

# Carnegie Mellon University

**ORAL TESTIMONY  
BY**

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**PUBLIC HEARING  
for**

**U.S. International Trade Commission (USITC)'s  
Investigation No. 332-580  
*COVID-19 Related Goods:  
The U.S. Industry, Market, Trade, and Supply Chain  
Challenges***

**Wednesday, September 23, 2020**

Thank you Chairman Johanson, Vice Chairwoman Schmittlein, and Members of the International Trade Commission. I am Nikhil Kalathil, Doctoral Student in the Department of Engineering and Public Policy, speaking on behalf of my co-authors, Professors Erica Fuchs, Valerie Karplus, and Granger Morgan. Professors Fuchs and Karplus will then be fielding questions.

**We recommend Congress task the Department of Commerce with developing a strategy for timely and adaptive assessment of U.S.-headquartered and U.S.-located manufacturing capability of medical supplies for the duration of the emergency.**

- U.S. policymakers lack an accurate, complete, and evolving picture of the present state of critical manufacturing of medical supplies to respond effectively to COVID-19 and other pandemic emergencies. This information is essential to guide decisions to coordinate and mobilize additional capacity.
- Aggregate information on gaps between capacity and demand as well as on common challenges or bottlenecks should be communicated through a real-time dashboard to inform public and private sector activities.

**No existing public or proprietary data sources capture in real time the evolving universe of firms involved in supplying the U.S. medical supply market, despite the criticality of these supplies in mounting an effective response.**

- Existing surveys such as the U.S. Annual Survey of Manufacturers and the Economic Census provide

snap-shots of U.S. capabilities, these data lack the timeliness, frequency, and adaptability necessary to provide critical information during a rapidly evolving situation such as the COVID-19 pandemic.

- While the White House and entities like the International Trade Commission can make direct requests for information from companies, they are currently poorly equipped to do large-scale data collection with high frequency.

We have been conducting research leveraging Thomasnet, a leading North American Manufacturing industrial sourcing platform, plus emails, phone calls, and interviews directly with companies. Our initial research focus has been domestic manufacturing of masks, respirators, and their intermediate inputs.

- As of September 8, 2020, 40 Thomasnet-listed firms produced a product of interest at a domestic manufacturing facility: 29 firms manufactured respirators and/or face masks, six manufactured non-woven fabrics used in medical-grade masks, and five made non-latex elastics.
- Our limited view from Thomasnet suggests that **small and medium sized enterprises may be playing an important, and poorly documented, role** in responding to mask and respirator shortages associated with the pandemic.
- **Comparing self-reported capacity numbers for eight of the companies on Thomasnet with White House capacity estimates suggests substantial overlooked capacity:** Of the 29 facilities producing respirators and/or face masks domestically, only three are one of the five large firms (3M,

Owens and Minor, Honeywell, Moldex, and Prestige America) used in White House estimates of production capacity in the early phase of the pandemic.

- Multiple (three of eight) of the Thomasnet companies for which we were able to find online capacity information had recently purchased equipment to make masks or respirators domestically in the U.S.

**Congress should task the Department of Commerce with collecting real-time data on U.S. headquartered and U.S.-located manufacturing companies regarding final products and intermediate inputs relevant to COVID medical supply shortages.**

- Along with other topics stated in our brief, the data collection effort should pursue information on these companies' current and potential future production capacity in those products
- By identifying gaps between domestic production capabilities and demand, such data will enable informed demand- and supply-side policies to address this gap. It will also increase transparency, thus providing critical information to both public and private actors, on where innovations may be most valuable.
- In executing on Congress's task, the Department of Commerce should consider leveraging
  - Automated, large-scale data collection and analysis via market intermediaries of registered transactions,
  - The U.S. Census Bureau's survey capabilities as well as its Registrar of Businesses, with a similar approach and (most importantly) speed as was achieved for the COVID-19 Small Business Pulse Survey,

- A public-private partnership that partnered large-scale data collection and analysis capabilities in academia and/or industry (such as at Google, Microsoft, or Amazon) with government entities with access to and also seeking to act on this information, and/or
- The National Institute of Standards and Technology (NIST), given NIST's existing role leading Manufacturing USA (the National Network of Manufacturing Innovation Institutes) as well as governing the Manufacturing Extension Program.
- **The Department of Commerce's data collection and analysis activity must have a sunset clause such that it ends at the end of the pandemic.**
- As part of the sunset clause, those leading the effort should be required to systematically document "lessons learned" for future crises (not just pandemics, but also natural disasters and war) and other strategic decision making where timely and adaptive collection and analysis of data may be essential to inform government decisions.