

Best Practice102: Establish a Construction Trades Recruiting/Marketing Program Similar to TradeUp New Mexico/Projects that Matter

One of the biggest challenges facing many building trade industries is the shortage of skilled workers. No longer are careers in the trades considered desirable, as every student is encouraged to pursue a university degree after graduating high school. Thus, fewer individuals are entering the profession at the same time as many experienced workers are reaching retirement age. Construction contractors even find it difficult to fill back-office positions like accountants, book keepers, and human resource and marketing professionals. However, if there are no jobs for union labor and their signatory partners, this shortage of skilled workers isn't meaningful. Thus, any campaign to increase recruiting must go hand-in-hand with a marketing program that educates potential customers about the advantages of using the SMART-SMACNA team. The following steps identify best practices that New Mexico used to establish their construction trades recruiting/marketing program, which has won 12 awards:

1. **Establish an active labor-management cooperation committee/trust.** Members must be committed to developing trust and communication. Labor and management won't always agree on every issue, but they should be willing to work together for the good of the industry to ensure that SMACNA and SMART are competing on an even playing field with their non-signatory competition.
2. **Establish an alliance with signatory construction associations and their respective labor unions.** Success requires not only positive labor-management cooperation within an industry but also between the trades. Parties in the alliance should be working together for the good of the union construction industry and should be willing to commit time and funding to that end. In New Mexico, the parties in the Mechanical Electrical Sheet Metal Alliance (MESA) include:
 - New Mexico Sheet Metal Contractors Association,
 - Sheet Metal Workers Local Union 49,
 - Mechanical Contractors Association of New Mexico,
 - Plumbers & Pipefitters Union Local 412,
 - National Electrical Contractors Association of New Mexico, and
 - International Brotherhood of Electrical Workers Local 611.
3. **Work together as an alliance.** Meet frequently and regularly to discuss goals, determine the concrete actions to accomplish those goals, assign tasks, and measure progress. To ensure that recruiting and marketing work can proceed efficiently, participating organizations should provide to each other biographies on key employees, and identify the best contact(s) for information about members, projects, customers, and business and legislative relationships. Create a budget sufficient to accomplish goals. If necessary, establish a fund into which each party contributes. The New Mexico alliance budgeted \$50,000 per partner per year.
4. **Develop a comprehensive communication and public relations strategy.** This can be an internal process—if the alliance has knowledgeable staff to dedicate to the effort—or it can involve hiring a public relations firm, such as the Garrity Group that worked on the New Mexico strategy. Don't rush ahead without a plan. In New Mexico, developing the strategy took more than one year and implementation involved multiple phases. New Mexico's program used focus groups and one-on-

one interviews to ensure that the final program responded to general contractors, union members, purchasing officers, new business development managers, key opinion leaders, and elected officials. Research also included queries of construction trade media and select publications, using topics related to value, commercial construction trends, RFP requirements and labor/management initiatives to emphasize quality work on the jobsite.

5. **Implement the strategy.** Select a theme for the campaign(s). For example, the New Mexico alliance used “Trade-Up New Mexico” for recruiting and “Projects That Matter” for marketing. The recruiting program was designed to promote the construction industry, generate more interest in apprenticeship programs, and increase membership in the respective unions. The marketing program features the quality work performed by contractors who hire Union labor. It ties into the recruiting program by highlighting the importance of union apprenticeships, certifications, standards, and experience.

Acquire related Internet domain names and trademarks. Develop materials and schedule appropriate photo shoots to ensure that all final materials have a related look and feel. The New Mexico program created two interactive websites—*TradeUpNM.com* and *ProjectsThatMatter.com* that include video podcasts—and electronic and printed materials customized for each of the applicable audiences. They reached out to the community through distributing news releases, media alerts and op-ed pieces, and letters to elected leaders, school counselors and career advisors; participating in trade shows and career fairs; posting podcasts and blogs; holding discussions with public schools and higher education departments; preparing career kits for use by school counselors; and placing targeted advertising, including \$150,000 of public service commercials. The MESA team used their Public Relations firm to respond to phone, email, and other queries.

The strategy in New Mexico tied the recruiting and marketing programs together by highlighting the importance of union apprenticeships, certifications, standards, and experience to achieving quality work and reinforced why it is important to get value and how to gauge value (work that complies with codes and standards and is finished on-time and within budget).

Within the first year of implementing the program in New Mexico, the MESA partnership benefitted from the following results:

- 10 percent increase of inquiries and applications for the apprenticeship program,
- Establishment of a career pathways program with matriculation from K-12 to community colleges,
- 740 applications for specific trades, and
- Increased state-wide awareness among elected leaders, school counselors and affinity groups (via over 30 presentations coordinated by The Garrity Group).

6. **Maintain the programs.** Once recruiting and marketing strategies are live, the partners may not be required to meet as often, but ensure that there is adequate support for responding to queries and continually evaluating progress and adjusting campaigns. Recruiting and marketing programs are always more effective over time. The partners in New Mexico continued to use The Garrity Group for the maintenance phase of the recruiting and marketing program.

Quotes

- *Dave McCoy, executive director, New Mexico SMACNA:* “We were tickled with the response of the educational establishment to the TradeUp New Mexico program. The counselors grabbed into it quickly and are requesting our materials—brochures for parents, counselors, and prospective students.”
- *Ray Diaz, SMART local 49 organizer:* “Whereas school counselors often feel obligated to push students into the college track, the TradeUp New Mexico program points out that ‘every student is designed to succeed in different ways.’ The campaign argues against tired notions of construction careers and labor unions, winning the hearts and minds of the public, and ultimately building owners.”
- *Therese Carroll, a principal in Albuquerque Public Schools:* “Today, high school students face a myriad of choices regarding future education and careers...Before the Trade Up program, the union trades lacked polished brochures and related Web sites to grab student interest...The program fits into our mandate for high school curriculums to prepare graduates better for college or trade school.”

Resources

1. TradeUp New Mexico Web Site, <http://tradeupnewmexico.com/>
2. Projects That Matter Web Site, <http://www.projectsthatmatter.com>
3. TradeUp Program Wins Awards, <http://www.smacnanm.org/tradeupnm.html>
4. Remove Barriers—TradeUp, *Partners in Progress*, Vol. 6, No.4, pg. 6, http://www.pinp.org/resources/PIP/vol6_no4.pdf
5. TradeUp New Mexico Podcasts: <https://itunes.apple.com/gb/podcast/tradeup-new-mexico-podcasts/id276066090> and <http://www.podcast.tv/video-podcast-archive/tradeup-new-mexico-podcasts-174339.html>
6. TradeUp teaching apprentices tricks, *ABQ Journal*, July 6, 2008, <http://www.abqjournal.com/biz/0691156biz07-06-08.htm>
7. TradeUp Career Counseling Packet: http://www.tradeupnewmexico.com/images/uploads/TradeUp_Counselor_Packet_Jan_08.pdf
8. TradeUp Student Brochure: http://www.tradeupnewmexico.com/images/uploads/TradeUp_Student_Packet_Jan_08.pdf
9. TradeUp Upgrade Poster: http://www.tradeupnewmexico.com/images/uploads/TradeUP_UpgradeYourFuture_Poster.pdf

Contacts

1. Dave McCoy, executive director, New Mexico SMACNA, dmccoy@nmsmca.org
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3. Tom Garrity, president of the Garrity Group Public Relations, tom@garritypr.com

Remove Barriers— Trade Up

When the labor shortage reached a critical point in New Mexico, three contractors associations and their respective labor unions decided to break down barriers and cooperate to recruit skilled workers.

“Working together just made sense for the New Mexico Sheet Metal Contractors Association, Sheet Metal Workers Local Union 49, Mechanical Contractors Association of New Mexico, Plumbers & Pipefitters Union Local 412, and the National Electrical Contractors Association of New Mexico, International Brotherhood of Electrical Workers Local 611,” says Rob Biedermann, president and COO of JB Henderson Construction in Albuquerque.

Together they established Trade Up New Mexico, a program designed to promote the construction industry, generate more interest in apprenticeship programs and increase membership in the respective unions.

Trade Up is based on a philosophy that every student—every person—has the opportunity to improve his or her position in life through finding a personal coach, learning new skills, and giving back to the community.

It includes an interactive website (*tradeup-nm.com*)—complete with video podcasts—and electronic and printed materials for educators, students and parents. “The program has been very well received by school counselors in the Albuquerque Public Schools and Las Cruces Public Schools,” says Tom Garrity with The Garrity Group Public Relations, which is overseeing this initiative.

“Awareness around the state has been very positive as school districts request materials and presentations. It is clear we’ve tapped into a real need as students are looking for ways to earn immediate income while working on premier projects around our state,” he adds.

Another reason for the program’s success, Biederman says, is that students can earn an associate’s degree alongside their apprenticeship training. He encourages other chapters and locals to cooperate for success. “Now is the time to make a difference.”



It's the Right Time.

New Mexico is booming. Be part of the growth.



demand for skilled Apprentices and Journeymen. Growing from 519-thousand hours in 2004 to nearly 757-thousand man-hours worked in 2007 is just partial evidence that the demand for skilled union workers is rising.

Incredible Opportunity.

One of the biggest challenges facing our growth as a state and a country is a shortage of skilled workers in the building trades. In New Mexico, we are reaching a critical point and need skilled workers to meet building demands.

Current demand for workers has outpaced the supply. To compound this problem, as the current workforce nears retirement, the average age of trade workers is continually rising as fewer people entering into the professions.

With a skilled worker shortfall, great opportunities exist not only for on-site jobs but also office positions like accountants, bookkeepers, human resource and marketing professionals.

"Today, I manage multi-million dollar projects with the support of the dedicated, skilled professionals on the job site."

CHRISTY PROJECT MANAGER



Build Your Career. Build New Mexico.

We all have a chance to leave a legacy. What will yours be? For many people in the building and construction trades, their legacy is found in the quality craftsmanship of our state's hospitals, stadiums, office buildings, schools and skylines.

Because the current workforce is nearing retirement, you have some tremendous opportunities to build your career in the trades. The skills and knowledge that training in the construction trades provides can be used for a lifetime and provide job security for a successful and satisfying career.

All it takes to begin your career is a high school diploma and a willingness to learn a trade. If you have those two items, you have a chance to join a union apprenticeship program where you will receive paid on-the-job training, a free education and full medical benefits.

You're not getting a job, but finding a career that is supported by construction contractors and labor unions which partner to build New Mexico's future one project and one person at a time.

Trade Up Your Future.

Invest in a career... not just a job.

A skilled career, not just a job.

All around you, people always seem to be trading up. They are trading up to get a better mobile phone, a newer iPod, a nicer car or truck— the list goes on. Wouldn't it be nice if you could also "trade up" in a career?

Great news! It is easy to trade up from your current job to a career with great benefits. Every person has the opportunity to improve their position in life, and that is what Trade Up is all about.

One of the easiest and highest paying ways to trade up your career is by entering the building and construction trades. Through a sponsored education program called an apprenticeship, you are able to get technical and practical training in a trade. Here is the best part— you get paid for your time on the job and there is no charge for the instruction.

Education Costs

College \$20,000 - \$100,000

Union Apprenticeship \$0

Entry Level Earnings

Starting Pay \$7.50/hour

Paid Union Apprenticeship \$13/hour

Wages After 4 Years

Entry Level Job \$12/hour

Journeyman Wage \$26/hour

A secure future.

Trade Up to a secure future when you enroll in a union apprenticeship program. Four or five years in length, you are paid for work performed and also for receiving on-site instruction during your apprenticeship. There are regular pay increases as you progress through your apprenticeship. At your training's completion, you receive a Journeyman certificate which provides you with a license to work anywhere in the United States.

A great living & quality of life.

One of the best ways to Trade Up is to simply earn what you are worth. Winning the respect of others, being in control of your destiny, earning a great wage, receiving full medical benefits and beginning to invest in a retirement package that is unparalleled by other industries are a few ways you can trade up your quality of life through union apprenticeship programs.

Coveted Benefits.

- Excellent wage rate
- Paid health insurance
- State-of-the-art training
- Guaranteed pension benefits
- Interesting and challenging work environments

"Growing up, I've always enjoyed building things... Now, I get to weld and build things in Albuquerque that will last a lot longer than me."

— TYSON JOURNEYMAN PLUMBER & PIPE FITTER

Are you right for the trades?

- Do you like working with your hands and your mind?
- Do you like to analyze and try to understand what makes things work?
- Are you concerned that you might not have the temperament, interest, or money for college?
- Would you like to earn a paycheck while you learn?
- Are you looking for a dynamic career rather than just a job?

If you answered "Yes" to these questions, a career is waiting for you in the Building and Construction Trades.



Get paid as you learn.

The Union Apprenticeship Program

Education... On the Job and In the Classroom.

As the central part of the Trade Up program, the Union Apprenticeship program gives you an education both on the job and in the classroom and you get paid as you learn. Each apprentice's training includes nearly 8,000 hours of paid on-the-job learning and 576 hours of classroom instruction.

Upon successful completion of the program, you earn a Journeyman Certificate and as an option in conjunction with many community colleges, a two year associates degree.

The apprenticeship gives both practical training on a job in a shop or lab, and technical training in the classroom that is certified by the United States Department of Labor as well as each of the respective trade unions. Trade Up apprenticeships are available at locations throughout New Mexico and Western Texas.

A Co-worker and a Mentor.

Your on-the-job training is conducted by a seasoned professional, a certified Journeyman, who has completed the same apprenticeship program you are now in. As you work on site and receive on-site instruction from your mentor, you'll be paid for the hours you work and you learn.

As you progress in your apprenticeship, your pay will also increase on a regular basis, and upon completion of the program you will have doubled your starting pay.

CHRIS APPRENTICE ELECTRICIAN

CLARENCE JOURNEYMAN ELECTRICIAN



4 Years to a Great Career.

Year #1 "Starting Out" Focusing on safety and the tools of your trade, your paid, on-the-job training is conducted alongside a Journeyman mentor guiding your professional growth and on-site instruction. Evening classes are attended once or more a week. Based on your mastery of skills, your hourly rate is increased every six months.

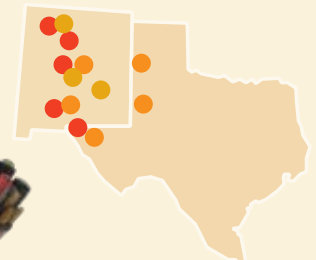
Year #2 "Gaining Experience" Exposing you to many different aspects of your specific trade, the emphasis will be "hands-on" learning. Classroom instruction and study will familiarize you with the "Why's" and "How's" of your trade. Specially trained instructors will provide you with theory as well as translate that theory into practical experiences for you.

Year #3 "Increased Responsibilities" Increased responsibility in the classroom as well as on the job bring increased independent study with less direction from your journeyman and job supervisors.

Year #4 "Journeyman Status" By the end of this year, you'll have attained Journeyman status. The more difficult jobs become easier. You will complete your work assignments with little more than routine checks, be able to read and understand complex blueprints and specifications, and your earnings will have nearly doubled from the time you started. Your Journeyman certificate can also provide you an opportunity to work in your trade anywhere in the world.

Training Locations

- Plumbing & Pipe Fitting
- Electrical
- Sheet Metal



Start your plan today.

Planning toward a career in the trades.

Stay in School.

Having a high school diploma speaks volumes to those who review apprenticeship applications. To have a solid career in the trades you don't need to be perfect— you just need to be committed to a task. Nothing speaks louder about your commitment than a high school diploma.

Explore Trade Opportunities.

While you are in school, explore the trades— either through elective classes, or by taking a class at a community college to learn more. One of the best ways you can investigate the trades is by becoming a member at TradeUpNM.com, where you can explore trade professions in New Mexico, including plumbing and pipe fitting, electrical, sheet metal industries and their related fields.

What courses should you take?

In New Mexico, middle school and high school students are required to complete a "Next Step Plan" each year. You develop your Next Step Plan with your parents or guardian and your school counselor to help you plan for your educational future. To prepare to meet the entry requirements of an apprenticeship program, you should take these courses:

- English
- Mathematics: Algebra I, Geometry, Algebraic Models (Algebra II is optional)
- Lab Sciences
- History, Economics, Health/Physical Education, Practical Arts/Fine Arts

You also have the option to take a variety of electives as a part of your graduation requirements. If your school or school district offers vocational courses (i.e. wood shop, metal shop, automotive), these classes will provide a good introduction to some of the basic skills and approaches you'll learn once enrolled in a certified union apprenticeship program. If you don't have opportunities to take vocational coursework, just focus on graduating. We'll teach you what you need to know once you graduate.

Looking for a challenge?

For students who have decided to pursue a career in the building trades and are looking for a greater challenge in their high school studies, there are a number of additional resources available to help their growth. New Mexico's Governor's Workforce Coordination and Oversight Committee has created an Engineering, Construction, and Manufacturing Cluster to provide you with additional educational opportunities. The New Mexico Public Education Department also has a High School Program of Study which allows select students to pursue trades-related training. Visit our website, tradeupnm.com, or ask your guidance counselor about these and other opportunities.

Trade Occupations:

- Plumbers and Pipe Fitters
- Electricians
- Heating, Ventilation & Air Conditioning Mechanics
- Sheet Metal Workers
- Welders

"I am now in the certified apprenticeship program. They gave me a job, paid for my education and gave me the training I needed to be successful."

— CHRIS APPRENTICE SHEET METAL WORKER



TradeUpNM.com

Build a career... ...build New Mexico.

Incredible Opportunities for Aspiring Craftsmen



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TradeUpNM.com



Build careers... build New Mexico.

New Mexico is booming.
Help students be part of the growth.

Dear Educator,

As a counselor or teacher, you have significant influence in directing young people toward educational opportunities and careers that fit with their skills and aptitude. Trade Up exists to provide young adults with information and direction for entering New Mexico's construction trades. Through the Trade Up New Mexico program, you have access to resources that help you counsel youth to consider entering the building construction trades.

Trade Up New Mexico is an industry-supported initiative that is striving to connect young people entering the workforce with information, opportunities, resources, and employers in New Mexico.

New Mexico is booming with construction-related opportunities. And because the state's skilled work force in commercial construction is aging, construction firms are paying premium wages to attract and keep laborers on projects. Trade Up is striving to attract young people who enjoy doing skilled physical tasks and using their creative and problem-solving skills into the construction trades workforce.

The purpose of this packet is to provide educators with the tools and information you need to talk with students about career possibilities in the building construction trades. In the following pages, questions about career pathways in the building construction trades, how apprenticeships work, and what courses to suggest to the trades-minded youth are covered.

We hope that you, as an adult who speaks daily to our young people making career decisions, will join us as a partner, and present the construction trades as a positive career option to seeking students you counsel. The information contained within this packet, as well as that presented on the companion TradeUpNM.com web site, are intended to help you understand and communicate that excellent career opportunities exist in the trades.



What is TradeUp? Promoting the Trades in New Mexico

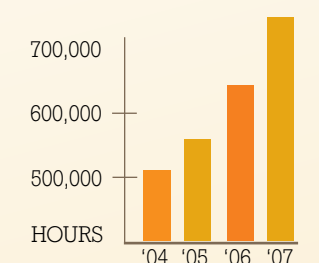
Trade Up exists to accomplish two goals in its initiative: to raise awareness about the need for new union construction trade workers in the New Mexico workforce, and to assist interested individuals in easily entering the building trades.

Our "Trade Up" approach is based on a philosophy that every student, every person, has the opportunity to improve their position in life. For most, "trading up" is achieved through personal coaching, being taught new skills and giving back to the community. Trade Up aims to reach young adults through a broad media campaign so that individuals interested in entering the trades will gain more information and take action through the initiative's website, TradeUpNM.com

Trade Up is also working to inform educators about options and opportunities that exist for skilled tradesmen in New Mexico's work force. This will be achieved as we develop on-going partnerships with high school administrators, teachers, and counselors throughout the state.

Through the Mechanical Electrical Sheet Metal Contractors Association (MESA), three business associations and their respective labor unions are working together to promote the building trades, generate more interest in trade apprentice programs, and promote membership in respective unions. MESA in turn has developed the Trade Up campaign.

NEW MEXICO IS BUILDING BIG



New Mexico is growing at a incredible rate, and there are no signs of it stopping. As measured in work-hours, New Mexico construction contractors have increased from 519-thousand man-hours worked in 2004 to nearly 757-thousand hours in 2007- which is just partial evidence that demand for skilled union workers is on the rise.

What are TradeUp Professionals?

Construction trade workers build the structures in which we live and work. Through their expertise, we enjoy temperature control, running water, electrical power, lighting, refrigeration, sensor systems, and motorized solutions in our homes and offices. Trade workers build the places that build New Mexico.

TradeUp professionals are tradesmen who belong to a New Mexico chapter of either the plumbing and pipe fitting union, the electrical union, or the sheet metal workers union. These labor unions and their business agents have a rich history of working in New Mexico and West Texas, and their memberships represent a strong cultural, geographic and economic presence within our state.



Plumbing & Pipe Fitting Professionals

- Plumbing and pipe fitting professionals install and repair pipes, fixtures and other commercial plumbing equipment used for water distribution and waste water disposal.
- Welders permanently join pieces of metal with metal filler, using heat and/or pressure.
- Pipe Fitters and Steamfitters lay out, assemble, fabricate, maintain and repair piping systems carrying water, steam and gas.
- Medical Gas fitters install the most critical portions in today's hospitals. The technically trained specialists install lines to unique specifications in order to help medical professionals save lives.
- Refrigeration technicians are on the front lines to diagnose problems and make repairs on air-conditioning and refrigeration equipment.



Electrical Professionals

- Electrical construction industry professionals include electricians and residential wire-man.
- The types of electrical work includes power and lighting grid systems
- Advances in the industry have created the need for motor control and programmable logic control specialists.
- Building Automation Systems, once seen as a construction perk is now industry standard. Electricians develop unique systems to make sure the lights go on and off at specific times. Packaging systems, manufacturing systems, refining systems are a few of the specific applications.
- Linemen work on backup power generation systems as well as uninterruptible power supply systems



Sheet Metal Professionals

- Sheet metal craftsmanship is everywhere around you in office buildings, churches, store fronts, shopping malls, hospitals, schools as well as apartments and homes.
- Architectural Sheet Metal includes brass and copper ornamentation, columns, skylights, signs and metal ceilings, and downspouts.
- Journeymen fabricate and install heating, ventilation and air conditioning (HVAC) systems
- Sheet Metal workers also test, adjust and balance HVAC components
- Sheet metal welders fuse different types of metal using the latest technological processes.
- Service work performed by sheet metal professionals include the installation, maintenance and repair of equipment that conditions air.

MANY DIFFERENT PROFESSIONS

Trade Up also include teams of project managers, estimators, accountants, and office teams of professionals who work for the companies that hire union workers.

Why a Career in the Trades?

While many opportunities exist for new trade workers entering the construction workforce, what benefits are there for individuals choosing to become craftsmen? There are many:

Great Compensation

Trade workers can expect good benefits in their industry, from day one:

- Excellent wage rate
- Paid health insurance
- Career with a future
- State-of-the-art training
- Safer working conditions
- Advancement opportunities
- Guaranteed pension benefits

Creative Challenge

Contemporary craftsmen are not only trained in the basic skills and principles of their profession, but they are also encouraged to apply their abilities to problems and demands that exist in complex and highly technical building projects. Trade apprentices undergo a unique education that not only provides them with skills for their crafts, but that also challenges them to think about problems for creative and comprehensive solutions.

Immediate Income

Trading up means that new apprentices get paid from the first day they show up on the job site—even though they are largely in on-the-job training as they acquire your new skills.

Increasing Responsibilities

As apprentices grow and develop competency in their trade, they will also be given new, more, and increasingly significant tasks within building projects that will encourage them to take more responsibilities within the workplace. More often than not, with newfound confidence in one arena of life, they will be comfortable accepting greater responsibilities in other areas of their lives.

Ongoing Education

From their initial days as a new hire working under a mentor through the span of their apprenticeship, apprentices will attend classes that pertain to their craft. As a Journeyman, the trade specialist lives and works in an environment that requires perpetual education and self-improvement. Through industry organizations and businesses, ample opportunities exist to provide tradesmen with quality career-related education at little or no cost to themselves.

A Foundation for the Future

Becoming a tradesman in New Mexico offers apprentices a great opportunity to put a strong step forward into their future—financially, and occupationally. There is plenty of work for the skilled craftsman that pays well and provides challenge.



What is an Apprenticeship?

Entering the Trades: A Pathway to Purpose

At the heart of every new trade worker's training is a union apprenticeship program. From the day an individual signs up to develop a trade until they have completed their last training task, they are an apprentice in the organization they have chosen to join. In that apprenticeship, they learn everything they will need to know to join the ranks of the experts—Journeyman—within their trade.

The TradeUp Apprenticeship Program

While specific coursework varies, apprenticeship training includes an average of 8,000 hours of paid on-the-job training and fifty college credits of related instructional training. TradeUp Union Apprenticeship programs consists of the following practical and technical training.

- **8000 hours of practical on-the-job training** – This work is paid, and apprentices also receive benefits after the first six months of work. Apprentices train to proficiency in their chosen field.
- **576 hours of related study** (minimum) – Apprentices study theories relating to every job task important to their trade. Classroom time helps to reinforce skills learned while in on-the-job training.
- **A systemic program of technical training** – An apprentice's technical training includes classroom instruction from a trained staff as well as a curriculum that is certified by the United States Department of Labor each of the respective trade unions. Students are required to take a minimum of 144 hours of classroom instruction per year. However, each of the trade union apprenticeship programs provide training that far exceed that minimum requirement.
- **Optional Associates Degree** – For apprenticeship students who want to also earn an Associate's Degree, each of the programs discussed here have that option available through local community colleges.
- **Journeyman Certification** – Successful completion of the paid training will result in a Journeyman Certificate.

For the apprenticeship programs represented in Trade Up, each requires an average of 4 years of work and study to complete. Electrical apprenticeship programs include five years of paid training. Sheet Metal apprenticeship programs will include anywhere from four to five years of paid education, depending on the level of certification being attained.

Apprenticeship programs are driven and sponsored by the building construction trades industry. Employers, unions and employer associations fund the majority of costs incurred by apprenticeship programs that develop a skilled workforce. Because apprentices earn wages while they are still in training, they are able to contribute to New Mexico's economy. Every dollar invested in these apprenticeship programs generates \$13 of tax contribution by each apprentice to the state's economy.

How Do Apprenticeships Work?

While each apprenticeship program offers courses and instruction unique to its particular trade, there are general similarities to how each curriculum is learned by apprentices:

Year #1 "Starting Out"

Focusing on safety and the tools of their trade, the apprentice's paid on-the-job training is conducted alongside a Journeyman mentor guiding their professional growth and on-site instruction. Evening classes are attended once or more a week. Based on their mastery of skills, their apprentice's hourly rate is increased every six months.

Year #2 "Gaining Experience"

Exposed to many different phases of the specific trade, apprentices are immersed in "hands-on" learning. Classroom instruction and study familiarizes them with the "Why's" and "How's" of their trade. Specially trained instructors provide theory as well as translate that theory into practical experiences for apprentices during the year.

Year #3 "Increased Responsibilities"

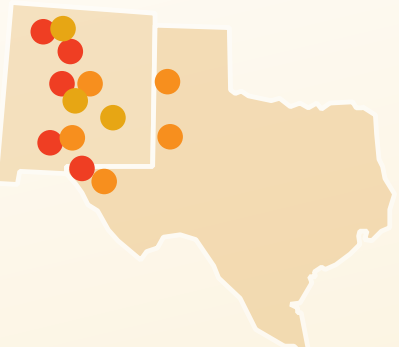
Increased responsibility in the classroom as well as on the job bring apprentices increased independent study with less direction from their mentors and job supervisors. (Welding and detailed electrical work are a few example areas where apprentices take on added responsibilities).

Year #4 "Journeyman Status"

By the end of this year, the apprentice will have attained Journeyman status. More difficult jobs become easier and the apprentice will complete their work assignments with little more than routine checks, be able to read and understand complex blueprints and specifications, and their earnings will have nearly doubled from what they earned when they started. The apprentice's Journeyman certificate provides them with an opportunity to work in their trade anywhere in the world.

**APPRENTICESHIP:
A CO-WORKER
AND A MENTOR**

The apprentice's on-the-job training is conducted by a seasoned professional, a certified Journeyman, who has passed through the same program the apprentice is in. As they work on site and receive on-site instruction from their mentor, they'll be paid for the hours they work and they learn. As they progress in their apprenticeship, their pay will also increase on a regular basis, and upon completion of the program each apprentice will have doubled their wage rate from when they started.



Apprenticeship Training Locations

Students can enter apprenticeships in the following cities:

- Plumbing & Pipe fitting
Albuquerque
Las Cruces
Farmington
El Rito and El Paso
- Electrical
Albuquerque
Farmington
Carlsbad
- Sheet Metal
Albuquerque
Las Cruces
El Paso

How Should A High Schooler Prepare to Enter the Trades?

Preparing for Apprenticeships: An Ideal Curriculum

In order to be successful in apprenticeship programs, students should be proficient in basic mathematics and English. If your school has a "wood shop" or access to on-the-job training in the summer, programs like those will help provide the student with a balanced approach to entering the building trades profession. Some of the basic coursework you should recommend to students include the following classes (complete descriptions of these courses can be found in the Educator's Guide at TradeUpNM.com).

9th Grade	10th Grade	11th Grade	12th Grade
English 9	English 10	English 11	English 12 or College English
Algebra I	Geometry	Algebra II	Pre-Calculus, Trigonometry or Statistics
Biology I	Chemistry I	Physics	Physics II or AP
Geography/State History	World History	American History	Economics Government
Required High School Electives	Required High School Electives	Additional High School Electives	Suggested Dual Enrollment Courses
PE	PE	Automotive Technician I, II, III	Intro MEMS
Health	Health	Construction and Carpentry	Intro Photonics and Photonics Safety
Art	Art	CAD Architecture and CAD Engineering	Intro Computers
Foreign Language	Foreign Language	AP Physics	Intro Enterprise Architecture
Computer Technology	Computer Technology		
Career Electives	Career Electives		
Technology Education	Technology Education		
Career Orientation	Career Orientation		

Additional Preparation

Cluster Education Courses

For students who are looking for a greater challenge and a specific career in the building trades, there are great resources available in the Engineering, Construction, and Manufacturing cluster as identified by the State of New Mexico Governor's Workforce Coordination and Oversight Committee.

The program of study, as detailed by the New Mexico Public Education Department, New Mexico Business Roundtable and consultant Mike Stanton can be found in the TradeUp Educators Guide which is on the TradeUpNM.com website.

Apprenticeship Credits & Summer Internships

Students can also earn credit towards an apprenticeship program through dual enrollment opportunities offered by community colleges throughout the state. Students who want job experience in the form of a summer internship can contact the Mechanical Electrical Sheet Metal Alliance directly, or students can contact the United States Department of Labor Bureau of Apprenticeship and Training about opportunities at (505) 245-2155.

How You As An Educator Can Help

Not every student in your school is intended—or able—to work in the construction industry. By the same token, not every student in your school is tailored to attend a four-year college and then go on to a professional school. Everyone of us have different interests that make us "tick."

The goal of this packet is to help you consider that some young adults are probably exceptionally fit to enter the construction trades, and by providing you with information about the trades and how one becomes a craftsman, you can be prepared to discuss them as a career option with suitable students.

Be Informed
Be Objective
Be Supportive

AN ADDITIONAL CHALLENGE

Students can also earn credit towards an apprenticeship program through dual enrollment opportunities offered by community colleges throughout the state.





Additional Resources

Web Resources at TradeUpNM.com

The Educator Guide

Additional information, downloads and materials are available in a specially prepared Educator Guide on the TradeUp web site. To access the educators guide click on "For Educators".

The Parents Guide

To help your student's parents understand the trades and the trade up program, encourage them to visit the Parents Guide by visiting the TradeUp web site and clicking on "For Parents."

Certification Programs

Joint Apprenticeship and Training
Committee for the Electrical Industry
4501 Montbel Loop, NE
Albuquerque, NM 871-1
(505) 341-4444
www.nmjatc.org

Sheet Metal Workers Local Union 49
Joint Apprenticeship & Training
2300 Buena Vista SE., Suite 110
Albuquerque, NM 87106
(505) 266-5878
http://smwlu49.org

United Association of Plumbers & Pipe
Fitters Local Union 412
411 Arizona SE (just east of the hall)
Albuquerque, New Mexico 87108
Phone: (505) 256-9257
Fax: (505) 255-9688
http://www.ualocal412.org/



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