



## Students in New Mexico's Hatch Valley Improve Math Skills With New Program Linking Learning to Careers



### *Pathway2Careers Reports MetaMetrics' Quantile® Measures to Demonstrate Effectiveness*

Travel to the small community of Hatch in southern New Mexico and not only will you find the chiles associated with its claim to fame, but you'll also discover a high school where math teachers are replacing the student question, "Why do I have to learn this?" with "I know why this matters." Hatch Valley Public Schools implemented a new digital

math curriculum that maps an academic journey that leads to successful careers. Pathway2Careers™ (P2C) is a unique curriculum that solves some of the biggest challenges in education, helping learners and teachers make daily connections between the mathematics they're doing now in the classroom and what they'll do later in life.

P2C is the creation of Dr. Joseph L. Goins, an education industry veteran and former math teacher. Goins said, “The first grant we got for developing P2C was to reimagine math through a different lens, but we also wanted a career exploration grant. That’s why you see the merging of career and academic learning at the same time.”

He continued, “When we looked at the research, we saw the power of a student having a purpose in learning. And when we looked at the research for math learning, in particular, we discovered we lose about half of kids from an engagement standpoint by time they get to high school.”

Empowering all of its nearly 1,200 students to succeed is at the very core of the mission set forth by Hatch Valley Public Schools.

Hatch Valley High School Principal Brandy Holguin said, “As a district, we have struggled with math, so when we saw P2C, we recognized it as a great way to shift gears. It makes math more accessible to our students. The curriculum we used before was just out of their grasp. Teachers were willing to take the risk and make the switch, which is not an easy task. I do really appreciate their efforts and willingness to take that journey.”

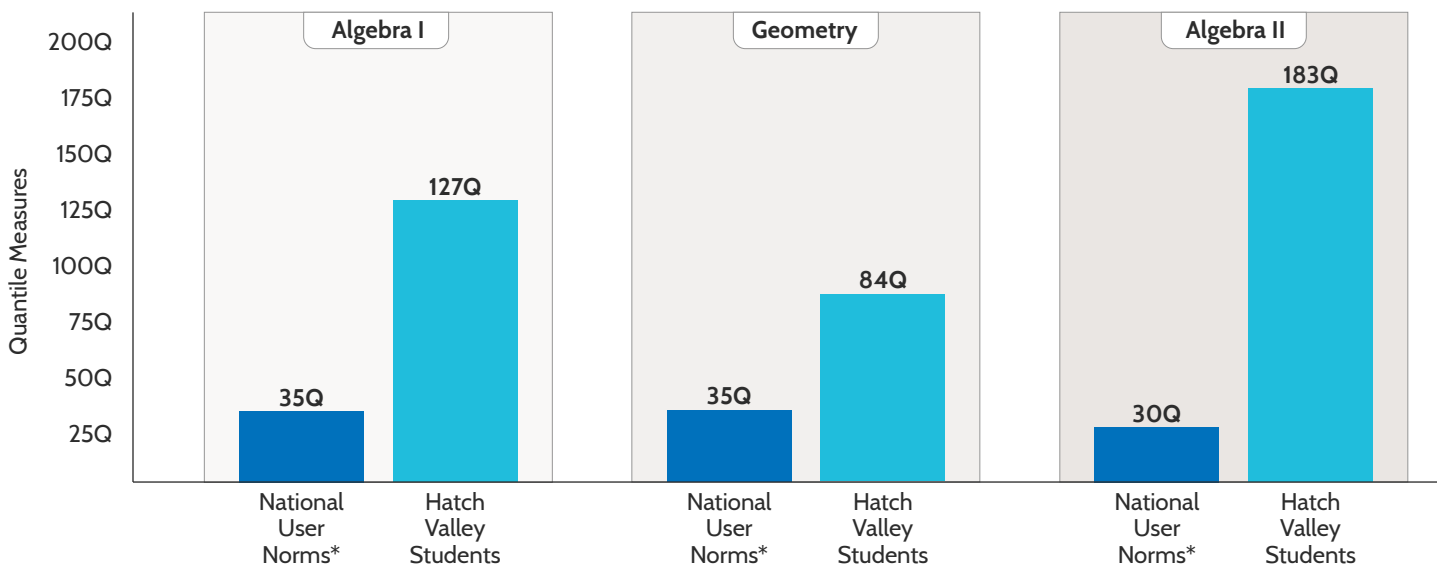
Superintendent Michael Chavez agreed, “One of the things that we’ve been working on over the years to improve math learning is building relevancy. P2C fit what we were trying to accomplish, which was trying to make things more relatable, trying to build relevancy, and moving from there.”

## Accelerating Student Math Achievement

Holguin and High School Math Teacher Alejandro Lozano agreed the program quickly had an impact on both student achievement and engagement. And the data supports Holguin and Lozano’s perspective on the effectiveness of P2C (view table on page 4). According to P2C, when compared to expected growth (per National User Norms), Hatch Valley High School Algebra I students realized more than a 90 point gain in their Quantile measures and Algebra II students saw an amazing 150 point leap in their measures – in just one school year of learning with the program.

Hatch Valley High School **students saw significant growth** outpacing national averages.

### ◆ AVERAGE GROWTH BEGINNING OF YEAR (BOY) TO END OF YEAR (EOY)



\* 50th Percentile

Lozano said, “Our other curriculum was supposed to be more engaging, but, in reality, it was more writing, more taking notes, which would have been great for an English or history class. For math, I feel like you just need to do one problem at a time, you’ve got to write numbers, adding and subtracting, dividing, solving for X. It’s easier if we just physically write down problems and talk about them. Pathway2Careers does a great job of presenting the concepts, showing the data, breaking it down with a few examples, and then helping students build their skills.”

While learning with P2C, students receive Quantile measures, indicating the math skills and concepts they are ready to learn and their cumulative growth from benchmark assessments taken at the beginning, middle, and end of the school year. MetaMetrics’ Quantile Career Database, consisting of more than 600 Quantile-measured occupations, is integrated into P2C’s score reports, giving students insight into the occupations for which they have achieved career preparedness as demonstrated by their Quantile measures.

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**“ The connections to careers help students see the relevance of what they are learning. We’re struggling to engage this generation of students — just getting them out of their cell phones. Pathway2Careers helps us do that.”**

— ALEJANDRO LOZANO, HATCH VALLEY HIGH SCHOOL MATH TEACHER

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As part of graduation requirements, New Mexico students take the PSAT as sophomores and the SAT as juniors. Lozano said P2C is an excellent tool for preparing for those assessments.

## Students Throughout New Mexico Seeing Gains, Increased Interest in STEM

While Hatch has only used P2C for a little less than a year, Goins said statewide in New Mexico, districts using the programs have seen about a 12 percent improvement in Algebra achievement and a 10 percent improvement in Geometry. In addition, New Mexico students learning with the program have shown a 38 percent increase in interest in STEM careers.

A study on P2C done by Carnegie Mellon and CMU asked students after one lesson, “Do you want to do math this way?” and 82 percent said, “Yes.” In addition, more than 90 of those students wanted to learn about a career.

Goins concluded, “I tell people all the time, get a kid to have autonomy and self-efficacy, and your job’s done right.”



### ABOUT METAMETRICS

*MetaMetrics Brings Meaning to Measurement*

MetaMetrics is guided by a powerful north star—to support student growth through actionable learning measurement. Over the last 40 years, MetaMetrics’ staff of educators, psychometricians, and policy leaders have developed learning frameworks that now support over 35 million students in the US. More than half of the K-12 students in the US receive Lexile® and Quantile® measures and over a hundred million pieces of content have corresponding measures. MetaMetrics was founded in 1984 with the singular goal of making measurement meaningful by matching students to learning resources using a scientific, universal scale. Today, Lexile and Quantile measures are available in all 50 states, with half of the nation receiving the measures through state accountability assessments or at the local level through partnerships with edtech companies that deliver services to schools and districts. Leveraging the most advanced AI technology and learning theory, MetaMetrics continues to innovate solutions for a wide range of applications, including early reading, career readiness, and tutoring. For more information, visit [MetaMetricsInc.com](https://www.MetaMetricsInc.com).



## ABOUT PATHWAY2CAREERS



Pathway2Careers (P2C) is dedicated to providing educators with the tools and resources necessary to prepare students for successful careers. Our innovative platforms deliver essential labor market data and trends, enabling informed decision-making and fostering partnerships between educators and workforce boards. By simplifying complex information, P2C empowers educators to guide students toward high-value careers and a brighter future. For more information, visit <https://p2c.org/>.

EFFECTIVENESS OF P2C					
<i>Note: Only students who took all three assessments are included in the data.</i>					
ALGEBRA I		GEOMETRY		ALGEBRA II	
Number of Students	23	Number of Students	60	Number of Students	88
Beginning of Year Quantile Measure Range	669Q - 1010Q	Beginning of Year Quantile Measure Range	774Q - 1200Q	Beginning of Year Quantile Measure Range	738Q - 1140Q
Quantile Measure for National User Norms (50th Percentile) Beginning of Year (BOY) for 9th Grade	1020Q	Quantile Measure for National User Norms (50th Percentile) Beginning of Year for 10th Grade	1080Q	Quantile Measure for National User Norms (50th Percentile) Beginning of Year for 11th Grade)	1140Q
% of Students Scoring Above the Quantile Measure for National User Norms (50th Percentile) for BOY	0%	% of Students Scoring Above the Quantile Measure for National User Norms (50th Percentile) for BOY	5%	% of Students Scoring Above the Quantile Measure for National User Norms (50th Percentile) For BOY	0.1%
End of Year Quantile Measure Range	667Q - 1168Q	End of Year Quantile Measure Range	764Q - 1186Q	End of Year Quantile Measure Range	853Q - 1313Q
Quantile Measure for National User Norms (50th Percentile) End of Year (EOY) for 9th Grade	1055Q	National Mean Score Quantile Measure for National User Norms (50th Percentile) National Mean Score for End of Year (EOY) for 10th Grade	1115Q	National Mean Quantile Measure for National User Norms (50th Percentile) National Mean Score for End of Year (EOY) for 11th Grade	1170Q
% of Students Scoring Above the Quantile Measure for National User Norms (50th Percentile) for EOY	2%	% of Students Scoring Above the Quantile Measure for National User Norms (50th Percentile) for EOY	7%	% of Students Scoring Above the Quantile Measure for National User Norms (50th Percentile) for EOY	23%
Average Quantile Measure Gain for Hatch Students	127Q	Average Quantile Measure Gain for Hatch Students	84Q	Average Quantile Measure Gain for Hatch Students	183Q
Gain in Quantile Measure for National User Norms (50th Percentile) BOY to EOY	35Q	Gain in Quantile Measure for National User Norms (50th Percentile) Average National Norms Quantile Measure Mean Score Gain BOY to EOY	35Q	Gain in Quantile Measure for National User Norms (50th Percentile) Average National Norms Quantile Measure Mean Score Gain BOY to EOY	30Q
+/- Hatch Quantile Measure Gain vs. Gain in Quantile Measure for National User Norms (50th Percentile)	+92Q	+/- Hatch Quantile Measure Gain vs. Gain in Quantile Measure for National User Norms (50th Percentile)	+49Q	+/- Hatch Quantile Measure Gain vs. Gain in Quantile Measure for National User Norms (50th Percentile)	+153Q