THE CHALLENGE(S)
2-Years
$10,800

4-Years
$30,212

4-Years
$55,360

Cost for Degree (Tuition & Fees)

Rising College Costs

The Skyrocketing Cost of Attending College
Average Student Debt

$35,000

$10,000

Burgeoning Student Debt
Of 4-year college grads

Underemployment = having a job that does not require the degree they hold.
Please rank the top five challenges your company must address over the next 10 years.

Top three business challenges:

1. Shortage of skilled workforce
2. Increasing competition
3. Economic downturn
4. Technology adoption
5. Customer dissatisfaction
Minnesotta

40,000 fewer workers than 1-year ago

8,000 + skilled jobs going unfilled

Nationwide

600,000 + skilled jobs going unfilled

Right Now

Survey shows growing US shortage of skilled labor

Minnesotta worker shortages plague to Rochester companies from Roseau
Baby-boomers all hit age 65+ by 2029.

<table>
<thead>
<tr>
<th>Manufacturing Jobs Unfilled</th>
<th>Supply of new manufacturing workers needed</th>
<th>New manufacturing jobs  due to economic expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Million</td>
<td>1.4 Million</td>
<td>+ 3.4 Million</td>
</tr>
<tr>
<td>2.7 Million</td>
<td></td>
<td>700K</td>
</tr>
</tbody>
</table>

The skills gap widens...

Between now and 2025
THE DIAGNOSIS
Most High School Grads are choosing the 4-year University...

Education / Employment Mismatch

University

Other

60%

40%
Only 33% of jobs will require a bachelor's degree or higher.

Credentialed technical training or an associate's degree.

In 2018, 57% of all jobs in our economy will require some form of skilled training.

60% are going to the University, but...

Harvard University Study
7 Jobs require a 1-year certificate or 2-year degree.
2 Jobs require a Bachelor's Degree, and
1 Job requiring a Master's Degree or higher,
In the U.S. economy, for every...
The Job Ratio is 1:2:7
SKILLS

TECHNICAL + EMPLOYABLE

Not just "Degrees"

The need...
Existing human resources

"reallocate"

but

"recruit" from outside

It's not "recruit" of us.

The solution to the skilled workforce shortage is right in front of us.

Our premise
5. Upgrade high school CTE facilities dramatically.
4. Build school-industry connections.
2. Build educational pathways.
1. Realign high school education.

Our game plan:

Build a talent pipeline
TigerPath Academies

Strategy 1: Realignment High School Education
"All I can do is be whoever that is."
Bob Dylan

aptitudes & interests

No more "one size fits all" education.

Help students find the best possible career fit based on their educational & professional interests.
TIGERPATH Goals

Make learning experiential, integrated, hands-on, much more
Industry Recognized Certifications

Building Trades
Mechatronics
CADD
Machine Shop
Welding

College credit in high school.

Earned in high school.

Seamless pathways to earn college credit & industry credentials prior to high school graduation.

Strategy 2: Build Educational Pathways
Increase female participation.

Bring 21st century high-tech careers to high school.

Precision manufacturing right into the high school.

Job fairs at local manufacturers, helping students learn about all the really cool things going on at our local companies.

Industry tours for students and parents.

Show what manufacturing looks like in the 21st century.

Strategy #: Change Stereotypes
Absolutely.

Increase female participation in the technical fields.
Tiger Manufacturing

- Welding camp for middle schoolers.
- Internship
- Adopt a School program
- "Bring school into industry and industry into school"

Strategy 4: Build School-Industry Relationships

Required starting 2019-2020
School year

Employers for local manufacturers
An authentic manufacturing business based in the high school - making real products for real customers.

Tiger Manufacturing
> Generate capital to keep machinery up to date.
> Teach entrepreneurship & business operations.
> Foster critical thinking & problem-solving skills.
> Build teamwork & soft skills.
> Provide a realistic work experience.
> Add relevance to coursework.

This student-run company will...
Tiger Manufacturing

Student Job Classifications

- Office manager
- Marketing manager
- Production Manager
- Welder
- Machinist
- Maintenance Engineer

☐ Scholarships

☐ Profit sharing ($1-2K)
Provide world-class equipment for students to train on.

Get students inspired and excited about Career & Technical Education and Employment.

Strategy 5: Upgrade CTE facilities dramatically and parents have of manufacturing.

Change the stereotype of manufacturing.
"Turns off" students and parents.

- Discusses exploration of technical education.
- Reinforces the old stereotype of manufacturing.

This is what we had...
Hutchinson, Minnesota will have the best equipped, most advanced technical education program in the state of Minnesota.
Skills-based education plan

3

Integrated, hands-on, experiential learning.

2

Informed major or training program

What are you good at? Where are the jobs?

What do you want to be? What are your interests?

1

Carefully considered career path

Emphasizing...

TigerPath Academies Implemented
Impact class enrollment
Earned in high school.

Industry Recognized Certifications

- Building Trades (Summer)
- Mechatronics (done)
- CAD (Summer)
- Machining (basically done)
- Welding (done)

College credit in high school.

Educational pathways established.

Seamless pathways to earn college credit & industry credentials prior to high school graduation.
<table>
<thead>
<tr>
<th>Credits</th>
<th>Course</th>
<th>Course ID</th>
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</thead>
<tbody>
<tr>
<td>1.5</td>
<td>Gas Metal Arc Welding</td>
<td>WELD 1327</td>
</tr>
<tr>
<td>1.5</td>
<td>Gas Welding, Brazing and Cutting II</td>
<td>WELD 1324</td>
</tr>
<tr>
<td>1.5</td>
<td>Blueprints/Weld Symbols</td>
<td>WELD 1321</td>
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<tr>
<td>1.5</td>
<td>Shielded Metal Arc Welding I</td>
<td>WELD 1316</td>
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<tr>
<td>1.5</td>
<td>Gas Welding, Brazing and Cutting I</td>
<td>WELD 1314</td>
</tr>
<tr>
<td>1.5</td>
<td>Welding Processes</td>
<td>WELD 1312</td>
</tr>
</tbody>
</table>

**Example:**

Articulation underway
16 students
Spring 2016
Welding Camp Initiated
Modernized 21st Century High School

Technical Education

CONSTRUCTION TYPES:
- HEAVY REMODEL
- NEW CONSTRUCTION
- MECH & ELECTRICAL UPGRADES

HUTCHINSON HIGH SCHOOL SITE PLAN
5. TigrPath Coordinator

4. Industry 4.0

3. Internships became universal (2019-2020)


1. www.HutchTigrPath.com

Next Steps
Modern Machine Shop

4. Cardinal Manufacturing

3. Minnesota Dream It Do It

2. Local Employers / Industry

1. Hutchinson

Resources
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