

## Manufacturing Technologies Career Field In-Demand Jobs Data

The Manufacturing Technologies Career Field prepares students for careers in design, operations, manufacturing and STEM (Science, Technology, Engineering and Math). The list of careers used in the figures below can be found in the Appendix. The data presented below does not account for the economic impacts of Intel's upcoming \$20 billion investment in Central Ohio.

Figure 1.

### Projected Growth of Manufacturing Jobs in Ohio (2031)

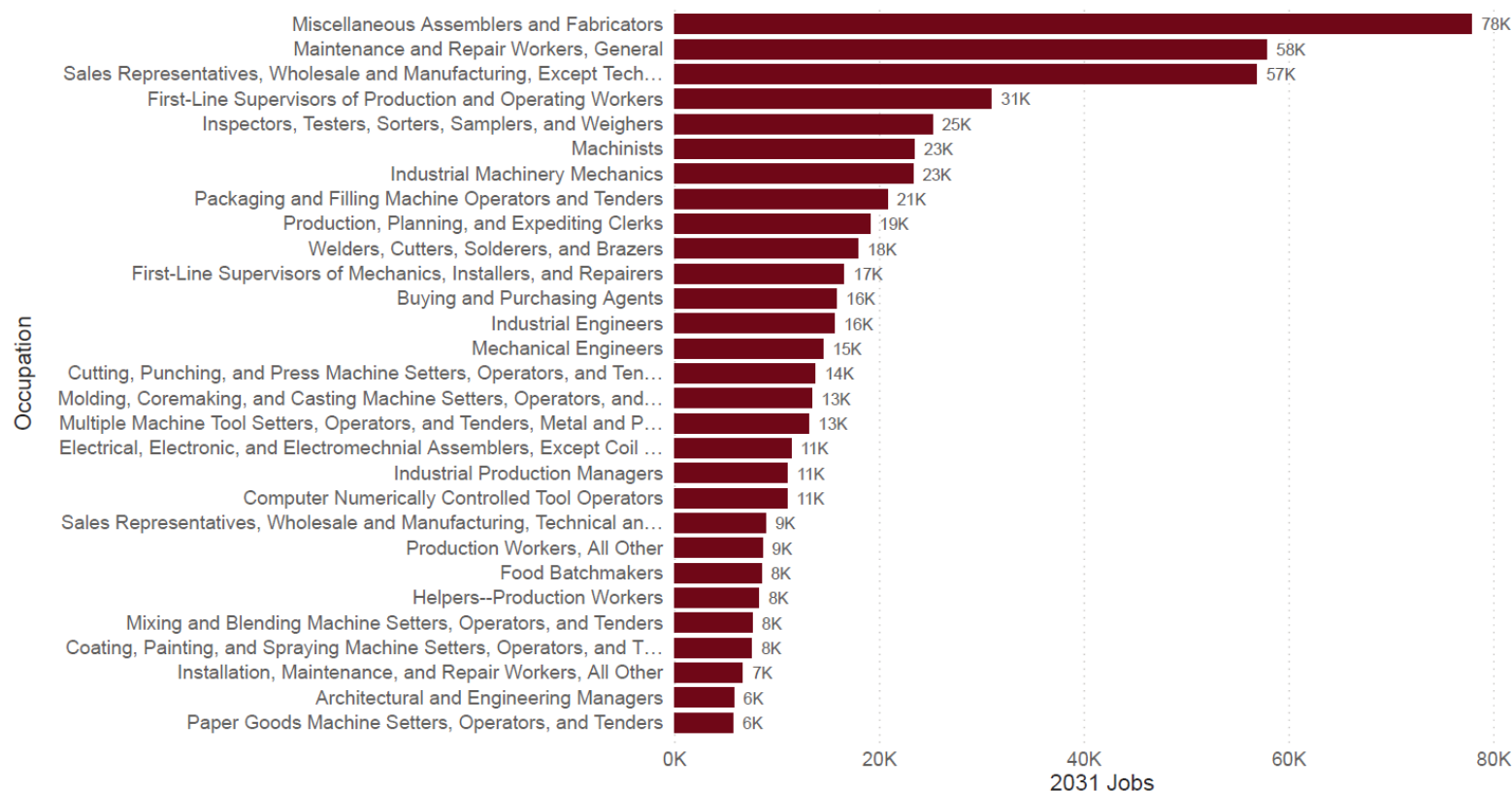


Figure 1 shows the highest in-demand occupations projected for 2031 in the Manufacturing career field, with Miscellaneous Assemblers and Fabricators topping the list with almost 78,000 jobs in Ohio in 2031.

Figure 2.

## Projected Growth of Manufacturing Jobs in Ohio (2021-2031)

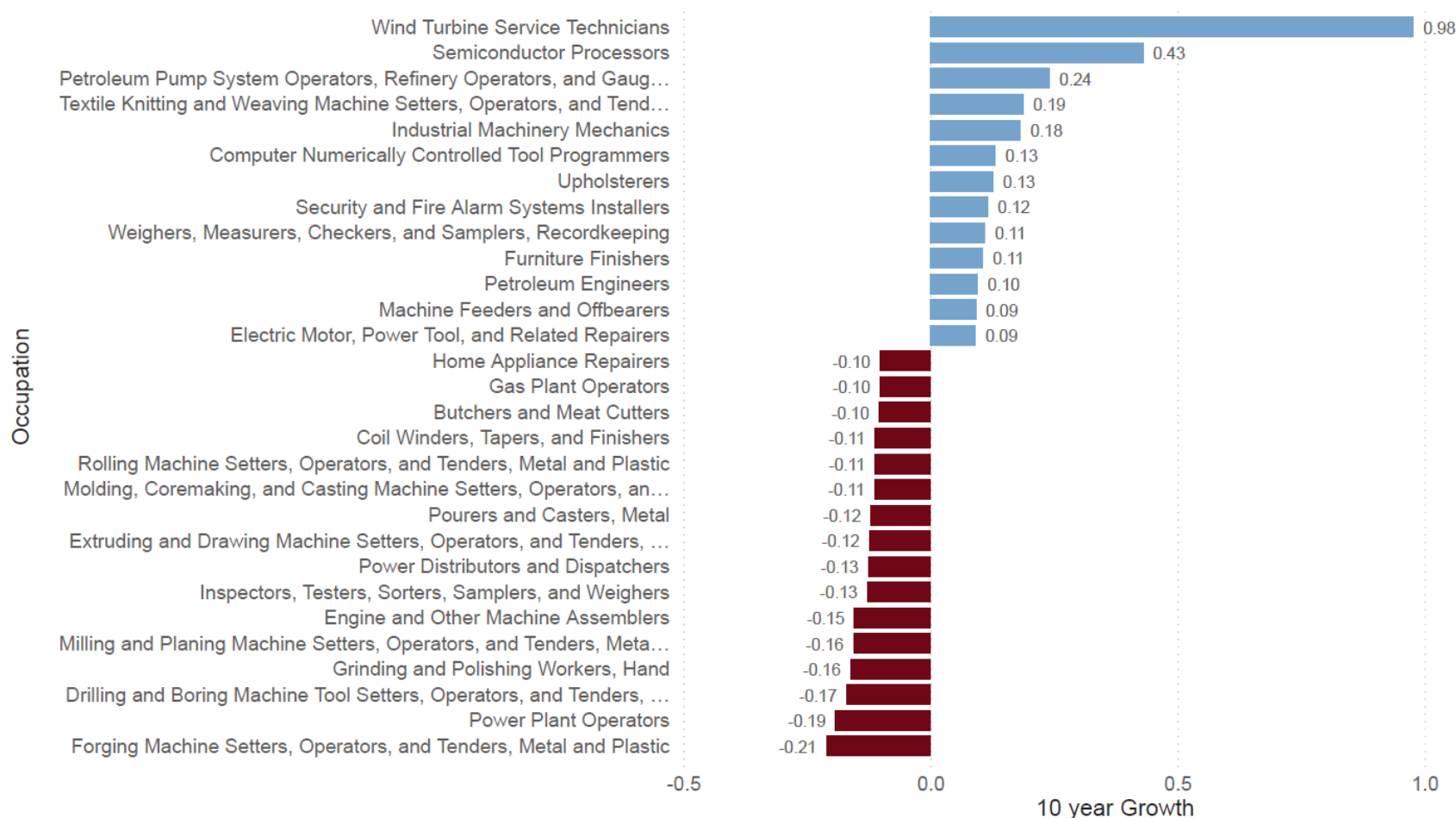


Figure 2 demonstrates the projected growth over the next ten years as a percentage. The blue represents positive growth, with the highest projected growth of 98% in Wind Turbine Service Technicians. The red represents negative growth or a decrease in the number of jobs, with the greatest expected decrease in Forging Machine Setters, Operators and Tenders, Metal and Plastic.

Figure 3.

# Top Companies for Manufacturing Jobs in Ohio

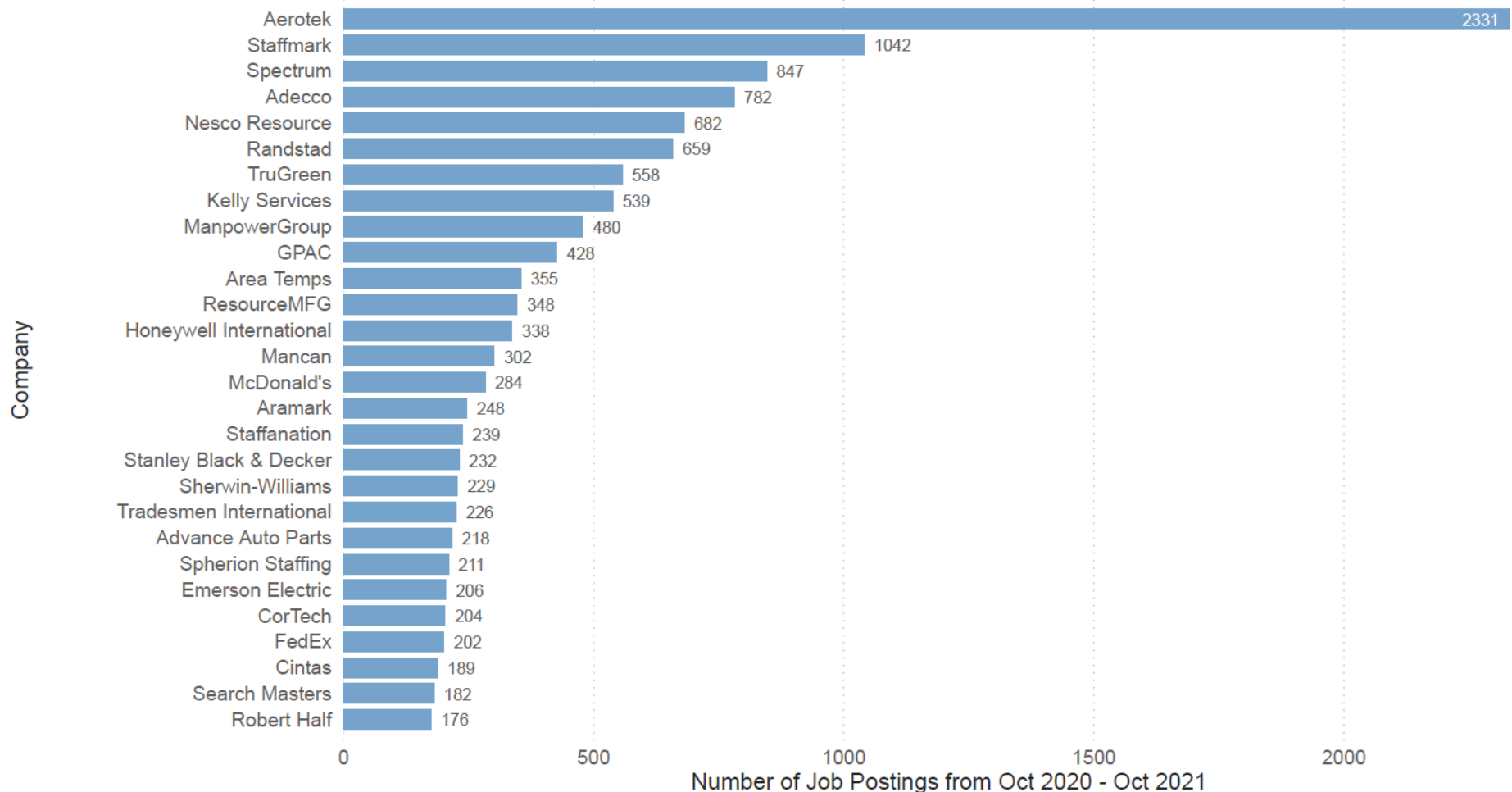


Figure 3 shows the top companies hiring in the Manufacturing career field over a one-year period (October 2020-October 2021). There was a total of 96,148 Manufacturing job postings during this time period, with the highest number from Aerotek at 2,331.

Figure 4.

## Demand and Supply of Manufacturing Jobs in Ohio

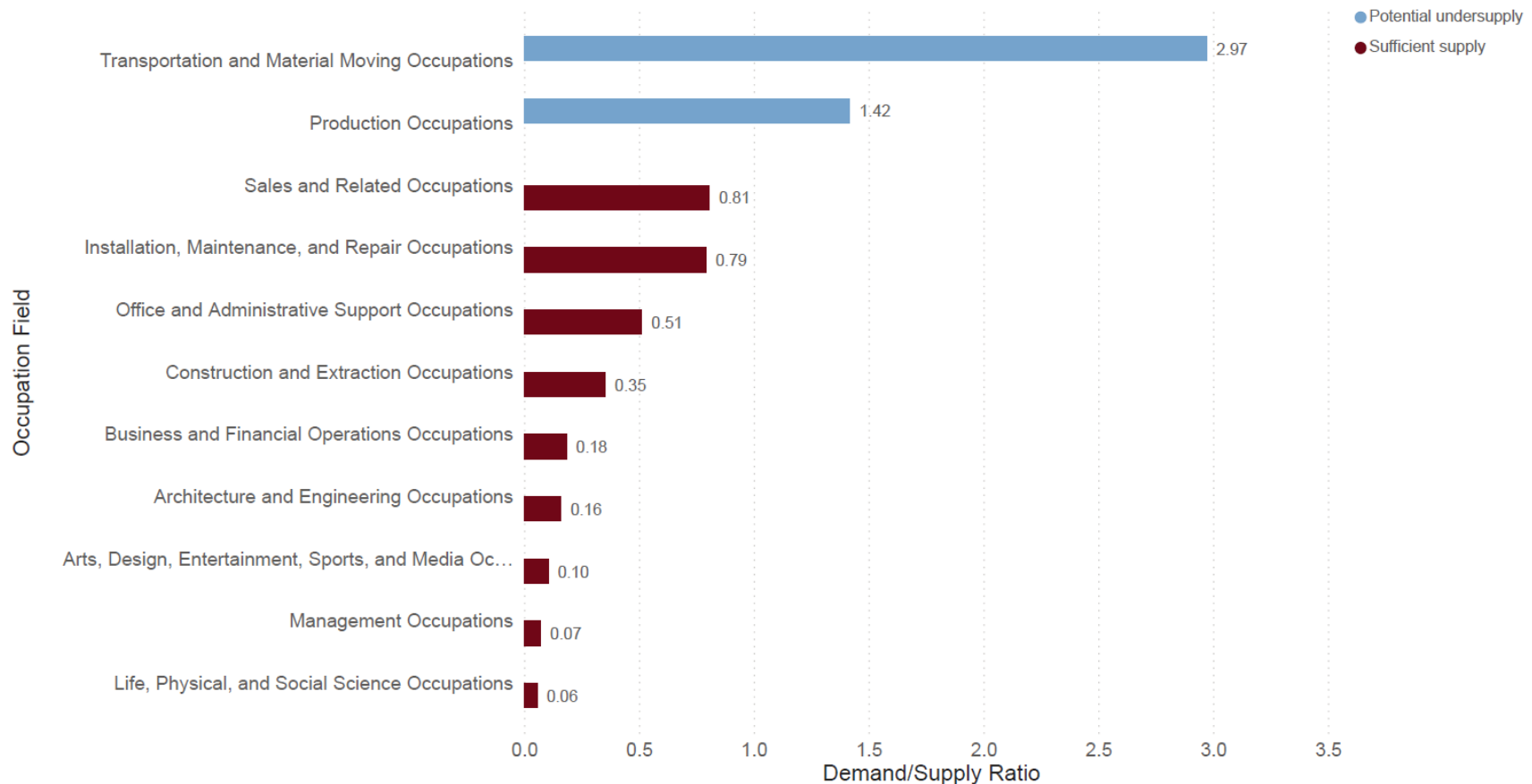


Figure 4 shows the demand and supply ratio for different areas in the career field. The ratio is calculated using the formula, job openings divided by the sum of graduates and those unemployed in the field [Ratio= Openings/(Graduates+Unemployed)]. A ratio of one or greater demonstrates a potential undersupply and less than one shows a sufficient supply. Transportation and Material Moving and Production Occupations are in potential undersupply; therefore, there is expected demand in production occupations within the manufacturing career field in coming years.

Figure 5.

# Demand for Hard Skills for Manufacturing Jobs in Ohio

Growth 0.03 2.94

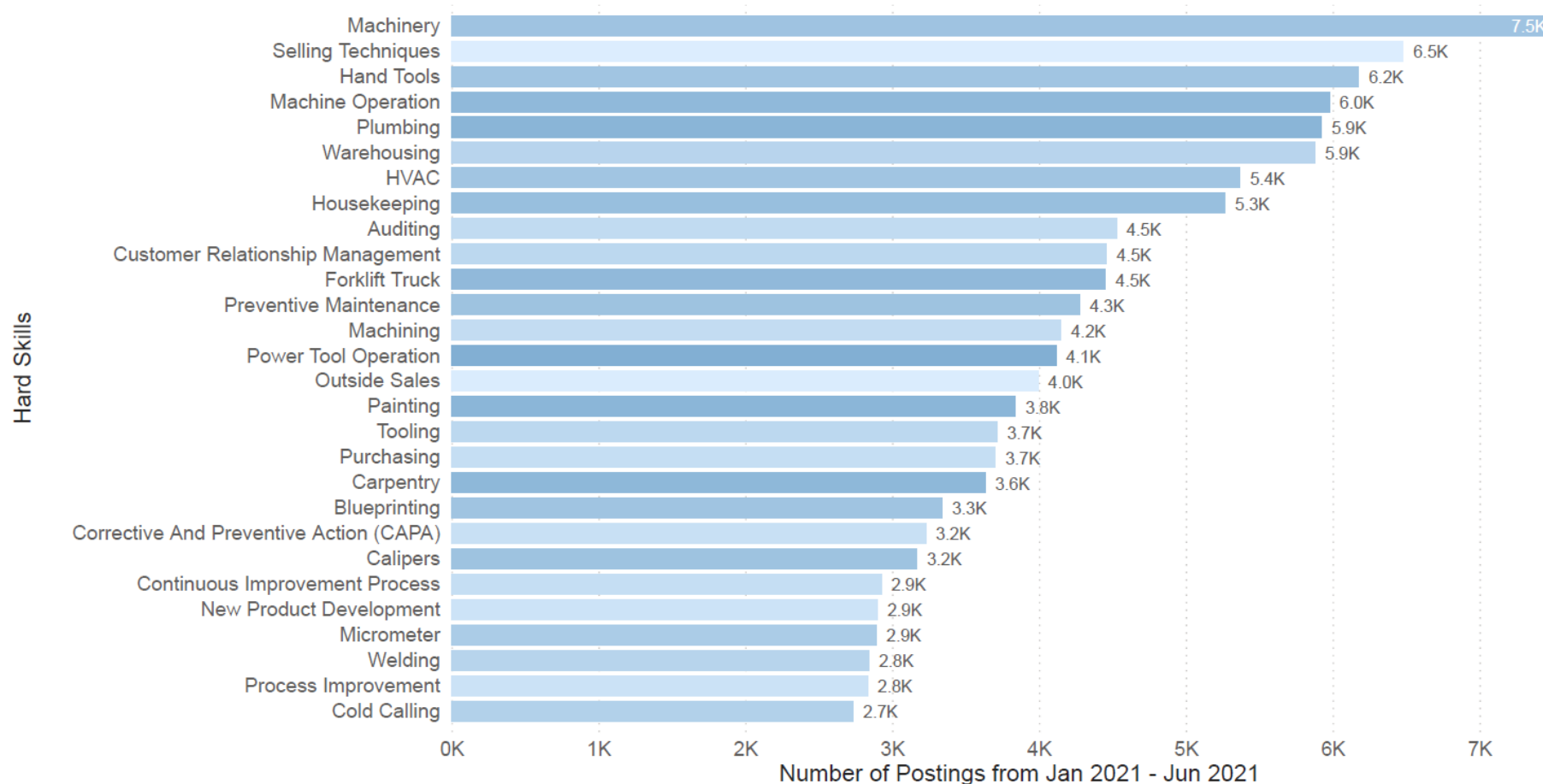


Figure 5 shows the top 28 in-demand hard skills employers are looking for in manufacturing jobs, with the top skill being Machinery. Additionally, the darker blue demonstrates skills that have seen a greater increase in demand from 2017 to 2021. The greatest increase in demand is in Tape Measure and Production Line at 294% and 264%, respectively.

Figure 6.

# Demand for Soft Skills in Manufacturing Jobs in Ohio

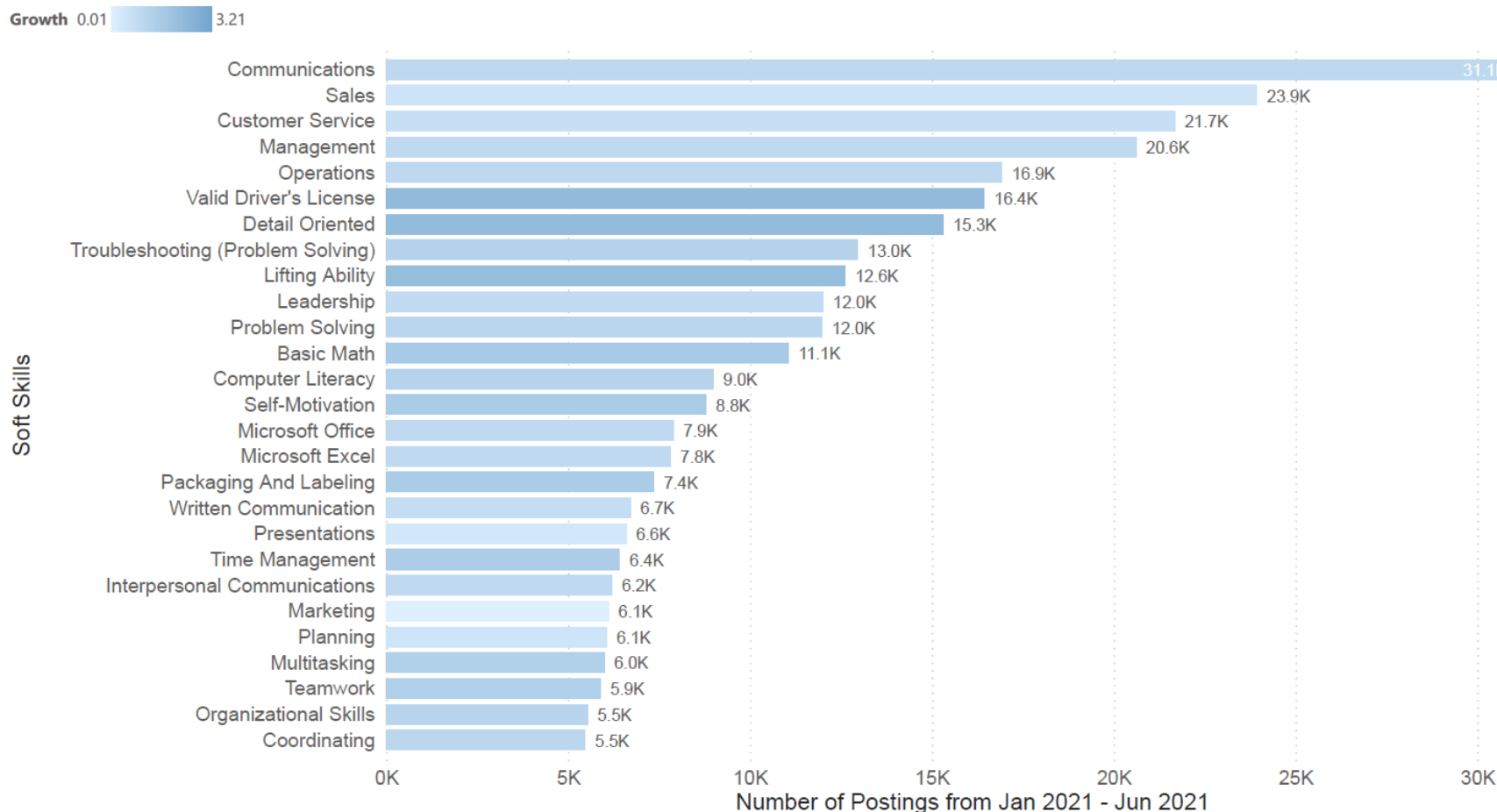


Figure 6 shows the top 27 in-demand soft skills employers are looking for in manufacturing jobs. The top skill is communications, which appeared in over 31,000 job postings between January 2021 and June 2021. Additionally, the darker blue demonstrates skills that have seen a greater increase in demand from 2017 to 2021. The greatest increase in demand is in Cleanliness and Positivity at 321% and 277%, respectively.

## Appendix.

Standard Occupational Classification (SOC)	Occupation
11-3051	Industrial Production Managers
11-9041	Architectural and Engineering Managers
13-1028	Buying and Purchasing Agents
17-2011	Aerospace Engineers
17-2112	Industrial Engineers
17-2131	Materials Engineers
17-2141	Mechanical Engineers
17-2171	Petroleum Engineers
17-3013	Mechanical Drafters
17-3021	Aerospace Engineering and Operations Technicians
17-3024	Electro-Mechanical Technicians
17-3026	Industrial Engineering Technicians
17-3027	Mechanical Engineering Technicians
19-2032	Materials Scientists
19-4031	Chemical Technicians
27-1021	Commercial and Industrial Designers
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
43-5061	Production, Planning, and Expediting Clerks
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping
47-2211	Sheet Metal Workers
47-5051	Rock Splitters, Quarry
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers
49-2092	Electric Motor, Power Tool, and Related Repairers
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay
49-2098	Security and Fire Alarm Systems Installers
49-9031	Home Appliance Repairers

49-9041	Industrial Machinery Mechanics
49-9043	Maintenance Workers, Machinery
49-9044	Millwrights
49-9062	Medical Equipment Repairers
49-9071	Maintenance and Repair Workers, General
49-9081	Wind Turbine Service Technicians
49-9099	Installation, Maintenance, and Repair Workers, All Other
51-1011	First-Line Supervisors of Production and Operating Workers
51-2021	Coil Winders, Tapers, and Finishers
51-2028	Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers
51-2031	Engine and Other Machine Assemblers
51-2041	Structural Metal Fabricators and Fitters
51-2051	Fiberglass Laminators and Fabricators
51-2098	Miscellaneous Assemblers and Fabricators
51-3021	Butchers and Meat Cutters
51-3022	Meat, Poultry, and Fish Cutters and Trimmers
51-3023	Slaughterers and Meat Packers
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders
51-3092	Food Batch makers
51-3093	Food Cooking Machine Operators and Tenders
51-3099	Food Processing Workers, All Other
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic



51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic
51-4041	Machinists
51-4051	Metal-Refining Furnace Operators and Tenders
51-4052	Pourers and Casters, Metal
51-4061	Model Makers, Metal and Plastic
51-4071	Foundry Mold and Coremakers
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4111	Tool and Die Makers
51-4121	Welders, Cutters, Solderers, and Brazers
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic
51-4192	Layout Workers, Metal and Plastic
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic
51-4194	Tool Grinders, Filers, and Sharpeners
51-4199	Metal Workers and Plastic Workers, All Other
51-6031	Sewing Machine Operators
51-6062	Textile Cutting Machine Setters, Operators, and Tenders
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers
51-6092	Fabric and Apparel Patternmakers
51-6093	Upholsterers
51-6099	Textile, Apparel, and Furnishings Workers, All Other
51-7021	Furniture Finishers
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing
51-8012	Power Distributors and Dispatchers
51-8013	Power Plant Operators
51-8021	Stationary Engineers and Boiler Operators

51-8091	Chemical Plant and System Operators
51-8092	Gas Plant Operators
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers
51-8099	Plant and System Operators, All Other
51-9011	Chemical Equipment Operators and Tenders
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders
51-9022	Grinding and Polishing Workers, Hand
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers
51-9071	Jewelers and Precious Stone and Metal Workers
51-9082	Medical Appliance Technicians
51-9111	Packaging and Filling Machine Operators and Tenders
51-9123	Painting, Coating, and Decorating Workers
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
51-9141	Semiconductor Processors
51-9151	Photographic Process Workers and Processing Machine Operators
51-9161	Computer Numerically Controlled Tool Operators
51-9162	Computer Numerically Controlled Tool Programmers
51-9191	Adhesive Bonding Machine Operators and Tenders
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic
51-9196	Paper Goods Machine Setters, Operators, and Tenders
51-9197	Tire Builders
51-9198	Helpers--Production Workers
51-9199	Production Workers, All Other
53-7011	Conveyor Operators and Tenders
53-7063	Machine Feeders and Offbearers