

# Buffalo Billion Delivery - Workforce Development



**BUFFALO BILLION**

*An initiative of the WNY Regional Economic Development Council*

Regional Economic Development Council

May 2, 2013

# The Buffalo Investment Development Plan is defined by 6 Strategies that create a plan for sustainable economic and inclusive jobs growth



**High potential sectors** with the potential to form the foundation of Buffalo's next economy and to drive economic growth, employment, productivity and wealth

**Key enablers** that will support Buffalo's new economy across high priority sectors

# Manufacturing is an important asset in Buffalo's economy, but has experienced the same challenges as the industry nationally

## Manufacturing is a core industry in Buffalo



**3<sup>rd</sup> largest employment sector**

Manufacturing is still the 3<sup>rd</sup> largest employment sector



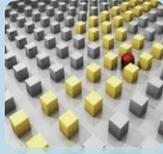
**Productivity trends**

Productivity in the region has improved over the last decade (3.6% p.a.)



**Asset sectors**

Chemicals, ceramics, metals and machinery, and med device/ pharma are specialized asset sectors



**Large, usable space**

Many large, vacant factories can be used for expansion new company attraction

## However there are challenges that prevent Buffalo reaching full potential

- **Buffalo's manufacturing productivity is lower:** 9% lower than the U.S. and 64% lower than best-in-class U.S. cities)
- **Buffalo's R&D-led innovation could be contributing to lower productivity:** concentration of small, family held businesses make best practices are harder to access and economies of scale from investments are smaller
- **Qualified candidates are hard to find:** Local manufacturers have difficulty finding candidates in the region with the right set of skills to fill their job openings
- **The challenge continues to grow:** A large wave of skilled employees are nearing retirement

# For Manufacturing in Buffalo, the plan focuses on achieving growth through workforce development and innovation – today’s discussion is on Workforce

[ ] Focus of today

## Manufacturing Innovation

### Buffalo Niagara Institute for Manufacturing Competitiveness



Applied research services to drive local manufacturers’ innovation



Advising services to assist manufacturers in implementing competitive operational processes in their factories



Market entry (domestic and international) assistance for expanding manufacturers



Hands-on instruction designed to up-skill current mid-career workers, providing opportunities to transition to higher-value tasks

## Workforce Development



**Buffalo Skills Broker:** a skills broker for the region



**Rapid Right Skilling for Buffalo:** condensed (~24 weeks) vocational credential and internship program

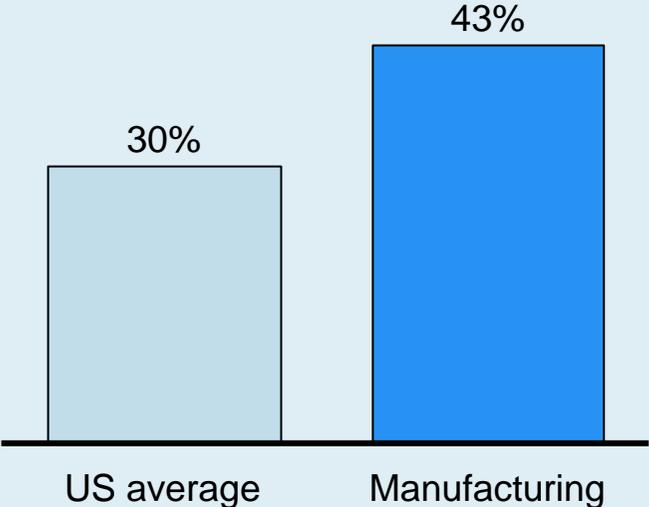


**Say Yes:** aligned academic, social, and health supports with college scholarship

# Nationally, employers have difficulty filling 'skilled' positions, and other manufacturing positions such as machinists and machine operators

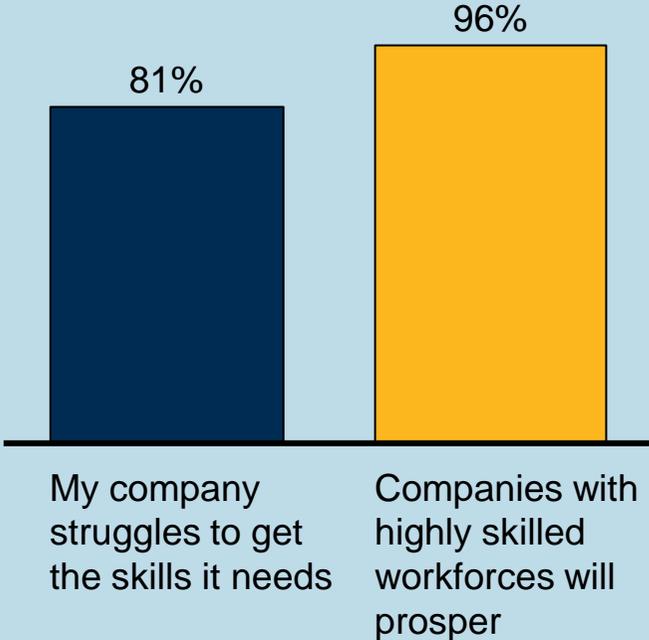
## Manufacturers report significant difficulty in filling positions . . .

Percent of positions open for greater than 6 months; n=2,000



## . . . unable to find the skills needed to grow

Percent of companies agreeing with the statement; n=353



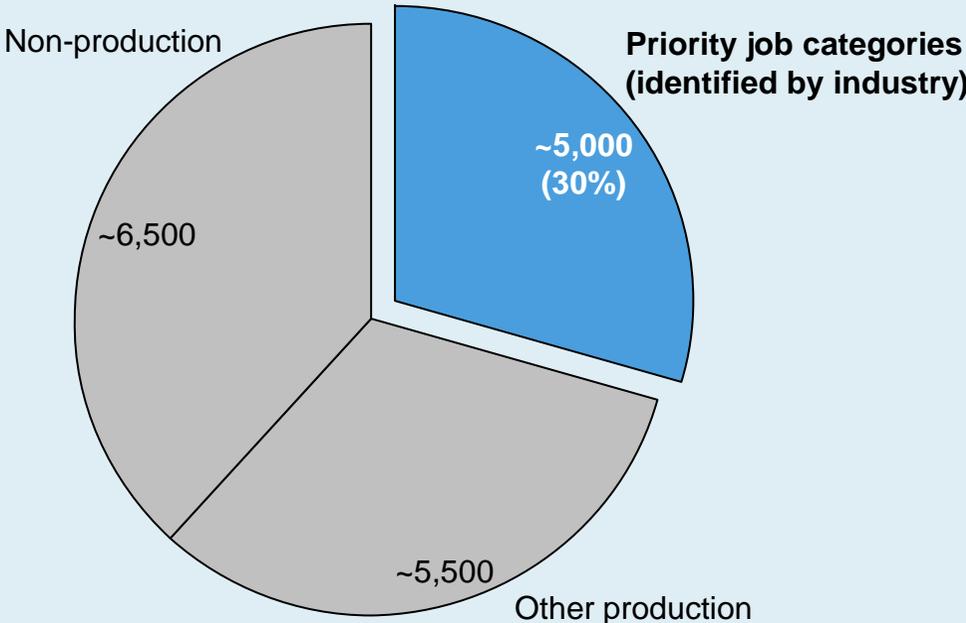
**The community that establishes a way to address this issue can attract to the region advanced manufacturing companies in search of qualified workforce**



SOURCE: McKinsey Global Institute, *An Economy That Works* (2011); Manpower Manufacturing Workforce Survey

# Buffalo Niagara manufacturing shows approximately 17,000 in training demand by 2020, with 30% of these from 6 industry-identified priority job categories

**Demand for priority job categories**  
2011-2020 (100% = ~17,000)



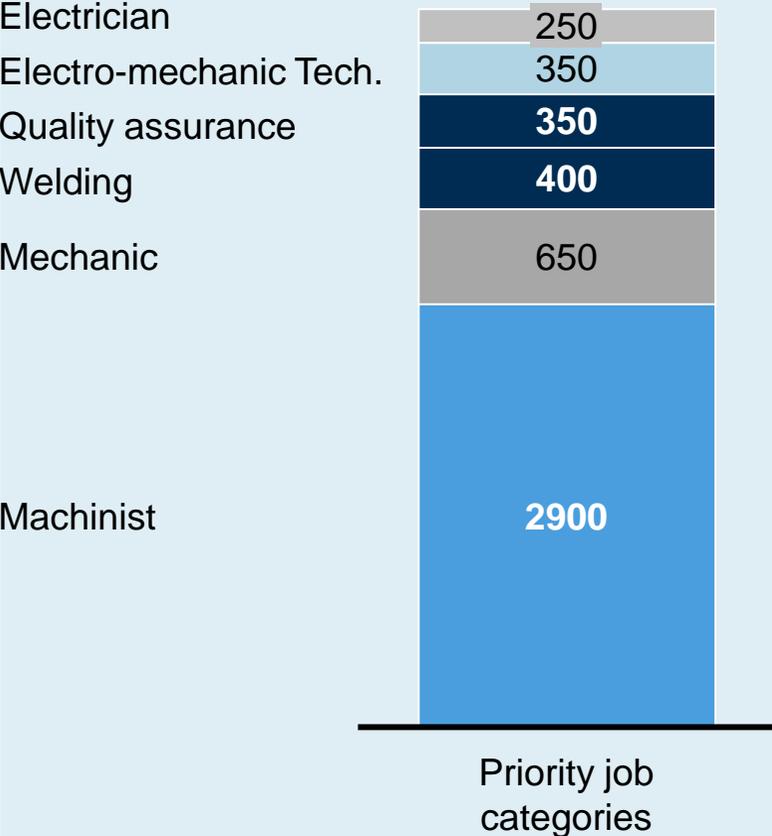
- Priority job categories identified by industry**
- Electrician
  - Electro-mechanical Technician
  - Quality assurance inspector
  - Welder
  - Mechanic
  - Machinist



Source: NYS Dept. of Labor, Moody's, local manufacturers, Demand estimates derived from estimated retirements and industry employment projections

# By 2020, Buffalo Niagara manufacturers will need to fill 5,000 positions in these priority job categories

## Demand for priority job categories 2011-2020 (100% = ~5,000)

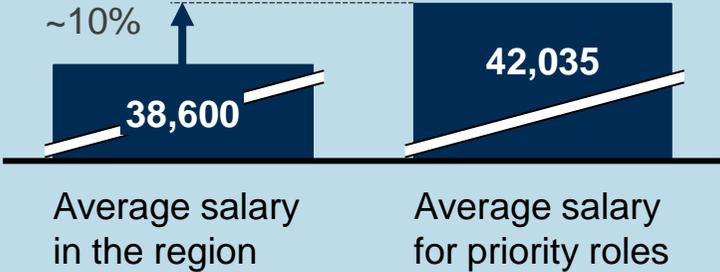


With the completion of the effort to fill these 5,000 jobs over the next several years, over

**\$200 million**

in local wages will be created

## Average salary of priority roles is ~10% higher than the regional average



Source: NYS Dept. of Labor, Moody's, local manufacturers, Demand estimates derived from estimated retirements and industry employment projections

# An initial review of leading providers in Erie and Niagara shows that training supply in priority job categories has many challenges

|                                | Major Sources  | Example Programs  |
|--------------------------------|--|---|
| 1 Quality assurance            | <br>     | <ul style="list-style-type: none"> <li>ECC's program is Coordinate Measuring Machine (CMM) is attractive to manufacturers</li> <li>Buffalo State has a Minor in Quality from their Industrial Technology Program</li> </ul>                                   |
| 2 Welders                      | <br>     | <ul style="list-style-type: none"> <li>Local BOCES are developing a healthy output of welders, however, industry calls for even deeper and more extensive hands-on experience</li> <li>Buffalo public schools has a 1-yr program</li> </ul>                   |
| 3 CNC machinists               | <br>     | <ul style="list-style-type: none"> <li>ECC CNC machining program is well calibrated to industry needs</li> <li>Local BOCES have Precision Machining programs that provide solid entry-level foundation</li> </ul>   |
| 4 Electricians                 | <br>     | <ul style="list-style-type: none"> <li>Union apprenticeships exist and are certified by DoL, but candidates are primarily committed to 'closed shops' in the building trades<sup>1</sup></li> <li>Erie 1 BOCES also trains industrial electricians</li> </ul> |
| 5 Electro-mechanic technicians | <br>    | <ul style="list-style-type: none"> <li>ECC and Buffalo public schools have some training that might relate to this job category, but are more focused on building maintenance</li> </ul>  |
| 6 Mechanics                    | <br> | <ul style="list-style-type: none"> <li>Mechanical engineering programs like ECC's and Buffalo State's cover a significant number of skills, but training is not geared towards the mechanic role</li> </ul>   |

## Local supply Challenges

- Candidates from some sources are qualified, but **scale of these programs is too small**
- Training at some sources is appropriate, but **curricula are not extensive enough** to meet full needs of the position
- Manufacturing firms **compete with other industries for candidates**



<sup>1</sup> In 2012, 40 journeyman certificates were issued by NYDOL for electricians in the five county area  
 Source: Self-reported data from regional schools; NY Department of Labor

# Manufacturer input confirmed the gap is not currently being filled by local programs – forcing them to upgrade from within, or poach from competitors

| Voice of the manufacturer |                              |  |
|---------------------------|------------------------------|--|
| 1                         | Quality assurance            | <p>“We hire quality assurance <b>from our pool of machinists</b> but look for training in CMM or quality”</p> <p>“Buffalo State and ECC provide candidates with excellent technical skills”</p>  |
| 2                         | Welders                      | <p>“We usually upgrade our welders <b>from within the company</b>”</p> <p>“We rely on current <b>employee referrals</b>, since they are 75% trained, we complete the remaining 25%”</p>  |
| 3                         | CNC machinists               | <p>“Unfortunately <b>trade schools are becoming scarcer</b>. Trade schools aren’t recruiting enough students”</p> <p>“ECC is probably the only local source, but the <b>programs need to provide more hands on experience</b>”</p>                                       |
| 4                         | Electricians                 | <p>“<b>Schools don’t produce electricians</b>. They come through apprentice programs sponsored by employers or unions.”</p> <p>“Right now qualified candidates are not provided from vocational schools”</p>   |
| 5                         | Electro-mechanic technicians | <p>“<b>Other companies are a great source</b> of electro-mechanic technicians, since they usually have very relatable experience”</p> <p>“Current employee <b>referrals are our only regional source</b>. Referrals come from other manufacturers or recent layoffs”</p> |
| 6                         | Mechanics                    | <p>“Mechanic hires in the last 2 years have been <b>sourced from current part time Work Crew</b>”</p>  |



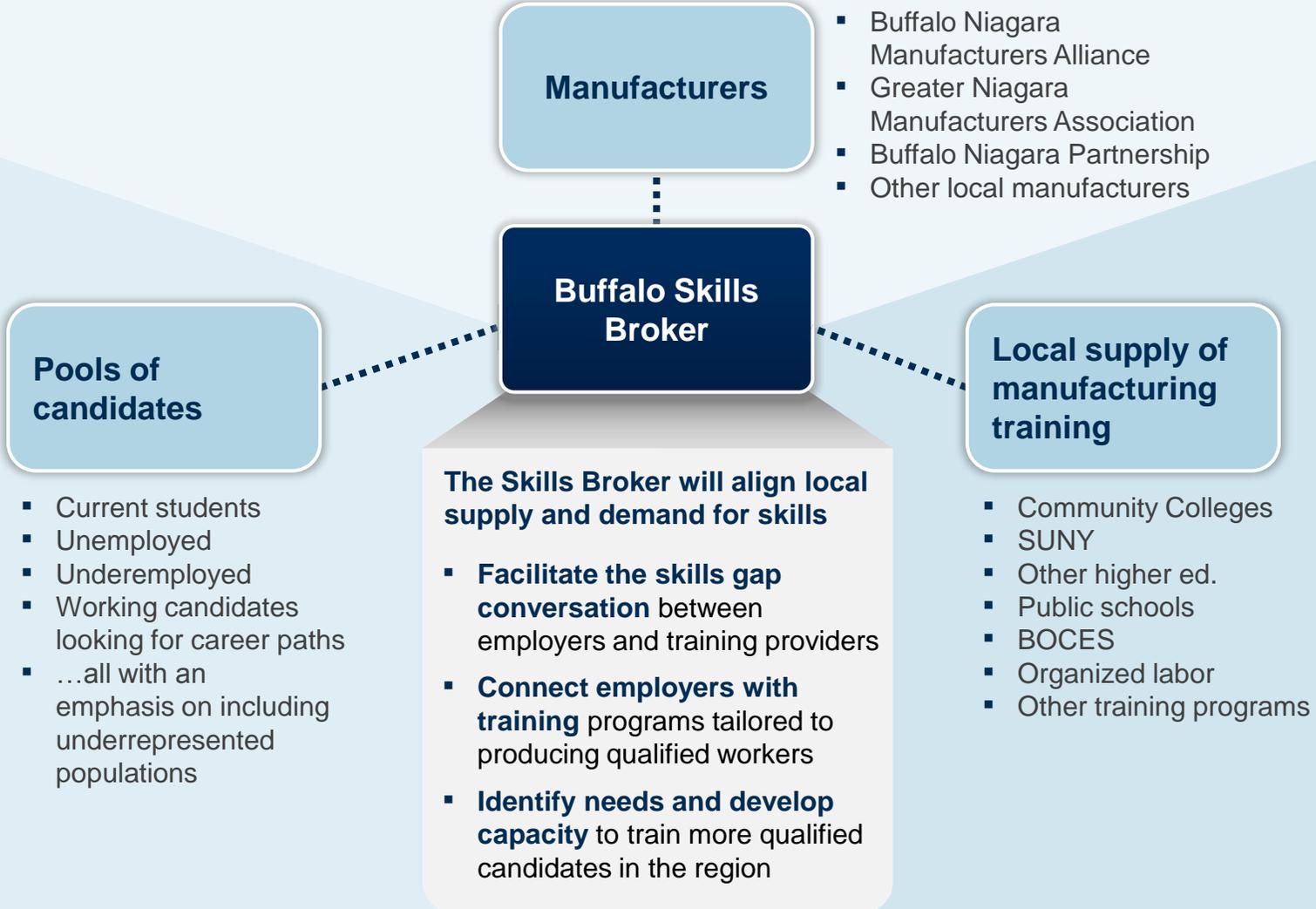
Source: Interviews with WNY manufacturing firms



# How will we address the gap?

-  Expand existing programs that already provide the training that employers need
-  Ensure other existing programs provide skills employers demand
-  Create a manufacturing training center to supplement capacity of current training providers
-  Emphasize the creation of a workforce that includes underrepresented populations in the region

# The lynchpin of the Buffalo Billion workforce development initiative is the skills broker which will align labor supply and demand



# We have designed a pilot to quickly place skilled candidates into job openings and help build a full scale job matching & training program

## Pilot objectives

- **Quickly match a set of qualified candidates** from the area with local manufacturing job openings
- **Rapidly right-skill candidates** who fall just short of requirements
- **Develop an understanding of how to scale up** the Skills Broker model across both industries and regions
- **Emphasize inclusion of underrepresented populations** in local workforce

## Key pilot metrics

- **System responsiveness:** speed to identify and place qualified candidates; and time to right-skill under-qualified candidates
- **Success rate** at each stage of the job placement process
- **Applicant and job placement**

## Key design elements

- **Manufacturers:** Manufacturer commitment, pilot scale and target occupations (based on participant openings)
- **Training providers:** Sources of applicants, right-skilling training partners
- **Pools of candidates:** Entry-level candidates from training programs as well as experienced candidates already in the workforce

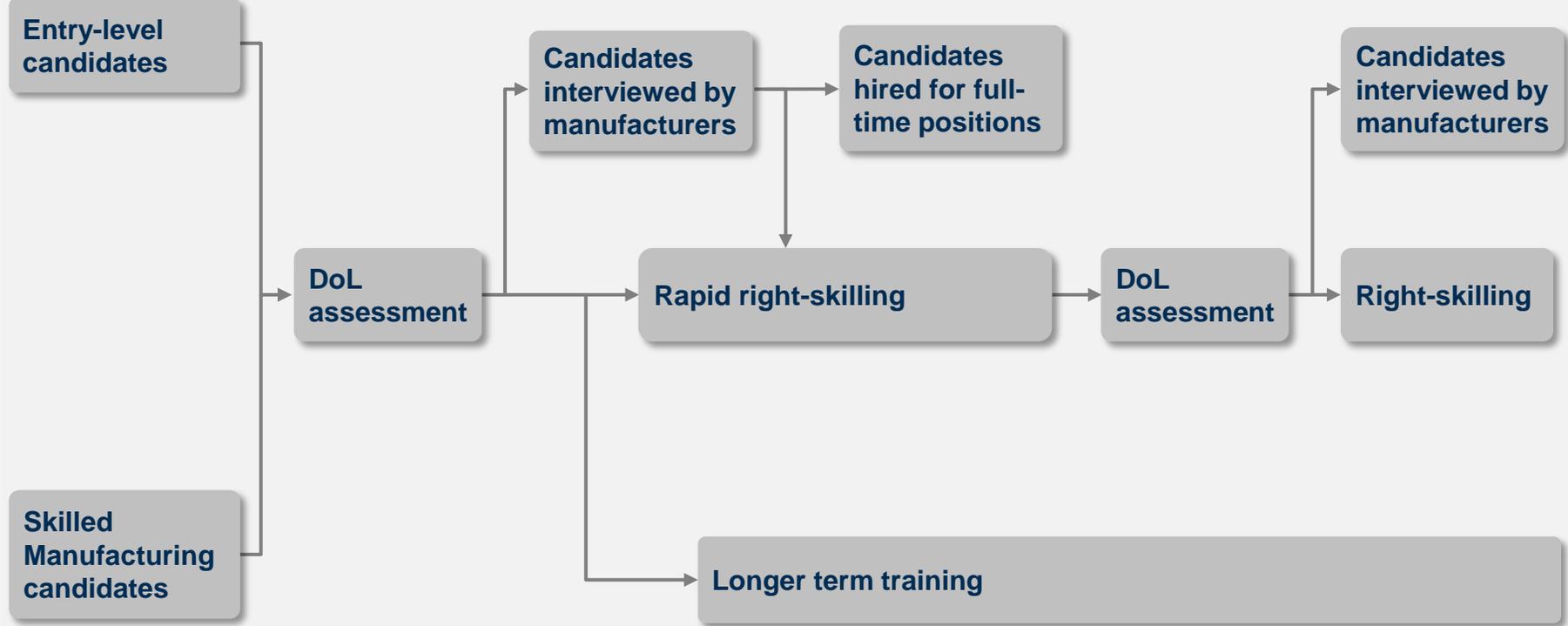
## Initial timing

- The first batch of candidates placed within six months of the launch date



# In the pilot, candidates will be assessed by NYS DoL, placing the first batch of candidates with employers within 6 months of Pilot Launch

## Skills Broker Pilot Flow of candidates



# Manufacturer Commitment to the Pilot: Manufacturers will be asked to provide guidance both on pilot design and candidate quality during pilot

## Jobs

- Provide up front information on open positions in their company:
  - Number of openings they expect to have in each of 6 categories plus 2 entry-level positions in the next 6-9 months
  - Job descriptions of these openings for each category

## Candidate consideration

- Consider all of our candidates for the job openings we agree to target in pilot
- Participating manufacturers have right of first refusal on candidates, but candidates should be more aligned to what they need than what they typically see

## Feedback

- Provide feedback on the candidates once they have completed each batch of interviews
- Help us to track performance of hired candidates including skill gaps that may not have been identified during interview process

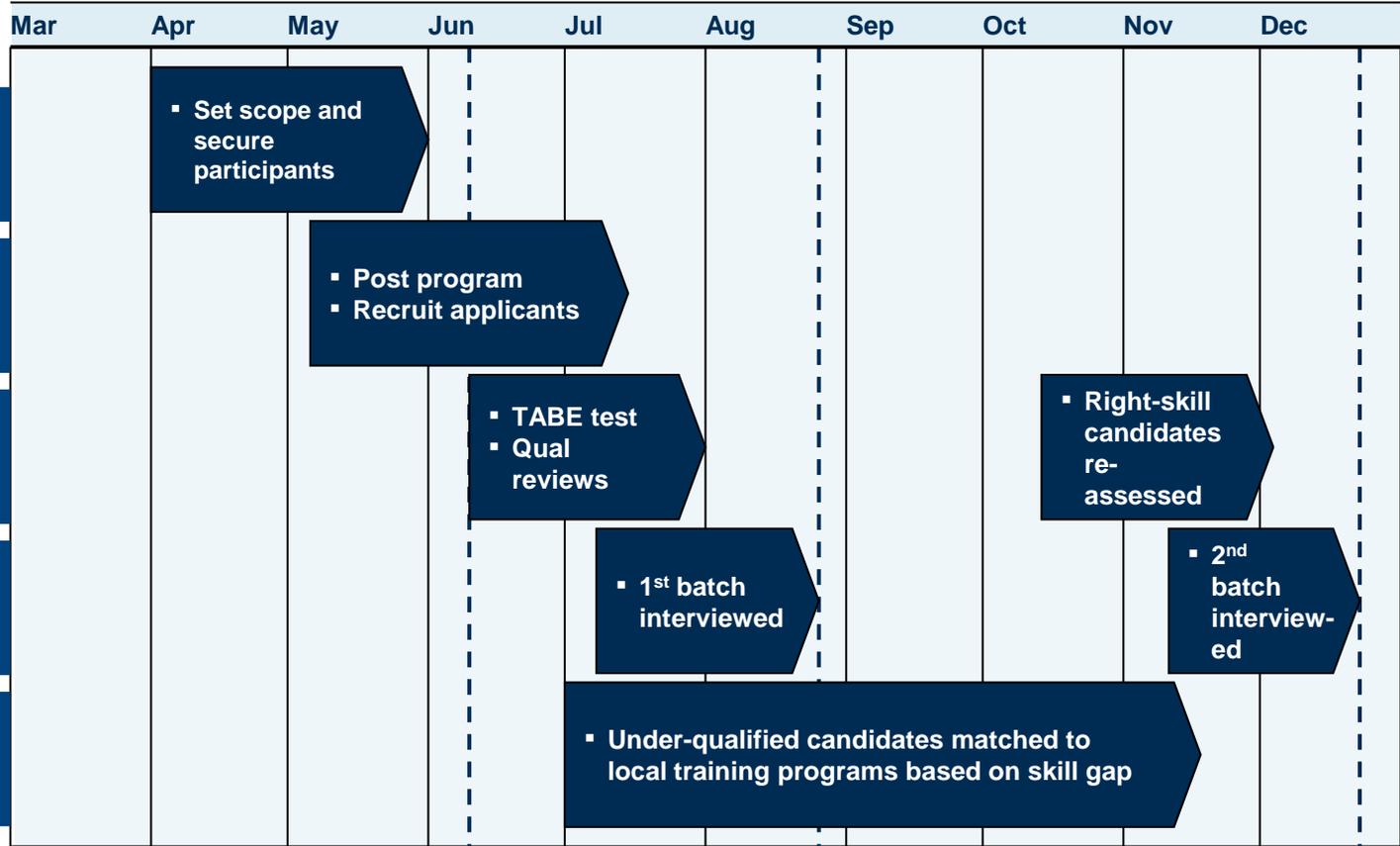
## Time commitment

- We expect the primary pilot to be approximately 6 months, with two rounds of interviews from the manufacturers
- 3 months after the pilot we will conduct a follow-up on candidates that were placed

**We are currently identifying options for providing grant support to manufacturers that hire candidates through these programs (e.g., 'Flexible' OJT grant money from DoL)**

# Placement for the first cohort in the Skills Broker Pilot will be completed within six months of launch

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## Milestones

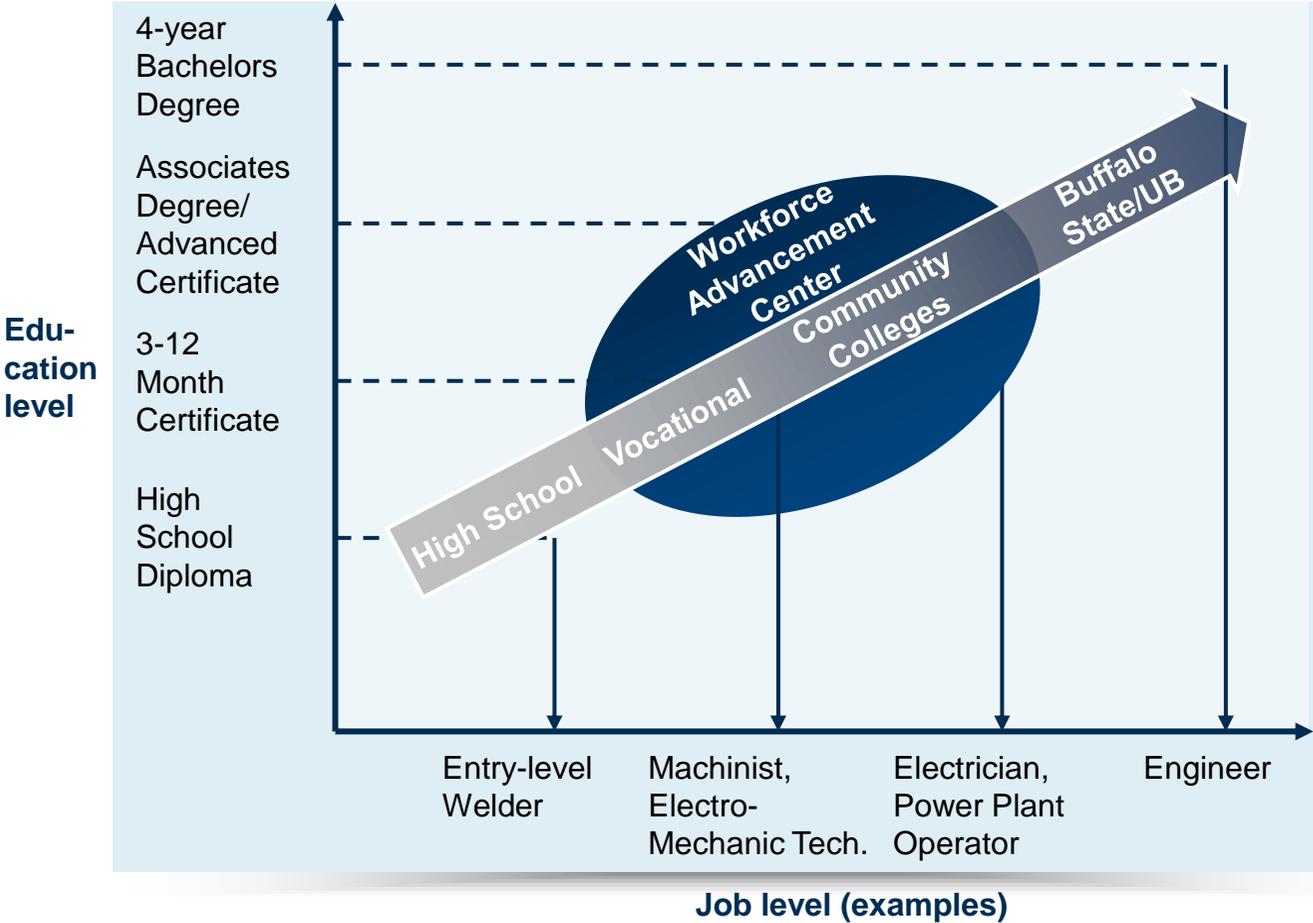
Program launch

Initial candidates hired

Round 2 Candidates hired



# In addition to the Skills Broker, we are designing stackable education pathways supported by a new Workforce Advancement Center



- Workforce Advancement Center**
- Managed by community college
  - “On-ramps” from BOCES, manufacturers, and new “Skills Broker”
  - “Off-ramps” for jobs at several levels of educational attainment
  - Credits transferable throughout SUNY
  - Promote training of underrepresented populations in Western NY