

# Career and Technical Education in New Mexico:

## Farmington Municipal Schools – A CTE district profile

PRESENTATION TO LEGISLATIVE Education Study COMMITTEE

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# Talking points

- A little bit about Farmington Municipal Schools
- A glimpse of the national conversation
- Impact of career pathways on graduation rates
- Funding and Professional Development
- Response to economic conditions in Farmington
- Nod to future – Next Gen CTE
- Opportunity for cross-over curriculum
- FMS asks

# Who is Farmington?

Student Demographic	Farmington		State	
	Number	Percent	Number	Percent
All Students	11,616	100.0	335,793	100.0
Caucasian	3,768	32.4	171,917	51.2
Hispanic	3,646	31.4	206,856	61.6
American Indian	3,920	33.7	35,655	10.6
Female	5,782	49.8	163,876	48.8
Male	5,834	50.2	171,917	51.2
Economically Disadvantage	9,064	78.0	250,974	74.7
English Language Learner	1,263	10.9	50,179	14.9



Most Diverse School Districts  
in America

#174 of 11,851



Best School Districts for  
Athletes in America

#701 of 10,811

<https://www.niche.com/k12/d/farmington-municipal-schools-nm/> (Retrieved 07/22/2019)

### New Mexico



Most Diverse School Districts  
in New Mexico

#1 of 92



Best School Districts for  
Athletes in New Mexico

#3 of 92

### San Juan County



Best School Districts for  
Athletes in San Juan County



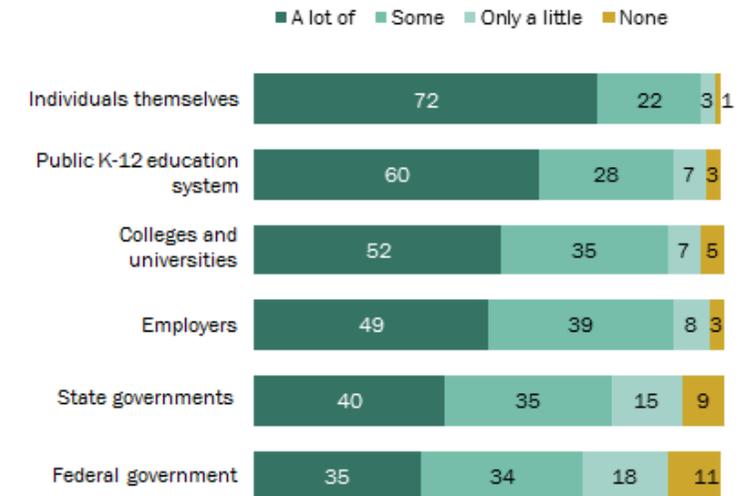
Most Diverse School Districts  
in San Juan County

# Whose responsibility is it? Society Says...

- 72% say “a lot” of responsibility should fall on the individual
- 60% believe public K-12 schools should have a lot of responsibility
- 28% believe schools should bear some responsibility

## Americans think individuals and public schools should have the most responsibility to make sure workers have the right skills

*% saying these groups should have \_\_\_ responsibility in making sure that the American workforce has the right skills and education to be successful in today's economy*



Note: “Don’t know/Refused” responses not shown.  
Source: Survey of U.S. adults conducted May 25-June 29, 2016.  
“The State of American Jobs”

PEW RESEARCH CENTER

<https://www.pewsocialtrends.org/2016/10/06/the-state-of-american-jobs/>

Retrieved 07/22/2019

# Careers, matching interests and top soft skills that get you hired

- 46% of students said "... schools have helped them figure out which careers match their interests and abilities."  
<https://edsources.org/2015/survey-most-high-school-students-feel-unprepared-for-college-careers/83752>
- The Top 3 Soft Skills that Get You Hired
  - 62% of employers seek problem-solving skills
  - 49% of employers seek adaptability
  - 48% of employers value time management
    - <https://www.icims.com/contact-us/>

Retrieved on 07/22/2019

# Career and Technical Education Works for High School Students

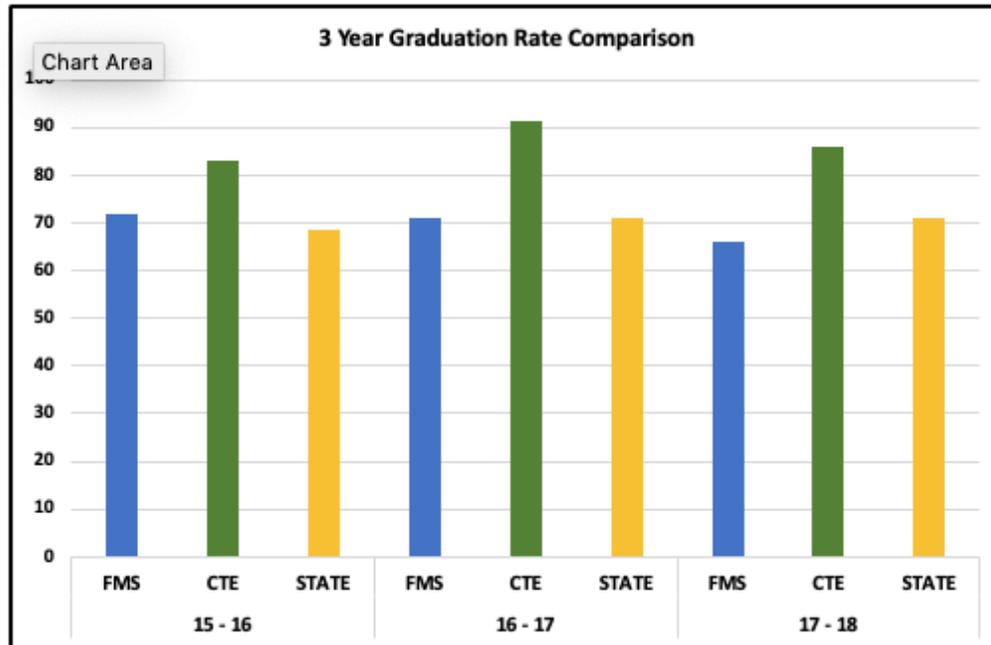
*High school students involved in CTE are more engaged, perform better and graduate at higher rates.*

- High Risk students are 8 to 10 times less likely to drop out in the 11<sup>th</sup> or 12<sup>th</sup> grades if they enroll in a CTE program
- The average high school graduation rate for students concentrating in CTE programs is 93 percent, compared to an average national freshman graduation rate of 80 percent. (91.5% - FMS)
- More than 75 percent of secondary CTE concentrators pursued postsecondary education shortly after high school.

# FMS Performance over three Years

## Carl Perkins Performance Indicators

### CTE Students Graduation Rate Higher



- Students enrolled in FMS CTE programs graduate a higher percent than the district and state.
- Comparison could be drawn to the national graduation rate of 83% as well.

<https://webnew.ped.state.nm.us/bureaus/accountability/district-report-cards/>

Retrieved on 07/23/2019

## Demographic Breakdown of CTE Courses

CTE enrollment matches demographics as a demonstration of Equity and access

Demographic Groups	CTE Count	Percent	Total # Students	% of Whole
Caucasian	446	29%	1077	32.50%
Hispanic	467	29%	981	29.6-%
Native American	577	37.70%	1165	35%
Grand Total	1529		3314	

- Number does not equal 100% because smaller demographical sub-groups not shown.
- Providing equity and access to CTE courses for all students helps to ensure compliance to the “sufficiency lawsuit.”
- These counts would be higher if CTE dual credit course enrollment were added.

# Funding CTE

- FMS receives \$125,000 from Carl Perkins for SY2019-20 –funds the development and expansion of current programs
- One of the two Workforce Community Liaisons was funded through a Work Based Learning Initiative Grant
- Current staff numbers for SY2019-20 are projected at 16 – all salaries and benefits funded through Operational - projected \$1,232,000.00 based on \$57,000 (S) + \$20,000 (B) X 16
- Instructional Materials and Supplies are partially funded through 14000 Account but also supported by Operational Funds
- Dual Credit (FMS students enrolled in more than 3,000 courses in SY2018-19 – official data as to how many were connected to CTE was not available at this time)

# Professional Development for CTE staff

- FMS hosts Monday early release days throughout the year – creates Professional Learning Community time for CTE staff to meet with peers and core curriculum teachers
- FMS hosts a network of teacher leaders, whose purpose is to provide coaching for CTE staff
- FMS reached out to Secretary of Workforce Solutions William McCamley to partner in the development of a Teacher Apprenticeship Program– if funded, this pilot program would provide teacher accounts to pay for certification and licensure courses
- Future plans call for the Workforce Community Liaison to secure externship opportunities for CTE staff in the Farmington and Four Corners region

# Next Gen CTE Application

- New to this upcoming school year is a competitive application, called Next Gen CTE
  - It is FMS's understanding that upwards of \$3 million will be distributed statewide in a competitive grant application process
  - FMS has submitted notification of intent to apply to the NMPED
  - FMS will continue to apply for Carl Perkins funds – the Next Gen CTE is additional funds
  - Same rules as Perkins V - development of new programs of study at the high schools and expansion of career exploration at the middle schools

# Programs of Study offered by Farmington municipal Schools

Automobile Repair  
Business & Marketing  
Building Trades (Carpentry, Electrical, Plumbing, Cement Mason)  
Culinary Arts  
Digital Media Arts  
Early Childhood Education  
Health Occupations  
Horticulture  
Information Technology  
Media Broadcasting  
Welding

CTE dual credit courses offered by San Juan College are not listed.

ALBUQUERQUE JOURNAL

BEE SMART

FRIDAY, MARCH 15, 2019 B3

## CTE programs prepare students for work

Today's classes more academically robust

BY NANCY TIPTON  
OF THE JOURNAL

**I**t all started because Anna Wilson knew how to work on cars when she was in high school.

"I needed electives in my junior year of high school," Wilson said, "and my dad said 'don't take automotive ... you already know how to do that.'" So welding it was.

After completing her welding and fire science education at San Juan College in Farmington and working in the oil and gas industry and for the U.S. Forest Service as a seasonal firefighter, Wilson found she had a passion for teaching.

In the past five years, Wilson has been active in not only teaching welding as a career path for Farmington High School students but has made an impression on people on the state level who are involved with Career and Technical Education.

Career and Technical Education -- CTE -- is designed to prepare students for work, according to Korth Ellsworth, Secondary Curriculum director of Farmington Public Schools.

These classes give students a chance to get a head start on preparing for college and careers with dual-credit courses. In some areas, students can earn certificates from the hands-on training.

"Anna is a rock star," Ellsworth said. "She is not only a good teacher but is a great role model."

Wilson said she had teachers when she was just learning to weld who pointed out that she had a natural knack and encouraged her along that



A high school student tries his hand at welding during a Career and Technical Education session at Central New Mexico Community College. CTE is designed to prepare students for work.

field and the different types of careers that use welding," she said.

Many of the welding jobs in the Four Corners area are in the oil and gas fields, Ellsworth said, and there is a high demand for skilled workers.

But Wilson said she would like to see education on using welding in making fine art as well. She also teaches dual-credit welding classes in partnership with San Juan College and is working to get welding classes offered

as evening classes for those who can't attend during the traditional school day.

Welding is just a part of a robust CTE program that has made Farmington schools a standout in New Mexico.

"Overall there has been more and more concern to get students to stay in school," Ellsworth said. "Not that long ago, there was such a focus on college prep to the exclusion of those who were on career paths that didn't necessarily need a four-year degree."

In the past, CTE would have been referred to as "vocational education." But it is now very different from the "shop class" many remember.

Today's CTE programs, Ellsworth said, allow students to explore options for their future -- inside and outside the classroom.

Many programs in the state, like Farmington, are seen as roads to additional study after high school.

They are more academically rigorous than those of a previous generation, include dual-credit from community colleges and can result in students earning skill certificates that will place them in jobs or advance them to other post-secondary education.

Another benefit is that a higher percentage of students enrolled in Farmington's CTE programs finish high school.

"It's something around 80 percent," Ellsworth said. The state average is about 71 percent.

Welding is only one of the subjects offered through CTE in Farmington.

Ellsworth said the district not only offers traditional vocational courses in auto repair, culinary arts, business and marketing, health

occupations and agriculture, it is expanding into digital arts, and information technology.

And he said the support and assistance from the New Mexico Public Education Department as well as the Carl Perkins Grants -- a principal source of federal funding for the improvement of secondary and post-secondary career and technical programs across the nation -- has helped a lot.

"We are always exploring ideas about what vocational education looks like," he said. "It's how we better serve our students and community."

# CTE Certifications of Courses – Examples

- Automotive
  - Precision Exams
    - Transportation Distribution and Logistics
  - OSHA 10 Hour Safety Certificate
- Building Trades (NCCER)
  - Basic Core and Safety
  - Carpentry
- Health Occupations
  - Precision Exams for Health Science
  - First Aid/CPR
- Welding
  - Welding Technician
  - NCCER Welding

Every three course sequence earns certifications

# Response to Changing Economy in Farmington

- Strengthening Partnerships through Workforce Connections in Farmington and Workforce Solutions at the State Level
  - Hired two Workforce Community Liaisons to develop partnerships with local business
  - Samples of partnerships include: Cooper Fire Systems, PESCO, City of Farmington, PNM, Olive Garden, Merrion Oil and Gas
- Breakthrough moments in CTE at Farmington
  - San Juan College High School student selected for SJC Nursing Program
  - Welding students qualify for national competitions and scholarships to Tulsa Welding School
  - State Culinary Arts Champion – qualified for National Skills Competition in Louisville, KY.
  - Project Search (Placement of Exceptional Needs Students in workplace completes first year)

# Response to Changing Economy in Farmington

- **PNM proposes plan to move toward renewable energy sources, close SJGS**
  - <https://www.daily-times.com/story/news/local/2019/07/01/san-juan-generating-station-renewable-energy/1620685001/> (retrieved on 07/22/2019)
- **50 Ways to Energize your Farmington Journey**
  - <https://farmingtonnm.org/news-media/news/50-ways-to-energize-your-farmington-journey>
- **Next Gen CTE Courses – Planned for SY2019-20**
  - Power and Energy (STEM)
  - Culinary Arts (To be renamed Restaurant Management & Tourism)
  - Education and Training (Formerly Early Childhood Education – soon to become Future Teacher Program – New Mexico Rising)
  - Film and Media Arts

Retrieved on 07/22/2019

# Next Steps

- Response to the Sufficiency Lawsuit
  - Continue to actively recruit students for CTE through introduction of career pathways courses in the middle school
  - Promote non-traditional career pathway programs (i.e. Welding Divas)
- Plans for the Future
  - Introduce a Career and Technical Education Drone Certification program
  - Creating cross-curriculum courses
    - Option for a career math focus course in lieu of Algebra II (i.e. Welding Math)
  - Move away from 90 Hour Carnegie Unit to Career and Technical Education demonstration of competency for credit

# FMS Asks the LESC to consider

- 800 Level Licensure
  - Calls for competitive private industry salaries rather than current state salary schedule
  - Should allow for CTE (Level 800 Licensure) to instruct cross-curriculum courses, such as Welding Math
- Importance of fully funding Dual Credit Career Technical Education Courses
  - Even though Dual Credit was part of today's discussion – fully funding Dual Credit CTE is important to the future – especially for smaller school systems that don't have other local options.

# Questions and Comments