



INTERSECTION

EDUCATION + INDUSTRY

REDEFINING STUDENT SUCCESS

When the destination for learning is clearly identified, definitions of student success can shift from short-term outcomes to long-term goals focused on employment success.

“What is the purpose of education? This question agitates scholars, teachers, statesmen, every group, in fact, of thoughtful men and women.” ~ Eleanor Roosevelt

What are we ultimately trying to accomplish? This is a critical question that is often neglected in educational institutions, and for good reason. There are countless ways to answer this question and, often, answers will vary depending on individual values and beliefs. Without a clearly defined direction for learning, educational efforts can become misguided and disconnected. The need for purpose and direction in educational practice is critical.

Current Perspectives on Student Success

When we stop to examine our current efforts, the focus is primarily on short-term, tangible outcomes, such as grades, test scores, graduation rates, diplomas, and certificates. A student is deemed successful if he/she achieves a specific grade, score, or certificate. While these achievement-based outcomes are useful in tracking some degree of progress, they can be limited in their ability to predict success beyond the classroom (Bailey, Rosenthal, & Yoon, 2016). If our efforts are focused primarily on these narrow goals, we may be missing the point entirely.

We must return to the question of, “What are we ultimately trying to accomplish?”

A Need to Identify the Destination

In developing educational practices and strategies, there is a strong need to ensure the destination is clearly defined. The destination can serve as a unifying direction for the educational journey, regardless of the path taken.

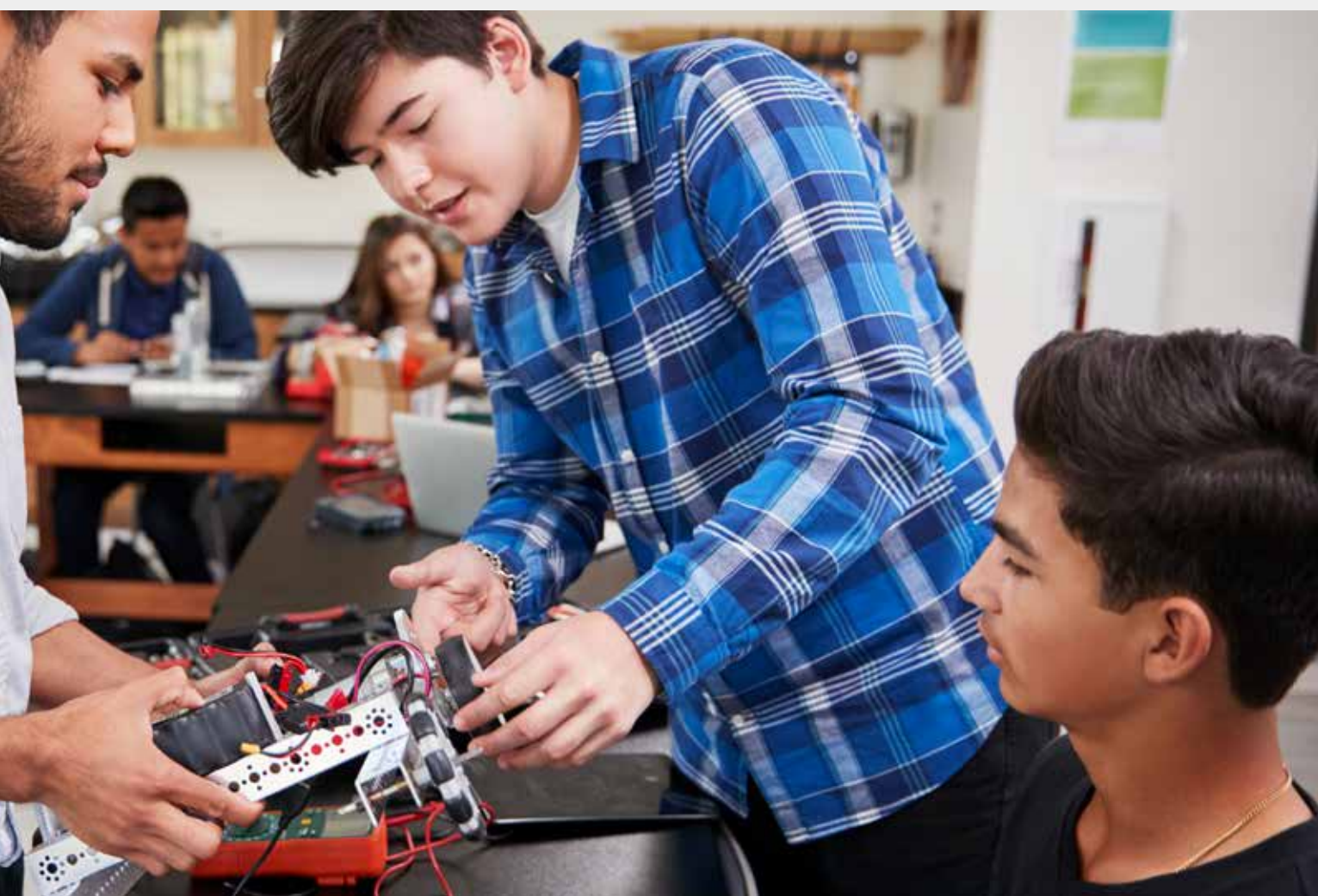
While there is considerable variability in defining the ultimate purpose of education, a common theme that tends to emerge is the need to prepare individuals to become independent, contributing members of their communities. At the very heart of this idea is how individuals make a living. An individual who is successfully employed has the ability to support personal ambitions, as well as contribute valuable goods and services to a community. Employment success, then, is a critical first step in supporting individual needs and building stronger communities.

When successful employment is a central component of the destination for learning, students

and educators experience purpose and direction in their educational practices. Learning becomes centered around preparing individuals for careers, as opposed to disseminating abstract concepts in the hopes that students find meaning.

Student Success → Employment Success

Definitions of student success need to shift from short-term outcomes to long-term goals that emphasize employment success. Rather than define success in terms of grades and scores, definitions need to focus on benchmarks for career-readiness. Monitoring student progress toward acquiring career-relevant skills that promote success in multiple career pathways will be essential. Instead of the diploma being the epitome of student success, a fulfilling career that sustains quality-of-life goals will become the new marker of success.



THE POWER OF PURPOSE

When students and educators experience purpose in the learning process, motivation increases and success comes into focus.

It's an increasingly common question students ask—“Why should I learn this stuff?” Questions like this suggest that students struggle seeing purpose in the learning process. Indeed, studies demonstrate that students' beliefs about the value in learning decline as they progress through educational systems (Gaspard et al., 2015). As a result, learning becomes meaningless and arbitrary. Purpose and direction are lost and a process that was once intrinsically motivating becomes more of a chore than a joy. The consequences of an increasingly negative perspective on learning can be disastrous, leading to underachievement and, in some cases, dropout of the school system entirely (Bridgeland, Dilulio, & Morison, 2006).

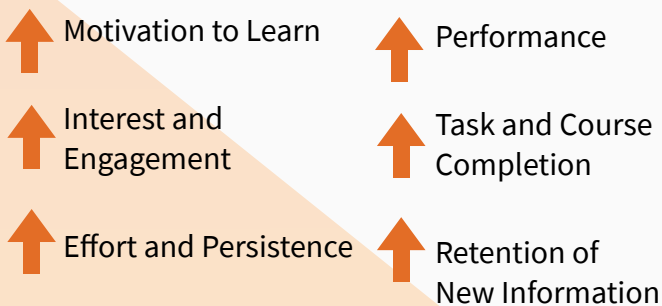
When students find value in learning and experience purpose in the process, powerful results can occur, including increases in motivation, interest, effort, performance, and retention of new information. These results are especially prominent when students see

personal relevance in the material they are learning (Evans & Boucher, 2015). When fundamental concepts and skills are placed in the context of personal interests and aspirations, learning can be perceived as a process with destination, as opposed to an aimless journey.

Educators can capitalize on this effect by helping students find meaning in their learning. This can be most effectively accomplished by helping them identify the destination for their learning—a career. If students know where they are headed, the answer to the question of why is simple. Learning supports success in their future employment in a desired occupation. A good career that aligns with a student's personal interests can provide satisfaction and fulfillment in life, along with the ability to achieve a number of quality-of-life goals.

Educators can further promote purpose in learning by teaching in the context of careers. When lessons are designed around high-value careers, students can see meaningful application of concepts and skills. Giving abstract concepts career-relevant meaning directly links learning to personal goals of students. In this approach, both educators and students experience purpose in the learning process, which is an important step in bringing intrinsic desire to learn back to the classroom.

Benefits of Purpose in Learning



Sources: Assor, Kaplan, & Roth, 2002; Fortenberry, Sullivan, Jordan, & Knight, 2007; Frymier & Shulman, 1995; Hulleman, Godes, Hendricks, & Harackiewicz, 2010; Jang, 2008; Perin, 2011; Trautwein & Ludtke, 2007; Yeager et al., 2014



USING LABOR MARKET INFORMATION TO HELP STUDENTS ACHIEVE EMPLOYMENT SUCCESS

Within the field of education, a new force is emerging with a strong emphasis on preparing students for the changing demands of today's careers. A primary goal of recent policymaking activities has been to improve alignment between education practices and workforce needs. As a result, significant efforts have been made to implement career-ready standards and scale up career pathways that prepare students for high-value jobs. In addition, there has been considerable rethinking and reform of career and technical education (CTE) programs to ensure these programs are more in tune with the rapidly shifting needs of employers.

The challenge in preparing students for careers is that employers, educators, and youth tend to operate in separate spheres, with minimal to no intersection. Educators operate unaware of the needs of employers and vice versa. Caught in the middle are students who lack direction for their educational goals and have limited awareness of available careers options and skills needed to obtain these careers. To foster employment success among students and to meet the needs of communities, as well as the economy, there must be a vital point of intersection between education and industry.

This is especially critical in today's job market, where the path to employment success is radically changing.

Specifically, there is a need for individuals with advanced skills and this need is quickly outgrowing the supply within our current workforce. In the 1970's only 1 of 3 workers needed some postsecondary education. In the next few years, over half of all jobs will require some degree of postsecondary education (Carnevale, Jayasundera, & Gulish, 2016). This change is due, in part, to what some have referred to as the Fourth Industrial Revolution, marked by rapid advances in automation, artificial intelligence, and the fusion of technology with almost every aspect of daily living. This fast-moving revolution is fueling an unprecedented demand for a skilled workforce, especially for individuals with STEM-related skills.

Educational institutions will need to evolve to help students meet the demands of the changing economy and careers. While several attempts have been made to start this transition, what is often missing from these strategies is a fundamental awareness of actual market needs. In other words, the direction for educational practices needs to be examined and clearly established. Knowledge of labor market information is essential in accomplishing this goal.



What is Labor Market Information?

Labor market information (LMI) is a collection of data compiled primarily by government agencies for the purpose of analyzing job trends, wages, employment status, and economic changes related to workforce development. This rich data source contains statistics on hundreds of occupations, including annual job openings, median wages, growth rates, level of education, and more. LMI is particularly useful in identifying careers that are projected to be in-demand within various occupational areas and geographic locations. For educational institutions, the ability to identify high-value jobs is essential in ensuring educational goals and strategies are aligned with current labor market needs.

What are Career Clusters?

LMI is typically organized around specific occupational areas or industries. The system most commonly recognized by the US Department of Education is the National Career Clusters Framework (careertech.org/career-clusters). Using this framework, occupations are grouped into sixteen career clusters. Each cluster is defined by a set of industry-validated knowledge and skills that identify what students should obtain to achieve success in a chosen field. Within each of the sixteen clusters, several career pathways (i.e., programs of study) have been developed, which outline sequences of academic, career, and technical courses and training for certain industries or occupations.

The benefit of using the Career Clusters Framework is that occupations are grouped on the basis of shared educational and training requirements. This allows for a more direct link to be established between educational practices and careers. Curriculum and programs of study can be developed that incorporate foundational skills that are essential to success in specific fields. Furthermore, clear pathways can be established that can guide students in selecting programs of study that will support their employment goals.

Using Labor Market Information to Transform Educational Practices

Using labor market information to understand workforce trends can be an important part of helping students achieve employment success. Basic statistics pertaining to median wage, annual job openings, growth rates, and job zones, can be used by educators to gain awareness of the top career clusters and pathways that offer high-value career destinations for students. With this knowledge, curriculum can be designed with the realities of the local job market in mind. Math and reading lessons can incorporate specific examples from high-value careers in top career clusters.


Furthermore, skills and concepts necessary for high-demand careers, such as STEM-related careers, can be emphasized. Rather than teaching abstract concepts that have limited real-world significance, teaching can gain context. Most importantly, students can have the

opportunity to experience the power of purpose in their education.

This effect can be significantly enhanced when students, themselves, are familiar with the high-value career opportunities in their local communities. Instead of making random guesses about what they want to be, student career choices can be made around high-demand, high-wage careers that fit their personal interests. Additionally, career clusters and pathways can guide student decisions about specific courses and programs that support their career goals.

Disorganized efforts can be given direction and students can begin to see their future take shape around viable career opportunities.


When students' informed career choices are paired with career-relevant education, a robust setting for tremendous growth and learning can emerge. Value and purpose is maximized and students can experience a genuine motivation to obtain the advanced skills needed for jobs in our changing economy. Employment success can become a common reality, as opposed to an occasional coincidence.



Career Cluster : Health Science

Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Workforce Region(s): All States Combined



Cluster	Pathway	Occupation	Annual Openings	Median Wa...	↓ Projected New...	Growth ...	Job Zon...
Health Science	Therapeutic Services	Registered Nurses	210,400	\$73,300	371,500	12%	3
Health Science	Therapeutic Services	Home Health Aides	140,800	\$25,280	304,800	37%	2
Health Science	Therapeutic Services	Medical Assistants	99,700	\$34,800	154,900	23%	3
Health Science	Therapeutic Services	Nursing Assistants	190,700	\$29,660	135,400	9%	2
Health Science	Health Informatics	Medical Secretaries	82,400	\$36,580	96,400	16%	3
Health Science	Therapeutic Services	Licensed Practical and Licensed Vo...	66,300	\$47,480	78,100	11%	3
Health Science	Support Services	Medical and Health Services Manag...	42,200	\$100,980	71,500	18%	5

For educational institutions, the ability to identify high-value jobs is essential in ensuring educational goals and strategies are aligned with current labor market needs.

CHALLENGES AND SOLUTIONS TO USING LABOR MARKET INFORMATION IN EDUCATIONAL PRACTICES

Labor market information is a powerful resource that can assist educators in identifying high-value career destinations for students. Armed with this knowledge, policy and practice decisions can be made that more effectively and efficiently promote employment success for all students. However, exploring LMI is not always easy. There are a number of challenges that educators face when attempting to access LMI. These challenges, along with potential solutions, are discussed.

Locating LMI Databases and Search Tools

Databases and search tools displaying LMI can be difficult to find. While they are not locked away, their location is not inherently obvious. It takes some knowledge of the available systems to identify useful resources. Some of the most helpful tools include the Occupational Outlook Handbook ([bls.gov/ooh/](https://www.bls.gov/ooh/)) and O*NET (onetonline.org) produced by the US Department of Labor.

The most challenging aspect of the available systems is that information needed to inform educational practice is spread across multiple databases and tools. Most notably, career clusters and pathways are not always included with occupational listings. Furthermore, methods for listing educational requirements for occupations can differ, along with titles and headings for basic statistics. The best approach to handling the disparate nature of LMI is to use specialized LMI exploration systems that pull information from multiple sources and offer the convenience of reviewing education-relevant data in one location.

Sorting Through LMI and Finding Meaning

There is little doubt that LMI is intimidating. Not only is there a massive amount of data, the terminology is often confusing and misleading. In addition, there are literally hundreds of ways to view and manipulate the numbers. Where does one start? The most effective and critical starting point is to develop strong and clear questions for the data. Then, identify exactly what information is needed to answer these questions. This basic task provides focus for the search and helps limit the data to what is most essential to answering the questions of interest. It also provides a basis for developing methods for sorting and filtering the data. If the focus is on high-demand occupations that offer a living wage, this simply means sorting data based on annual openings and/or growth rate and eliminating jobs that do not meet the wage threshold.

To further assist in navigating LMI, training experiences in the form of brief tutorials, webinars, and workshops can be invaluable, especially when they are centered around the use LMI in

educational practices. These experiences can teach the fundamental concepts and definitions related to LMI and provide a solid framework for exploring this information. Even the most cursory knowledge of the most basic elements of LMI can significantly improve the use of LMI in identifying significant employment trends.

Linking LMI to Policy and Practice at the Local Level

Because of the use LMI within the field of education is a relatively new idea, it can be challenging to see exactly how this information can be applied to policy and practice, especially at the local level. This is another area where training experiences may be particularly valuable. These experiences can focus on methods for using annual openings, median wages, growth rates, and related information to identify top career clusters, pathways, and occupations in local communities. Once identified, processes for review

can be initiated to determine the degree to which local education practices support employment success for students in local careers. Plans can then be developed and processes implemented to maintain, revise, or create programs to more effectively support local employment success for students.

The primary barrier in initiating this process at the local level is that LMI is most readily available for national labor market analyses. Databases and tools for local community analyses are limited, and, when available, the tools are often difficult to use. To overcome this challenge, the use of more specialized systems designed for educators' use at the local level is recommended.

Communicating and Sharing LMI Findings with Others

Because LMI can be powerful in identifying education practices that need to be maintained, reformed, or





developed, key findings from LMI reviews will often need to be communicated with others. A significant challenge in sharing LMI is that others may have limited knowledge of LMI and can struggle identifying the message behind the numbers. The solution to this issue is relatively simple—present clear, concise, and well-organized information. Reviewing sample LMI reports can be particularly useful in discovering effective methods for displaying and reporting findings. Alternatively, specialized exploration systems that offer the ability to automatically generate LMI reports can be used. Such systems can significantly expedite the reporting process by automatically creating reports that follow basic LMI reporting protocol, increasing both readability and comprehension for others.

LMI Exploration Systems for Educators

LMI exploration systems are now being designed for explicit use by educators. These systems have

the potential to mitigate many of the challenges educators face in accessing LMI. They can provide a single resource for retrieving information about career clusters, pathways, educational requirements, median wages, annual openings, growth rates, and other statistics relevant to identifying high-value career destinations for students. They can also reduce the knowledge barrier to LMI by offering intuitive, easy-to-use tools for exploring LMI, as well as tutorials and guides. For the purpose of policy and practice, systems offering access to local LMI can provide insight into community needs and encourage practices that support student success in local careers. Lastly, LMI exploration systems that can quickly and easily generate LMI reports have the potential to enhance the communication of key LMI findings with others. When these primary challenges to accessing LMI are addressed, there is unlimited potential for LMI to transform the landscape of educational practices today and well into the future.

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