

# Distributed Manufacturing in Dayton: Combating COVID- 19 Through PSE

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# The Decline of Dayton

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**U.S. Manufacturing  
declined starting in the  
1980s**

Creation of the Rust Belt



**Dayton as a laboratory  
city**



**Exodus of  
manufacturing from  
Dayton**

Widespread unemployment

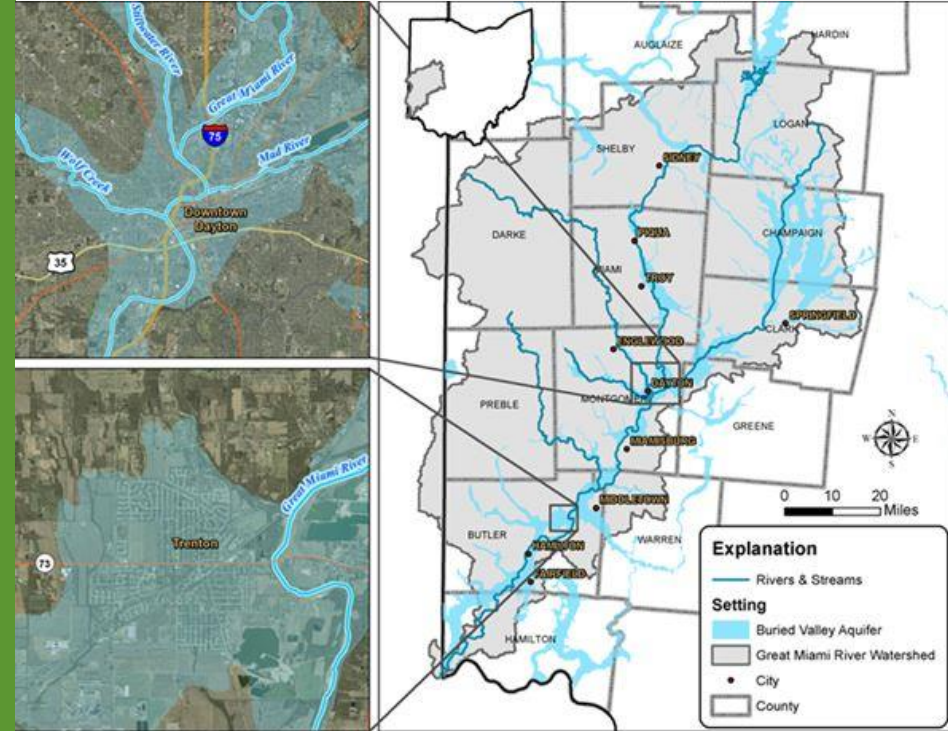


**Chinese FDI**



# Environmental Protections

Great Miami Buried Valley Aquifer





# Distributed Manufacturing PSE

- Must be
  - 1) Useful
  - 2) Fit workers' skills
  - 3) Reskill the labor force
- Distributed computing
- Distributed manufacturing
  - Cloth masks
  - Face shields



# Feasibility

- (Stern, 2018)
- Analyzes on the Green New Deal could shred like on its possibility
  - The Green New Deal was introduced by Congresswomen Ocasio-Cortez and Senator Markey and is easily explored through Senator Bernie Sanders economic implementation strategy.
- Conceivably, the Green New Deal jobs program can be extended into distribution manufacturing jobs, such as proposed for Dayton.
  - Costs
    - Printers: \$29-\$500
    - Filament: \$30-50 per kg



# Tradeoffs and Political

- Distributed manufacturing less energy efficient since electricity would need further distribution.
  - (Gwamuri et. al, 2014)
- Politically, the Green New Deal and by extension our Dayton job proposals exists in murky waters at the moment.
  - (Haslett, 2019)
  - (Friedman and Gabriel, 2019).
- Dayton centralized manufacturing is relatively weak, and the economic growth is stagnated. Thus, a need for a solution is present. The overall solution might not be politically popular, but it should be in Dayton as there is a clear need for economic rejuvenation.



# Conclusion

- Proposition of a job program in Dayton
  - Distributed manufacturing jobs
  - This solution is imperative to the Dayton economy as it has experienced a mass exodus of manufacturing.
  - Also, we have reviewed the benefits that come along with distributed manufacturing
  - Also, its feasibility and current political temperature
- Undoubtedly, something is needed to bring Dayton's economy back to strength and a guaranteed job program that aims at increased manufacturing jobs and increased skill sets is an excellent start.

Questions?