

MFG DAY®

October 2, 2015

#MFGDay15 #MadeInDetroit
#MacombCounty



WORKING SMARTER TOP JOBS IN SOUTHEAST MICHIGAN April-June 2015

INTRODUCTION
The top jobs in Southeast Michigan change every quarter. The data in this flyer highlights the most in-demand positions in advanced Manufacturing and IT Southeast Michigan, shows the most typical level of education required for the job, and the average hourly wage. There are many in-demand occupations to choose from where employers need workers now.

**EDUCATION LEVEL
MOST OFTEN REQUIRED**

- HS High School or Equivalent
- VT Vocational Training
- AS Some College or Associates Degree
- BA Bachelors Degree
- GS Graduate School & Beyond

* Occupations with on-the-job training or require training in addition to degree

TOP JOBS IN SKILLED TRADES & ENGINEERING & DESIGN

Engineering & Design jobs often require a college degree and offer competitive wages. Skilled Trade jobs often do not require a Bachelor's degree but do require some type of certification and training.

- | | |
|--|---|
| BA Mechanical Engineers
2,326 Job Postings, \$39.86 Per Hour | VT First-Line Supervisors of Production and Operating Workers
745 Job Postings, \$30.79 Per Hour |
| BA Electrical Engineers
1,680 Job Postings, \$35.22 Per Hour | VT Production Workers, All Other *
684 Job Postings, \$16.45 Per Hour |
| BA Industrial Engineers
1,199 Job Postings, \$33.08 Per Hour | VT Inspectors, Testers, Sorters, Samplers, and Weighers *
396 Job Postings, \$18.66 Per Hour |
| BA Commercial and Industrial Designers
1,136 Job Postings, \$43.45 Per Hour | VT Machinists *
254 Job Postings, \$21.36 Per Hour |
| BA Civil Engineers
815 Job Postings, \$39.72 Per Hour | AS Electronics Engineering Technicians
239 Job Postings, \$23.92 Per Hour |

TOP FIVE JOBS IN INFORMATION TECHNOLOGY

Information Technology jobs typically require specialized degrees and training and offer very competitive wages.

- | | |
|--|--|
| BA Software Developers, Applications
5,649 Job Postings, \$39.38 Per Hour | BA Database Administrators
935 Job Postings, \$40.66 Per Hour |
| BA Computer Systems Analysts
1,755 Job Postings, \$38.67 Per Hour | BA Computer Systems Engineers/Architects
921 Job Postings, \$39.66 Per Hour |
| BA Business Intelligence Analysts
1,546 Job Postings, \$39.66 Per Hour | |

For more information see the WIN website at win-semi.michigan.org or update your resume and search for jobs at <http://www.mtitalent.org/>

MANUFACTURING JOBS OCCUPATION PRIMER ENGINEERING TECHNICIANS

ENGINEERING TECH = HIGH TECH

Employers in Southeast Michigan posted over 600 jobs for engineering techs in the past year, but only just over 200 people received degrees in majors related to engineering technology. This means that there is a large gap between the number of workers companies need versus how many new grads can fill open jobs.

Engineering techs work alongside engineers and machinists to build the latest and greatest products.

Employment in the field is growing and is expected to continue on this path. Employment in the region is expected to rise by about 264 individuals in the coming five years and more if current job postings are filled. Current postings indicate strong growth in the field as postings continue to rise.

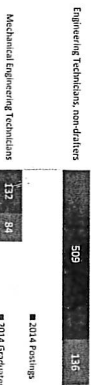
Most companies require, or prefer, an individual with an Associates degree. An Associate's degree in engineering technology can put you in strategic position for a successful career in engineering tech or as a jumping off point to a Bachelor's degree in engineering.

SHOW ME THE MONEY

Manufacturing technicians often make similar or more in wages than other popular careers requiring an Associate's degree like web developers, paralegals, dental assistants and HVAC mechanics. While starting wages are similar, the average manufacturing technician will make over \$13,000 more a year than other Associate's degree holders. An experienced manufacturing technician can make nearly \$20,000 more a year. Over a period of 40 years, the average manufacturing technician will have made \$520,000 more than their peers with an Associate's degree.

The current workforce is also primarily white and male, which means there is a great opportunity to attract minorities and women into the field to grow the workforce.

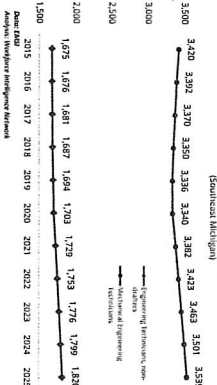
Top Manufacturing Jobs
(Southeast Michigan, Supply and Demand)



Hour (2014, Bureau of Labor Statistics)

Wages	Entry-level	Median	Experienced
Average Hourly Manufacturing jobs	\$17.61	\$23.20	\$41.96
Average Salary Manufacturing jobs	\$36,618.46	\$60,745.22	\$87,282.57
Average Hourly for Popular Majors	\$16.80	\$22.84	\$33.95
Average Salary for Popular Majors	\$34,934.71	\$47,731.58	\$108,594.41

Top Demand Manufacturing Jobs: Employment Projection



22%
% of the workers currently in this field are female

641
JOB POSTINGS
High and growing employer demand for engineering techs

ASSOCIATE'S
DEGREE
REQUIRED

\$36,618
STARTING
SALARY

23%
Only 23% of the workers currently in this field are minorities

For more information on how to start your career in engineering tech visit your local community college.

MANUFACTURING JOBS OCCUPATION PRIMER

SOFTWARE DEVELOPMENT

HOT JOB: SOFTWARE DEVELOPMENT

Did you know that software development is one of the top in-demand jobs for manufacturing companies? Software developers create apps and write computer code for engineers and other workers to help them build new products and manage projects. This hot job is growing fast and employers pay a great wage for workers with these highly sought-after skills.

Software development is an opportunity for women and minority students to get involved in a fast-growing career field.

In Southeast Michigan, employers have strong and growing demand for software developers. Between August 2014 and July 2015, regional employers posted 18,690 software developer open positions. Employment in the field is growing and is expected to rise by nearly 500 individuals in the coming five years and more if current job postings are filled.

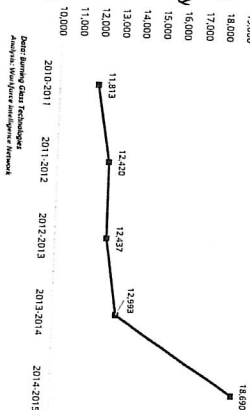
Wages	Entry-level	Median	Experienced
Typical Hourly Earnings	\$25.21	\$39.62	\$59.31
Typical Annual Salary	\$52,431	\$82,415	\$123,355

HIGH DEMAND, GREAT OPPORTUNITY

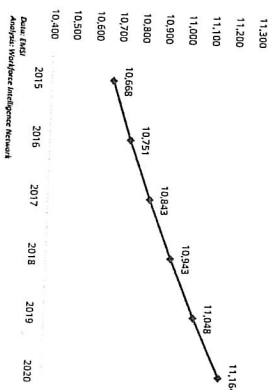
Current workers in the software development field typically have a starting salary of \$52,431 per year. This is higher than median family income in the region. With experience, this can grow to over \$120,000 annually. A very competitive salary.

Most of these jobs require, or prefer, an individual with a Bachelor's degree, however, this is an opportunity for students to start their career with a two-year program at a local community college.

Software Developer Job Postings
(Southeast Michigan)



Software Developer Employment Projection
(Southeast Michigan)



76%
76% of the workers currently in this field are male.

18,690
JOB POSTINGS
High and growing employer demand for these specialized IT positions.

BACHELOR'S DEGREE PREFERRED

\$52,431
STARTING SALARY

8%
Only 8% of the workers currently in this field are minorities.

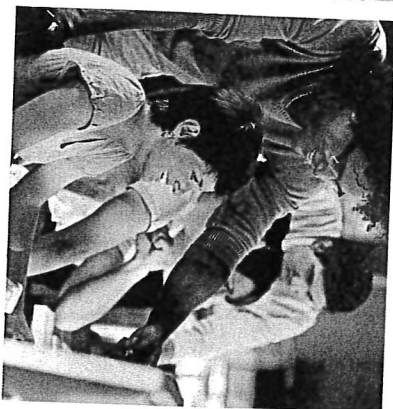
For more information on how to start your career in software development visit your local community college.

IN-DEMAND BASIC SKILLS

- Problem Solving
- Organization
- Analytical Skills
- Project Management
- Project Planning
- Product Development
- Microsoft Office
- Quality Assurance and Control
- Detail-Oriented
- Customer Service
- Leadership
- Team Work
- Multi-Tasking
- Presentation Skills
- Root Cause Analysis
- Building Effective Relationships
- Time Management
- English
- Writing

IN-DEMAND SOFTWARE SKILLS

- JAVA
- SQL
- C++
- .NET Programming
- Python
- Oracle
- LINUX
- MATLAB
- jQuery
- UNIX
- HTML5
- AJAX
- Computer Aided Drafting/Design (CAD)
- Microsoft C#
- .NET Programming
- Software Development
- Extensible Markup Language (XML)
- Object-Oriented Analysis and Design (OOAD)
- Web Application Development



For more information on how to start your career in software development visit your local community college.



MI Bright FUTURE CAN YOU COMPETE IN OUR FUTURE WORKFORCE?

Have you ever wondered:

- What will I do when I finish high school?
- How do I decide what I want to do?
- What do I need to do to get into a career I like?
- What should I major in?
- Should I even go to college?

Whether you're considering going to college or going straight into a career, MI Bright Future is a great resource. Using tools available through your school system, you can get help in preparing for the transition from high school to the real world. Making informed career and education decisions can impact your access to better jobs and higher salaries.

To get started visit: MIBrightFuture.org *

If you've ever asked yourself the questions above or you want to get help in deciding what to do and what your pathway should be, then MI Bright Future can help you:



Explore careers with access to hundreds of career profiles.

Connect with local companies throughout Southeast Michigan through profiles that will highlight their company description, the type of work they do, and the various career opportunities they have available.

Experience careers firsthand by participating in mock interviews, job shadows, company tours, events and internship opportunities offered by employers in your area.

Discuss questions you have about careers with real working professionals in your field of interest.

* If you do not have a login, please contact your counselor.

Host Sites #MFGDay15

AIM Plastics, Inc.

AIM provides comprehensive services that produce rapid turnaround on highly complex plastic injection molds, molded parts and assemblies. They specialize in prototype services, short run/low-volume production and high-volume production and assembly.
aimplastics.com

Atlas Tool Inc.

Atlas Tool is America's leading stamping die expert and low-volume stamping innovator. They offer complete programs, tooling or part production for all types of sheet metal stamping parts.
atlastool.com

Attica Hydraulic Exchange, Inc.

Attica is a one-stop service center for all fluid power product requirements. They provide expert hydraulic pump and motor diagnoses and repairs. ahx1.com

Axalta Coating Systems

Axalta is dedicated to the development, manufacture and sale of liquid and powder coatings. They provide a range of performance and transportation coatings for manufacturers of light and commercial vehicles, the refinish aftermarket and for many industrial applications.
axaltacs.com

BAE Systems, Inc.

BAE Systems, Inc. is the U.S. subsidiary of BAE Systems plc, a global defense, security and aerospace company which delivers a full range of products and services for air, land and naval forces, as well as advanced electronics, security, information technology solutions and customer support services. baesystems.com

Host Sites #MFGDay15

Host Sites #MFGDay15

Baker Aerospace Tooling & Machining, Inc.

Baker Machining has evolved as a leading supplier of 3-D components machined from a vast range of materials, utilizing conventional, AXIS and electrical discharge machining. They continually invest in the latest CNC technology. bakermachining.com

Brose Jefferson, Inc.

The Brose corporate group is engaged in the development and production of mechatronic systems and electric drives for vehicle bodies and interiors at 59 locations in 23 countries. They deliver to nearly 80 automotive manufacturers and more than 30 suppliers. brose.com

CERATIZIT, USA

CERATIZIT develops and produces sophisticated hard material cutting and wear protection solutions that range from highly specialized cutting tools, indexable inserts and carbide rods to new types of carbide and cermet grades for wood and stone working. ceratizit.com

Colonial Plastics Inc.

Colonial Plastics is Colonial Group's plastic mold injection division. They build and run plastic injection molds. Their facility operates 24/7 and is capable of manufacturing, assembling and shipping quality parts. colgrp.com

Duggan Manufacturing

Duggan is a total turnkey service fabrication facility that specializes in producing prototypes for the defense, aerospace, automotive and agriculture industries. They provide a wide variety of services that include: welding, press brake fabricating, laser cutting and metal stamping. dugganmfg.com

DWM Holdings

DWM Holdings is the parent company for a portfolio of lighting standard manufacturing companies, providing a clear way of depicting the structure of these companies. dwmholdings.com

Experi-Metal Inc.

Experi-Metal is a low-volume sheet metal manufacturer, specializing in the processing of tooling and parts for the automotive industry. experi-metal.com

Faurecia

Faurecia is a global leader in automotive seating, interior systems, automotive exteriors and emissions control technologies. faurecia.com

Fisher Dynamics

Fisher Dynamics designs and manufactures recliners, latches and specialty mechanisms for passenger vehicles, with offices in North America, Mexico, Germany, India, China and Japan. fisherco.com

Ford's Van Dyke Transmission

Van Dyke Transmission efficiently provides high quality transmissions to worldwide assembly plants so that Ford can deliver superior value to customers while achieving competitive margins. ford.com

Fori Automation

Fori Automation specializes in the design and build of assembly, testing and welding systems for the automotive and non-automotive industries. foriauto.com

Futuramic Tool & Engineering

Futuramic provides engineering, fabrication, machining, certification and installation services to the aerospace, aircraft, military, defense and automotive industries. futuramic.com

Host Sites #MFGDay15

Host Sites #MFGDay15

General Motors Technical Center

GM's national historic landmark Technical Center Campus in Warren uses creative design, creative clay and digital sculpting, machining, model making and 3-D printing to create the GM cars, trucks and crossovers of the future. gm.com

General Motors - Warren Transmission Plant

The Warren Transmission Plant is responsible for manufacturing automotive automatic transmissions for GM. GM has leadership positions in the world's largest and fastest-growing automotive markets. gm.com

IDEAL Technology Corporation

IDEAL Technology is a full-service tooling facility and an approved supplier to tier 1 and tier 2 manufacturers and OEMs. They provide expertise in CNC machining, rapid prototyping and assembly equipment. idealtech.us

JB Cutting, Inc.

JB Cutting, Incorporated manufactures wood component parts for the closet, kitchen, health care and store fixture industries. jbcutting.com

KUKA Systems North America LLC

KUKA Systems North America LLC is a leading worldwide supplier of assembly and welding systems, servicing the automotive, aerospace, alternative energy and manufacturing industries. kuka-systems.com

L&L Products

L&L is an innovative and responsive provider of acoustic, sealing, adhesion and structural materials in the automotive, aerospace, commercial vehicle and industrial markets. lproducts.com

Maclean-Fogg Component Solutions

Maclean-Fogg Component Solutions is a leading supplier of fasteners, engineered components and linkage and suspension products, serving many diverse industries. macleanfoggcs.com

MAG Automotive LLC

MAG is a leading manufacturing technology group for machining tasks in milling and turning for turnkey manufacturing systems and machines with customer-specific application technology. mag-ias.com/web/en/index.php

Mayco International

Mayco International/Venture Global is a multi-billion dollar, tier 1 supplier with more than 6,000 employees in 36 plants across the USA, China, India, Russia, South Africa, South Korea and Australia. They provide design and advanced engineering services, tooling, manufacturing and assembly, sequencing and logistics, as well as systems integration services. maycointernational.com

MFC Netform

MFC Netform specializes in cold formed, machined powertrain components for automotive and non-automotive applications. Other processes include milling, broaching, turning, drilling, staking and deburring. mfcnetform.com

MNP Corporation

For nearly 50 years, MNP Corporation has supplied the highest quality fasteners to manufacturers worldwide. From automotive, industrial, rail and ship building to defense, medical and agricultural, MNP can provide the fastener solution for any critical or standard application. mnp.com

Host Sites #MFGDay15

Host Sites #MFGDay15

Models & Tools

Models & Tools provides high quality tooling solutions for the aerospace and communications industries. Their primary focus is aerospace tooling while specializing in designing and manufacturing metallic and composite bond jigs, trim tools and assembly fixtures. modelsandtools.com

Paslin

Paslin is a full-service design and build organization, primarily serving the automotive manufacturing industry. They are an automated manufacturing and assembly solutions provider, specializing in engineering, assembly systems, tool building, body frames and robotic welding. paslin.com

PCS Company

PCS Company manufactures and distributes mold components, mold bases, hot runner products and molding supplies for the plastic injection and die casting industries. Their customers include plastic injection molders, mold makers, mold designers and die casters throughout North America. pcs-company.com

Prism Plastics

Prism Plastics is a manufacturer of high precision injection molded plastic components. They focus on functional safety, fuel injection and connector applications as a tier supplier. prismplastics.com

Proper Group International

Proper Group International serves the manufacturing industries by providing a complete solution for the development of plastic products for the automotive, appliance and consumer products industries. propergroupintl.com

Protojet

Protojet is a prototype manufacturing company that specializes in producing automotive prototypes through 3-D printing, urethane parts production, CNC machining and injection molding. protojet.com

PTI Engineered Plastics

PTI specializes in plastic injection molding for the automotive, defense, aerospace and medical sectors. They do both low-volume prototype manufacturing as well as high-volume manufacturing. teampiti.com

PTM Corporation

PTM's expertise and experience is wide ranging and includes detail part design, prototype, tool build and high-volume production. They have produced billions of metal stampings for their clients, ranging from small clips and fasteners to car roofs and mower decks. ptmcorporation.com

Rave Computer

Rave Computer is a computer hardware manufacturer who has done cutting-edge projects for each branch of the Department of Defense, NASA and major government and commercial OEMs. rave.com

RCO Engineering, Inc.

RCO offers a wide range of services including design and engineering, prototype and production plastic and metal parts, polyurethane foam and seat molds and an aluminum foundry. rcoeng.com

Schwab Industries, Inc.

Schwab makes prototype tooling and stampings for the automotive industry, production checking and assembly tools, aerospace tooling and assembly fixtures. schwabind.com

Host Sites #MFGDay15

Sequoia Tool and Manufacturing

Sequoia is a tier 1, full-service sheet metal prototype and low-volume production supplier with expertise in rapid tool design and building, precision CNC machining, laser cutting, metal stamping, welding and assembly. sequoiatool.com

TransNav, Inc.

TransNav is a plastic manufacturing and trading company. Injection molding capabilities include presses ranging from 20 to 4,400 tons, insert molding, prototype molding, two shot presses and vertical/rotary presses. transnav.com

Triumph Gear Systems-Macomb

Triumph Gear Systems is a manufacturer and supplier of complex gear assemblies, detail gears and an array of components servicing the aerospace industry. triumphgroup.com

True Industries Inc.

True Industries is a leading manufacturer of progressive dies through design and stamping for the automotive and aerospace industries as well as a premier contract machining company for the aerospace and defense industries. trueindustries.com

Wolverine Harley-Davidson

Wolverine's service team of factory-trained technicians handles everything from basic maintenance and engine performance to collision repairs and accessory installation for Harley-Davidson motorcycles. wolverinehd.com

Students & Teachers!

Please visit www.futuramic.com/mfgday and complete a quick evaluation about your experience.

Our Sponsors



Many thanks to all of the companies, committee members and sponsors that helped to make this event possible!

All-In



Engineered
Plastics

Proper Group
INTERNATIONAL
Advanced Engineering Superior Technology

Big Supporter

JB Cutting, Inc.
RCO Engineering, Inc.
MAG Automotive LLC

GM Warren Transmission
Brose Jefferson, Inc.
Attica Hydraulic Exchange, Inc.
Paslin

Supporter

Sequoia Tool & Manufacturing
MacLean-Fogg Component Solutions

For additional information on manufacturing-related Career Technical Education (CTE) programs available in your school district, contact your local high school counselor.

SAVE *the* DATE

Explore Careers in Manufacturing and Technology

part of Robotics, Engineering, & Technology (RET) Days

**Macomb Community College
Sports & Expo Center
December 3, 2015 • 6–8 pm**

Join us for an evening to:

- Learn about the job skills that are in high demand
- Hear from Macomb grads who found good jobs
- Find out about local businesses and what employers look for in job candidates
- Explore Apprenticeship, Internships, and work-based learning
- Discover the career pathway that is right for you

Open to the public!

Pre-registration required. Don't miss it!

For more information visit
www.macomb.edu/RET



**Macomb
Community College**

Education • Enrichment • Economic Development

Discover. Connect. *Advance.*SM