



# YOUTH APPRENTICESHIP: AN ANCIENT PATH TO MODERN SUCCESS

**Developing a well-planned, business-supported youth apprenticeship program in your school or district helps students learn in-demand skills while still in high school.**

BY KATY O'GRADY

For the last thousand years, many young people seeking professional skills became apprentices. But if that word still evokes a plumbers' union or a medieval guild hall, it's time for a fresh look. Youth apprenticeship is an educational approach that is thriving in Europe and on the rise in the United States. To find the skilled workers they need, companies of all types are offering opportunities for high school students to learn in-demand skills while earning their diplomas. Participating in youth apprenticeship can help students clarify their objectives, burnish their college applications and gain an edge in the job market.





In 2014, President Obama announced efforts to double the number of apprentices in the United States in five years and new federal investments to support job-driven training, including registered apprenticeship. “We’re in a historic moment for apprenticeships in the United States,” said Amy Firestone, a program analyst in the Office of Apprenticeship of the U.S. Department of Labor.

“Companies know they’re going to be in a labor crisis in the next five years, and they’re trying to address it and have asked us to help them,” said Steve Schneider, a school counselor at Sheboygan South High School in Wisconsin. Just as Schneider has encountered, Firestone’s office is seeing interest from employers in starting registered apprenticeship programs with a younger population. The Department of Labor plans to announce a youth apprenticeship framework early in 2017 that will draw on successful models from various states and overseas, including Switzerland’s Vocational Education and Training System (see sidebar, p. 22).

Such a framework is important in part because apprenticeship programs in the past have not always served students well. Early in her school counseling career, Jennifer Curry, Ph.D., now an associate professor at Louisiana State University, worked at a high school where skills training kept students engaged but left them without employment after graduation due to lack of industry input or job market evaluation. In another district, her students earned desirable industry credentials but did not have access to learning direct skills. Curry knows a successful apprenticeship program for high school students should provide education for certification, relevant industry skills training, workplace skills and a true understanding of what kind of postsecondary training students will need. For example, welders are in high demand in Louisiana, but students seeking a welding career also have to study chemistry to keep up with frequent changes to the metal alloys used in that industry.

Curry is working to develop a best-practice model for districts to use in developing apprenticeship partnerships. She intends to address issues such as

accommodating students with 504 or IDEA concerns, making sure supervisors provide quality formative feedback to students and measuring program quality.

### **Wisconsin Snapshot:**

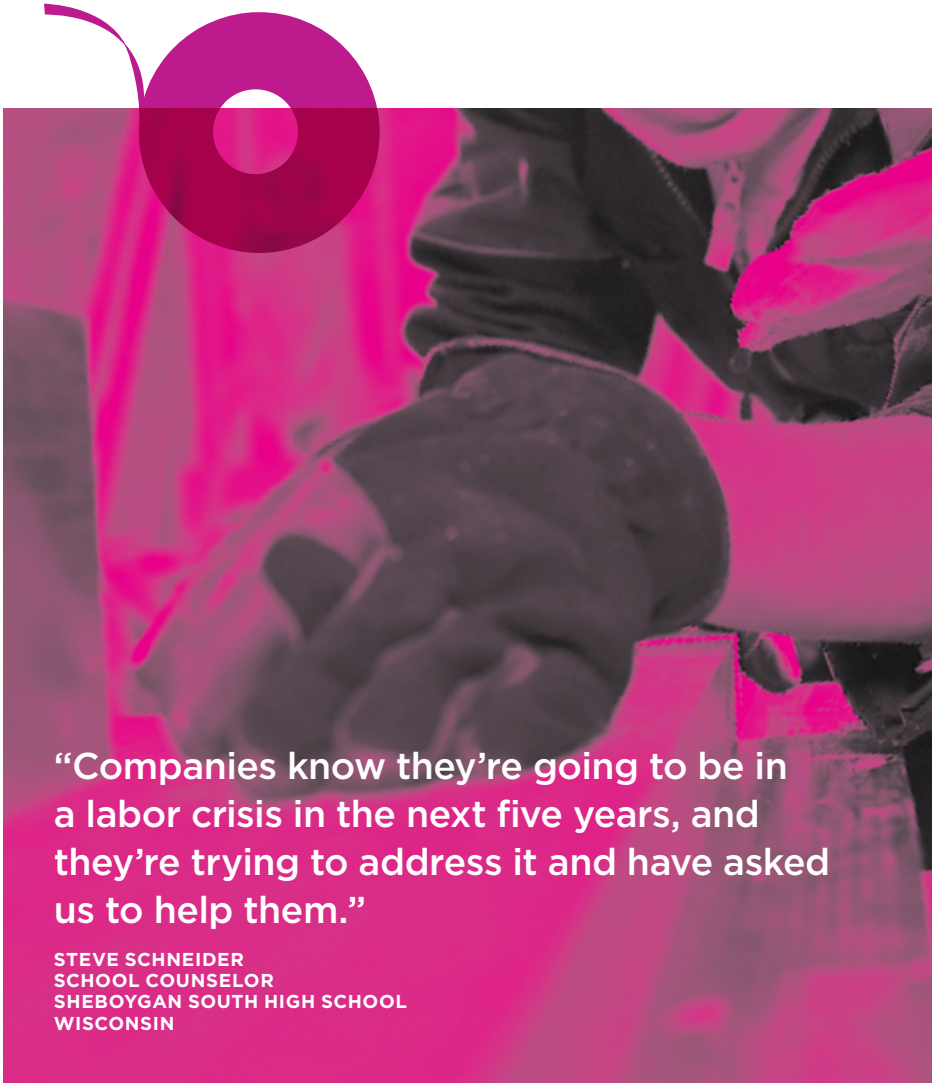
#### **Co-op Program in Sheboygan**

When the school counselors at Sheboygan South High School evaluated their national clearinghouse data, they learned that many of their graduates were not going on to college but were staying in the community. From local labor statistics, the school counseling department identified four primary employment sectors and laid the groundwork to build four pathways in the school’s curriculum. The new pathways would address a need in the community. “We can then, as a school, say with confidence to our community, ‘We’re helping to answer this labor issue,’” Schneider said. From this initiative, the new manufacturing

co-op program was born. “Once we aligned our philosophies of our building with the community needs, then all we had to do was say to the community ‘We want to help you; let’s start talking,’” he said.

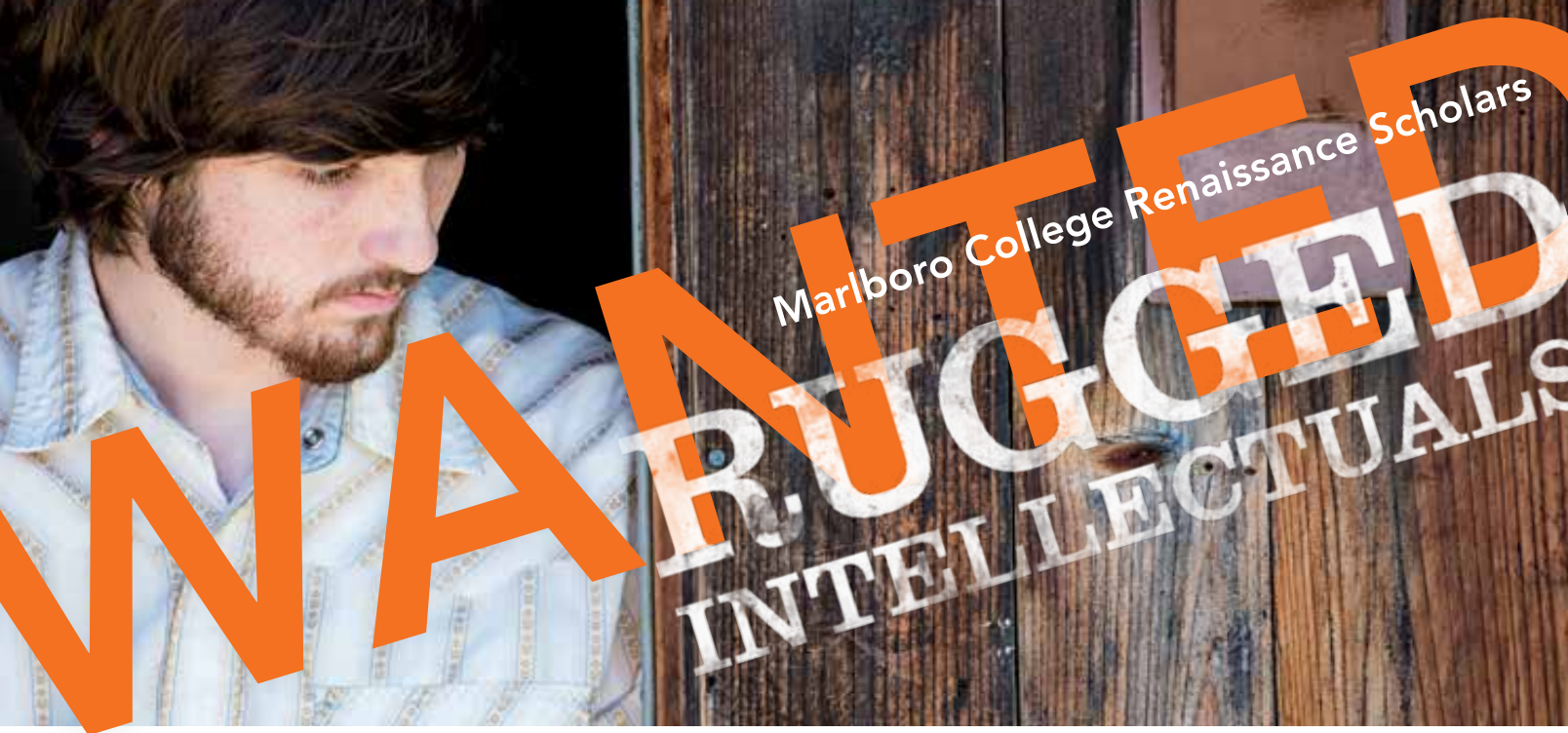
The district gathered an advisory board of local manufacturers. When they saw the school’s outdated machinery and run-down facilities that reinforced old manufacturing stereotypes, the companies donated \$5.2 million for a school addition and refurbished technical education area. They also helped rewrite the curriculum, and in 2016 the school and manufacturers launched the co-op program, a paid, 90-hour, career exploration opportunity in their facilities.

Although Wisconsin has had a youth apprenticeship program since 1992 with 10 career clusters from architecture to IT to agriculture, the time commitment of 450 hours per year is significant and deters some interested students.



**“Companies know they’re going to be in a labor crisis in the next five years, and they’re trying to address it and have asked us to help them.”**

**STEVE SCHNEIDER  
SCHOOL COUNSELOR  
SHEBOYGAN SOUTH HIGH SCHOOL  
WISCONSIN**



Marlboro College Renaissance Scholars

WANTED  
RUGGED  
INTELLECTUALS



REWARD  
FREE TUITION

LAWYER, NO.  
LAWYER, NO.  
LAWYER, NO.  
**LAWYER /  
VISUAL ARTIST, YES.**

Marlboro is searching for students like you who are on a quest for intellectual adventure – and poised to take advantage of a great opportunity.

We're looking for students that possess intense intellectual passions and the tenacity needed to realize bold academic goals. Those who, in the spirit of great minds like Leonardo Da Vinci, demonstrate an unquenchable curiosity and the ability to tackle complex, interdisciplinary questions imaginatively – while giving back to the community along the way.

Students like this are hungry for a college experience that transcends the traditional model. We call them Renaissance Scholars –and we're offering free tuition for one of these exceptional individuals from each U.S. state.





## AMBASSADOR DAHINDEN ON SWITZERLAND'S VOCATIONAL EDUCATION AND TRAINING SYSTEM



Swiss Ambassador Martin Dahinden is a passionate advocate for youth apprenticeship; in Switzerland, most large or mid-size companies participate in the national program. Companies must apply, and qualification requires certification and trained staff to make sure students fulfill program objectives. These objectives are “very much driven by the private sector to make sure that most people are able to do what they have learned,” Dahinden said. Students’ experience in a company environment using the actual materials and methods also ensures the training is cutting-edge.

The program benefits both businesses and students. While companies develop the work force with the right qualifications, students experience education in the classroom and at the companies, with a small salary so they earn while learning.

At age 14, Swiss students are introduced to different professions and education opportunities. They typically attend a short internship to get familiar with the environment and learn about expectations, while companies are able to meet the students in person. Dahinden describes the program as quite competitive. Students must apply and interview for apprenticeships, and approximately two thirds of Swiss students participate.

**Job types and mobility:** “In the United States, apprenticeships usually link to blue-collar jobs,” Dahinden said. “This is not the case in Switzerland; people with white-collar jobs, in insurance, banking and laboratories, can all start their education with apprenticeships.” This year, Zurich Insurance, the largest foreign insurance company in the United States, started an apprenticeship program with white-collar jobs.

By starting their career with an apprenticeship, students can earn money and enter the economy with a recognized qualification, but Dahinden emphasizes that student’s aren’t on a particular track. “They can change and try different things. Someone with a commercial apprenticeship can decide to study chemistry or information and communication technology afterward.”

**U.S. challenges:** Dahinden has seen that a major stumbling block for apprenticeships in the United States is stigmatization. “Very often when I speak to people in the United States, apprenticeship is considered to be something for people who have failed on the track to college, which is not the case in Switzerland,” he said. The second challenge in his perspective is that American companies tend not to invest in building up labor force capabilities.

**Apprenticeship benefits to society:** The benefits of the apprenticeship model go beyond those to companies and individual students or workers, the ambassador believes. “Apprenticeship offers the possibility to move up in the social level, to get additional education, and this strengthens a middle-class society,” he said. “I think one of the big dangers worldwide is that you have a huge gap between people with different levels of education, and people never have an opportunity to move up. In my view, this is a challenge for the coherence of societies.”

Sheboygan’s smaller-scale opportunity has attracted students, looks good on college applications and has had immediate successes. “One student went from, ‘I’m going off to college, and I don’t know what I’m going to do,’ to, ‘I now have a full-time job with full benefits right out of high school with a promise of college tuition reimbursement when I figure out what I’m going to do,’” Schneider said. The employers developed a common sequence that exposes students to all aspects of their companies: accounting, business, engineering, manufacturing, and research and design. Schneider emphasizes that data was the driving force behind creating the program.

### South Carolina Snapshot:

#### MTU America Apprenticeship

MTU America, a diesel engine manufacturer, moved from Detroit to Aiken, S.C., in 2010. As the company grew, its leaders struggled to find employees with the needed skills, so they turned to the apprenticeship model that was familiar from MTU’s German background. MTU began reaching out to the local chamber of commerce and the school system, partnering with the Aiken County Career and Technology Center for classroom training and a central transportation point.

Now in its fifth year, MTU’s paid, two-year program accepts six students per year. The students split their time between traditional high school, the machine tool program at the technical center and the MTU facility. Students must apply and be interviewed for the competitive program, which is a registered apprenticeship with the U.S. Department of Labor. To recruit participants, the company participates in career events at local high schools and hosts a Girls’ Day that invites ninth-grade girls to a daylong plant tour and information event. MTU also hosts a Manufacturing Day for area middle school students.

During their two years, apprentices earn about \$8,500, working 3.5 hours per week during the school year and full time during their junior and senior summers. At the plant, students not only learn manufacturing but other skills: coming to work on time, remembering their lunches, not



An underwater photograph of a coral reef. In the upper left, a diver is silhouetted against the blue water. The foreground and middle ground are filled with various types of coral, including large, orange, brain-like structures and smaller, more delicate corals. Small fish are scattered throughout the scene. A white rectangular box with a thin border is positioned in the upper middle, containing text. The background is a deep blue, suggesting depth.

**RESEARCH ON THE EDGE**

📍 17.1899°N | 88.4976°W BELIZE

# WHERE ANSWERS TO COMPLEX PROBLEMS COME FROM STUDYING THE SIMPLEST OF CREATURES.

At the University of New Hampshire, we find answers in places you wouldn't expect. For example, researching how sponges affect coral reefs to help save endangered reefs around the world. Welcome to the edge of possible, where intellectual curiosity is rewarded with exciting research opportunities and challenging academic programs. Here, students thrive under the mentorship of Guggenheim and Carnegie fellows and winners of the Pulitzer and other honors. Whether it's diving deeper to save coral reefs or researching climate change in the Arctic, we exist to help our students create possibilities for our world.

[unh.edu/edge](https://unh.edu/edge)



University of  
New Hampshire



being on the phone too much and respecting their supervisor and team members. Students graduate with the South Carolina industrial mechanic basic certificate. They can also take a test to earn certification to work in Germany for companies such as Volkswagen and BMW.

Jeremy Diebel, senior manager and youth apprenticeship coordinator at MTU America, has met with other companies to share MTU's approach to apprenticeship, both in Aiken and in Charleston, S.C., where a growing youth apprenticeship program now has 25 participating companies, in fields from boat building to nursing to culinary to industry.

### Building Success

Successful youth apprenticeships involve collaboration between industry and education, a cornerstone of the Swiss model. That model is providing guidance not only for the DOL framework but to efforts in Colorado to strengthen the state's talent development system

and address the skills gap there. "The most important piece [of the Swiss model] for Colorado is that the youth system is industry-led and student-centered," said Renise Walker, Colorado education liaison and postsecondary workforce readiness coordinator. She calls businesses the most critical players in Colorado's system. "They've got to lead, but we have to make sure we still allow room for students to be getting what they need and select the opportunities and the pathways that make sense for them."

Flexibility in students' future options is another aspect of the Swiss model that American leaders embrace. Schneider's program emphasizes permeability, with multiple entry and exit points. Students do not have to sign up officially for his school's health care, manufacturing, education or hospitality and tourism pathways to take advantage of the program. In South Carolina, students in MTU's program have gone on to four-year universities for

**Successful youth apprenticeships involve collaboration between industry and education.**



mechanical engineering, to work for other companies or to work for MTU. "I believe that this isn't a competition between me and the four-year or two-year universities; this is a cooperative," Diebel said.



**NSHSS is advancing the aspirations of high-achieving students through unique learning experiences, scholarships, internships, international study and peer networks.**

Visit us at [www.nshss.org](http://www.nshss.org)  
Contact us at 866.343.1800



**NSHSS**  
The National Society of High School Scholars



And flexibility helps to ensure employment, Walker points out. “Where industry is changing so fast, you need to keep up with the needs of business, but also make sure students don’t end up in

professions that no longer are employing people.”

As they are with all postsecondary options, school counselors are central to helping students identify apprenticeship opportunities and find the best fit for their needs. To better equip school counselors, Curry and Megyn Shea, an assistant professor at New York Institute of Technology, developed Career Conversation Starters at the request of Colorado’s leadership. Based on the ASCA Mindsets & Behaviors for Student Success, the Conversation Starters provide structure and guidance for having career development conversations with students, parents and community members.

The questions “target what particular behavior or mindset a student hasn’t developed yet, and facilitate helping that student think about that particular mindset or behavior,” Curry said. The questions are open-ended and intended to help school counselors address career and training options

beyond traditional colleges. (Download the Career Conversation Starters from the ASCA SCENE File Library, in the Careers section.)

Curry and Schneider both note the importance of using the evidence from data and assessments as a foundation for discussions with students and in the community. The conversations can then illuminate the crucial question: what do our students need?

Beyond discussions with students, Shea recommends involving teachers so it’s not just school counselors talking the language of careers. School counselors can provide training and support to help teachers connect what students are doing in the classroom to future careers – and not just careers requiring a master’s degree or bachelor’s degree but an array of different types of careers requiring different training levels.

Connecting with community partners is another vital step. Schneider’s use of data equipped his school counseling



## Who says college doesn’t prepare you for the real world?

Keene State offers opportunities for hands-on learning, service, and interdisciplinary connections. And it works. Our 2015 graduates report 95% are employed or pursuing further education.

**Schedule a visit to Keene State today: [keene.edu/world](http://keene.edu/world)**



**Wisdom to make a difference.**

229 Main Street | Keene, New Hampshire 03435 | [keene.edu/world](http://keene.edu/world)





## FOR MORE INFORMATION

### U.S. Department of Labor

[www.dol.gov/featured/apprenticeship](http://www.dol.gov/featured/apprenticeship)

### Registered Apprenticeship Quick-Start Toolkit

[www.doleta.gov/oa/employers/apprenticeship\\_toolkit.pdf](http://www.doleta.gov/oa/employers/apprenticeship_toolkit.pdf)

### Registered Apprenticeship College Consortium (RACC), 280 member colleges that accept credit for prior learning for completion of a registered apprenticeship

[www.doleta.gov/oa/racc.csm](http://www.doleta.gov/oa/racc.csm)

### South Carolina Future Makers

[scfuturemakers.com/](http://scfuturemakers.com/)

### “Switzerland’s Vocational Education and Training System: A Model for Apprenticeships in the United States”

<https://www.eda.admin.ch/content/dam/countries/countries-content/united-states-of-america/en/Apprenticeship%20Brochure%20160329%20Web.pdf>

department to engage the community and local employers. Diebel suggests school counselors contact the local chamber of commerce. “They know what the needs are in the community. They’ve been struggling to bring companies in; they’ve got initiatives out there,” he said. Shea recommends gathering community advisors, as Schneider did, to discuss developing relationships. School counselors can then ask companies about their needs and how a co-op or apprenticeship might help prepare students to meet those needs.

Shea also emphasizes engaging with parents, such as through a workshop for parents about different types of careers and required training. Parents often have false impressions that can create obstacles for youth apprenticeships. Swiss Ambassador Martin Dahinden points to such attitudes as a major stumbling block to the success of youth programs in the United States, but school counselors are in a position to help overcome this issue.



## COLLEGE AND CAREER WEBINARS ON DEMAND

### Learn more about college and career readiness with these on-demand webinars – free to ASCA members.

- Academic Habits and College and Career Readiness
- Build a College-Going Culture via Scholarships
- Collaborative Tools to Increase STEM Engagement for Girls
- College and Career Readiness: Elementary – Beginning with the End in Mind
- College and Career Readiness High School – Rural and Urban Challenges and Opportunities
- College and Career Readiness: Middle School
- Creating a College-Going Culture
- Full STEM Ahead: Incorporating STEM Into Your School Counseling Program
- Getting Ready for the College Board’s Redesigned SAT and PSAT Related Assessments
- Green Job Webinar: Career Opportunities in Wildlife Conservation and Natural Resource Management
- K-6 College and Career Readiness
- NCAA Eligibility Center Overview
- PK-12 Career Exploration: Relevancy in a RTI and Common Core Landscape
- Preparing All Students for Post-Secondary Success through Comprehensive School Counseling Programs
- PSAT/NMSQT to SAT: Taking the Next Step and Why It Matters
- Reach Higher With College and Career Readiness Resources
- Saving for College With 529 Plans
- Strategies for Creating a Postsecondary Culture
- STEM Careers for Every Student
- What’s New With FAFSA


Learn more or view the webinars at [www.schoolcounselor.org/webinarsondemand](http://www.schoolcounselor.org/webinarsondemand).

Colorado has launched pilot youth apprenticeship programs in three regions, and events like a Workforce Development Day present the positive reality of modern manufacturing jobs. Current employees show students and parents how “manufacturing is really so central to everything that we’re doing today,” Walker said, and talk about how they’ve developed meaningful and sustainable careers.

“Manufacturing has always been seen as dirty, low-paying, low-technology, and it’s absolutely false,” Diebel said. “All of the technological advances you’re seeing in your cell phones and cars are also happening on the factory floors.”

The resistance Schnieder has encountered has largely been about logistical challenges, which influenced the development of his school’s 90-hour co-op program. He has found that using data aids in conversations with resistant parents. His school’s IT pathway began with funding from a growing local insurance company and partnership with a nearby four-year university. He now tells parents, “We have pathways to lead your student directly into work in a manufacturing setting, that can get them out to a university where there’s a lot of scholarship funding, and it’s going to result in employment at Acuity Insurance.”

One task of CareerWise, Colorado’s nonprofit partner, is changing the concept that apprenticeships are only for blue-collar professions. Although the state’s youth apprenticeship programs offer manufacturing, students can also study many white-collar professions. “Parents buy in to success,” Walker said. The state aims to identify opportunities in addition to four-year colleges and offer fresh ways of looking at what success can be. She calls apprenticeship “not an alternative to an education but a different route into higher education.” In Europe, many students in apprenticeship programs eventually finish a university degree.

“Having that relevant, real-life experience enhances whatever kind of additional training they decide to take, in terms of their employability,” Shea said. 

Katy O’Grady is a freelance writer who last wrote for *ASCA School Counselor* about the 2016 School Counselor of the Year.



**Prescott College**  
For the Liberal Arts, the Environment, and Social Justice

## AN EDUCATION THAT MOVES YOU

EXPERIENTIAL FIELD-BASED LEARNING



### PALMER COLLEGE OF CHIROPRACTIC

Providing excellence and leadership in  
education, patient care and research

Palmer College of Chiropractic provides a challenging, yet supportive academic environment that prepares you for one of the fastest-growing health care careers.

With campuses in Iowa, California and Florida, we’re sure there’s a place for you at Palmer.

THE PRIMARY CARE PROFESSIONAL  
FOR SPINAL HEALTH AND WELL-BEING.



**PALMER**  
College of Chiropractic

[www.palmer.edu](http://www.palmer.edu)



*The Trusted Leader in Chiropractic Education®*