Why do we need to be concerned about the talent pipeline?
# Career Engagement

71,030 students  
Livingston, Macomb, Oakland,  
St. Clair & Wayne counties

<table>
<thead>
<tr>
<th>Occupation</th>
<th>All-Time Student Saves</th>
<th>All-Time Student Saves (Male)</th>
<th>All-Time Student Saves (Female)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Athlete</td>
<td>5,508</td>
<td>4,440</td>
<td>967</td>
</tr>
<tr>
<td>Video Game Developer</td>
<td>3,376</td>
<td>2,837</td>
<td>465</td>
</tr>
<tr>
<td>Actor</td>
<td>3,346</td>
<td>917</td>
<td>2,293</td>
</tr>
<tr>
<td>Doctor</td>
<td>3,169</td>
<td>1,133</td>
<td>1,900</td>
</tr>
<tr>
<td>Artist</td>
<td>2,732</td>
<td>800</td>
<td>1,820</td>
</tr>
<tr>
<td>Veterinarian</td>
<td>2,693</td>
<td>530</td>
<td>2,039</td>
</tr>
<tr>
<td>Nurse</td>
<td>2,687</td>
<td>226</td>
<td>2,330</td>
</tr>
<tr>
<td>Lawyer</td>
<td>2,651</td>
<td>1,061</td>
<td>1,476</td>
</tr>
<tr>
<td>Psychologist</td>
<td>2,498</td>
<td>392</td>
<td>1,963</td>
</tr>
<tr>
<td>Animator</td>
<td>2,475</td>
<td>1,192</td>
<td>1,188</td>
</tr>
<tr>
<td>Pediatrician</td>
<td>2,350</td>
<td>207</td>
<td>2,009</td>
</tr>
<tr>
<td>Photographer</td>
<td>2,323</td>
<td>478</td>
<td>1,734</td>
</tr>
<tr>
<td>Musician</td>
<td>2,131</td>
<td>941</td>
<td>1,112</td>
</tr>
<tr>
<td>Singer</td>
<td>2,105</td>
<td>393</td>
<td>1,617</td>
</tr>
<tr>
<td>Surgeon</td>
<td>2,104</td>
<td>704</td>
<td>1,318</td>
</tr>
<tr>
<td>Fashion Designer</td>
<td>2,096</td>
<td>211</td>
<td>1,777</td>
</tr>
</tbody>
</table>
Job Demand for Occupations of Student Interest

- Registered Nurses (29-1141.00): 18,290
- Lawyers (23-1011.00): 1,071
- Family and General Practitioners (29-1062.00): 541
- Video Game Designers (15-1199.11): 279
- Clinical Psychologists (19-3031.02): 190
- Counseling Psychologists (19-3031.03): 155
- School Psychologists (19-3031.01): 155
- Veterinarians (29-1131.00): 150
- Actors (27-2011.00): 88
- Athletes and Sports Competitors (27-2021.00): 28
The struggle is real

- Demand is between 2.4 and 20 times higher than the number of new graduates each year.
THE PROGRAM

Students

Parents

Educators

Employers

Work Experience

Mentors

Postsecondary Education

Success

Bright Future
How does MI Bright Future help . . . STUDENTS?
Detroit Electrical Industry Training Center

Company Details
The Detroit Electrical Industry Training Center provides Apprenticeships for the Electrical Construction Trade. Electrical Apprenticeships are full time jobs and include both hands-on and classroom education in programs of 3 to 5 years. After graduation, the average electrician working for us earns between $56.

Contact Us
2277 E. 11 Mile Road
Warren, MI 48092
Phone: (586) 751-6600
Website: http://www.detroiteitc.org

What We're Looking For
17 or 18 years of age with G.E.D. or High School Diploma
I have heard of the important of Ohm's law in the field and was wondering if there are any other crucial principles. Also having taken calculus, will the material learned there be built on in further electrical based courses?

Nicholas asked on 9/16/2016

Nicholas asked on 9/15/2016
I have heard of the important of Ohm's law in the field and was wondering if there are any other crucial principles. Also having taken calculus, will the material learned there be built on in further electrical based courses?

Wayne answered on 9/20/2016
There are many crucial formulas and laws in any industry you're in - and they'll become second nature to you. Calculus will help you in your engineering equations for sure.
Would a four year degree be more desirable than two years of education and some experience to a hiring manager?

Kenneth asked on 3/17/2016

Wayno answered on 3/18/2016

Depends on who's hiring and for what. Large corporations want the education. But if you have the interest, ambition and drive, and show it, there are employers out there that can pick you up and train you while you continue your education. A lot depends on the ambition of the individual. You can 'find a job' or you can 'make a career' There is a trend leaning toward more experienced based and/or 2 year degree. The landscape is changing- that's part of why MIBF is here. There are a few 'employers' out there that will probably answer in on this question.... listen to them.
I have heard Meg is currently a President with 7 years of experience in the field. She had about 28 years with Chrysler before she started her own consulting firm.

I have experience in:
* Embedded software quality (software in the car)
* Vehicle cyber security (making sure cars can't be hacked)
* Engine and transmission calibration: vehicle performance, driveability, emissions, fuel economy and diagnostics
* High pressure fuel system design: developed high pressure fuel pump. Hold 3 patents.

**Association Memberships**
SAE International (Society of Automotive and Aerospace Engineers), Society of Women Engineers

**Hobbies & Interests**
Wakeboarding, wood working

**Other Jobs**
* Supplier quality: performing root cause analysis on issues with parts. Reviewing manufacturing processes to improve quality and consistency
I understand that to become a physical therapist, I have to earn a doctorate. Currently, it takes seven years of schooling. How competitive is it to get into PT school? Also, would becoming a PT help me in the process?

I have never been to a PA, but I see a Nurse Practitioner as my primary care provider. Can you help me understand the difference between the two professionals?

I understand a Master's Degree is required for planning. I love government and understanding how the process works. What types of classes could I take in high school to better prepare me for a college degree in planning?

As a chemical engineer, are you usually in a group setting or alone? Are you working in a lab doing experiments, or are you spending a lot of time on the computer? Do you work on a variety of materials or just a few?

In terms of a college internship, what internship would be a good choice if I wasn't sure what field of engineering I want to do?

As an automotive engineer, what is the ratio of hours worked on a computer, to hand drawn parts, to building/testing parts you designed?
Career Coaches

- Easy to get involved
- 20 mins/week or less!!!
- Share experiences
- Tell the narrative
How does MI Bright Future help... EMPLOYER ENGAGEMENT?
Business/industry engagement

- Diversifying the database of employers
- Representation in all industries
- Adding/updating industries and careers in the system
Engagement over time

MI Bright Future Registrations

<table>
<thead>
<tr>
<th>Month</th>
<th>Registrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>15</td>
</tr>
<tr>
<td>February</td>
<td>20</td>
</tr>
<tr>
<td>March</td>
<td>20</td>
</tr>
<tr>
<td>April</td>
<td>8</td>
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<tr>
<td>May</td>
<td>6</td>
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<tr>
<td>June</td>
<td>9</td>
</tr>
<tr>
<td>July</td>
<td>7</td>
</tr>
<tr>
<td>August</td>
<td>15</td>
</tr>
<tr>
<td>September</td>
<td>31</td>
</tr>
<tr>
<td>October</td>
<td>46</td>
</tr>
</tbody>
</table>
Business/industry engagement

**Employer/Volunteer Summary** (as of 11/9/2016 5:12:22 PM)

- **219** Number of Companies
- **230** Number of Career Coaches
- **892** Number of Work-based Learning Activities
Employer benefits

- Increased **student awareness** of your company and industry
- Ability to identify **future employees**
- “**Test driving**” talent
- Streamlined, **efficient** engagement with local schools
- **Scalable engagement** based on geography, age group, career interest, organization’s capacity to manage, etc.
“There couldn’t be a better resource for students to be able to pose questions to individuals actually working in the field they are investigating for a potential career choice.”

-Matt Hackard, Vice President, Automated Control Systems
EXAMPLES OF EMPLOYER EXPERIENCES

- Built relationship between employer and educator in related field
- Donated equipment to help to enrich the coursework taught in local school
- Provided industry current experience and training for students in talent pipeline
- Hired students from MiBrightFuture for summer internships
How does MI Bright Future help... EDUCATORS?
“By having a consistent dialogue with industry professionals my students can stay up to date with industry’s ever evolving trends.”

“The hope is to have the students learn that their work environment and their projects they are working on in high school are similar to projects they would experience in industry.”

-Matt Jourden, Engineering Teacher, Brighton High School
“The Career Coach said I should look into C++ coding for more experience so I have been doing more of that.”
-Frank, 17

“As much as this high school class matters, this stuff has real life implications.”
-Skylar, 18, during a computer science class while exploring MiBrightFuture

“These are people who chose this pathway through college and had personal experience. They can give me an idea of what kind of job I would be able to get coming out of college.”
-Cornelius, 17
Work-based learning options

Student-requested activities
• mock/informational interviews
• job shadows
• Internships
• part-time/summer employment
• career coaching
• apprenticeships
• scholarships
• mentorships
• service learning opportunity

Teacher-requested activities
• guest speaker
• career fair
• company tour/career event
• business round table
• summer site visits
• summer externships
• curriculum advisor
• committee members
• project advisor/support
Work-based learning
POTENTIAL FOR SYSTEMS CHANGE

• Work-based learning processes in schools
• Employer education
• Employer collaboration and scalable engagement
• Focus on career and college readiness
Where we are:
Learn more or register at:
MILbrightfuture.org

Contact us:
Sarah.Sebaly@win-semich.org
LauraHoehn@livingstonesa.org