

THE M.I.T.E.S. MESSENGER

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WELCOME BACK TO THE BEGINNING OF A GREAT SCHOOL YEAR

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*Items to Share with
Administration and Counselors*

WHY WE SHOULD BRING BACK VOCATIONAL TRAINING

It's not just that college isn't for everyone, but even academically inclined kids should have the option to learn a trade.

Recommended by Ben Smith, written by
Starre Vartan, August 17, 2016.



This could have been me during high school if our education system wasn't so inflexible.
(Photo: runzelkorn/Shutterstock)

It used to be that everybody learned both academic and vocational subjects as part of their education. High school students would learn English literature and basic carpentry, physics and how to cook a well-balanced meal. Then, for a time, students were split into tracks by ability; the college-bound would take only academic subjects, and the others would take basic English, math and science classes plus shop class or home economics.

But because poorer or minority students were often pointed down the latter path, some parents objected, pointing out that just because their kids were working-class didn't mean they shouldn't get a shot at college. Which brings us to today, where most kids are on the college-prep path.

College isn't for everyone. As of 2014, 66 percent of high school students enrolled in college. Data from previous years show that of the students who applied, were accepted and enrolled in college, only 60 percent graduated in six years. That means out of a theoretical high school class of 100, 33 people never went to college in the first place, and of the 66 who did, 26 didn't graduate. That's 59 out of 100 students whose high school

program (or life situations) didn't prepare them for the type of work they'll be doing for the rest of their lives.

And while about half of those who do graduate college are under- or unemployed, the U.S. simultaneously has a shortage of workers in manufacturing and building. "The U.S. economy has changed," writes Nicolas Wayman in Forbes. "The manufacturing sector is growing and modernizing, creating a wealth of challenging, well-paying, highly skilled jobs for those with the skills to do them. The demise of vocational education at the high school level has bred a skills shortage in manufacturing today, and with it a wealth of career opportunities for both under-employed college grads and high school students looking for direct pathways to interesting, lucrative careers."

It's not just that great jobs are going unfilled because students are pushed down the college path. When vocational programs aren't available, academically strong kids miss out too. I know, I was one of them.

MISSED OPPORTUNITIES



Public high schools should be about preparing students for the real world, and that means all students should have the option to take vocational classes. (Photo: Lisa F. Young/Shutterstock)

Like many kids, when I was growing up, I was fascinated with mechanical things. I took apart and reassembled rotary phones, cassette players, a VCR, and successfully repaired my lawnmower several times. So naturally, by the time I was 14 or so, I really wanted to learn car mechanics. Not only would it be a fun thing to learn, it would be useful too, as I would be inheriting a car when I turned 16. And combined with my interest in science, it seemed that maybe it could lead to a career in engineering. Because my high school offered auto mechanics as part of a region-wide vocational program, I thought I could add that onto my course load with some careful maneuvering of classes.

The problem was, I was a strong student academically. And the part of New York where I'm from, like many other places, separated students into academic versus vocational training tracks — and never the twain shall meet. (Seriously, we never saw the kids who did the vocational program after they opted into it.) If I wanted to take classes in auto mechanics or electrical work, I would not also be able to complete my honors and AP college-prep courses. It was one or the other.

I stuck to the college track and never learned advanced mechanics,

though the little I did know helped me get two jobs in science fields. In one position I built bespoke computers for a technology company because I knew how to use hand tools, and at the environmental scientist job I acquired with my B.S. in geology, there were all kinds of mechanical devices to use (and fix when they broke or malfunctioned).

Public high schools should be about preparing students for the real world, and the idea that just because someone studies to be a car mechanic doesn't mean they won't love Shakespeare or calculus is just as silly as assuming that someone headed to college doesn't need to know how to fix a car. The truth is, we all need to know many things in life, and it would make more sense to let students choose their own interests rather than have tracks to choose from (or only one choice). Sure, maybe I never would have really used auto mechanics in my eventual career as a writer, but I never really "use" trigonometry either — that doesn't mean it's not good to know it.

All students are losing out from a lack of non-academic classes in high schools.

Bringing back vocational programs for everyone would allow academically oriented kids to find new hobbies or new ways to solve problems, and would also destigmatize the jobs that they're connected to — which are necessary, interesting and challenging. There's more than one path to success: Electricians, plumbers, car mechanics and the like make far more money than writers do, after all.



IF KENTUCKY EMBRACES IDEA THAT NOT EVERYONE NEEDS COLLEGE WHY CAN'T MICHIGAN

BY Emmanuel Felton, The Hechinger Report, June 6, 2016 at 1:55 PM EDT



Southern High School teacher Matthew Haynes helps a student craft a case for his smartphone. Photo by Emmanuel Felton/Hechinger Report

Dasani Johnson, a sophomore at Southern High School in Louisville, Kentucky, is using a machine to create a baseball bat out of a piece of foam. Standing over her, as she prepares to start the machine, are her teacher and two classmates.

"Some of these boys don't expect a girl to be able to do this, but I feel like I'm getting better," she said after starting the machine. "I don't know if I want to do this after I graduate, but I'm starting to like it."

If Johnson stays in Southern High School's machine tool program for the next two years, she could leave high school with an industry-recognized machinist operator credential, and a clear path to a job that starts at \$15 an hour. While Southern High School has a long tradition of sending students straight into the workforce, many Kentucky schools have only recently entered the business of preparing students for "middle-skilled" jobs — positions that require more than a high school diploma, but less than a bachelor's degree.

Vocational tracks may be as old as public schools themselves, but

what's new in Kentucky is an accountability system that puts college and career on the same footing. Schools get a point for getting a student ready for college or a point for getting them career-ready. There's an extra half bonus point for getting kids ready for both college and career.

"College- and career-ready" is now one of those say-it-10-times-fast terms in education that lots of people throw around, but few pick apart. When the Obama administration made some federal funding contingent on the adoption of college- and career-ready standards, most states decided college and career readiness were one and the same. In Kentucky, however, education officials have decided they are in fact quite different and that being ready to start a career — as a machinist, for example — doesn't necessarily require students to follow a path that takes them through college. Schools offering this direct-to-career path aren't allowed to lower their standards: They must aim for the same sort of rigorous benchmarks created for the college track, even if the expectations are more focused on technical skills and the ability to find and parse informational texts and apply math in occupational situations.

Kentucky is among a handful of states that have created a designation for career-ready that is separate and distinct from college-ready. And it was the first state to put college and career on equal footing. Louisiana comes close — it now gives schools credit when students get industry credentials — but students must still pass a college-ready test.

"There are all of these employability and occupational skills that students don't learn and aren't tested." — Robert Lerman, Urban Institute

"When most states say college- and career-ready, they just mean college-ready," said Robert Lerman,

an institute fellow at the Urban Institute's Center on Labor, Human Services and Population. "If you look at what amount of jobs require Algebra II, for example, it's maybe 8 to 10 percent, and on the flip side there are all of these employability and occupational skills that students don't learn and aren't tested."

To be deemed college-ready in Kentucky, students must pass one of three college admission or placement tests. Career readiness, on the other hand, is divided into two parts. Students must show they're ready academically and are also able to tackle the specific technical demands of their prospective careers. Students can show they're ready academically by passing either the military Armed Services Vocational Aptitude Battery test or another ACT exam called WorkKeys — tests that emphasize deploying math and literacy skills to solve real world problems. Students must also either attain an industry-recognized credential or pass one of the state's Kentucky Occupational Skill Standards Assessment exams — tests that were developed from standards drawn up by the state's industry groups.

Across Southern High School's sprawling 300,000 square foot building in a working class section of Louisville, students are preparing for an array of different jobs. In addition to the machine tool program, the school has a student-staffed credit union and a full auto garage complete with 11 lifts and two paint booths. Principal Bryce Hibbard is looking to link the two programs through an arrangement in which auto shop students will fix donated cars which will then be sold to Southern High School's seniors on a \$1,000, 1 percent interest loan by students at the credit union.

Hibbard is banking on Southern High School's career programs to get the school — long labeled one of Kentucky's worst — off the list of the

state's 27 lowest performing schools this year.

The numbers are moving in the right direction: The proportion of Southern High School students the state says are ready for life after high school has risen from 13 percent to 57 percent in the five years since Kentucky has moved to a system that considers college as well as career readiness. Of the 270 students who graduated last spring, 117 were college-ready, 45 were ready for careers and 68 left ready for both.

Hibbard, a former state champion basketball coach, uses a large whiteboard hanging in his office to keep track of the progress of his seniors. By early February 2016, 75 seniors had passed either their college-ready or career-ready tests. He predicted the number of students who are career-ready would eclipse the number who are college-ready this year. But it's more than just a numbers game to Hibbard.

"For too long, we have focused just on the college part," said Hibbard. "This school has been number one with career readiness. We are all about just trying to create opportunities to make school matter to all kids."

Struggling schools aren't the only ones thrilled by the state's elevation of career readiness. Educators in rural Breckenridge County, about an hour and a half southwest of Louisville, have long embraced getting students ready for middle skilled jobs right out of high school. Breckenridge's Area Technology Center — one of 53 centers across the state where students from nearby high schools are sent for career training — has been training students for machine tool jobs since the 1970s, and in the process has transformed the county from a sleepy farming community to a manufacturing hub.

"When this school opened in 1970 with just one machine tool

instructor, this was an agricultural community,” said Tom Thompson, who oversees 19 regional Area Technology Centers in western Kentucky. Thompson was a student in Breckenridge Center’s machine tool program and later returned to teach and eventually become the principal. “Today, there are 10 machine shops, employing anywhere from one or two people to almost 200 people.”

Kenny Whitworth is the owner of the shop employing nearly 200 people. In his 43,400-square-foot, family-run factory, a photo of his son Tim Whitworth, the plant manager, with his University of Kentucky basketball team, greets visitors at the door. From Hardinsburg, population 2,300, Whitworth Tool.

“The only way we are going to compete with companies in places like India, China and Mexico, with much lower labor costs, is through knowledge.” — Kenny Whitworth, owner of Whitworth Tool

“Anyone can get machine tools,” Whitworth said. “The only way we are going to compete with companies in places like India, China and Mexico, with much lower labor costs, is through knowledge.”

Whitworth said his firm is able to beat those companies by providing consistently high quality products to clients with niche needs.

Whitworth, who was the Breckenridge center’s second machine tool instructor, has been investing in the school to build that knowledge base by donating equipment and hiring many Breckenridge seniors through a pre-apprenticeship program. One of those students is Bryan Flood.

“I’m pretty well set on doing this for life,” the high school senior says confidently. “I never did like school. I mean I like math, but I don’t like that other crap like history.”

Luke Williams, a senior who commutes from Breckenridge County

to Louisville to work at Atlas Machine & Supply, says that while the equipment is newer at his job, the school did a good job teaching him the basic principles.

Proud of the center’s graduates, Whitworth is quick to point out that “other counties and industries are advertising for machinists in the Breckenridge Herald.”

Dean Monarch, who has been teaching at the center since 2000, said that Breckenridge serves students like Flood and Williams particularly well because the community has long valued career education as much as a college degree, though he says that hasn’t always been the case.

“These are good jobs and any student who wants a job can get one,” Monarch said. “It’s about creating opportunities. My dad wanted me to go to college, so I went off to the University of Louisville and just wasted a lot of time and money. At that age, I just didn’t know what I wanted to do.”

Laura Arnold, a former school principal who is now head of Kentucky’s career and technical education program, said that differentiating career readiness — and emphasizing that it’s just as important as college readiness — will help the state reach students who might otherwise fall through the cracks.

“Back when I was a principal, every year in May, I’d ask students where they were headed and some would just make up a college and I’d see them a few months later and they’d say, ‘Oh it didn’t work out,’” said Arnold. “Now we have an accountability model that is encouraging those students to look beyond four-year colleges to opportunities like apprenticeships.”

After years of concern that career tracks were a dumping ground for kids not seen as college material, the U.S. Department of Education appears to be reevaluating its

position. In a 2014 letter, the Department of Education’s Catherine Lhamon, assistant secretary for civil rights, urged districts to ensure that low income and minority students have *more* access to vocational programs. This idea is old news to Nancy Hoffman, vice president for program and talent development at Jobs for the Future, a nonprofit focused on ensuring that low-income students graduate high school with a clear path to career success. In order to serve low-income students well, she says, career education programs must be designed to cater to all students

“If you make it rigorous and get rid of the stigma, it’s going to have a diverse population, in terms of race, gender and family education levels,” she said.

A recent study by the Fordham Institute, a conservative think tank, found that career education students — especially poor children and particularly boys — were more likely to graduate from high school, enroll in college and earn higher wages than their peers who didn’t take career courses. Kate Blosveren Kremer — deputy executive director of Advance CTE, a national nonprofit that represents state officials responsible for career and technical education — said the key to ensuring that more students enjoy these benefits is to use accountability systems to shut down less rigorous career programs that don’t lead to student success.

“There are a lot of people that still think these programs are lower rigor,” said Blosveren Kremer. “I don’t think that’s inherently true, but there is a mix out there. Hopefully, we can eventually use accountability to find and replicate the good programs.”

In communities that lack schools with a track record like Breckenridge’s area technology center, the accountability system is only half the battle. For families and

educators to value career pathways, they must first see that the programs are actually setting students up for successful lives. That's why the state department is working with districts to build programs that are not only rigorous, but that will also lead to jobs.

Stephen Pruitt, Kentucky's commissioner of education, said there's still work to do in bridging the perception gap between the college and career sides of the curriculum.

"I want to break down the walls between college and career," said Pruitt, who started as commissioner back in September. "One of the smartest kids I've probably ever taught, he's now a resident at Vanderbilt, I had him in AP Chemistry. He loved medicine and the school had a great occupational health program. He really wanted to be a part of it, but because of the stigma around [career and technical education] his parents thought it might keep him from getting into college. It took some convincing, but I think a part of the reason that he's at Vanderbilt right now is that program."

One school district, Hardin County, is attempting that balance by designing career education courses specifically geared to kids headed to four-year colleges. After a disappointing start for the district's pharmacy tech program, Dan Robbins — the center's principal — decided to recruit some of the district's top students.

"We looked for a different student for the pharmacy program," said Robbins. "It's a privilege, they have to be selected, and now we're looking at the AP Chemistry and AP Biology kids for those spots."

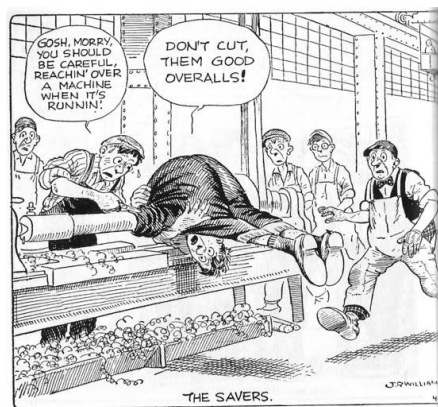
Kentucky officials created the bonus half point for students who reach both career and college readiness standards for this very reason: to encourage schools to make career education available to more —

even all — students, not just those who, in the past, may have been considered unable to tackle the rigor of the college-prep program.

Kentucky's approach has created a lot of buzz in the education community. At a recent meeting of state education superintendents, interest in replicating the system was high. Steve Canavero, superintendent of public instruction at the Nevada Department of Education, said the recent recession is his state has made career education an imperative.

"We've been calling something college-and career-ready that was in fact just about student success in coursework that led to college," said Canavero. "We got here by a need to diversify our economy. Our economy was historically built on tourism, gaming and mining, and it was incredibly susceptible to downturns. We had one of the worst downturns in the country during the last recession. We know that we in education have to do something different."

This story was produced by The Hechinger Report, a nonprofit, independent news organization focused on inequality and innovation in education.



WHY WE DESPERATELY NEED TO BRING BACK VOCATIONAL TRAINING IN SCHOOLS

Nicholas Wyman, Contributor to Forbes who writes about job skills and training in the 21st-century workplace. Opinions expressed by Forbes Contributors are their own.



Instructor helps a student participating in a woodworking manufacturing training program in Chicago, Illinois, U.S. Photographer: Tim Boyle/Bloomberg Charlie Negron

Throughout most of U.S. history, American high school students were routinely taught vocational and job-ready skills along with the three Rs: reading, writing and arithmetic. Indeed readers of a certain age are likely to have fond memories of huddling over wooden workbenches learning a craft such as woodwork or maybe metal work, or any one of the hands-on projects that characterized the once-ubiquitous shop class.

But in the 1950s, a different philosophy emerged: the theory that students should follow separate educational tracks according to ability. The idea was that the college-bound would take traditional academic courses (Latin, creative writing, science, and math) and received no vocational training. Those students not headed for college would take basic academic courses, along with vocational training, or "shop."

Ability tracking did not sit well with educators or parents, who believed students were assigned to

tracks not by aptitude, but by socio-economic status and race. The result being that by the end of the 1950s, what was once a perfectly respectable, even mainstream educational path came to be viewed as a remedial track that restricted minority and working-class students.

The backlash against tracking, however, did not bring vocational education back to the academic core. Instead, the focus shifted to preparing all students for college, and college prep is still the center of the U.S. high school curriculum.

So what's the harm in prepping kids for college? Won't all students benefit from a high-level, four-year academic degree program? As it turns out, not really. For one thing, people have a huge and diverse range of different skills and learning styles. Not everyone is good at math, biology, history and other traditional subjects that characterize college-level work. Not everyone is fascinated by Greek mythology, or enamored with Victorian literature, or enraptured by classical music. Some students are mechanical; others are artistic. Some focus best in a lecture hall or classroom; still others learn best by doing, and would thrive in the studio, workshop or shop floor.

And not everyone goes to college. The latest figures from the U.S. Bureau of Labor Statistics (BLS) show that about 68% of high school students attend college. That means over 30% graduate with neither academic nor job skills.

But even the 68% aren't doing so well. Almost 40% of students who begin four-year college programs don't complete them, which translates into a whole lot of wasted time, wasted money, and burdensome student loan debt. Of those who do finish college, one-third or more will end up in jobs they could have had without a four-year degree. The BLS found that 37% of currently employed college grads are doing

work for which only a high school degree is required.

It is true that earnings studies show college graduates earn more over a lifetime than high school graduates. However, these studies have some weaknesses. For example, over 53% of recent college graduates are unemployed or under-employed. And income for college graduates varies widely by major – philosophy graduates don't nearly earn what business studies graduates do. Finally, earnings studies compare college graduates to *all* high school graduates. But the subset of high school students who graduate with vocational training – those who go into well-paying, skilled jobs – the picture for non-college graduates looks much rosier.

Yet despite the growing evidence that four-year college programs serve fewer and fewer of our students, states continue to cut vocational programs. In 2013, for example, the Los Angeles Unified School District, with more than 600,000 students, made plans to cut almost all of its CTE programs by the end of the year. The justification, of course, is budgetary; these programs (which include auto body technology, aviation maintenance, audio production, real estate and photography) are expensive to operate. But in a situation where 70% of high school students do not go to college, nearly half of those who do go fail to graduate, and over half of the graduates are unemployed or underemployed, is vocational education really expendable? Or is it the smartest investment we could make in our children, our businesses, and our country's economic future?

The U.S. economy has changed. The manufacturing sector is growing and modernizing, creating a wealth of challenging, well-paying, highly skilled jobs for those with the skills to do them. The demise of vocational education at the high school level has

bred a skills shortage in manufacturing today, and with it a wealth of career opportunities for both under-employed college grads and high school students looking for direct pathways to interesting, lucrative careers. Many of the jobs in manufacturing are attainable through apprenticeships, on-the-job training, and vocational programs offered at community colleges. They don't require expensive, four-year degrees for which many students are not suited.

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And contrary to what many parents believe, students who get job specific skills in high school and choose vocational careers often go on to get additional education. The modern workplace favors those with solid, transferable skills who are open to continued learning. Most young people today will have many jobs over the course of their lifetime, and a good number will have multiple careers that require new and more sophisticated skills.

Just a few decades ago, our public education system provided ample opportunities for young people to learn about careers in manufacturing and other vocational trades. Yet, today, high-schoolers hear barely a whisper about the many doors that the vocational education path can open. The "college-for-everyone" mentality has pushed awareness of other possible career paths to the margins. The cost to the individuals and the economy as a whole is high. If we want everyone's

kid to succeed, we need to bring vocational education back to the core of high school learning.

COMMUNITY SERVICE

Alan Papendick

During the March 2016 meeting with the Office of Career and Technology Education (OCTE) it was brought to the attention of those MITES members in attendance, Guy Hart, Dave King, Don Olendorf, and I, that MITES needs to get our students active in Community Service opportunities in our local communities. It was suggested that we do something more than adopting a highway or clean a local park. The OCTE also recommended that we get the local news papers and television stations involved to help publicize what is being done. You the membership also need to document what the kids are doing by taking photographs. You could always submit any photos along with a short article to Rick Silet, for Journal publication, or your local newspaper. I know editorial staff can take a couple of paragraphs and expand it to fill an area in the publication.

During the new or old business meeting sections of the September 2016 Board of Directors meeting being held at Bullock Creek High School in Midland, MI I will be presenting a Corporate Community Service project for the MITES membership to consider for the 2017 MITES Annual Professional Development and Student Competition Conference. It is my hope that a minimum of 10 schools, LakeVille Memorial High Schools has already agreed to participate, to create a minimum of 10 lineal feet of wooden train track and a train with at least five car train. These tracks would be strung together on the floor at Saginaw Valley State University in May 2017 before being donated to the

Marine Corps 'Toys for Tots' organization for distribution.

Rockler[®] Woodworking & Hardware, a new vendor at the 2016 Conference, was contacted directly and through their local distributors, about Mites members receiving special pricing to purchase the Complete Train Track Router Bit Set #23613. This set is necessary to have all the train track sections being made to correctly fit together. I have also received permission reproduce the **Rockler**[®] Train Track ez-plans for MITES members use in this project.

I am working with a Michigan Lumber Mill for lumber cost reduction and Sherwin-Williams Paint Company and Lowes Home Improvement Company to acquire paint to decorate the train cars produced. It is my intention and that of MITES to assist with the cost of this project. For \$50.00 and a two year production commitment to this Community Service project, each participating school will receive the needed router bit set, enough wood to make two sets of track, enough wood for approximately 20 feet of track, and paint necessary and enough wheels to create the 5 required train cars.

The router bits purchased will belong to the schools wishing to participate. The router bits will make it easier for your future students to make a train set of any size for themselves or family members as an in-class project after the completion of that required for MITES.

Away to get other classes involved with this community service project might include robotics, to design and install a motor in the engine car that can pull the additional 4 cars, drafting/engineering, to design any jigs and drawings that might be necessary for production, interior design, to paint or decorate the cars that will accompany the train track set.

Please contact me at apapendick@lakevilleschools.org or

989-859-9407 to register for this event. I will have an application form with me at the September 2016 Board of Directors meeting for those who are not able to make contact. An invoice will be made available for those school where one is necessary.

Leadership Opportunities

It is necessary to include leadership training is a key part of the student MITES experience. Members can put new leadership skills into practice within their classroom programs. Students design and run these programs, covering everything from mentoring younger students to community service projects like cleaning up a public park.

Leadership opportunities are being developed to be available at local, state and soon to be introduced national level.

NATIONAL OFFICERS

Being a national officer is one of the highest honors a student will be able to achieve in MITES. It can also be one of the most rewarding experiences for a student. If you have a student who might consider running for a national office (any NITES or MITES office, really) be sure they are doing it for the right reasons. Yes, it can lead to a great title, some travel and can look good on a resume, but holding an office means they are agreeing to take on certain responsibilities and agree to represent the organization on a national level.

We ask that potential candidates be dedicated to MITES, possess excellent communications skills such as public speaking (or at least be willing to learn), display professionalism, be able to work well as part of a national team, be responsible and able to handle one's self appropriately in many different situations.

As a national officer, students will learn a lot about themselves, make many new and long-lasting friends and have fun, too.

Be sure to check with your state association director for additional requirements or paperwork the state may have for potential national officer candidates. Thanks and good luck!

PROUD TO BE AN AWESOME ** *Industrial Arts* *Teacher***

Thank you James Cain.



This shirt is for you! Tshirt (\$22.99), Women Tee (\$22.99), and Hoodie (\$36.99) are available. Get yours at:

<https://www.sunfrog.com/Awesome-Tee-For-Industrial-Arts-Teacher-167565816-Navy-Blue-Guys.html?35517> Don't forget to

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