

76,000 JOB OPENINGS

-OPENINGS, % OF WORKFORCE	10.1%*
-AVERAGE STARTING WAGE	\$16.82/HOUR
-AVERAGE ANNUAL INCOME (including Overtime)	\$42,000/year



U.S. PROJECTION:

-JOBS, ALL MACHINISTS	76,000
-TOTAL SALES	\$10 BILLION/YR
-IMPACT ON GDP @2.4 MULTIPLIER	\$24 BILLION/YR
-IMPACT ON BUDGET DEFICIT	\$6 BILLION/YR

SOURCE: NTMA/CHARMILLES MARCH 2006 SURVEY OF NTMA MEMBER SHOPS: 167 RESPONSES = 10%
*VS. 2.5% IN THE ENTIRE US WORKFORCE

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A Recruiting Best Practice!

S SPCO HOLDING TECHNOLOGIES

Name: Jason Spieker
Job Title: CNC Specialist
Job Description: Write and use programs for CNC (computer numerical controlled) mills. Develop methods for more efficient processes.
Company you work for: Sipo Molding Technologies
Company Web site: www.sipco.com
Years worked in your trade: 11
Age: 28
Why did you choose this field:
"I read shop papers my interest in networking because I like to work with my hands. Knew that I was not interested in going to college, wanted to stay in this area, and the tool and die trade was a top choice in this area."

Jason was introduced to tool and die in the ninth grade in the metalworking shop at the junior high. After graduation from the '90-Tech Tool and Die Program and Meadville Area Junior High School, Jason continued to learn the trade by working on various types of machines at Sipo. He became intrigued by the computer involvement in the CNC (computer numerical controlled) department and decided to focus his learning in the CNC mills. Jason has learned various programming languages and has been key in starting Sipo's high speed milling process. Jason leads new projects by evaluating the customer's expectations, planning the process, programming the equipment, and pushing to improve the process as it evolves. Jason's creativity and willingness to challenge current processes have earned him the nomination as Top in the Shop at Sipo Molding Technologies.

- Who: NWPA NTMA Chapter
- Where: Meadville, PA
- What:
 - Weekly career story in local paper
 - Paper sells ads around the story
 - Employer and employee get recognition
- Result: Attracts recruits Tech Tool hired 9

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Pennsylvania Case Study: 1995

COMPANY: ELECTRONICS CONNECTOR MANUFACTURER
LOCATION: RURAL PA
PROJECT: NEW PLANT

TOOLMAKERS, SHORTFALL: 26

IMPACT OF SHORTFALL
ON COUNTY: -\$20 MM/YEAR (\$769,000/YEAR/TOOLMAKER)

SOURCE: "COMMUNITY COSTS OF TECHNICAL SKILLS
DEFICITS..."
JAMES WALL ET AL, PENN STATE

Occupation More Important than Degree Level

"80% OF ASSOCIATES DEGREE HOLDERS EARN
MORE THAN THE BACHELOR'S MEDIAN INCOME."

"OCCUPATION, NOT DEGREE LEVEL, DETERMINES
SALARY."

SOURCE: AP CARNEVALE (2000) (ED439743)

CAREER OPPORTUNITIES IN TOOLING & MACHINING

Did You Know?

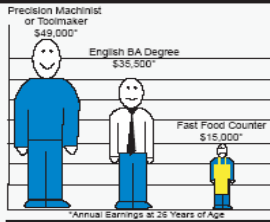
- Entry level toolmakers can average \$35,000 a year during a four-year training program.
- Experienced precision metalworkers' earnings range from \$40,000 to \$75,000 annually.
- The U.S. Government projects 3 job openings for every new certified precision metalworker.
- Precision machining provides a practical basis for an engineering or business degree.
- The gloomy rooms and greasy machines of the past are replaced with computers and high technology.
- Many toolmakers eventually own their own shops. The typical shop brings in sales of \$2 million per year and was founded by a 35-year old precision machinist.

Note

- The median incomes in all categories...
- Vary approx. +/- 35% based on location and skill level.
- Include overtime on a 50 hour workweek for the precision machinist/toolmakers. (Most workers in other high income categories work overtime but are not paid extra.)
- Are for 2003.

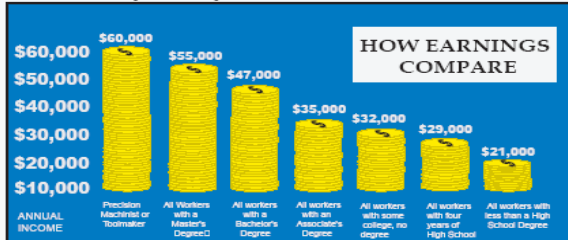
Sources

- U.S. Bureau of Labor Statistics
- NSF/SRS
- NTMA, TMA, AMBA, PMA



U.S. TOOLMAKING/ MACHINING INDUSTRY

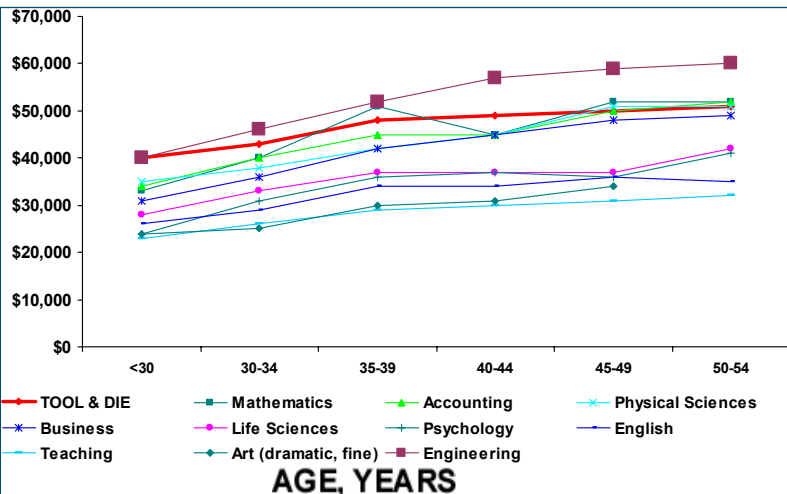
# of Companies	12,000
# of Employees	240,000
Annual Sales	\$26 Billion
# of Job Openings	5,000



For More Information
Contact associations listed on the back.

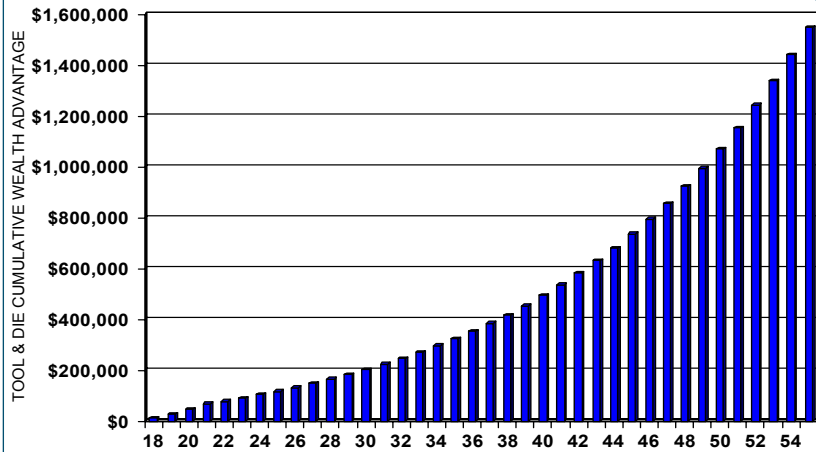
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Median Annual Salary of Bachelor's Graduates by Field of Major and Age, 1993



Source: 1993 National Survey of College Graduates,
NSF/SRS, NTMA, PMA/TMA.
(Data will next be released in 2003-2004)

Tool & Die or English Major? A Million \$ Decision



- Assumptions:
1. Zero wage inflation
 2. Savings = 50% of difference in income
 3. Investment return of 7% per year on savings

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ROI on Skilled Workforce Training

PERSPECTIVE	AS MFG. TECH	TOOL&DIE APPRENTICE	BA ENGLISH
WORKER	39%	125%	6%
UNITED STATES	163%	233%	30%

Source: May 2005 Modern Machine Shop Article
 Author: Harry Moser

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Background Vs. How Obtained Ownership

BACKGROUND	FOUNDED	PURCHASED	INHERITED	UNSPECIFIED	TOTAL OWNERS
APPRENTICE GRADUATE	50%	35%	10%	40%	35%
MACHINING TRAINING BUT NOT APPRENTICE	24%	20%	39%	20%	28%
MANUFACTURING MANAGEMENT	11%	12%	11%	20%	11%
BUSINESS MANAGEMENT BUT NOT MANUFACTURING	4%	24%	19%	20%	12%
OTHER	11%	8%	21%		13%
TOTALS	100%	99%	100%	100%	99%

CONCLUSION: APPRENTICES & MACHINISTS FOUND COMPANIES

SOURCE: NTMA/CHARMILLES OWNER/MANAGER SURVEY. SURVEY DATE: 2001

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Manufacturing is Less Vulnerable than Software or Services!

	MOLDS		SOFTWARE & SERVICES	
	U.S.	CHINA	U.S.	INDIA
DIRECT LABOR	\$ 40	\$ 4	\$ 70	\$ 7
MATERIAL	\$ 20	\$14	---	---
OVERHEAD	\$ 30	\$15	\$ 20	\$10
TOTAL	\$ 90	\$33	\$ 90	\$17
PROFIT	\$ 10	\$ 7	\$ 10	\$ 5
SELL	\$100	\$40	\$100	\$32
DUTY, FREIGHT, ETC.	---	\$ 7	---	---
		\$47		\$32
REWORK		\$10		---
TOTAL COST CUSTOMER	\$100	\$57	\$100	\$32

Source: Mold cost structure from limited survey of U.S. Mold Shops

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