

WELDING

ADDRESS THE SKILLS GAP WITH THIS IN-DEMAND SKILL

*“With welders retiring at twice the pace of new welders coming into the field, it’s anticipated that in the years to come, we will have a significant shortfall of qualified welders.”*¹

TRAINING

A 15-week program correlates to the American Welding Society’s Guide for Training and Qualification of Welding Personnel – Entry Level Welder.²

***Average total tuition costs starting at: \$5,000**³

WELDING TUITION VS. 4 YEAR SCHOOLS

- Average public 4-year out-of-state tuition: \$22,203/year x 4 = **\$88,812** total
- Average public 4-year in-state tuition: \$8,893/year x 4 = **\$35,572** total⁴

*Cost varies based on program and school location.



By 2019 there will be a need for **310,000** replacement and new welding professionals⁵

- Did you know? Welders are needed for:**
- Ship building and repair
 - Cruise ship maintenance and repair
 - Space station maintenance and repair
 - Offshore oil platform drilling
 - Inspection, training and education
 - NASCAR pit crews
 - Sculpting and other art forms
 - The military

Why weld?

Over 50 percent of U.S. products require welding, including race cars, bridges, ships, computers, medical devices, farm equipment, gas pipelines, skyscrapers, automobiles, train tracks, airplanes and scooters.

The art of blacksmithing was discovered in the middle ages, but it was not until the 19th century that the modern forms of welding were used. Earlier, iron items were welded together by the process of heating and hammering.⁶

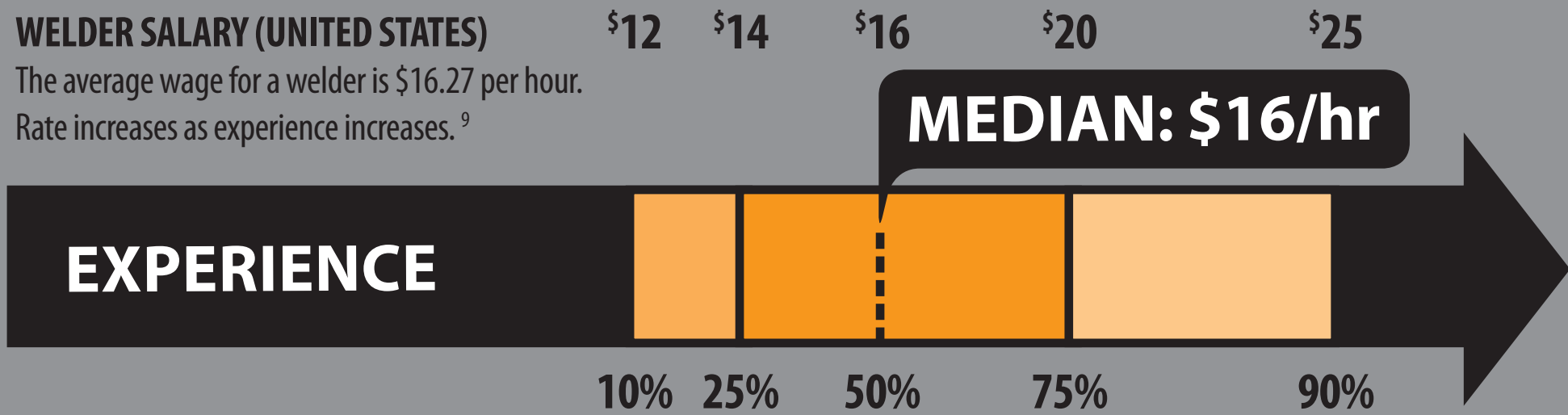
The earliest recorded welds occurred in 3,500 B.C., the Bronze Age.⁷

Glaucus of Chios is known as the man who single-handedly invented iron-welding⁸



WELDER SALARY (UNITED STATES)

The average wage for a welder is \$16.27 per hour. Rate increases as experience increases.⁹



Welder average wage: **\$48,766**¹⁰

1. Shook, Ray. (2010, May). Welders wanted- Make sparks fly! Career Focus, Spring 2010, p. 6 Retrieved from <http://randolph.edu/newevents/publications/CFMay2010.pdf>
 2. Welding Technician/AWS Certified Program. <http://www.mywccc.org/Welding.aspx>
 3. <http://www.howmuchisit.org/welding-school-cost/>
 4. College Board. (2013). Average Published Undergraduate Charges by Sector, 2013-14 [Date file]. Retrieved from <http://trends.collegeboard.org/college-pricing/figures-tables/average-published-undergraduate-charges-sector-2013-14>
 5. Kim, J. PH.D. (2010). The Welding Industry: A National Perspective on Workforce Trends and Challenges. Updated Welding Industry Report. weld-ed.org
 6. Maranian, P. (2009) Connections and Fabrications. Reducing Brittle and Fatigue Failures in Steel Structures: pp. 109-165. doi: 10.1061/9780784410677.ch04 Retrieved from <http://ascelibrary.org/doi/abs/10.1061/9780784410677.ch04>
 7. Careers in Welding. Welding Fun Facts. Retrieved from http://careersinwelding.com/welding_fun_facts.php
 8. Herodotus. The Histories. Trans. R. Waterfield. Oxford: Oxford University Press. Book One, 25
 9. Welding Salary (United States). (2014, April 25). Retrieved from Payscale http://www.payscale.com/research/US/Job=Welder/Hourly_Rate
 10. Salary.com for Welder III



STEP-BY-STEP PRINTING INSTRUCTIONS:

All PDF documents require the use of Adobe Acrobat Reader, which can be downloaded for free at www.adobe.com/products/acrobat/readstep2.html.

- 1) Open file in Adobe Acrobat
- 2) File -> Print
- 3) Under Page Size & Handling, highlight the Poster button
 - a. Select tile scale of 100%
 - b. Select an overlap of 0.005 in
 - c. Select poster orientation of Portrait
- 4) Click the Page Setup button at the bottom of the page
 - a. Select paper size to 11 x 17
- 5) Check your Printer Properties by clicking the Properties button after the printer name to ensure
 - a. Color printing is enabled
 - b. Single-sided printing is selected
 - c. Page size is selected as 11 x 17
- 6) Click the Print button at the bottom of the page
- 7) Cut out printed poster and tape 4 printed pages together



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WELDER SALARY (UNITED STATES) \$12 \$14 \$16 \$20 \$25

Rate goes up steadily as the job requires more experience.⁶ **MEDIAN: \$16/hr**

EXPERIENCE 10% 25% 50% 75% 90%

Welder average wage: \$48,766⁷

1. Rosen, Philip (2013). Welders: Overview. Main Report by Career Paths, Spring 2013. U.S. Department of Education, Bureau of Labor Statistics, Occupational Outlook Handbook, 2013 Edition. Retrieved from <http://www.bls.gov/occupational-outlook/handbook/2013/20130714.pdf>

2. Bureau of Economic Analysis (2013). Employment Projections to 2018. Retrieved from <http://www.bea.gov/industry/employment-projections/industry-projections/industry-projections.htm>

3. (October 2013). Welding: Overview. Main Report by Career Paths, Spring 2013. U.S. Department of Education, Bureau of Labor Statistics, Occupational Outlook Handbook, 2013 Edition. Retrieved from <http://www.bls.gov/occupational-outlook/handbook/2013/20130714.pdf>

4. (July 1, 2012). The History of Welding: From the Bronze Age to the Present. Retrieved from <http://www.welding.com/history-of-welding.htm>

5. (October 2013). Welding: Overview. Main Report by Career Paths, Spring 2013. U.S. Department of Education, Bureau of Labor Statistics, Occupational Outlook Handbook, 2013 Edition. Retrieved from <http://www.bls.gov/occupational-outlook/handbook/2013/20130714.pdf>

6. Bureau of Economic Analysis (2013). Employment Projections to 2018. Retrieved from <http://www.bea.gov/industry/employment-projections/industry-projections/industry-projections.htm>

7. Bureau of Economic Analysis (2013). Employment Projections to 2018. Retrieved from <http://www.bea.gov/industry/employment-projections/industry-projections/industry-projections.htm>

8. Bureau of Economic Analysis (2013). Employment Projections to 2018. Retrieved from <http://www.bea.gov/industry/employment-projections/industry-projections/industry-projections.htm>

9. Bureau of Economic Analysis (2013). Employment Projections to 2018. Retrieved from <http://www.bea.gov/industry/employment-projections/industry-projections/industry-projections.htm>

10. Bureau of Economic Analysis (2013). Employment Projections to 2018. Retrieved from <http://www.bea.gov/industry/employment-projections/industry-projections/industry-projections.htm>

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