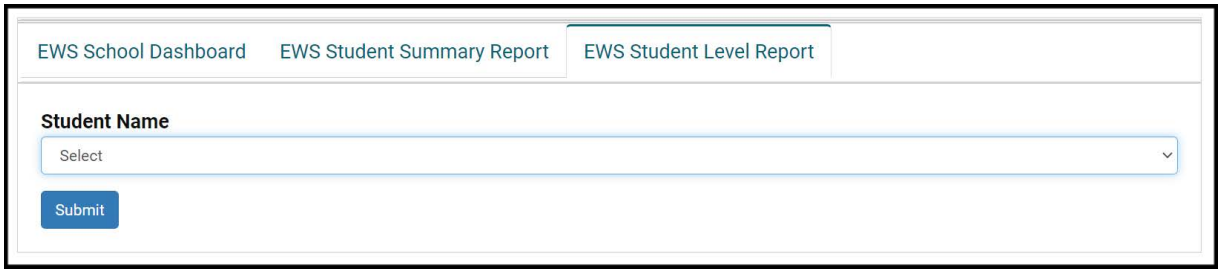


Figure 9: Student Level Report Menu

From the dropdown menu show in Figure 9, select a student. The students are arranged in alphabetical order according to their first name. After selecting the student you wish to see, click on the "Submit" button. The Student Level Report for that student will then load after a few seconds. An example of a Student Level Report is provided on the next page in Figure 11.

First across the top of the Student Level Report is the student's name, state ID number, and their risk status (Low Risk, At-Risk, Extreme Risk). The color of the box showing their risk status will change depending on their risk with it being white for low risk, light red for at-risk, and dark red for extreme risk.

On the left, below the student name is a list of variables. This list of variables shows the data used in the EWS calculation for this student. This is provided for reference when looking at the students EWS results. Variables in red font are variables that data is missing for that particular student. In Figure 11 you can see an example where the counts of Previous Term F's and Previous Term A's are missing. On the next page, Figure 10 explains the variables in detail that were not uploaded into GEMS, which were detailed in Figure 2.

In the middle of the Student Level Report, just below the State ID is the students Dropout Probability. This is the percentage chance this student has of dropping out before they graduate. A student's risk status is determined by this percentage. If it is greater than 40% then they are Extreme Risk, if it is between 15% and 40% then they are At-Risk, and anything below 15% is considered low risk. In Figure 10 you can see the student has an asterisk next to their percentage. This asterisk is placed there because the student is missing a piece of data that is used in the EWS model to determine their percentage. In this case the student is missing the Previous Term F's and Previous Term A's, as mentioned earlier. Also you will see an exclamation point next to the percentage. The exclamation point signifies that this student is either At-Risk or Extreme Risk for dropping out.

Variable Name	Variable Explanation
State ID	State Identifier unique for each student in the state
Grade	Students current grade
Age	Students current age
Gender	Students gender (M/F)
Birth Date	Student Date of Birth
Previous Dropout	Whether or not the student has previously dropped out of school (Y/N)
Repeater K-8 Grade	Whether or not the student had to repeat a grade from Kindergarten to 8th grade (Y/N)
Age Difference	Whether or not the student is older for their grade/HS years than they should be • Over 1 – Student is 1 year older than they should be • Over 2 Up – Student is 2 or more years older than they should be
Moved This School Year	Whether or not the student has transferred schools during the current school year (Y/N)
Moved From Out of State	Whether or not the student transferred from a school outside of Montana at any point in their schooling (Y/N)
Number of School Systems Attended	The number of school systems (towns) the student has attended since 2007. (Does not include K-8 school systems that feed into a separate High School system)
Percent Below Poverty	Percent of the general population within the census tract the school is physically located in that is below poverty.
Number of HS years	Number of years the student has been in High School

Figure 10: EWS Data Variables stored in GEMS

Below the Dropout Probability is a table indicating the Risk Factors a student has for dropping out. There are a total of 8 risk factors listed here. The top three, Older Student, Off Track, and Previous Dropout are simply a "Y" for yes and "N" for no. It is considered a risk factor if the student has a "Y" for any of these. Below that are the Attendance, Grades, Behavior, and Mobility risk factors. These are considered a risk factor if the risk factor is 1.25 or higher. Any risk factor that is flagged will be in red font and have an exclamation point next to it.

The risk factors for attendance, grades, behavior, and mobility are all odds ratios calculated from the logistic regression model the EWS is based on. In Figure 11 the student has an attendance risk factor of 2.28. The interpretation of this number can be stated as: Based on grades alone, the odds of this student dropping out is 2.28 times the odds of an average student, with all other factors held constant.

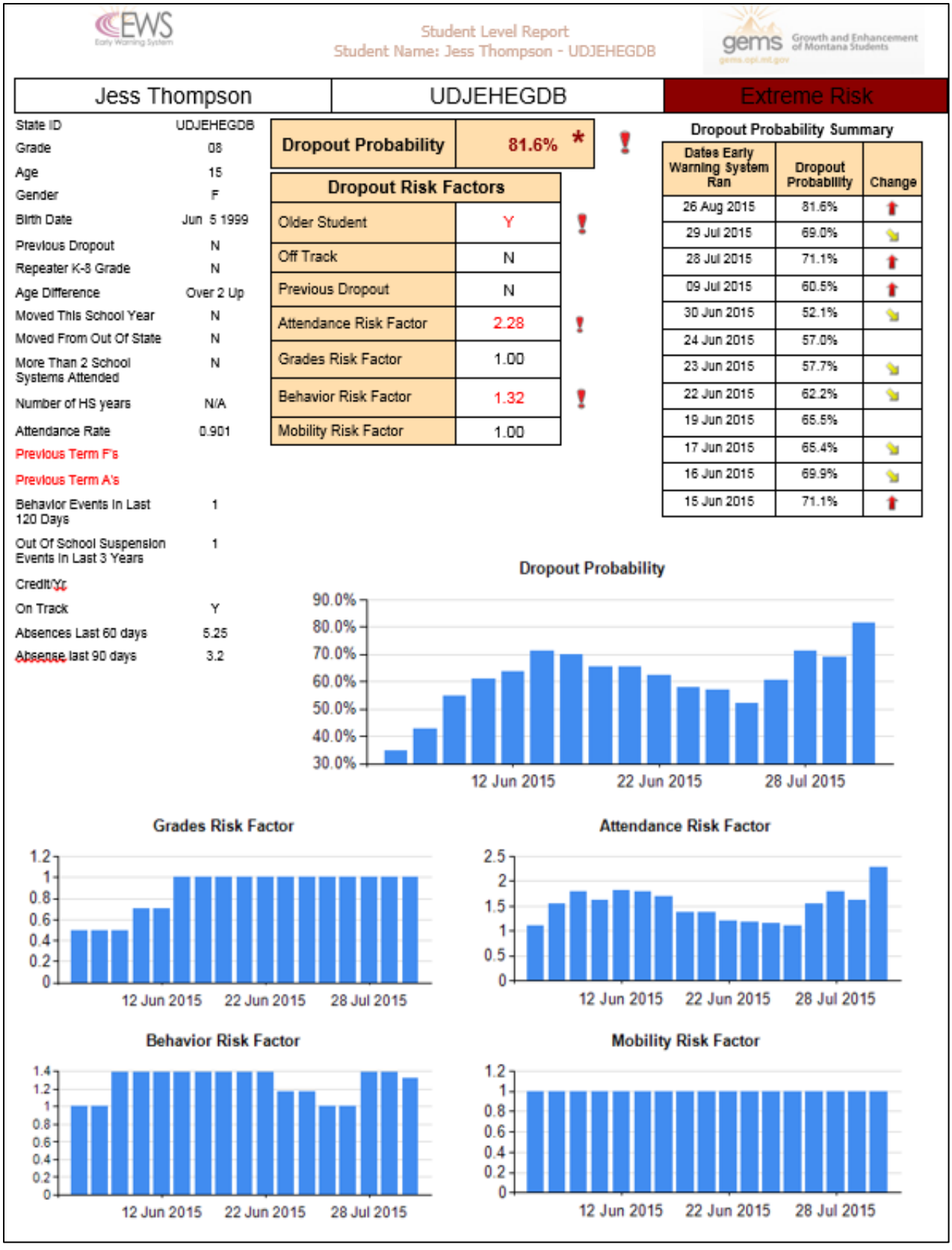


Figure 11: Example Student Detail Report

At the top right of the Student Level Report is the Dropout Probability Summary. The summary shows the historical EWS results in order by date, with the most recent results at the top. If more than 12 EWS results are available for a student, only the previous 12 will be shown here and in all graphs on the Student Detail Report. In this table is a column titled "Change". It displays arrows of various colors and direction to graphically display if a change was found in the EWS result compared to the previous EWS result. The following key, Figure 12, shows what each arrow designates in this column.

Figure 12: Key for Change Arrows

	Dropout Probability increased greater than 5 percentage points
	Dropout Probability increased between 1 and 5 percentage points
	Dropout Probability changed by less than 1 percentage point
	Dropout Probability decreased between 1 and 5 percentage points
	Dropout Probability decreased greater than 5 percentage points

All graphs on the Student Level Report will show the past 12 EWS results if available, with the most recent value at the far right. The topmost graph displays the dropout probability history while the other graphs each display one of the risk factors: Attendance, Grades, Behavior and Mobility.

Student Summary Report

The Student Summary Report has been designed to allow educators to look at all their student EWS results at once. The Student Summary Report is a spreadsheet that contains most of the EWS data in the Student Level Report, only in a different format. An example report is shown in Figure 13 on the next page. The Student Summary Report is sorted by grade and by dropout probability. Therefore all 12th grade students appear at the top of the report, then 11th grade, and so on. Each grade is then sorted by Dropout Probability, with the highest percentage at the top.

Similar to the School Report, If you are granted access to more than one school (District users may find this to be the case) you may also use the dropdown box to select the school or schools you want to see the Student Summary Report for. You can select multiple schools to display students from all schools or just see each students from one school.

Once this report is downloaded and saved, it can be sorted by any of the columns listed. Sorting can be an useful tool to use here. For example, if you want to identify all students that have "Attendance" as a risk factor then the file can be sorted to show that. You could also sort the file by "Attendance Odds" to determine the students that have the highest odds of dropping out due to attendance.

The first few columns of the Student Summary Report contain information to identify the student and school. These include the School Code (SC), School Name, Student Last Name, Student First Name, Student StateID, number of years in high school (HS Year), and the student grade level.

Figure 13: Example Student Summary Report

SC	School Name	Last Name	First Name	StateID	HS Years	Grade	Dropout Prob.	Change	Est.	Attendance	Grades	Behavior	Age	Off Track	Mobility	Previous Dropout	Previous Prob.	Behavior Odds	Attendance Odds	Grades Odds	Mobility Odds
ABCD	Early Warning System School	Anderson	Joel	DJFHDFIEF	4	12	99.8%			Attendance	Grades			Off Track	Mobility	Prev Dropout	99.8%	1.00	41.45	61.25	2.21
ABCD	Early Warning System School	Smith	Maria	JDUEHJDH	4	12	0.1%			Attendance							0.1%	1.00	1.89	0.32	1.00
ABCD	Early Warning System School	Lackey	Edin	BGSFWFED	3	11	9.6%	↓		Attendance			Age				24.0%	1.00	2.80	0.78	1.00
ABCD	Early Warning System School	Underman	Hal	IKJJHYGVX	3	11	6.1%	↗		Attendance					Mobility		3.0%	1.22	3.23	0.57	3.19
ABCD	Early Warning System School	Grossman	Keith	JSUWEHDBH	2	10	3.9%			Attendance							3.8%	1.06	1.49	0.28	1.00
ABCD	Early Warning System School	Player	Joe	IJUJHHUUS	2	10	0.4%										0.2%	1.00	0.83	0.21	1.00
ABCD	Early Warning System School	Stein	Thomas	ODJEHDYST	1	09	70.2%	↑		Attendance	Grades	Behavior		Off Track			59.8%	2.92	2.95	6.14	1.00
ABCD	Early Warning System School	Caligher	Mary	DYSYDHEGD	1	09	1.8%			Attendance							2.1%	1.00	2.40	0.12	1.00
ABCD	Early Warning System School	Thompson	Jess	UDJEHEGDB	N/A	08	81.6%	↑	*	Attendance		Behavior	Age				69.0%	1.32	2.28	1.00	1.00
ABCD	Early Warning System School	Banby	Shane	MSJDHEYDG	N/A	08	8.3%	↗		Attendance			Age				6.4%	1.00	2.37	0.35	1.00
ABCD	Early Warning System School	Smith	Jane	NSHDHEYRG	N/A	07	76.5%	↓		Attendance	Grades						97.8%	1.00	3.59	8.46	1.00
ABCD	Early Warning System School	Anderson	Mike	MKNJBHGCC	N/A	07	13.7%	↓		Attendance							36.0%	1.00	1.39	1.06	1.00
ABCD	Early Warning System School	Abbott	Megan	HUGYFTDRE	N/A	06	50.2%	↑		Attendance		Behavior			Mobility		14.5%	1.85	1.39	0.62	4.92
ABCD	Early Warning System School	Cornrow	Mike	KDHSTDGXC	N/A	06	18.3%	↑		Attendance							6.6%	1.23	1.35	1.05	1.00

The rest of the Student Summary Report displays the EWS data. This data is the same as it is in the Student Level Report, only displayed in a different format. After the student identifying data, is the Dropout Probability which is the percentage chance of the student dropping out before graduating. The next column displays the change arrow if a significant change has occurred in the dropout probability since the last EWS results. The next column is the "Est." column. This column displays an asterisk for any student that is missing data used in the EWS model.

The next 7 columns display the risk factors. Each column is a separate risk factor (allowing the spreadsheet to be sorted by the risk factors) with the factor actually shown if it is a factor for that particular student.

The next column, "Previous Prob.", is where the Student Summary Report differs significantly from the Student Detail Report. Here only the previous Dropout Probability is displayed compared to 12 of them being displayed in the Student Detail Report. The last 4 columns of this report, Behavior Odds, Attendance Odds, Grades Odds, and Mobility Odds are the risk factor values that are explained in the Student Detail Report. This report can also be sorted by any of these columns.

Using the EWS In Your School

Now that you know how to use and read an EWS report, how will that information be applied on an everyday basis in the school? The answer to this is different for every school, depending on the environment in and around the school and what programs you are already using. In this section resources are provided to help you maximize your use of the EWS. These are not the only resources and uses available for the EWS, but they are a good start.

First of all, it should be kept in mind that the EWS is a model that is trying to predict the future. In all such models, the results will not be perfect. Basically what the EWS results from the model are saying, is that according to historical data, this is what happens with their particular data. The idea behind the EWS is to IDENTIFY students so that the proper interventions and help for the student can help them succeed.

It is recommended that each school develop on EWS team that meets at a bare minimum, at least once a month, preferably once a week. This team should enlist core members such as at least one data person, the principal, counselors, at least one teacher, and other staff members. At each meeting, students will be discussed, what is being done for them, how they are doing, if interventions are working for them, the most recent EWS results and other topics.

Education Northwest has developed a series of modules that will help set up your EWS team and apply roles to each member. This set of modules can be found at http://ews.educationnorthwest.org/. Some modules are for building an EWS model and won't apply to Montana schools since an EWS model has already been built for you.

Ultimately the final decision of how you use the EWS at your school is up to each school. Some schools will have a process the EWS will already fit into nicely, others may have to start a new process to include the EWS.

EWS Resources

American Institutes for Research: http://www.earlywarningsystems.org/

Education Northwest EWS Implementation Guide:
http://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/rel_2015056.pdf

Montana GEMS EWS website:
https://gems.opi.mt.gov/early-warning-system-ews

Montana Office Of Public Instruction:
http://opi.mt.gov/Leadership/Data-Reporting/AIM-Achievement-in-Montana/AIM-Additional-Resources

Montana Office of Public Instruction Teacher Learning Hub:
http://learninghub.mrooms.net/

If you have any questions, concerns or feedback about the EWS please contact Kaitlyn Greenhalgh at Kaitlyn.Greenhalgh@mt.gov or 406-444-1610.