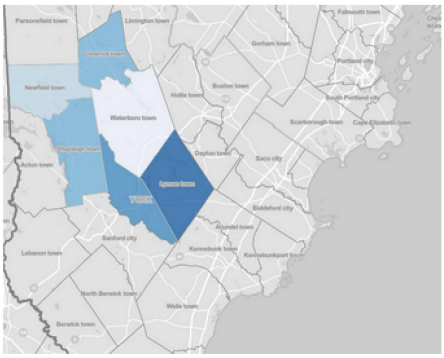
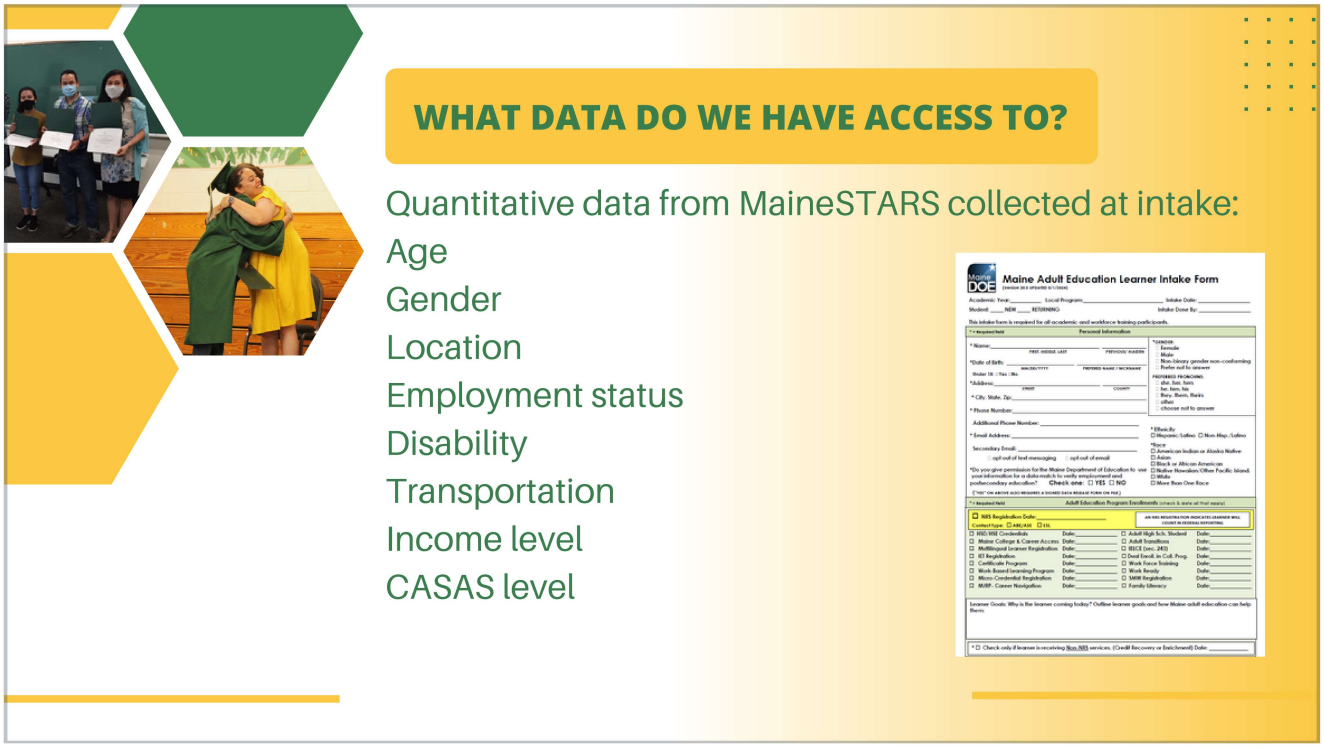
Hello everyone, my name is Eleanor Chow and I am the Student Advisor and Program Support Specialist at Massabesic Adult and Community Education and I'm here today to talk about how we can be better using our data to make informed decisions and goals to improve our program. Data informed decision making is something that we at Massabesic have really embraced so I'm going to talk a little bit about how we have utilized our data, and give ideas for how you might be able to make your own data-informed decisions.

MASSABESIC ADULT AND COMMUNITY EDUCATION



- Alfred, Limerick, Lyman, Newfield, Shapleigh, and Waterboro
- Adult Ed is located in the high school campus
- Average work commute is 30-45 minutes

To start, here is a little bit about my program. I work at Massabesic Adult and Community Education, which is a small, rural program in York County. Our school district covers six towns: Alfred, Limerick, Lyman, Newfield, Shapleigh, and Waterboro, which is where our building is located. This is quite a wide geographical area, so some of our students travel upwards of 30 minutes to get to class. Just like many of your programs, our students encounter many barriers to education, including transportation, lack of childcare, and no access to technology at home. Being in a rural area means that there is very little infrastructure to overcome barriers, such as public transportation or affordable childcare. This also means that we have a very small MLL program in comparison to our more metropolitan neighbors in Biddeford, Saco, and Sanford, and our program is almost entirely made up of high school completion students. Businesses in our area are usually small, so there is little to support upward economic mobility, and a lot of community members travel to Portland, Biddeford, or Portsmouth for employment, which is a minimum 30-45 minute commute. This is all probably sounding similar to a lot of you thinking about your own programs. When compiling the data for the end of year NRS report for the State, I thought about the amount of data we have access to, not just of our students, but of our district as well, but we do not necessarily utilize it to its full potential. We can use this information to gain valuable insights into our program, and to inform our program's goals for retention and graduation rates.

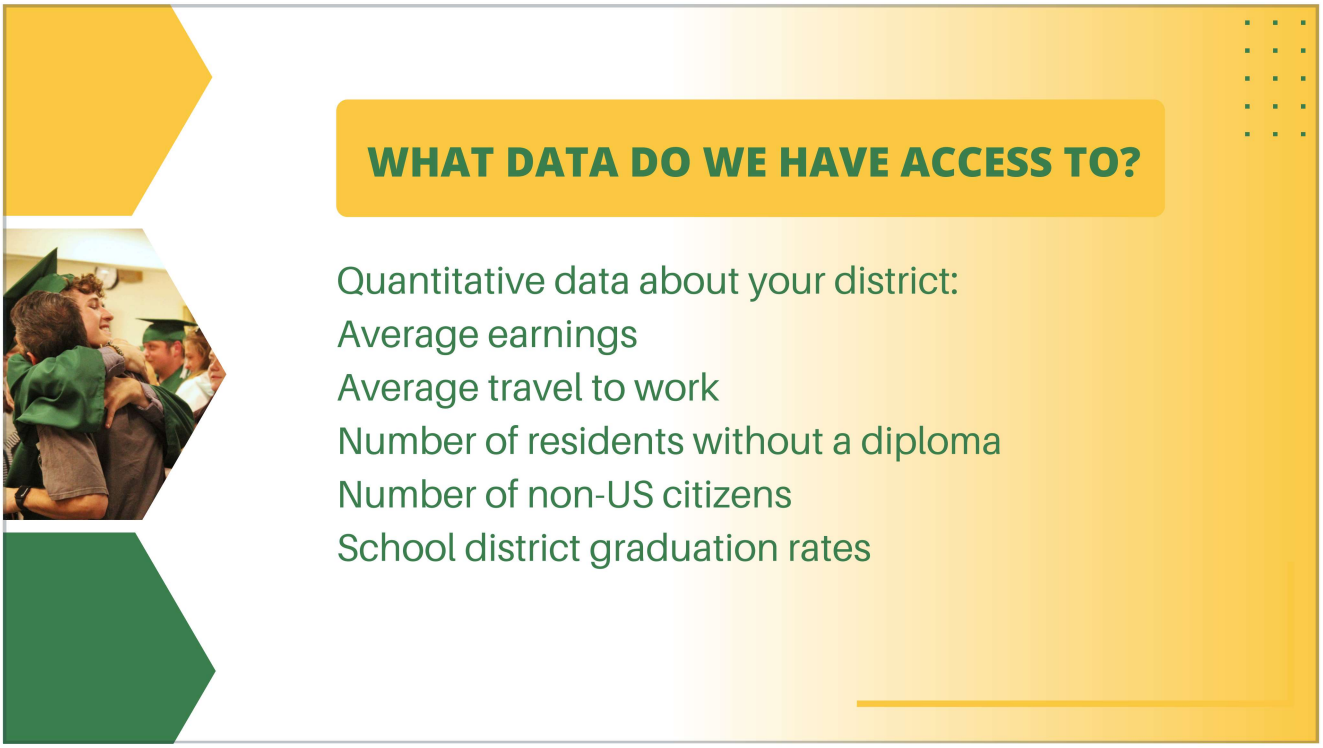


So, what data do we have access to? Starting off with the obvious, we have the information we collect at intake and enter into MaineSTARS from the intake form. This is mainly demographic information, which helps us identify barriers students face, including employment, disability, and transportation. All of this is valuable information when we get deeper into our data analysis as we are able to see trends in drop out rates, graduations, and measurable skills gains.

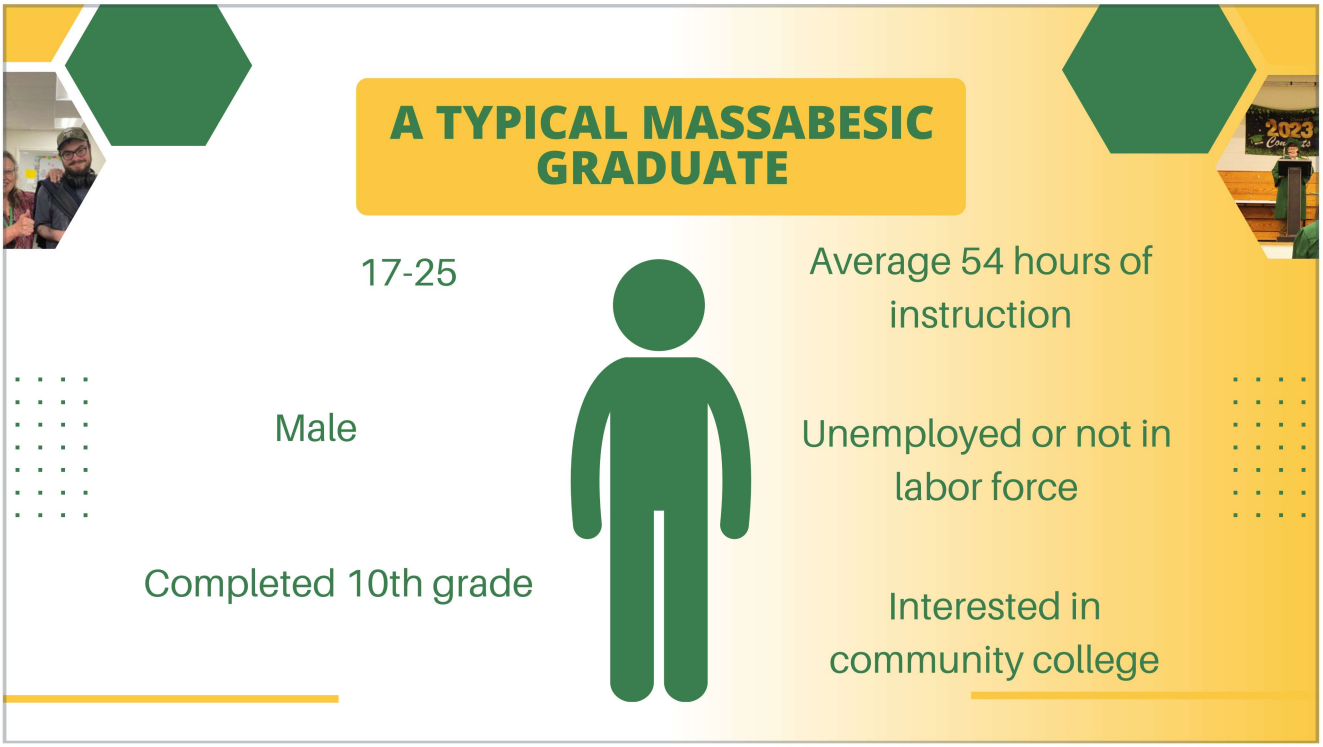
WHAT DATA DO WE HAVE ACCESS TO?

Qualitative data collected at intake and in class:
Current job and career interests
Support system
Student goals
Accommodations
Previous education experience
Learning style
Most and least confident subjects

We also have access to qualitative data that is not captured in reporting, that can be equally, if not more useful when making data-informed goals. If we know current job and career interests, we can work towards setting more pathways to employment and partnering with businesses relevant to our students' interests. Knowing what kind of support system students have can be incredibly important when assessing whether a student is at a high risk for stopping out, because we all can probably think of an example of a student where their friends or family did not view this as important and it lead to them either not being able to finish or quitting because they didn't get enough support. Similarly, making notes about a student's previous educational experience can be vital information, as a student may be coming to adult ed after having a very upsetting time in regular school and may be more likely to leave.

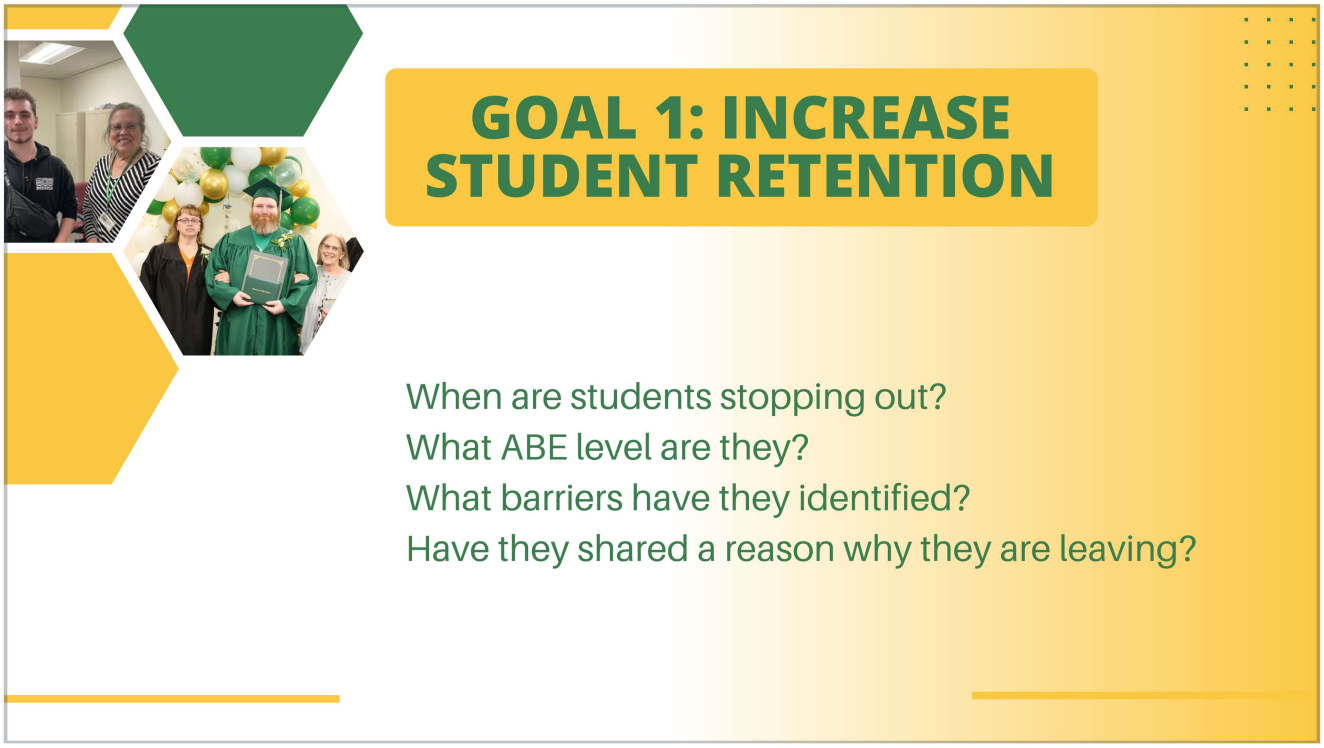


Then thinking outside of the student, we also have access to a lot of data about Maine Adult Education, our specific district demographics, and employment data as well. One thing that we have done as part of targeting growing our number of enrollments is looking at the census data for the number of residents without a diploma and the number of non-US citizens, as well as district graduation data, as we can see a clearer picture of the potential students we could be serving. Any employment data can also be useful in identifying trends and thinking about students' next steps in their professional and personal lives. So now we know all of the data we have access to, what can we do with it?



So just from briefly looking at my own data for Massabesic, mainly our NRS Registration Report and Table 4 Report, I can get a picture of what a typical Massabesic graduate looks like. So a large chunk of our graduates are in the 17-25 age group, which makes sense when you think that a lot of our students come from the high school. We typically have more men who graduate than women or non-binary people, and most of them had completed the 10th grade. From that, we can see that these students are coming pretty quickly from high school to our program and have a strong foundation of knowledge already, testing usually at ABE4-6. One thing I want to mention is that you may look at your data and think 'that isn't right', and that is why your data person should also be aware of what's going on in the classroom to be able to explain why your data may look like that. An example of this is that I was shocked that it said the average instruction time for a graduate is 54 hours, because our regular average attendance hours are much lower, and we have found it hard to post-test a lot of students who don't get the 45 hour minimum attendance, or even the 24 hour minimum attendance for HiSET graduates. However, then I realised that part of the reason the average instruction is 54 hours is because we had multiple students who were 15 or 16 years old when they started in the program so could not test until their 17th birthday, so they skew this a little bit. This is where we need to move from just looking at the data to analyzing it and seeing the human, real life side of it. It's really important to see trends in who is graduating, and then also question who is not? For example, I think we can see unemployment as a barrier for our students, but a lot of our students end up leaving because they get a job and no longer have the time to come in to class, and a lot of our graduates were actually long term unemployed or out of the labor force and had time to come in to class and focus on work. Now, we have all of this data, so how can we put it to use?

So here are the goals that we set at Massabesic at the beginning of the year. We want to improve our student retention rates, increase the number of graduates, and increase employment opportunities for our students, graduates, and community members. This is pretty standard, and I would say most programs will probably have the same goals. We all want students to graduate, that is our main goal for adult education, and to have a positive experience while they are here. These are very general goals and can sometimes feel like they are too broad to be able to make targeted steps towards, which is where using your data can help, as you can see trends and make small changes that can have a big impact. Let's look at each of these individually.

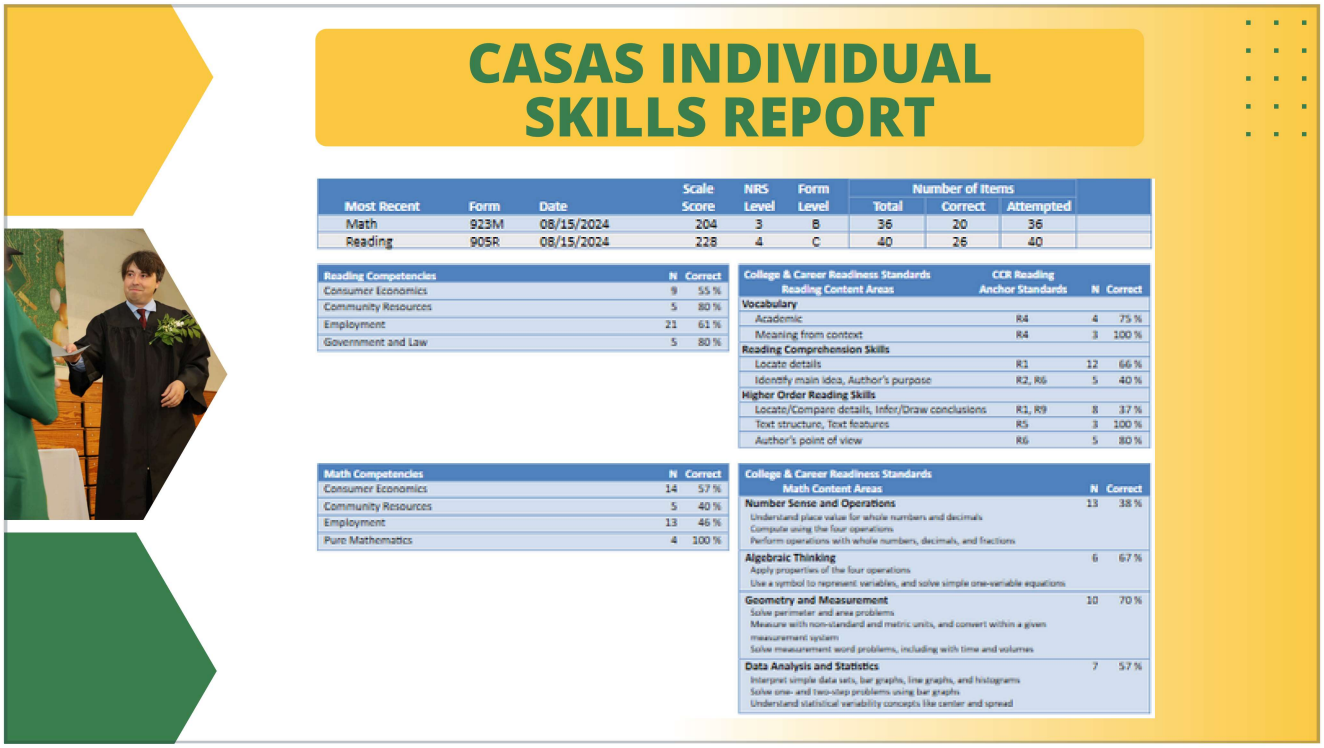


So our first goal is to increase student retention. There are a lot of stop outs in adult education, so while we might not have lots of data on the actual student dropping out, we should be able to identify trends of when students are dropping out, what the average EFL they are, and hopefully they will have shared the reason why they are dropping out, which I keep on a spreadsheet. This is important when addressing our larger barriers to education.

Entering EFL	Total Number	Total Drop Out
ABE1	6	2
ABE2	15	8
ABE3	***38***	***25***
ABE4	98	48
ABE5	59	25
ABE6	59	9

DROP OUT RATE BY ENTERING EFL FROM FY19-24

Looking at our drop out rate by entering EFL, we see a high percentage of students who enter as an ABE level 3 dropping out. This gives us a good place to start. So we look at that and say how can we better support our level 3 students? Why are so many of these students dropping out? These are students who will not necessarily be ready to take their first HiSET test soon after starting, so may not be seeing success straight away. So we then look at how we can show students the value in adult education, by focusing on targeting their instruction more based on their CASAS Individual Skills Report.



CASAS INDIVIDUAL SKILLS REPORT

Most Recent	Form	Date	Scale Score	NRS Level	Form Level	Number of Items Total	Correct	Attempted
Math	923M	08/15/2024	204	3	B	36	20	36
Reading	905R	08/15/2024	228	4	C	40	26	40

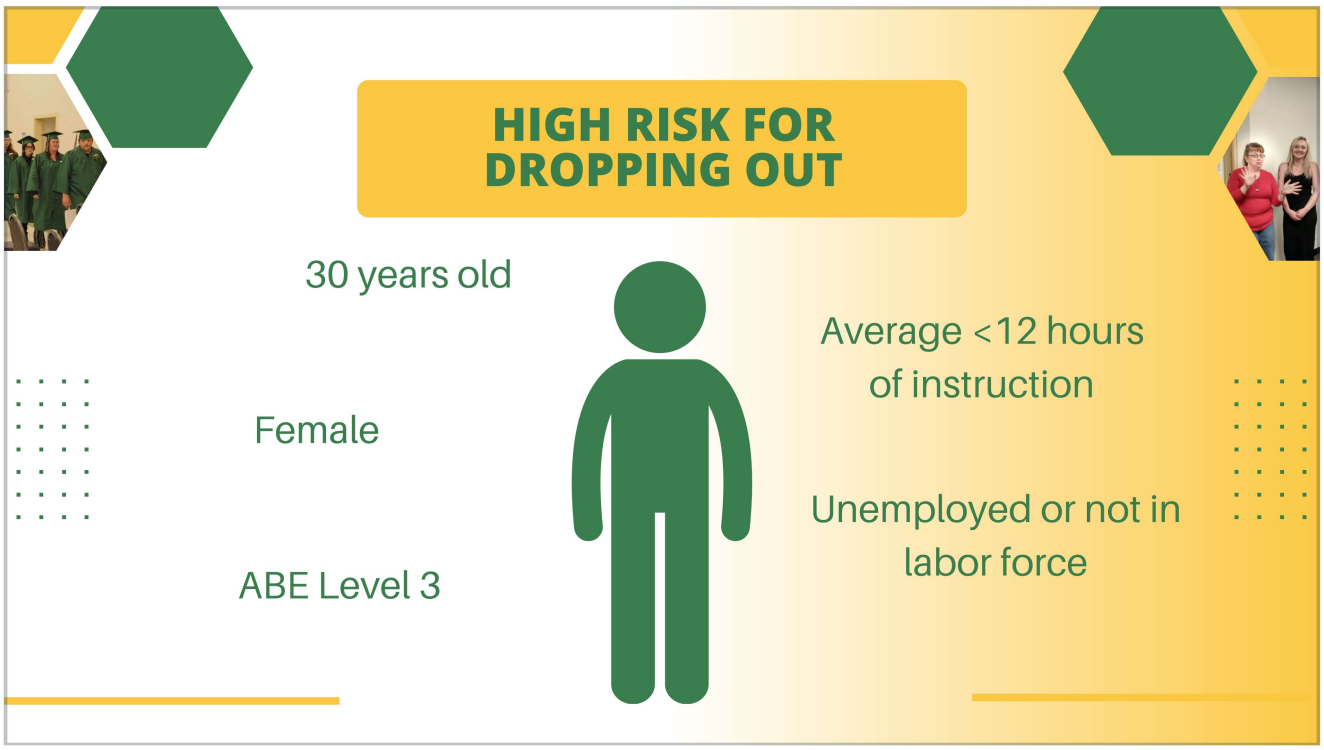
Reading Competencies	N	Correct
Consumer Economics	9	55 %
Community Resources	5	80 %
Employment	21	61 %
Government and Law	5	80 %

College & Career Readiness Standards Reading Content Areas	CCR Reading Anchor Standards	N	Correct
Vocabulary			
Academic	R4	4	75 %
Meaning from context	R4	3	100 %
Reading Comprehension Skills			
Locate details	R1	12	66 %
Identify main idea, Author's purpose	R2, R6	5	40 %
Higher Order Reading Skills			
Locate/Compare details, Infer/Draw conclusions	R1, R9	8	37 %
Text structure, Text features	R5	3	100 %
Author's point of view	R6	5	80 %

Math Competencies	N	Correct
Consumer Economics	14	57 %
Community Resources	5	40 %
Employment	13	46 %
Pure Mathematics	4	100 %

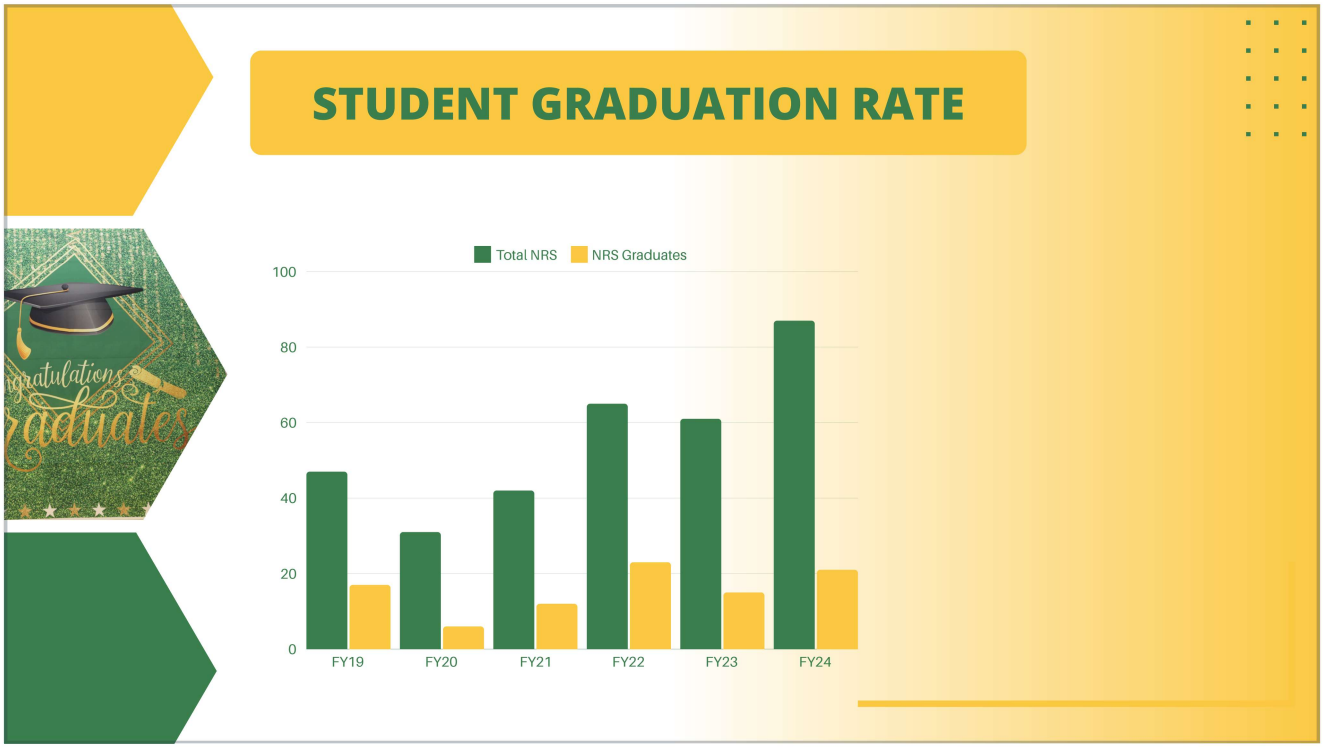
College & Career Readiness Standards Math Content Areas	N	Correct
Number Sense and Operations Understand place value for whole numbers and decimals Compute using the four operations Perform operations with whole numbers, decimals, and fractions	13	38 %
Algebraic Thinking Apply properties of the four operations Use a symbol to represent variables, and solve simple one-variable equations	6	67 %
Geometry and Measurement Solve perimeter and area problems Measure with non-standard and metric units, and convert within a given measurement system Solve measurement word problems, including with time and volumes	10	70 %
Data Analysis and Statistics Interpret simple data sets, bar graphs, line graphs, and histograms Solve one- and two-step problems using bar graphs Understand statistical variability concepts like center and spread	7	57 %

We can highlight their strengths to them, while showing them the path of what they will need to learn in order to progress. Starting students with their most confident subject has also helped, as they are able to move from the lower level material to the higher level material quicker. So for this student, we can talk them through the four main content areas for math and highlight their strengths, particularly that they already have a good foundational knowledge of algebra and geometry, but we may need to do a bit of work on decimals and fractions before we start developing those higher level skills. We may want to start them in Reading though as their score is higher, and the main things we need to work on are identifying the main idea, inferences, and drawing conclusions, at which point they will be much more ready for the HiSET. Showing a clear path to graduation and celebrating progress and mastery of each content area allows students to feel success and hopefully continue in their education.



We wanted to see other trends in our drop out data, so through our analysis of our NRS Registration Report, we were able to create a picture of our highest risk students. We found that for Massabesic, and this may be different for your program, the students that were at highest risk for dropping out were around 30 years old, usually women, ABE Level 3, had less than 12 hours of instruction, and were unemployed. Some of the barriers listed were that they were a single parent or stay at home parent, had a small or no support system, and that they did not have reliable transportation. These students are now highlighted and given extra advising time to try and prevent drop outs. Since our data showed that we had a higher number of students dropping out within the first 12 hours, we have also shifted our intake process to be more student centered rather than asking personal questions followed by a math test in the first meeting, instead focusing on building a relationship with the student. Our new intake process splits the intake form in two, so that we only fill out the contact information of the form in the first meeting and take the appraisal test, and then take the student into the classroom in the very first meeting so that they can get in the mindset of being a student, try out some material based on what CASAS test form they were assigned, and most importantly get to know their teacher and advisor. Hopefully the student will feel some success and will be less daunted at the thought of completing a test in the second meeting because they have already done a little bit of work in that subject and had some success, so will feel like they are now in the mindset to do their best in the CASAS test, at which point we will sit down and make a learning plan with the student and teacher. By focusing on the student and building that relationship, we not only connect with the student and hopefully they see the value in coming to adult ed, but we also get more information about the student that we can use to better serve them.

Moving on to our second goal of improving our graduation rate, which overlaps with our first goal really, as hopefully if we're doing a better job at retaining students, we're getting them through the program too. Obviously our goal is for every student to graduate, but that is not realistic when we're working with adults who have multiple priorities and things going on in their lives, but we can hope to improve our graduation rate. To start, we have to know what our current graduation rate is, and work out what subjects are our students really excelling in, and what subjects do our students need more support in. So let's look at the data.

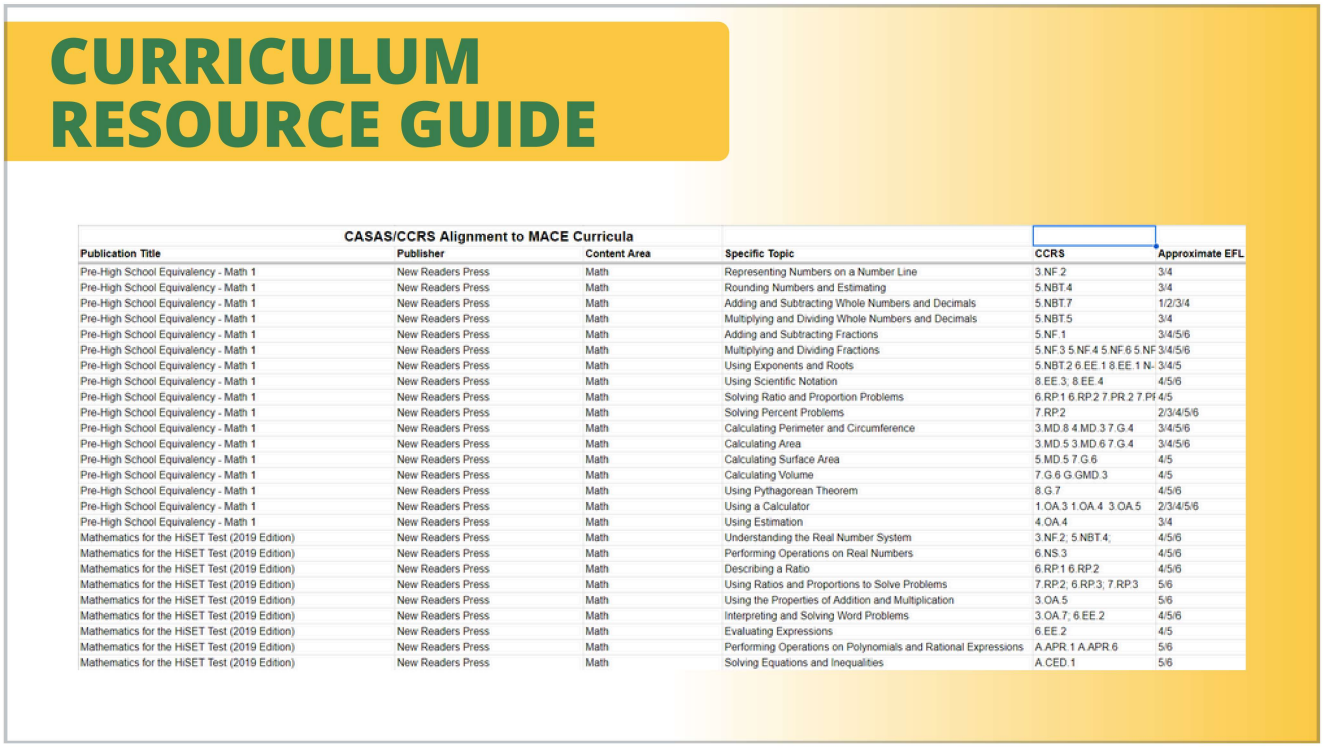


Here is the Massabesic graduation rate for fiscal years 19 to 24. As you can see, we are steadily growing our number of NRS registrations each year, with a massive increase last year. Understandably, our graduation rate dipped during Covid, and bounced up in its aftermath of FY22 when we had a lot of younger students who were struggling with the return to school socially after the pandemic, but we have been able to maintain our graduation rate in the years following which is great, and hopefully can be linked back to our retention efforts. Again, it's good to look at the data through the human lens, so you may notice that our total number of NRS registrations jumped last year up over 20 students, but we didn't have a significantly higher number of graduates. However, when starting to implement new ideas and initiatives, you might not see drastic changes in one fiscal year. The number increased partly because of our increased presence in the community and relationship with the high school, but also because we partnered with the York County Shelter to offer in-person HiSET classes onsite to residents there, and due to the transient nature of that population, we cannot apply the same retention methods to those students. Now we know what we're working with in terms of graduation figures, let's dive deeper to see what we can do to improve graduation rates.

MSG AND HSE RATE BY ENTERING EFL

ABE Level	Total Number	Total MSG	Total HSE
ABE1	6	2	0
ABE2	15	2	0
ABE3	38	7	2
ABE4	98	13	16
ABE5	59	5	14
ABE6	59	NA	44

So here we are able to 'zoom in' on our data to see the graduation rate by entering EFL, and I've also included MSG data because not everyone is going to graduate in one year and MSGs are still very important data points. As you can see, the majority of our students are entering at an ABE 4, and obviously we have more graduates who are ABE 6. After looking at this data, we started to review the curriculum that we currently use for HiSET students. We categorized every print resource we have access to and made our Curriculum Resource Guide.

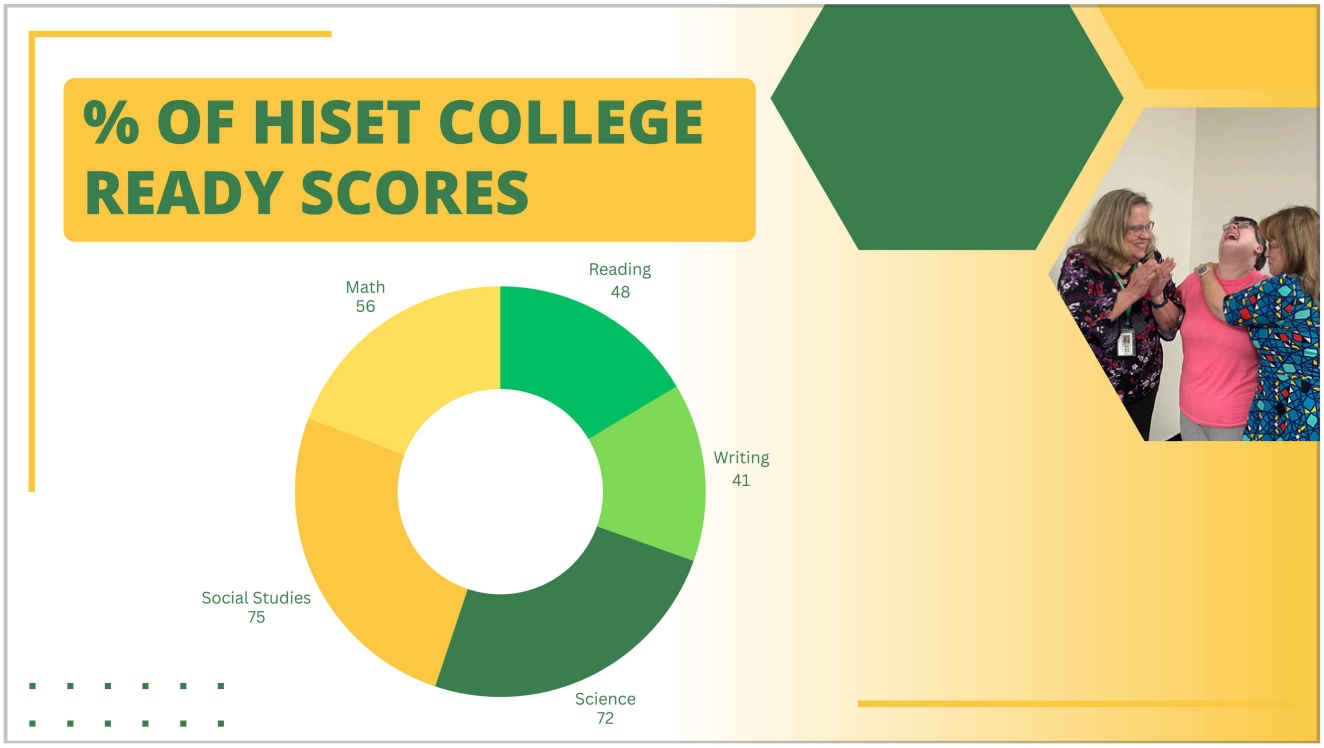


CURRICULUM RESOURCE GUIDE

CASAS/CCRS Alignment to MACE Curricula

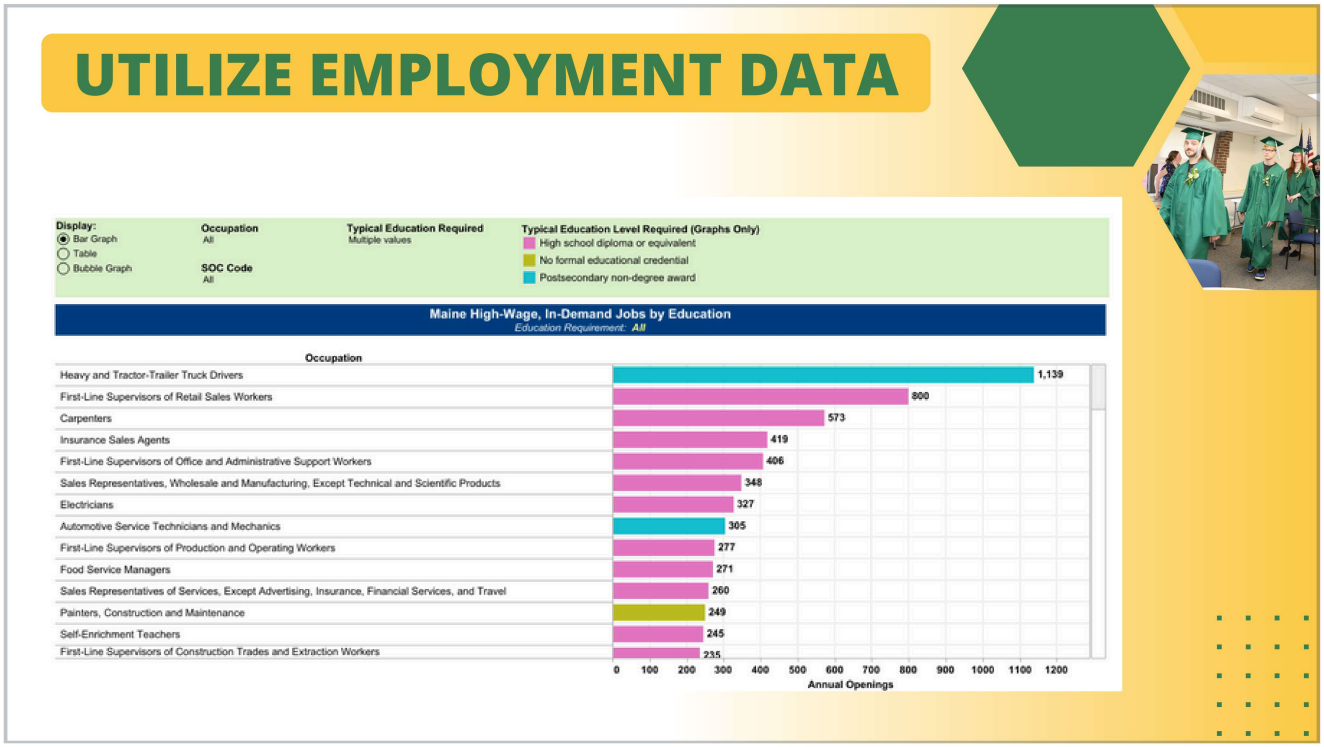
Publication Title	Publisher	Content Area	Specific Topic	CCRS	Approximate EFL
Pre-High School Equivalency - Math 1	New Readers Press	Math	Representing Numbers on a Number Line	3.NF.2	3/4
Pre-High School Equivalency - Math 1	New Readers Press	Math	Rounding Numbers and Estimating	5.NBT.4	3/4
Pre-High School Equivalency - Math 1	New Readers Press	Math	Adding and Subtracting Whole Numbers and Decimals	5.NBT.7	1/2/3/4
Pre-High School Equivalency - Math 1	New Readers Press	Math	Multiplying and Dividing Whole Numbers and Decimals	5.NBT.5	3/4
Pre-High School Equivalency - Math 1	New Readers Press	Math	Adding and Subtracting Fractions	5.NF.1	3/4/5/6
Pre-High School Equivalency - Math 1	New Readers Press	Math	Multiplying and Dividing Fractions	5.NF.3 5.NF.4 5.NF.6 5.NF	3/4/5/6
Pre-High School Equivalency - Math 1	New Readers Press	Math	Using Exponents and Roots	5.NBT.2 6.EE.1 8.EE.1 N-	3/4/5
Pre-High School Equivalency - Math 1	New Readers Press	Math	Using Scientific Notation	8.EE.3; 8.EE.4	4/5/6
Pre-High School Equivalency - Math 1	New Readers Press	Math	Solving Ratio and Proportion Problems	6.RP.1 6.RP.2 7.PR.2 7.PF	4/5
Pre-High School Equivalency - Math 1	New Readers Press	Math	Solving Percent Problems	7.RP.2	2/3/4/5/6
Pre-High School Equivalency - Math 1	New Readers Press	Math	Calculating Perimeter and Circumference	3.MD.8 4.MD.3 7.G.4	3/4/5/6
Pre-High School Equivalency - Math 1	New Readers Press	Math	Calculating Area	3.MD.5 3.MD.6 7.G.4	3/4/5/6
Pre-High School Equivalency - Math 1	New Readers Press	Math	Calculating Surface Area	5.MD.5 7.G.6	4/5
Pre-High School Equivalency - Math 1	New Readers Press	Math	Calculating Volume	7.G.6 G.GMD.3	4/5
Pre-High School Equivalency - Math 1	New Readers Press	Math	Using Pythagorean Theorem	8.G.7	4/5/6
Pre-High School Equivalency - Math 1	New Readers Press	Math	Using a Calculator	1.OA.3 1.OA.4 3.OA.5	2/3/4/5/6
Pre-High School Equivalency - Math 1	New Readers Press	Math	Using Estimation	4.OA.4	3/4
Mathematics for the HiSET Test (2019 Edition)	New Readers Press	Math	Understanding the Real Number System	3.NF.2; 5.NBT.4;	4/5/6
Mathematics for the HiSET Test (2019 Edition)	New Readers Press	Math	Performing Operations on Real Numbers	6.NS.3	4/5/6
Mathematics for the HiSET Test (2019 Edition)	New Readers Press	Math	Describing a Ratio	6.RP.1 6.RP.2	4/5/6
Mathematics for the HiSET Test (2019 Edition)	New Readers Press	Math	Using Ratios and Proportions to Solve Problems	7.RP.2; 6.RP.3; 7.RP.3	5/6
Mathematics for the HiSET Test (2019 Edition)	New Readers Press	Math	Using the Properties of Addition and Multiplication	3.OA.5	5/6
Mathematics for the HiSET Test (2019 Edition)	New Readers Press	Math	Interpreting and Solving Word Problems	3.OA.7; 6.EE.2	4/5/6
Mathematics for the HiSET Test (2019 Edition)	New Readers Press	Math	Evaluating Expressions	6.EE.2	4/5
Mathematics for the HiSET Test (2019 Edition)	New Readers Press	Math	Performing Operations on Polynomials and Rational Expressions	A.APR.1 A.APR.6	5/6
Mathematics for the HiSET Test (2019 Edition)	New Readers Press	Math	Solving Equations and Inequalities	A.CED.1	5/6

This guide allows our teachers, both of whom are part time, teach every level and every HiSET subject, and are both relatively new to Adult Education, to easily find relevant content for each student based on College and Career Readiness Standards and the student's EFL. This way if the CASAS Individual Skills Report shows that they need to work on It can be really difficult Our ABE 3 students who graduated did so in the last two years, which has been really encouraging to see.



Another way we can look at our academic data in relation to graduation and retention is through the percentage of HiSET College Ready scores. Looking at our data was a little surprising at first for me, mainly because we had 56% of students passing Math with a College Ready score, which is amazing! Our teachers are both math specialists and because a lot of our students are interested in trade careers where they will need Math skills, it is something that is really highlighted in class. Initially, I saw that our Reading percentage being only 48% meant that we needed to change our Reading curriculum, but within the past couple of years, we have been focusing on students getting early success through their strongest subject, which is almost always Reading, which means students are testing in Reading sooner than previously. This may mean that the average score has lowered, but has also been a powerful tool in retention and ultimately graduation rates. We can see that students' higher order reading skills are still improving through the Social Studies and Science subjects, as we have a strong 72 and 75% college ready percentage in these subjects, so students are still developing these skills throughout their time in Adult Ed.

Our last goal is to increase employment opportunities for our students. Keeping track of what fields are students are interested in entering, and keeping a list of local businesses can be really useful, and then tying that to our curriculum to help prepare students for their chosen field will help our students' prospects in employment.



One thing that is really useful is utilizing employment data to show students, especially those who are unsure what they would like to do once they graduate, what opportunities are out there in Maine for people with a high school diploma or equivalency. This graph shows high wage, in demand jobs in the state, and includes truck drivers, electricians, and auto technicians. Then, we can connect with local employers to get students a step in the right direction for their future employment prospects.

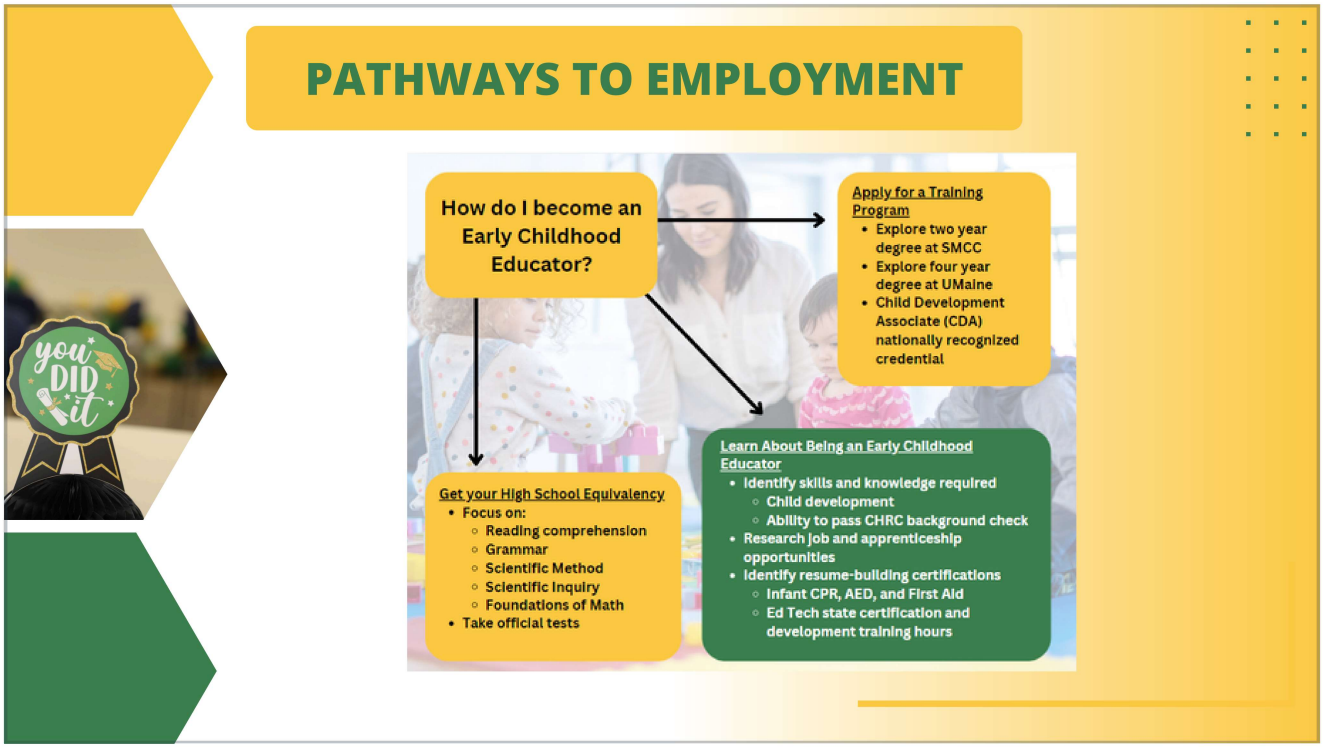
One thing that was important to us to help with retention as well as employment opportunities was to create pathways to employment for our most popular career interests. This includes an electrician

an auto mechanic

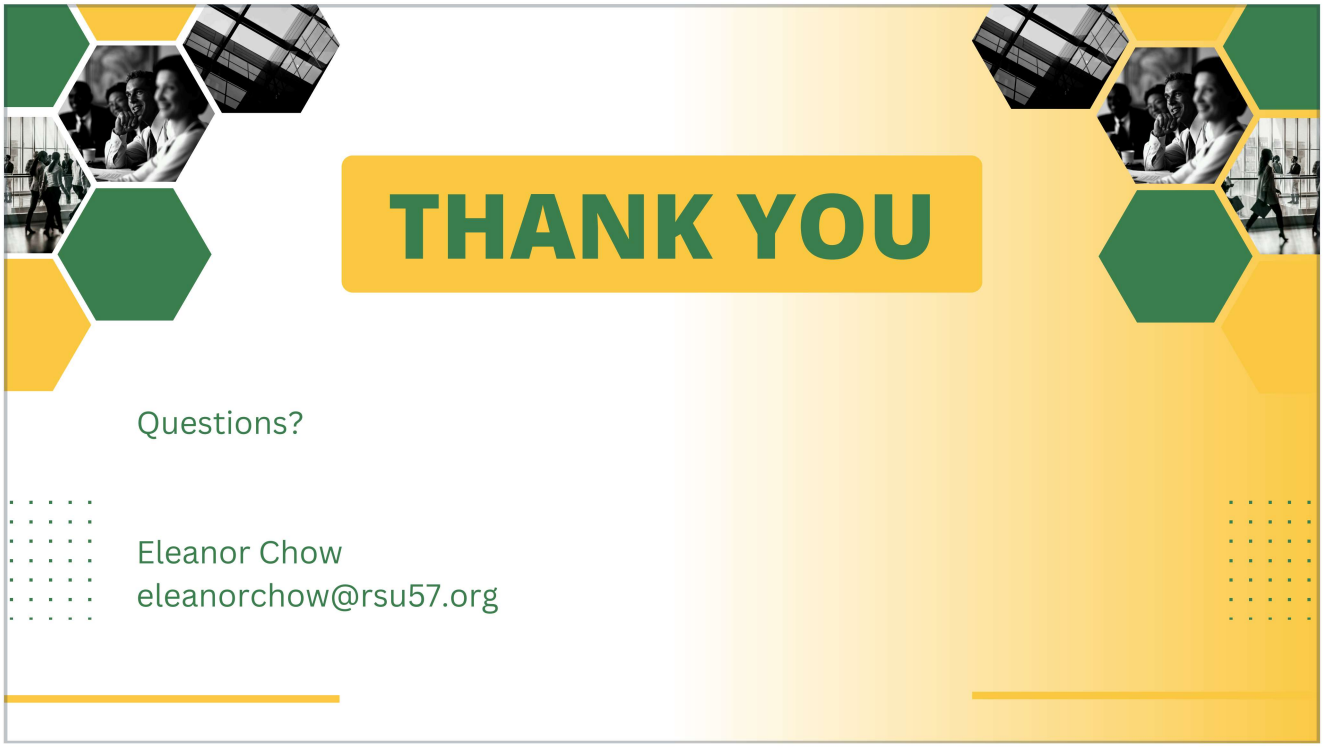
PATHWAYS TO EMPLOYMENT
you DID it
How do I become a Veterinary Technician?
Apply for a Training Program
• Veterinary Technology at YCCC
◦ National Vet Tech certification
• Animal Care and Management at YCCC
◦ Veterinary Assistant certification
Get your High School Equivalency
• Focus on:
◦ Measurements and Conversions
◦ Ratios and Proportions
◦ Life Science
◦ Reading comprehension
• Take official tests
Learn About Being a Veterinary Technician
• Identify skills required
◦ Animal handling
• Research job opportunities for veterinary technician careers
◦ Educate Maine apprenticeship opportunity
• Identify resume-building certifications and knowledge
◦ Human Animal Bond Certification

a vet tech

a truck driver



and an early childhood educator. By showing students the areas that we are teaching them that would be useful to their chosen field, we are making the content more relevant to them, combining our college and career advising with in class work. By focusing on student goals and interests, we can hopefully create more pathways to academic success, college training, and employment opportunities.


THANK YOU
Questions?
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