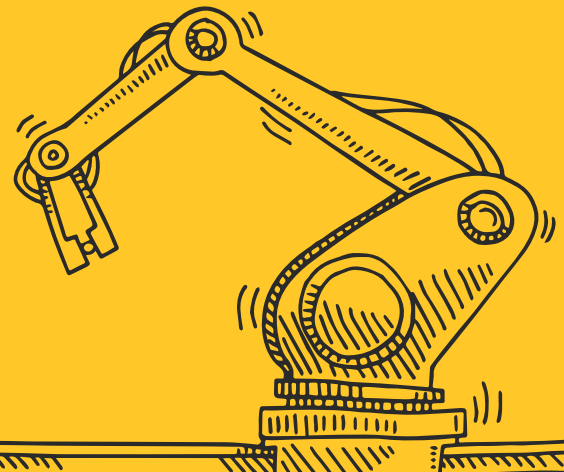




make **IN** move.

TOOLKIT



**A Guide for Indiana Educators and Parents
to Inspire Exploration around Advanced
Manufacturing and Logistics Careers**

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Dear Indiana Parents and Educators:

You may not feel like it at times, but you have a tremendous influence in the lives of the young adults you care about. This is especially true when it comes to their career choices. The expectations you set and pathways you encourage can help steer the next generation of Hoosier talent toward meaningful, well-paying and in-demand jobs.

But in our conversations with parents, educators and business leaders across the state, we've learned that many Hoosiers feel unprepared to give young adults advice about what type of education to pursue after high school and how to prepare for the technology jobs of tomorrow. At the same time, today's students fear making the "wrong" career decision and getting stuck in a job that doesn't align with their interests or values.

This perceived unpreparedness and anxiety comes at the same time in which two of Indiana's top industries – advanced manufacturing and logistics – face a significant talent shortfall. Unless we do more to match bright and motivated Hoosier talent to the thousands of exciting and well-paying careers in these industries, Indiana faces a less stable economic future.

That's why nonprofit organization Conexus Indiana created Make IN Move, a campaign to educate, inspire and motivate young adults to explore, consider and choose the fantastic career opportunities that are available in Indiana's advanced manufacturing and logistics industries – now and long into the future.

The resources in this toolkit are designed to help you empower the young adults in your life to explore advanced manufacturing and logistics careers. We hope these materials can kick-start a productive conversation about the high-tech, high-skilled opportunities available in these top industries and the skills today's students should hone to be successful in the future of work.

If you find this toolkit valuable, please be sure to sign up for the Make IN Move email list, as we will be releasing new content and resources in the months ahead.

Thanks for all you do to Make IN Move and connect the next generation of talent to fulfilling, stable careers.



A handwritten signature in black ink that reads "J. Mark Howell".

J. Mark Howell

President and CEO, Conexus Indiana

Advanced Manufacturing & Logistics, Defined

3D printing or additive manufacturing

The process of creating three-dimensional solid objects from on a computer-made model. The creation of a 3D printed object is achieved using additive processes. In an additive process an object is created by laying down successive layers of material until the object is created.

4th Industrial Revolution / Industry 4.0

A new age of advancements in technology and engineering – including artificial intelligence, robotics, and the internet of things – that are changing the world’s economy and future of work.

Advanced degree

A degree completed after a bachelor’s degree, including master’s and doctoral degrees.

Advanced manufacturing

The use of new, innovative technology to improve the production and design of products.

Artificial intelligence

A type of computer system that completes tasks that normally require human intelligence.

Associate degree

A post-high school degree that usually takes two to three years to complete. After completing this degree, graduates can begin bachelor’s degrees or enter the workforce.

Automation

The use of automatic, mechanical equipment to complete work normally done by humans.

Bachelor’s degree

A post-high school degree that usually takes three to six years to complete. Following completion, graduates can enter the workforce or pursue advanced degrees.

Co-bot

Industry slang for “collaborative robots” that work alongside humans to perform tasks.

Credential

A verification of qualifications for specific industries or trades that can be obtained on the job or at a higher education institution.

Design and development

An early process before production where the look and process for making a product is determined.

Distribution

The movement of goods from manufacturers to vendors.

Engineering

The branch of science and technology concerned with the design, building, and use of engines, machines and structures.

Forecast

A prediction of future financial patterns that leaders use to plan business strategies.

Innovation

The process of making changes in past methods, ideas, or processes.

Advanced Manufacturing & Logistics, Defined

Internet of Things (IoT)

The idea of everyday items — from wearables that monitor users' physical activities to cars and tracking devices inserted into mailed packages — being connected to the internet and identifiable by other devices.

Inventory

Completed products and raw materials owned and stored by a business.

Logistics

The process of transporting goods from manufacturers to customers.

Machinist

A tradesperson who oversees a variety of computer and mechanically controlled tools to produce parts. They can produce goods in mass quantities or create one-of-a-kind products.

Market research

The process of gathering information on target audiences and customers.

Onshoring

Also known as reshoring, the practice of moving manufacturing operations from foreign soil back to the United States.

Outputs

The quantity of goods distributed to vendors in a time period.

Outsourcing

An agreement between two companies in which one hires another to work on an activity that is or has been done internally.

Production

The action of creating products for consumer use.

Prototype

A first model from which other forms are based on.

Raw materials

Basic materials like wood, oil, and metal that are combined to produce products.

Robot

A machine that carries out complex series of tasks automatically.

Supplier

A person or company that provides a product or service that is used to manufacture a product.

Supply chain

The flow of goods and services.

Sustainability

The willingness of a business to not only consider financial wellness, but also the safety of the global or local environment, community, society, or economy.

Vendor

The role of selling manufactured goods.

Warehouse

An often-large building where materials and goods are housed before production or sale.

5 Things to Know about Making & Moving



YOU CAN FIND A CAREER THAT'S YOU IN ADVANCED MANUFACTURING AND LOGISTICS.

From engineers to graphic designers, accountants to software developers, Indiana's advanced manufacturing and logistics industries are full of opportunities. Just choose the career that fits you.



INDIANA MAKES AND MOVES THINGS THAT CHANGE THE WORLD.

And we do it better than any other state. From automobiles to RVs, jet engines to medicines, popcorn to chocolate, Hoosiers have a hand in making life as we know it possible.



ADVANCED MANUFACTURING AND LOGISTICS ARE THE INDUSTRIES OF THE FUTURE.

In today's connected, digital world, AML careers are technology careers. Imagine being part of a team that invents a new product or process that changes the world. In AML, it's possible.



YOU DON'T HAVE TO CHOOSE BETWEEN MAKING A DIFFERENCE AND MAKING A LIVING.

In AML, you can do both. You'll end each day knowing you played a part in something meaningful, and you can reach your financial goals.



INDIANA NEEDS YOU TO HELP MOVE OUR STATE FORWARD.

AML is the foundation of Indiana's economy and that's not changing. We need talented people like you to pursue these high-tech, in-demand careers and lead us into the future.

Ready to explore your future in AML? Visit MakeINMove.com to learn more and take our career quiz.

Making an Impact, Moving Indiana Forward

MAKING AN IMPACT

Indiana makes and moves things that change the world – and we do it better than any other state. Here's how AML continues to make an impact and move Indiana forward in the 21st century economy.

Indiana is **#1 in the nation** when it comes to growth in advanced manufacturing.



One in five Hoosiers works in advanced manufacturing. As you're in line at the grocery store, in church or at a sporting event, imagine how many makers are in your midst!



Nearly **30% of Indiana's economy** comes from advanced manufacturing – that's 154 times what it cost to build Lucas Oil Stadium, home of the Colts!



The Hoosier State manufactures **35% of the world's orthopedic products**, making life more comfortable for people far beyond our borders.

Have you ever stepped onboard a recreational vehicle such as a camper? There's a **75% chance** that an Indiana company made that fun possible.



MOVING US FORWARD

\$650 billion in goods moves through Indiana annually – that's more than double what it cost to **land on the moon!**



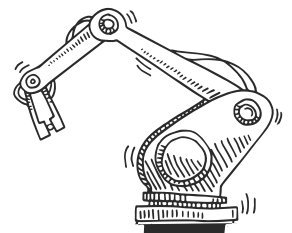
Indiana's **14 highways span 1,266 miles** – the equivalent of two and a half Indianapolis 500 races.

The amount of warehousing space that was added from 2015 to 2017 in Indiana amounted to more than 217 football fields, or **12.5 million square feet**.

You can travel through Indiana on more than **400 miles of navigable waterways** – that's nearly twice as long as the Grand Canyon!

DID YOU KNOW?

Of the seven **Fortune 500** companies in Indiana, **five of them** work in the advanced manufacturing and logistics sectors.



Additional Resources

Center for the Fourth Industrial Revolution

This division of the World Economic Forum partners with governments, leading companies, and experts from around the world to design and pilot innovative new approaches to policy and protocols across areas of importance in the Fourth Industrial Revolution.

Conexus Indiana

Statewide nonprofit Conexus Indiana helps prepare current and future workers to gain exposure and the skills they need to access the high-demand, high-wage career pathways in advanced manufacturing and logistics.

Indiana Career Explorer

Parents are the number one influencer of their child's education and career choices. Indiana Career Explorer supports parents in this critical role by allowing you to get directly involved in your child's education and career planning.

Indiana Career Ready

Indiana Career Ready is your single source providing the tools needed to prepare and find high-demand and high-wage jobs needed now and in the future.

Indiana Economic Development Corporation

The Indiana Economic Development Corporation attracts and supports new business investment, creating new jobs for Hoosiers, and furthering our legacy as one of the top states in the nation for business.

Indiana Manufacturers Association

The Indiana Manufacturers Association advocates for a business climate that creates, protects, and promotes quality manufacturing jobs in Indiana.

Integr8

Integr8 is a global Industry 4.0 conference held annually in Detroit, Michigan, that brings together industry leaders in technology and manufacturing to share ideas, get inspired, and take action as technology rapidly transforms advanced manufacturing.

Learn More Indiana

Led by the Indiana Commission for Higher Education, Learn More Indiana is a partnership of state and local organizations working to help Hoosiers of all ages complete education and training beyond high school.

The Manufacturing Institute

The Manufacturing Institute drives programs and research nationally to promote modern manufacturing and jumpstart new approaches to growing manufacturing talent.

Purdue IN-MaC

IN-MaC is a partnership between Purdue University, Ivy Tech Community College, and Vincennes University that integrates industry, academia, and government to help prepare the manufacturing workforce and talent pipeline to be more competitive and resilient.

WorkOne

The WorkOne Center is the heart of Indiana's workforce development system. It's where WorkOne staff help Hoosiers find a new or better job, choose a career, access training or get the information needed to succeed in today's job market.