# SUPPLY CHAIN RESILIENCY

# HEARING

BEFORE THE

SUBCOMMITTEE ON ECONOMIC GROWTH, TAX, AND CAPITAL ACCESS OF THE COMMITTEE ON SMALL BUSINESS UNITED STATES HOUSE OF REPRESENTATIVES

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## SUPPLY CHAIN RESILIENCY

#### THURSDAY, JULY 2, 2020

HOUSE OF REPRESENTATIVES, COMMITTEE ON SMALL BUSINESS. SUBCOMMITTEE ON ECONOMIC GROWTH, TAX AND CAPITAL ACCESS,

Washington, DC.

The Subcommittee met, pursuant to call, at 9:00 a.m., via Webex, Rayburn House Office Building. Hon. Brad Schneider [member of the Committee] presiding.

Present: Representatives Schneider, Davids, Delgado, Chabot,

Hern, Stauber, and Spano. Mr. SCHNEIDER. Well, I thank everyone for joining us today for our Committee's Hybrid Hearing. I want to make sure to note some important requirements.

Let me begin by saying that standing House and Committee rules and practice will continue to apply during hybrid proceedings. All members are reminded that they are expected to adhere to these standing rules, including decorum.

With that said, the technology that we are utilizing today requires us to make some small modifications to ensure that members can fully participate in these proceedings.

During the covered as designated by the speaker, the Committee will operate in accordance with House Resolution 965 and the subsequent guidance from the Rules Committee in a manner that respects the rights of all members to participate. House regulations require members to be visible through a video connection throughout the proceeding, so please keep your cameras on. Also, if you have to participate in another proceeding, please exit this one and log back in later.

In the event a member encounters technical issues that prevent them from being recognized for their questioning, I will move to the next available member of the same party and I will recognize that member at the next appropriate time slot provided they have returned to the proceeding.

Should a member's time be interrupted by technical issues, I will recognize that member at the next appropriate spot for the remainder of their time once their issue has been resolved.

In the event a witness loses connectivity during the testimony or questioning, I will preserve their time as staff address the technical issue. I may need to recess the proceedings to provide time for the witness to reconnect.

And finally, remember to remain muted until you are recognized to minimize background noise.

In accordance with the rules established under House Resolution 965, staff has been advised to mute participants only in the event there is inadvertent background noise. Should a member wish to be recognized, they must unmute themselves and seek recognition at the appropriate time.

For those members here in the room today, we will also be following the health and safety guidelines issued by the attending physician. That includes social distancing and especially the use of masks. I urge members and staff to wear masks at all times while in the hearing room, and I thank you in advance for your commitment to a safe environment for all of us here today.

Again, good morning, and thank you all for being here. I would especially like to thank the witnesses for taking time out of their busy schedule to be with us this morning. I want to also thank the Small Business Committee staff for their extremely diligent work during this unique time.

It is no secret that small businesses are reeling from the ongoing coronavirus pandemic which brought entire sectors of the U.S. economy to a standstill. Unemployment is at its highest level since the 1930s. Many businesses have been forced to shut their doors to comply with stay-at-home orders. Businesses and essential services that have been able to remain open face shortages for high-demand products, higher costs for production materials, and an inability to get finished goods to market.

The COVID-19 pandemic has exposed many weaknesses in our supply chains, both global and domestic, affecting virtually every industry. Most notably, we have seen hospitals, states, and local governments scramble to ensure the integrity and continued flow of desperately needed personal protective equipment (PPE) and medical devices such as ventilators. Too many times our communities, healthcare systems, and businesses were competing with each other, bidding up prices and creating supply dislocations across the country. As well, severe COVID outbreaks at food processing facilities made consumers also experience the heavy costs of the pandemic on our food supply chain.

Small firms can be particularly vulnerable to disruption in supply chains. Many spent years refining just in time supply systems, maintaining only a few days or a few weeks of inventory. Many others have limited control of their supply chain and depend on lower priced suppliers from overseas to support razor thin margins here at home. An overreliance on foreign countries for manufacturing components was already an issue before the pandemic hit. As the health crisis spread, Americans realize that too much of our medical supply and personal protective equipment sourcing was in China and other countries hit by COVID. As these countries nationalize their manufacturing capacities, shipments to the United States started to dry up. Initially the crisis was with PPE, than other finished products, but quickly moved to raw materials and components U.S. manufacturers depend upon to produce their goods for market. These supply disruptions affected businesses large and small in every state.

However, as they so often do, American small businesses across a variety of industries have demonstrated incredible resiliency, resourcefulness, and ingenious flexibility shifting product lines, moving to more ecommerce and utilizing alternative supplies and modified distribution chains. Some shirted to making PPE and hand sanitizer in a matter of days. Others came up with new and innovative ways to source their products while they are still discovering new delivery channels in entirely new markets. We will hear inspiring stories of this adaptability today.

So why are we here? Small businesses are the heart and soul of our local communities. They represent more than 40 percent of our national GDP and more than half our country's jobs. Today's hearing will focus on how we can help sustain our Nation's small businesses and explore potential solutions to establish more resilient supply chains through this crisis and into the future. Improving our Nation's supply chain resiliency will require an "all hands on deck" approach as both domestic and global supply chains are vastly interconnected, yet can vary significantly from industry to industry, product to product. We must also recognize that trade is an essential part of sup-

We must also recognize that trade is an essential part of supporting small business in a modern economy. Ninety-five percent of the world's population reside outside the United States, and exporting provides small businesses with literally billions of new customers. However, it is important that we prioritize making things here at home to protect our national security and public health. Doing so will also create jobs and ultimately help us build a stronger economy and a better future for all of us.

Second, to enhance our economy's resiliency, we can do better utilizing the distinct strengths and greater adaptability of small companies. In many ways, smaller firms are more nimble than larger ones and can quickly shift their manufacturing, distribution, and sales capacities to meet increased demands for certain goods.

Third, much of the disruptions we are experiencing currently were both predictable and preventable. We need to establish better lines of communication and develop better coordination so that we can anticipate shortages, identify additional and alternative sources, and get critical goods and products where they are needed in the most timely, efficient, and cost-effective way.

And finally, we need to help small companies be ale to diversify, reinforce, and scale their supply chains to better deal with unforeseen surges.

I look forward to hearing from all of our witnesses today about their experiences and their ideas for charting a path so we avoid future crises. Hopefully this hearing can help us establish best practices for our small firms and some principles for our Federal government as the economy recovers.

Thank you to everyone for being here today.

I now recognize the Ranking Member, Mr. Hern, for his opening statement.

Mr. Hern, I think you may still be on mute.

Now we have you.

Mr. HERN. All right, thank you.

I would like to thank my colleague for sitting in the chair today and leading our Committee.

You know, there is no question that this black swan event has sent a shock wave through the world and forcing supply chain leaders to rethink current operating models, questioning their operation's emergency preparedness and dependencies on primary sources. Industries of all kinds from medical to agricultural to automotive, retail, and manufacturing and more have been discriminately harmed by cascading effects of the novel coronavirus.

In the medical industry, the pandemic created an international shortage of personal protection equipment necessary to protect healthcare workers and to heal patients. The flow of lifesaving pharmaceuticals in the United States has also choked disrupted the supply chains across the Nation. However, small businesses were able to quickly fill the gaps in supply chains pivoting from their operations to quickly produce critical medical supplies potentially saving countless lives.

COVID-19 also rattled the agricultural foodservice industry, disrupting all parts of supply chain from farmers to processing plants and distributors with significant uncertainty still on the horizon. However, many farmers are rising to the challenges of the moment, adjusting the way Americans now shop and eat by experimenting with direct customer sales and deliveries. Additionally, the President's Executive Order 13917 takes one step towards keeping food supply chains intact.

In the manufacturing sector, businesses face several logistical hurdles trying to regulate their accounts payable and receivables. Having to reassess market demand (inaudible) output, tremendous hurdles exist in trying to manage the workforce, move inventory from one place to another, and keep customer relationships intact during the trying times.

As we have seen in a number of other industries, small and local businesses have stepped into the breach, filling the void where traditional suppliers and distributors (inaudible).

Unfortunately, for every small business success story that comes out of this pandemic, we also see mom and pop shops shutting down. Long unemployment lines (inaudible) country and other (inaudible) to the rippling effects of the coronavirus.

Where a big company might have a contingency plan and a larger network built into their supply chain, many small businesses operate on a more linear path leaving them at a greater risk when disruptions occur.

Even though the overall picture may seem bleak, the silver lining (inaudible) to reshape the supply chain (inaudible). (inaudible) with the local and small businesses to fit in anywhere along their supply chain.

My hope today is that we can learn more about what we can do to help small businesses affected by the COVID-19 outbreak and how we can leverage the power of small businesses to fortify our national supply chain.

With that, Mr. Chairman, I yield back.

Mr. SCHNEIDER. Thank you, Mr. Hern.

I would now like to take a moment to explain how this hearing will proceed. Each witness will have 5 minutes to provide a statement, and each Committee member will have 5 minutes for questions. Please ensure that your microphone is on when you begin speaking and then that you return to mute when you are finished.

With that, I would like to introduce our witnesses.

Our first witness is Dr. Eswar Prasad. Dr. Prasad is the Tolani senior professor of trade policy at Cornell University. He is also a senior fellow with the Brookings Institution. He was previously chief of the Financial Studies division in the International Monetary Fund's research department, and before that he was head of the IMF's China division.

Thank you, Dr. Prasad for being here today.

Our second witness is Christine Fagnani. Ms. Fagnani is the coowner and acting vice president of sales and marketing for Lynn Medical. She has held this position for the past 18 years. Prior to working at Lynn Medical, Christine worked for Johnson and Johnson for 16 years in their pharmaceutical division. Christine is also active with the Health Industry and Distribution Association, the leading trade association representing medical distributors.

Thank you, Ms. Fagnani, for being here as well.

Our third witness is David Billstrom. Mr. Billstrom leads Kitsbow Consulting Apparel in Old Fort, North Carolina. Along with a 39 year career that includes Intel Corporation and Walt Disney, he founded an Internet search engine company, helped build the Clover Coffee Company acquired by Starbucks, and 2 years ago became the leader of Kitsbow, a cycling apparel company that recently moved from California to North Carolina.

Thank you, Mr. Billstrom, for being here today as well.

I now would like to yield to our Ranking Member, MR. Hern, to introduce our final witness.

Mr. HERN. Thank you, Mr. Chairman.

I would like to welcome our final witness who is from my district, Ms. Sheila Lawson. Good morning, Sheila.

Ms. Lawson is the chief operations officer for RL Hudson and Company located in Broken Arrow, Oklahoma. RL Hudson and Company was founded in 1980, and founder Rick Hudson was at the tip of the sphere organizing the coming trend of Asian manufacturing where he began establishing relationships abroad. Soon, the small company that started out as a distributor of rubber Oring sales became a booming success story with the capability to research, design, and test unique and patentable rubber compound.

In 2017, the company launched a new in-house capability and continues to expand (inaudible) competitive industrial landscape. Ms. Lawson brings with her a deep well of experience having lived in the supply chain and operations world for 30 years. She has been with RL Hudson for the past 14 years serving as COO for the past two. She is currently in her third term as president of the Association for Operations Management, previously known as the American Production and Inventory Control Society, where she has also been on the board of directors since 2004. Ms. Lawson is a thoughtful and intelligent leader continuously striving to stay informed as the landscape in her profession evolves. Thank you or your participation today, and I look forward to hearing your testimony.

Mr. Chairman, I yield back.

Mr. SCHNEIDER. Thank you, Mr. Hern.

We will now recognize the witnesses. Dr. Prasad, you are recognized for 5 minutes.

#### STATEMENTS OF ESWAR PRASAD, PROFESSOR OF TRADE POL-ICY, CORNELL UNIVERSITY, SENIOR FELLOW, BROOKINGS INSTITUTION; CHRISTINE FAGNANI, CO-OWNER AND VICE PRESIDENT, LYNN MEDICAL INSTRUMENTATION COMPANY; DAVID BILLSTROM, CEO, KITSBOW CYCLING APPAREL; SHEI-LA LAWSON, CHIEF OPERATIONS OFFICER AND VICE PRESI-DENT OF SUPPLY CHAIN, RL HUDSON

#### STATEMENT OF ESWAR PRASAD

Mr. PRASAD. Small businesses are indeed the bulwark of the American economy, and in this very trying time when the COVID-19 pandemic has ravaged the entire American economy, small businesses have taken the brunt of the burden. They have smaller tax buffers and smaller other sorts of buffers to deal with the shock of this sort. But the (inaudible) recognized factor that is affecting small businesses is, of course, the disruption of supply chains. So I commend the Committee for holding this hearing, and thank you, Chairman Kim and Ranking Member Hern, for allowing me to share my views with the focus especially on global supply chains which many of my distinguished fellow panelists will also be speaking about.

Now, global supply chains have been a boom for small businesses in many ways. One of the reasons the supply chains have proliferated (phonetic) is that (inaudible) leadership over many decades, both tariff and nontariff barriers to trade have fallen around the world and transportation costs have declined. Small businesses have taken full advantage of these supply chain possibilities around the world and this has allowed them to reduce costs, increase efficiencies, and even expand into broader aspects of business that they might not have been able to do in other circumstances because for small businesses the option of vertical integration, that is basically trying to integrate all parts of the production process within one firm is not really a viable option. So I think the vitality of small businesses in the U.S. (inaudible) to the integration of supply chains.

Now, supply chains are subjected to (inaudible) for a variety of reasons. One reason, of course, is health and natural disasters, such as the COVID-19 pandemic that we are experiencing right now. But there are other factors as well. Trade relationships are very important in terms of maintaining the viability of these supply chains, and trade tensions among the major economics, for instance, the U.S.-China trade relationship or even the North American trade relationships which are both very important for small business supply chains have certainly had their fair share of tensions in recent years.

Geopolitical tensions in other parts of the world and weaknesses in other countries which are very important, export markets for small businesses, in addition to being part of supply chains also create vulnerabilities.

So what can small businesses do to increase the resiliency of the supply chains? One potential strategy, of course, is onshoring. That certainly reduces vulnerability to global supply chains, but it also takes away many of the advantages of global supply chains that small businesses have benefitted from. So it is not clear that that is the optimal strategy.

Another possible strategy is diversification. That is not relying just on one source of suppliers but trying to diversify across countries, across suppliers.

Now, this has both advantages and costs. Certainly having a more diversified supply chain is going to create more resiliency, more redundancy, but it comes at a cost, especially in terms of efficiency. And for small businesses, cost is clearly a very important consideration.

Small businesses can, of course, also increase the resiliency of the supply chains through using technology that can improve the logistics and other parts of their management.

So there are many strategies that small businesses can employ but government has a crucial role to play as well. So what can the government do? In the short term it is very clear; small businesses are hurting as we will hear from my fellow panelists, and the sort of assistance the government has provided so far, both through the Paycheck Protection Program and also the Main Street Lending Program of the Federal Reserve have been very important and it is crucial that this assistance be continued, and more importantly, that congressional oversight, including by your Committee, make sure that this assistance does reach these firms and reaches them in a timely manner.

In addition, the government can also play a useful role in terms of tapping (phonetic) down the uncertainty that is created by trade tensions around the world. Certainly, there is a case to be made, but effective negotiations by the U.S. would help to level the playing field that would help small businesses, but uncertainty in trading relationships and trade frictions suddenly do not help. Providing more assistance to the Export Import Bank for exporting drugs can certainly help as well, and America's support for the multinational institutions such as the International Monetary Fund and the World Bank, which in turn can help other countries of the export markets of the U.S. is a crucial factor as well.

So between small businesses themselves and the government, I think this very difficult patch can be gone through. This is my hope, that working together, governments, the Federal government, local governments, and small businesses themselves can maintain the resiliency that they have shown in many times in the past and continue to remain very important bulwarks of the U.S. economy, especially as we start, as I hope we will, getting into the economic recovery. Thank you.

Mr. SCHNEIDER. Thank you, Dr. Prasad.

I would now like to turn to Ms. Fagnani. You are recognized for 5 minutes.

#### STATEMENT OF CHRISTINE FAGNANI

Ms. FAGNANI. Yes, good morning. Thank you, Chairwoman Velázquez, Chairman Kim, Ranking Member Chabot, Ranking Member Hern, and distinguished members of the Committee for the opportunity to testify today.

My name is Chris Fagnani, and I am the owner of Lynn Medical. Established in 1966, my company is a second generation, familyowned medical products distributor. We have 30 employees and we are located in the suburb of Detroit, Michigan. We represent over 100 medical manufacturers, and we distribute nationally to hospitals, doctors' offices, and clinics.

For this hearing, it is important to know the significant part of our customer base is also small businesses, practices owned by the physicians themselves. I also have the pleasure of appearing before you today as the Board Chair of the Health Industry Distributors Association (HIDA), the association that represents 100 distributor companies operating 500 distribution centers across the country, providing services to virtually every provider in the country. Small business is a significant part of our industry as 73 percent of HIDA members are small businesses.

COVID-19 created several challenges and also opportunities for Lynn Medical, both as a small business and as a distributor in the healthcare market. The main challenge we had to deal with was the significant product shortage and disruptions to the healthcare supply chain.

Representing quality products is a pillar of our organization. As demand was in many cases three times the capacity from our traditional manufacturer partners, we found ourselves having to vet new sources, something we were not used to doing as we had a very solid stream of manufacturer partners.

We are also used to operating in a very black and white world. Products were either FDA approved and we distributed them, or they were not FDA approved and we did not distribute them. We now had to include understanding the FDA's guidance on products approved under Emergency Use Authorization and timely awareness of the shifting guidance from the FDA.

As a small business, we do not have a legal department or a regulatory department or a very large purchasing department whose role it is to navigate through these complex issues. We found this a critical task we had to take on but very important that we navigate and very difficult to navigate through.

I have two examples of how shifting EAU guidance affected Lynn Medical. The first is KN95 masks. KN95 masks were allowed under EAU due to the shortage of N95 masks in the United States. Guidance on what factories were approved to provide the KN95 masks and the labeling on the packages, the guidance from the FDA has shifted throughout this pandemic. We had product that had left China. When it left China it was on the approved list and it was labeled properly. Hours later when it reached the United States, the guidance had shifted. Our product was still allowable and approved, but the labeling on the box was not, so the product had to be flown back to China, the boxes needed to be relabeled, and then flown back to the United States. The product was already sold. We had already prepaid for the product. Our customers were faced with a 6-week delay in receiving product that was very important to them.

Another example that highlights the challenge is the COVID-19 antibody test. We had shipped product that was allowable as the manufacturer had filed for an EAU and the EAU was pending based on a March 16, 2020 FDA guidance document that deemed product allowable while EAU approval was pending. However, subsequent FDA guidance on May 4th stated it was not allowable to ship the product until the EAU was formally granted. It was very difficult to obtain clear answers from regulatory agencies and very difficult to explain to medical facilities why allowable product was now not allowable. There were significant hardships in searching for clear documentation to assure we were complaint.

Currently, we are very concerned about payables from our healthcare customers. Many facilities closed or reduced operations while at the same time had large expenditures to procure PPE that was not budgeted for. Their cash flows are not at normal levels and they are asking for delayed payment plans. And with the shortage in product, we are being asked for prepayment of product.

My company did apply and received approval for the Paycheck Protection Program. It was an easy and painless process for us, and I want to thank you for including this program in the CARES Act. This assistance is critical to Lynn Medical's financial health. It allowed us to stay whole and maintain our commitment to both our employees and our customers. While the regulatory environment was confusing, we utilized the flexibility and agility small business has to become adept at vetting new suppliers and becoming a resource for our customers. We found our biggest success in dealing with other small businesses domestically. We partnered with small manufacturing businesses whose primary product was deemed non-essential but wanted to keep their employees working and also assist in the COVID-19 response.

Two examples. We partnered with a family-owned business in Michigan that was primarily a cut-and-sew shop for the automotive industry. They made seat coverings and arm rests for cars. We collaborated with them, so they could transition to isolation gowns and fill a critical need in the COVID-19 response. We also partnered with a drum-making company in New Jersey who retooled to make face shields. We found in the small business community innovation, a willingness to shift priorities and take risks to keep their businesses relevant and employees working.

I would like to thank this Committee for its leadership on small business issues and the policies Congress has included in previous stimulus packages. As the Committee considers future opportunities to support small business—

Mr. SCHNEIDER. Ms. Fagnani, your time has expired. If I can ask you just to wrap up.

Ms. FAGNANI. Thank you. All right, thank you.

Mr. SCHNEIDER. I am sorry. Thank you very much.

We will now turn to Mr. Billstrom. You are recognized for 5 minutes.

#### STATEMENT OF DAVID BILLSTROM

Mr. BILLSTROM. Good morning, Chairman Kim, and Ranking Member Hern and all of the members. Thank you for having me here today. It is an honor to testify alongside these thoughtful and passionate witnesses.

I am speaking to you this morning from North Carolina about a journey a bicycle clothing company took to respond to a national crisis and what we learned. It is an incredible story and one we never could have imagined.

Our story is also remarkable because we are not an old-school established apparel company in the South. In fact, we just got here. After 7 years in California, we moved to Old Fort, North Carolina in October to create a modern, made-to-order clothing factory. Only one of our employees relocated from California, so nearly everyone at Kitsbow is a local.

And for us, the COVID arrived in February. I say this with some irony because knew the situation in China was real in February because of our supply chain. You see, we make premium clothes, very expensive, designed very carefully. We use the latest technical fabric and every detail is considered. We use snaps, not buttons, for example, and the best snaps in the world are made in Japan. So, when our Asian suppliers of fabrics and snaps would not return emails and phone calls in February, we knew it was real. We took immediate precautious, established social distancing. We cleaned doorknobs. We stopped sharing tools and we even canceled events. By mid-March, we were considering layoffs or furloughs. But on the same day, our founder in California showed us how we could start making PPE. We elected to keep everyone and do our part to help first responders and medical.

Now, the full story of we launched into PPE would take more time than we have today, but suffice to say that on the first day we showed the world that we were making PPE, the orders came pouring in. In fact, at the end of that first day we had orders for more than 25,000 units. It is the biggest shift in customer demand I have seen in 40 years in business and it happened in one day. We also knew that our community needed what we could do, so we made the pivot.

We are now on day 104 in making PPE and we have shipped nearly 90,000 units in those 100 days from a cold start. We still cannot make enough, and it would be months before we could sell to the public. All of our output initially was reserved for first responders and medical professionals.

Now, there are several reasons why a small business like ours can make this pivot. First of all, we have a modern, flexible factory. We can reconfigure the sewing machines and equipment in a few hours. We do this all the time.

Second, we have an awesome product team. These leaders are experts in locating suppliers, designing products, and then moving them immediately into production.

Third, we had the support of other businesses in the region, supplies and suggestions. We helped each other making PPE just as you heard a few moments ago from Lynn Medical.

Fourth, and most importantly, we knew where our products would be going. I had connections in the public safety community, and we had a distribution partner.

It is one thing to make PPE for the good of your community. It is another thing to get paid for it so the business can survive and so that you can pay your employees.

Our distribution partner is a private foundation in our region called the Dogwood Health Trust. Dogwood is focused on health and the wellness of 18 counties in the far western portion of North Carolina where Kitsbow is located. The team at Dogwood heard about what we were doing and made contact literally on that first day.

They apparently recognized our capabilities and commitment and immediately made an order, paying for it in advance to help our cashflow. They would, in turn, share our PPE with those who needed it.

Now, I want to take you back in time. This is March 21. North Carolina had its first confirmed case just 2 days earlier, and California had issued the stay-at-home order just the day before. So this was early, and it was strategic.

Dogwood's CEO, Antony Chiang shared with me that their concern was lack of enough PPE for the region should we experience a surge. His hope was that Kitsbow would become one of several local manufacturers of PPE.

It was time to act, so we did. And together we created a local supply of PPE, and for bonus points, eventually most of our supply chain was in the U.S.

Now, as the other people testifying here today already know, a manufacturing operation has two big knobs you can turn if you want to crank up the volume-the labor force and the raw materials. Word went out that we were looking for help, and within 2 days we doubled the number of employees to over 50. We had turned up that knob, so we went for the raw material. Our product design team hit the phones and the Internet. They worked 10 hours a day for weeks to source material.

It is hard to describe the frustration after you have turned your entire workforce to making PPE only to find out that all the elastic in the United States has been purchased in the last 4 days. We were competing with hundreds of other businesses.

Now, after 2 months of work by our product team and many disappointments, we now source almost 100 percent of the raw materials for our PPE here in the United States. It was a very heavy lift for a small business, just as you heard about Lynn Medical. Our team came in every day for months despite orders to shelter in place which, frankly, would have been the smart thing to do.

In closing, we have a couple of requests for your consideration. First, we cannot overstate how appreciative we are of the FDA and their efforts to make it easy for small businesses to sell face shields. An emergency use authorization on April 13th allows Kitsbow to tell buyers that our shields are FDA authorized, that black and white that you just heard about. This is an absolute requirement for any buyer in a large organization because their internal policies require PPE to be FDA approved.

Second, now we need the same thing for fabric masks. We are busy making thousands a week, but very few large organizations are allowed to buy them because of the lack of FDA guidance or an emergency use authorization.

Third, we agree with HIDA that a streamlined information source for small businesses would be a huge help. Small businesses rarely have even one full-time administrative person able to address Federal requirements-

Mr. SCHNEIDER. Mr. Billstrom, your time has expired. Mr. BILLSTROM. Thanks for the invitation to speak today. Mr. SCHNEIDER. Thank you very much, Mr. Billstrom.

We will now turn to Ms. Lawson. You are recognized for 5 minutes.

Ms. Lawson, I think you may still be on mute.

#### STATEMENT OF SHEILA LAWSON

Ms. LAWSON. Sorry for that.

Good morning, Congressman Hern and other congressmen members. I am honored to be speaking with you today.

Over RL Hudson's 40-year history, we have made the progression from distributor to custom molded part manufacturer by beginning (inaudible) plastic injection molding in 2017. The link between that chasm was superior supply chain management and engineering design support which is still heavily relied upon today by our OEM customers. Our primary products were molded rubber and plastic parts, extruded and formed hoses, shock and vibration isolation products, and sealing devices.

Industry served our medium and heavy-duty trucks, agriculture, medical, power sports, recreational marine, hunting, and others.

As an essential manufacturing company, it has been important for us to think safety first for our team members. Our leadership team took quick actions to augment our safety culture, including hospital drape cleaner, PPE, remote work and meeting options. Although we did have a few momentary concerns, we are thrilled to say we are all healthy.

External supply versus demand has been a key challenge.

Importing from 14 countries (over 400 containers and 92 million units annually) and exporting to 20 countries (380 customers and 78 million units annually) across the globe brought a list of challenges from the very onset of the COVID-19 pandemic.

As the Chinese New Year was being extended, customer forecast indicated inventories would be consumed soon if we did not respond with swift and creative action. Through strong relationships with our external partners and many conference calls, we were able to secure inventory availability details along with more challenging tasks and finding space on vessels sometimes, talking to new ports in order to get faster boats which allowed 2 additional weeks for production. Forty percent of production during March and April moved in this mode adding 50 percent to our transit cost. All the while, customers were asking for daily meetings to ensure product availability.

When COVID-19 reached the balance of the world, (inaudible) expedited containers began arriving to RL Hudson. With the U.S. implementing stay-at-home orders, and with many customers halting production, we needed to find a place to store the inbound inventory. We had had 18 containers lining our parking lot with an additional 30 moved to offsite storage. Both came with challenges and increased costs.

Predicting future customer consumption required new tools. The customers had no way of predicting how they would be impacted. Our inventory dollars grew by 30 percent. Today, our in-transit inventory has been controlled and reduced by 50 percent on average.

Needless to say, this has placed a strain on our manufacturing partners. The events resulted in payables being greater than receivables for a short time which was a first during my 14 years with the company.

As customers reopened their doors, we were forced to change company policies to not allow for ship dates on orders to be canceled or pushed out. Our company prides itself on flexibility, so this change has been challenging for both our team and the customer. We have allowed the policy to continue, however, should the customer factory be nonoperational.

Our key customers provided a mountain of support by accepting earlier ship dates to make up for loss consumption in April. We are thankful for the true partnerships and support they have provided.

Internal workforce versus demand has proven to have its own set of challenges. Late raw material arrival in Q1 forecasting need to remain strong. Our manufacturing team (inaudible) action to ensure product availability. As demand decreased due to the stay-athome orders and factory closures, we kept our teams in production by building stock for products that are higher volume but with zero firm orders.

With machine utilization in our injection molding dipping to 30 percent in April and finished goods filling the warehouse, we did move to a 4-day work week during May for all team members. We were thankful that the PPP loan allowed us to avoid layoffs and furloughing our team members. In addition, although our work hours were reduced in May, we were able to pay employees for that full 40 hours of work.

Due to our flexible supply chain, RL Hudson has been able to gain 10 new customers during the pandemic. While we have responded very well, we would like to point out that we had begun a process of diversification long before this event. Using in-house manufacturing as an example, we have been taking more production in-house.

We have a new strategy to diversify our global production even more, and while not yet fully implemented, this crisis revealed the wisdom of the strategy. We still appreciate our international partners and realize we need them for certain components which only frees up our expertise for items where we can excel in manufacturing domestically.

Just as our society is trying to learn how to better celebrate diversity and the blessings it can bring, we believe diversity to be a principle that works well for business, even supply chains. Making America strong as a manufacturing leader will require diverse partnership with factories worldwide. Thank you very much.

Mr. SCHNEIDER. Thank you, Ms. Lawson.

And again, I want to thank all of our witnesses for joining us and sharing their experiences. I will begin now with the questioning and recognizes myself for

5 minutes.

So I will start with something Ms. Lawson said in her comments. Customers are asking for daily meetings because there is so much uncertainty. This pandemic and the uncertainty in our supply chain has created extra costs, more uncertainty, higher risk, and certainly more frustration. As we heard from Mr. Billstrom, the level of frustration trying to figure this out in a very difficult world. And Mr. Billstrom, I am going to quote from your submitted testimony which I thought was fascinating, the full story, I wish we had time to hear it all, but on page 25 you say, "Kitsbow was competing with dozens, hundreds, of other manufacturers for the same key material—plastic, elastic, HEPA filter media, et cetera, all of which was obviously critical and essential supplies in a worldwide disaster. This could have been recognized and the appropriate material secured by a central authority."

I want to explore that idea. I have been searching for a centralized supply chain czar because this is so critical. We see it for our small businesses in their need to get everything from raw materials and supplies to manufacture their goods, one leading to another as small businesses rely on each other as we have heard from the witnesses, but also the fact that if we compete with each other prices are going up and it is making it very difficult for small companies. In particular, we have seen this with the PPE, the personal protective equipment—gloves, masks, gowns, et cetera.

protective equipment—gloves, masks, gowns, et cetera. So I would like to start with Dr. Prasad. When you are looking at essential goods like PPE, medical devices, the food supply, et cetera, where do you see the Federal government has fallen short in the early months of this pandemic, in the spring, and what can we be doing to make sure that we do not fall short in the months ahead of us?

Dr. Prasad, you are still muted.

Mr. PRASAD. Sorry, Mr. Chairman.

Your question is a very pertinent one, and as I think my fellow panelists have indicated, regulatory certainty is certainly one of the most critical aspects that small businesses seem to be contending with. Certainly, there are facts changing on the ground by (inaudible).

Mr. SCHNEIDER. I think we lost the signal again, Dr. Prasad. You may be muted.

Mr. PRASAD. Sorry. I think I was emphasizing the issue of regulatory certainty to make the point that the experiences that my fellow panelists suggest that while the FDA and other regulatory agencies have been flexible (inaudible) very welcome, the lack of certainty (inaudible) ultimately challenging for them. And that I think needs to be (inaudible) a critical element that the government can help with, in addition to providing more (inaudible) such programs.

Mr. SCHNEIDER. Great. Thank you, Dr. Prasad.

And let me turn to Mr. Billstrom because I quoted you. How would you see a centralized authority for supply chain possibly making a difference in the work you were trying to do as you touched on getting the raw materials and ultimately getting finished product to your customers?

Mr. BILLSTROM. You know, I hate to say this, but I do not know. That is not my area of expertise. So I can explain the need, which is as scarce materials that are essential and cannot be replaced any other way are identified, we need some way of organizing it but I do not have a specific proposal on it.

Mr. SCHNEIDER. And I appreciate you not wading in where you did not feel confident.

One of the things I think, and just from my experience in business, is that to the extent we can have a centralized authority who understands where there are opportunities, as you touched on in your company, Kitsbow did a pivot and then you mentioned in your testimony, a pivot within a pivot within a very short period of time. Helping coordinate that in a centralized authority, understanding what is happening, the needs across the Nation, the resources across the Nation and trying to match those I think is a good opportunity. But I have used my time.

I will now turn to my colleague, Mr. Hern, to ask his questions.

Mr. HERN. Thank you, Mr. Schneider. I really appreciate it. Again, thanks for all the testimony that we just heard regarding supply chain.

Ms. Lawson, I have had an opportunity to tour your manufacturing. Can you tell us more about how doing in-house productions is fair compared to working with outside manufacturing partners outsourcing?

Ms. LAWSON. Sure. As we insourced, we had our own set of challenges. As we began pulling in from outside, we found that, you know, they had secondary operations and we needed to learn to (in-audible) ejected part out of the machine (inaudible) secondary operations. And we were able to control that, the quality of that much better because as it came out there were new additional trimming operations and such which can create gouges (inaudible) and those type of things. So, controlling that has been great.

However, we do believe that there are sectors where we will need (inaudible) useful location for the means of production because there are some items that are better suited to be produced elsewhere and it frees our expertise for items that we can excel in manufacturing domestically. So we see (inaudible). We do and our customers do appreciate the additional control (inaudible) as we bring product in-house.

Mr. HERN. I have got a series of questions. One question I am going to ask for all of you, and I will start with you. There has been a lot talked about across multiple industries—pharmaceutical (inaudible) PPE and others that relate to bringing things in from Asia, and more specifically, China and Taiwan and places like that. What do you see (inaudible) Asian community and importing and exporting to them as well, what do you see changing right now among the perception of the American people, even if we talk buy American, how practical is that to bring what some would like 100 percent of all sourcing back to the United States? Or certainly to North America?

Ms. LAWSON. RL Hudson has more than 5,000 parts numbers which we procure abroad in the Asian factories. And to bring all those back, the dollars for tooling, even if you are moving the tools, in some cases you can build new ones for the same cost as the other ones. There is testing. (inaudible) they have product that has good quality which requires testing. So the cost associated with that would really be (inaudible) for us. New product and where it makes sense to move them from critical parts, we support that and believe that (inaudible) parts will be great. But there is a (inaudible) to be left where they are, and we do see concern from our manufacturing partners that we worked with. And if they want as businessmen their selves and women, they want to provide good quality service to us, so it is a bit of a strain on a relationship and we want to make sure that we are able to provide product as promised to customers throughout the U.S.

Mr. HERN. Thank you.

Professor Prasad, just from a policy standpoint, when you are looking at what you are seeing the movement across the United States because of the pandemic, this bringing back, this acceleration and bringing back manufacturing from specifically China back to North America, yesterday was the first day of the USMCA bill, how do you see that opportunity that confluence of opportunity from China to now USMCA with free trade, lower labor costs in Mexico, how that would soften the blow of price increases and might affect the willingness to buy?

Mr. PRASAD. Certainly, the onshoring and also the regionalization of supply chains as opposed to using global supply chains is going to have some positive benefits in the short term in terms of employment in the U.S. and on the North American continent. But I think with small businesses there are some real constraints enforced by that because the very limited supply chains here in a certain place, many of which are going through Asia as was the case for Hudson Manufacturing, has left enormous gains in efficiency, and frankly, it has allowed them to create certain products. Sometimes it might not be possible if you had much or regional supply chains. So I think it is going to be a tradeoff for every small business. There are huge benefits to be trained from a much broader supply chains, especially if you think about the sort of diversification that the lady from Hudson Manufacturing talked about. And that has to be offset against the fact that there are going to be job gains certainly if you have more onshoring. But from a longer-term

Perspective, I think the broader diversification of the supply chain is certainly going to be better for small businesses.

Mr. HERN. Thank you.

Mr. Chairman, I yield back.

Mr. SCHNEIDER. Thank you, Mr. Hern. And I would now like to recognize the gentleman from Ohio, the Ranking Member of the Small Business Committee, Steve Chabot.

Mr. CHABOT. Thank you very much, Mr. Chairman. I understand that my connection may have some challenges here, so hopefully you can hear me okay. If not, let me know.

I will start with Ms. Lawson if I can.

I want to thank all the witnesses for being with us today.

You alluded to this in your testimony, but could you describe in a little greater detail some of the more significant tradeoffs that your company had to navigate in order to keep your supply chain intact, and do you think these tradeoffs could result in any longterm damages or challenges or disadvantages for your company?

Ms. LAWSON. Sure. Some of the biggest challenges we are going to face as we go forward is that we have really strained your manufacturing partners. One of the keys to our success is making sure that we are an important customer to our partners, so we want to make sure that we are in that top one, two, three on their customer list. That we are a big percentage of their business. But we have some manufacturing partners who are only manufacturing 2 or maybe 3 days a week at this time. So as business begins to increase, we are going to face challenges for those products that must come from them because everything that we purchase is a one-one relationship between the customer. There is nothing that we can sell to another customer nor can it be produced by anyone else without additional tooling being built. So we are going to need to support these factories as they begin bringing up their production, maybe in some cases rehiring on their own and building back up their timelines to be able to manufacture. So it is going to be a big challenge. I also said in my statement we are looking to diversify, and we have already began through that process. We went through 101 different manufacturing companies. We have narrowed it down to almost 30. And due to the pandemic, we are a little bit strained opening up new factories as we cannot put boots on the ground to make sure that we do those full-scope audits to ensure the qualities are in place that our products require.

Mr. CHABOT. Okay. Thank you very much.

I will stick with Ms. Lawson at this point. What would you say was your greatest asset in weathering the disruptions in your (inaudible) COVID-19, and what would you say was your biggest challenge?

Ms. LAWSON. Okay. I would say that we have built very strong relationships, and we communicate very well with our supply chain all the way from the supply chain being our factories and also being our customers. So communication has been key. And being very open with what we are being faced with. So we have had conference call after conference call. You know, 10, 11 o'clock at night followed by 7 a.m. conference calls with other countries in the morning. It is very important that we are communicating and that everyone knows what is the situation. And that includes our freight-forwarding teams.

On the other side, the biggest challenge has really for us been where will we place this inventory and our payables have also, I forgot which one of my colleagues talked about payables, but it is a strain because we have seen some customers close their doors throughout this process, and that is concerning with our payables. And for the first time we had our receivables less than our payables. And it was a strain and a concern. But I am very thankful that our team members who have had long-term stability with our factories have been able to move from one side of our business to the other, so we have been fluid in being able to keep our headcount where it needs to be and manage our expenses accordingly.

Mr. CHABOT. Thank you. Thank you very much.

Mr. Chairman, on my screen the time clock is frozen, so I have no idea how much time I have left. Could somebody educate me on that?

Mr. SCHNEIDER. You have 30 seconds.

Mr. CHABOT. Okay. All right. Well, at this point, probably not having sufficient time to really get into, you know, another question, have the answer, to be fair to my colleagues I will yield back in a second.

But I just once again want to thank all the witnesses for their testimony today. I think it has been very helpful. Supply chain is absolutely critical, and during these times, you know, a clear challenge. And it was helpful to hear how you all are dealing with it and recommendations that we can work as we are moving forward for potential legislation or other things that we are involved in. So thank you very much. I appreciate it, and I yield back.

Mr. SCHNEIDER. Thank you, Mr. Chabot. And we will have a chance to go to a second round of questions if you want to stay on. But the gentleman's time has expired and yields back.

I would now like to recognize the gentleman from Minnesota, Mr. Stauber. Mr. Stauber is the Ranking Member of the Subcommittee on Contracting and Infrastructure. He is now recognized for 5 minutes.

Mr. STAUBER. Thank you very much, Mr. Chair. And thanks for the witnesses for being here.

You know, since the beginning of the COVID-19 crisis, we have seen over 70 countries impose some sort of export restrictions on an array of different products, including medical supplies, pharmaceuticals, and food products.

Can any of the witnesses tell me what would happen if tomorrow the communist country of China chose to implement an export ban on active pharmaceutical ingredients, medicines, and critical minerals that power our renewable energy? Anybody?

Well, I can tell you what would happen. We would be in deep trouble. You know, currently, the United States relies on communist China and other foreign actors who do not have our best interests in mind for too many of our goods and services. China, for example, is one of the top producers of API active pharmaceutical ingredients, which are the basic components of antibiotics and other prescription drugs. And because of their poor environmental and labor standards, China manufacturers and exports many of the minerals critical to our national security.

The Democratic Republic of the Congo exports about 60 percent—60 percent of the world's cobalt supplies. Cobalt is used in batteries, computers, and yes, renewable energies.

According to Amnesty International, this cobalt is mined by children in appalling conditions. These kids do not go to school. They do not get any protective equipment. They do not have a minimum wage or a limit on the hours worked. These kids mine cobalt for our renewable energy and our cell phones and our technology.

our renewable energy and our cell phones and our technology. Most of the United States, estimated 1 million tons of cobalt reserve are in my district and could be safely and responsibly mined with strong environmental standards and union-protected jobs.

You know, during this pandemic it has become apparent more than ever, we must improve our domestic supply chain. We can no longer rely on our adversaries, like the Congo, Russia, and China, for resources that are critical to our economy, our national security, and our health.

For these reasons, I recently introduced two pieces of legislation to bolster self-reliance on our own supply chain. First, I introduced Securing America's Critical Mineral Supply Chain Act, a bill that would incentivize manufacturers to purchase domestic minerals, like those mined in Northeastern Minnesota. And second, I introduced the Securing America's Pharmaceutical Supply Chain Act, a bill that would require our Federal agencies to purchase drugs made in the United States. And by incentivizing investments into America's supply chain, I am confident we can become a more selfreliant and resilient Nation. We have the opportunity. We now know the deficiencies in our Supply Chain Act. And I will state this to you all: The state of Minnesota is ready to help our Nation with its supply chain issues. We can supply the critical minerals for our national defense, our national security, to build our pharmaceutical instruments, to build ventilators. And we must take this opportunity and not falter. The supply chain is broken. We have relied, and we cannot rely any longer on nations that do not have our best interest at hand. The state of Minnesota played a big role in World War II with mining the iron ore that makes our steel, built our tanks, our ships, our airplanes, our weapons. And Northern Minnesota stands ready to secure our supply chain, both pharmaceuticals and our critical minerals. And I yield back.

Mr. SCHNEIDER. Thank you so much.

With that, that wraps up our first round of questioning. I would like to go to a second round if that is okay with the witnesses. And I will start by recognizing myself for 5 minutes.

I will start by recognizing myself for 5 minutes. And I want to turn to Ms. Fagnani. And I hope I am pronouncing your name right. I have a feeling I am close but not quite on. But you described in your written testimony some of the challenges you face but also shared some ideas. One of them was streamlined information source for small businesses.

Having had my own small business in a prior career before coming to Congress, I know how important information is and how hard it is for small companies to get that information, especially because oftentimes there is not a dedicated resource, whether it is for compliance or for human resources, et cetera. People wear many, many different hats. And I also know that through the first few months of this pandemic, from the SBA, from Treasury, there has been fits and starts, changes in direction, whether it is applications for the IDA program or guidance on the forgiveness process for the PPP.

So my question to you is, how important is that clear and simple communication? And what would be the impact of streamlining that communication and reducing the complexity for small businesses?

Ms. FAGNANI. Well, thank you for the question.

It is critical. We are selling medical supplies, medical equipment that are either going to protect our frontline workers or be used on patients. And it is critical that we understand what the FDA's guidance is.

I mentioned in our old world it was very black and white. Things were FDA approved. They went through long laborious processes. But in an effort to get more product available, the FDA did enact emergency authorization use for many products. So our ability to understand guidance, guidance changing so that we are buying correctly is critical, that we are not distributing product that we should not be distributing.

And then the other complication, and it was just explaining to our medical customers why guidance had changed and why perhaps the product that they had bought can no longer be bought or, you know, just why things were changing. There was a lot of information about bad product being distributed, and so a lot of skepticism as there should have been. And just it was critical to us to make sure that we were supplying the right product and we were able to communicate accurately with our customers. So the FDA website is a tremendous resource, but it is difficult to navigate through. And it became very cumbersome. So streamlining that for small business, some type of alert, letting us know that there has been a change in guidance so that we know to look would be helpful. But that would really be critical for us at this point.

Mr. SCHNEIDER. Thank you. Thank you for sharing your thoughts on that.

I want to shift gears and turn to Dr. Prasad for a moment. In your testimony, you talked about things that the government could do, you know, from developing consistently enforced domestic regulatory policies to providing greater certainty with our trade relationships around the world, including deescalating trade wars, your words, but you also talked about the advantages of multilateral versus bilateral approaches to our trading partners. I would ask you to expand on that a little bit.

Mr. PRASAD. So one issue is, first, access to export markets in other countries. And second, access to reliable sources of intermediate goods, imports, and so on.

As the previous congressman made a statement about China pointed out, one needs consistent standards and the ability to rely on trading partners around the world. And bilateral trading relationships do create complications in particular for small businesses because it creates an array of different types of regulations that small businesses (inaudible) as they look to diversify.

For instance, Ms. Lawson spoke about trying to diversify her suppliers and sources across a number of countries, and that becomes difficult if you are dealing with individual trading partners and their old requirements and provisions of an individual trade beam (phonetic). So if you think about something like the Trans-Pacific Partnership that the U.S. stepped back from, the other 11 countries went ahead, and what they did was institute a common set of regulations, a common set of neighbor, environmental, and other standards that now all those countries can use and they become benchmarks for further trading relationships. So these sorts of multi-lateral approaches I think would be good to be with the trading partners of the U.S. and could also be used to bring onboard countries like China because then they will be forced as well to take onboard those standards that the U.S. has negotiated with many of its trading partners. And frankly, many countries around the world have concerns about China's economic and trading practices. And rather than going it alone, I think if the U.S. joined forces with other trading partners it would certainly get a lot more of China than we have seen so far.

Mr. SCHNEIDER. Great. Thank you. And my time has expired. I would like to turn now to the Ranking Member, Mr. Hern, for 5 minutes if he would like.

Mr. HERN. Thank you.

Professor, let us just continue on with that thought since we are on this train of thought. You talk about a standardized approach. I will just say for the last 20 years, certainly since 2001 and China's introduction into the World Trade Organization, some would argue there have been books written on it. Maybe you have written books on it. I am not sure. I would love to read them if you have. About China's just methodical move through tackling and taking over columns of industry to be able to take over that supply chain with low cost, very broad acceptance across the world.

I want to go back to the onshore piece of this as well. You mentioned that I guess on the margin that it would be very difficult for businesses to realize the same cost of goods cost, if you will, as they would with China, and probably the breadth of the source as well. But do you not see that it is a possibility as we are all looking at USMCA, most people do not realize that Mexico is our largest trading partner second to Canada, and third China? And again, with the push for Buy USA, Buy North America, whatever, that we are going to see some of these more easily stood up industries come to Mexico so that more of the Western Hemisphere can join us without the geopolitical constraints (inaudible) of what China is trying to do?

Mr. PRASAD. Congressman Hern, I think you have a legitimate point, that one could think about re-onshoring as part of a diversification process. Certainly, one does not want to leave American manufacturers, either small or large vulnerable to geopolitical tensions. And we have been vulnerable to single sources and suppliers that could be disruptive even by bilateral tensions or by conflicts that those countries might be engaged in that create disruptions within their own economies. So certainly it could be an effective part of onshoring.

But I think one has to think about the other aspect as well. While we try to move jobs back to the U.S., one also needs to recognize that small businesses are very important exporters as well. So I think a far better solution might be to think about how in addition to using onshoring as a diversification strategy one tries to level the playing field in terms of creating relationships with all of our trading partners so that small businesses have diversified sources of production, but also diversify export markets which I think are equally important.

Mr. HERN. And I guess to piggyback off of that, too, since we are on the policy conversation, that most of this is driven by (inaudible) markets' ability to grow your small business on the export side, but on the import side it is to drive down cost. We are a free enterprise society that we are looking at seeking for low cost providers, as well as to Mr. Billstrom's conversation earlier, just being able to find the product, or sourcing that from the Asian continent so that what China has done to deflect a lot of geopolitical issues is to disburse manufacturing across some of their allies in the Asian continent.

Mr. Chairman, I think we can spend, probably I encourage Mr. Prasad to write a book. If you have one, I would love to read it about this whole concept because I think all of us here, we heard Ms. Fagnani talk about what happened with the discrepancy between the appropriate labeling of boxes of the KN95 masks and other PPE that had to go back in delays. And I think, you know, when we have these geopolitical problems, as we know, we are talking about supply chain here but there are other columns of air that stand up here from military, intellectual property issues, a vast verse engineering of our products, all these things are paramount for us to all understand and get our arms around.

And I just want to again thank the witnesses for being experts in your areas and sharing with us your thoughts. This will go a long way to formulating our policies as we go forward. It is great to hear people that deal directly with the supply chains and also use them as an export market in many cases. I think as I said yesterday in a Small Business Committee hearing that we all need to learn from this pandemic, put together a pandemic playbook, and as just one column again of thought was with the IDA loans is to capture all these different communication breakdowns, these issues with labeling, all these things we could put into a nice book and be able to step away into legislation or to have. Hopefully, all of us will never have to experience another pandemic, but our country will, and that we have the playbook on the shelf to do things differently and better so that we do not have disruptions like we did this time. Thank each of you for being on this call.

this time. Thank each of you for being on this call. Mr. SCHNEIDER. Thank you, Mr. Hern. And I could not agree more. May we never experience anything like this again.

Before I wrap up I would like to ask unanimous consent to submit to the record a letter from 14 associations, including the AICPA, the National Retail Federation, and others, calling for the Fed to create a short-term lending facility to help companies bridge supply chain disruptions.

Without hearing objection, so ordered.

Thank you. And let me now take a moment to close.

And in closing, I want to thank our witnesses. Thank you for sharing your experiences, your perspectives, your insights. I know there were more members who would have liked to have joined us today. Unfortunately for many, it is a travel day. We have been in session this week and many are traveling back to their home districts. But I can assure you they will follow the testimony. I appreciate everything you said, for all that you have done.

Before the COVID-19 pandemic, global supply chains were built to be linear and efficient, maximizing profits but leaving as vulnerable to disruptions. The pandemic has made clear the need to build a more resilient supply chain because we know future disruptions will occur.

We heard today from experts and entrepreneurs that took the initiative early on to make their supply chains more resilient and establish some best practices we can employ at the Federal level as we move forward. I hope this is a wakeup call to our business community and our Federal policymakers to support policy that allows small businesses to survive and bounce back after a largescale disruption like the COVID-19 pandemic. Doing so will allow our Nation's small businesses to successfully confront unforeseen circumstances and it will be critical to building a strong domestic economy.

I ask unanimous consent that members have 5 legislative days to submit statements and supporting materials for the record.

Without objection, so ordered.

And if there is no further business before this Committee, I ask everyone to stay safe, stay healthy. I ask our small businesses to stay nimble, and this meeting is adjourned. [Whereupon, at 10:12 a.m., the Subcommittee was adjourned.]

## A P P E N D I X

#### U.S. House of Representatives Committee on Small Business Subcommittee on Economic Growth, Tax, and Capital Access

#### Hearing on Supply Chain Resiliency

July 2, 2020

Eswar S. Prasad<sup>1</sup> Cornell University and Brookings Institution

Congressman Kim and honorable members of the Small Business Committee, thank you for the opportunity to provide my views on this important matter of how small businesses in the United States can strengthen the resiliency of their supply chains and how the government can assist in this process. In my remarks, I will focus on the global dimensions of supply chains.

Small businesses, as members of this committee well know, are crucial to the health of the U.S. economy. They account for about 40 percent of GDP and nearly half of total employment in the United States.<sup>2</sup>

The COVID-19 pandemic has ravaged nearly every part of the U.S. economy. It has had a much sharper deleterious effect on small businesses than on large corporations, partly because small firms have far smaller amounts of cash-on-hand and other buffers to insulate themselves against such large shocks.<sup>3</sup> Financing conditions for small businesses also tend to tighten at

<sup>&</sup>lt;sup>1</sup> Nandlal P. Tolani Senior Professor of Trade Policy and Professor of Economics, SC Johnson College of Business, Cornell University, Ithaca, NY; Senior Fellow and New Century Chair in International Economics, Brookings Institution, Washington, DC; Research Associate, National Bureau of Economic Research, Cambridge, MA. The views expressed in this document and in oral testimony before the committee are solely those of the author and do not necessarily reflect the views of any institutions the author is affiliated with. Darren Chang and Luke O'Leary provided useful research assistance for the preparation of this testimony.

 $<sup>^2</sup>$  The typical definition of small businesses is that they are firms with fewer than 500 employees. Basic statistics on small businesses, including their employment and output, as well as their shares of overall macroeconomic aggregates in the U.S. economy can be found

at: https://cdn.advocacy.sba.gov/wp-content/uploads/2018/12/21060437/Small-Business-GDP-1998-2014.pdf; https://www.sba.gov/sites/default/files/advocacy/2018-Small-Business-Profiles-US.pdf; and https://www.census.gov/data/tables/2017/econ/susb/2017-susb-annual.html

<sup>&</sup>lt;sup>3</sup> The two-month window from February to April 2020 witnessed the sharpest drop in small businesses in recent history, even more than during a similar period during the Great Recession or any other twelve-month window. See Fairlie, Robert W. "The Impact of Covid-19 on Small Business Owners: Evidence of Early-Stage Losses from the April 2020 Current Population Survey," NBER Working Paper No. 27309, June 2020. Another study illustrating the financial fragility of small firms and the economic devastation they have experienced is: Bartik, Alexander; Bertrand, Marianne; Cullen, Zoe; Glaeser, Edward L.; Luca, Michael; and Stanton, Christopher, "The Impact of COVID-19 on Small Business Outcomes and Expectations," Harvard Business School NOM Unit Working Paper No. 20-

times of heightened economic uncertainty and amidst signs of a sharp and protracted economic downturn, as is the case now.

Small businesses and associated jobs in retail, arts and entertainment, food services, personal services, and hospitality have proven to be especially vulnerable during the pandemic. But this vulnerability cuts across sectors and has affected small businesses across the board. It is difficult to envision the U.S. economy experiencing a strong recovery, especially in terms of employment, without a revival of the small enterprise sector.

In addition to the difficult domestic economic circumstances, the global nature of the pandemic has created additional complications for small businesses by disrupting their supply chains. I commend this committee for convening this hearing to focus attention on the nature of these disruptions, potential strategies for small businesses to reduce their vulnerability, and how Congress, and the federal government more broadly, can help in this process, both in the short term and over the longer run.

#### The Benefits of Global Supply Chains

There are two factors that have played a key role in the proliferation of global supply chains. The first is the reduction in both tariff and nontariff barriers to international trade, with the United States in the past playing an important leadership role in the dismantling of trade barriers worldwide. This has reduced frictions in the movement of basic and intermediate inputs across national borders. The second factor is the decline in transportation costs, including sea and air freight. This has made it possible to organize the structure of production in a way that allows small businesses to gain significant benefits from international trade. For small businesses, vertical integration—integrating different aspects of the production process within a single firm—is often not a viable option. Supply chains, both domestic and global, allow small businesses to focus on their core competitive advantage. Indeed, the very viability of the business models of some small businesses is predicated on such supply chains.

Thus, it is not just large multinationals, but also small and medium-sized businesses, that have benefited from global supply chains.<sup>4</sup> These supply chains have enabled firms to source raw materials, intermediate inputs, and even final goods in more efficient and cost-effective ways

<sup>102,</sup> May 2020. This study also finds that small businesses in finance, professional services, and real estate businesses experienced less disruption while the retail, arts and entertainment, food services, personal services, and hospitality experienced more disruption, with employment declines above 50 percent. Among other relevant sources, see: <a href="https://www.mckinsey.com/industries/social-sector/our-insights/covid-19s-effect-on-jobs-at-small-businesses-in-the-united-states">https://www.mckinsey.com/industries/social-sector/our-insights/covid-19s-effect-on-jobs-at-small-businesses-in-the-united-states</a>

<sup>&</sup>lt;sup>4</sup> For some general perspectives on how small and medium enterprises benefit from cross-border supply chains, see <u>https://www.apec.org/Publications/2013/03/SMEs-Participation-in-Global-Production-Chains</u> and

https://researchportal.port.ac.uk/portal/files/1813970/TROTT\_2014\_cright\_IJPR\_How\_SMEs\_can\_be\_nefit\_from\_supply\_chain\_partnerships.pdf

than in the past. It has also allowed firms to benefit from access to different technologies and innovative production processes, some of which are then incorporated into their domestic operations. In some cases, these supply chains also give small businesses more familiarity with foreign markets and gives them a competitive edge in expanding their market shares abroad.

In discussing supply chains, it is worth keeping in mind that there is a distinction between Global Production Chains (GPC) and Global Value Chains (GVC). GPCs allow small firms to take advantage of natural resources, labor, technology, and capital at a lower cost than if they were restricted to domestic sources and suppliers. GPCs are clearly important for manufacturing firms. GVCs go beyond the production process to include distribution, aftersales service and support, and even recycling. This illustrates why global supply chains are relevant even for firms in the services sector.

#### How Can Small Businesses Enhance the Resiliency of Their Supply Chains?

This section of my testimony puts into broader context the factors underlying supply chain disruptions and their implications, and how small businesses can prepare for and adapt to such disruptions.

There are a number of reasons why supply chains might be subject to disruption. First, trade frictions with U.S. trading partners can lead to bilateral escalation of barriers to trade. Trade tensions with China have disrupted the global supply chain structures of many large and small companies.<sup>5</sup> Uncertainties related to the North American Free Trade agreement while it was being renegotiated two years ago affected many U.S. firms that had tightly integrated supply chains on the North American continent.<sup>6</sup>

Second, geopolitical tensions can have similar disruptive effects as they foment uncertainty in the free flow of goods and services across national borders. For instance, rising tensions on the Korean peninsula have had a dampening effect on Asian supply chains related to electronics manufacturing, for which South Korea is a key node.<sup>7</sup>

<sup>&</sup>lt;sup>5</sup> Some survey-based evidence of the supply chain disruptions faced by U.S. small businesses as a result of the U.S.-China trade war is at <u>https://www.bizbuysell.com/news/poll-small-business-owners-react-to-the-US-China-trade-war-and-more</u>. Some key findings from this survey and their implications are discussed in this article: <u>https://www.cnbc.com/2019/10/05/us-china-trade-war-causing-small-biz-to-reinvent-customer-retention.html</u>

<sup>&</sup>lt;sup>6</sup> For a discussion of how NAFTA renegotiation may impact supply chains, specifically through changes in Rules of Origin requirements, see <u>https://www.piie.com/blogs/trade-investment-policy-watch/why-renegotiating-nafta-could-disrupt-supply-chains</u>

<sup>&</sup>lt;sup>7</sup> A short piece pointing to how tensions on the Korean Peninsula could affect supply chains running through South Korea is at: <u>https://www.efficioconsulting.com/en-gb/resources/insight/korean-conflict-potential-risk-your-supply-chain/</u>

Third, natural disasters and public health emergencies, either at the national or cross-national levels, can disrupt supply chains. The COVID-19 pandemic is of course a good illustration of this, as it has affected both the demand for and worldwide commerce in inputs as well as final goods.<sup>8</sup> Another example is the extensive flooding in Thailand in 2011 that disrupted supply chains for automobile manufacturers and electronics manufacturers in other countries for whom components made by Thai firms were important inputs.<sup>9</sup>

Fourth, economic distress of other countries can hurt supply chains. As in the United States, difficult economic conditions in other countries disproportionately affect availability of funding for their small to medium-sized enterprises, which constitute an important part of global supply chains. Many emerging market and developing economies, particularly those with large external financial needs and high levels of foreign debt, are facing a particularly difficult financial squeeze as foreign investors turn away from them.<sup>10</sup>

How can small businesses deal with different types of uncertainty that could expose them to supply chain disruptions?

One strategy is diversification, both in terms of sources of inputs as well as markets for final products. Relying heavily on suppliers in a specific country might make good business sense from a pure cost minimization perspective, but increases the exposure to disruptions caused by the factors discussed above. There is a clear trade-off between efficient, linear supply chains that minimize costs versus more diversified supply chains that could drive up costs and reduce margins but provide some insurance against disruptions. Diversifying their export markets can also provide some protection for small businesses as it leaves them less subject to the risk of disruptions in specific markets.

Another strategy is onshoring, although this means giving up the benefits of globally integrated supply chains and implies less diversification of suppliers.<sup>11</sup> One argument in favor

<sup>&</sup>lt;sup>8</sup> For a discussion of how global supply chains have been affected by the pandemic and also how these supply chains have acted as a transmission mechanism for the global economic shock, see Barthélémy Bonadio, Zhen Huo, Andrei A. Levchenko, and Nitya Pandalai-Nayar, "Global Supply Chains in the Pandemic," NBER Working Paper No. 27224, May 2020. This paper also makes the point that "renationalization" of cross-border supply chains does not in general make businesses more resilient to pandemic-induced contractions in economic activity. One study that examines how the asynchronous COVID spread in China and the United States resulted in a two-way impact on supply chains is summarized here: <a href="https://voxeu.org/article/covid-concussion-and-supply-chain-contagion-waves">https://voxeu.org/article/covid-concussion-and-supply-chains</a> See, for instance, <a href="https://www.reuters.com/article/thailand-floods-supply-chain-">https://www.reuters.com/article/thailand-floods-supply-chain-</a>

idUSSGE79R00E20111028.

<sup>&</sup>lt;sup>10</sup> See, for instance, <u>https://www.oecd.org/coronavirus/policy-responses/foreign-direct-investment-flows-in-the-time-of-covid-19-a2fa20c4/</u> and

https://www.dallasfed.org/research/economics/2020/0414.

<sup>&</sup>lt;sup>11</sup> This point is made in the following article, which also analyzes the pandemic's effects on regional and global supply chains: <u>https://www.weforum.org/agenda/2020/04/covid-19-pandemic-disrupts-global-value-chains/</u>

of onshoring is that it brings jobs back to the United States. This is true from a narrow perspective and lines up with populist pressures for a retreat from globalization, which seems to be driven by the sense that this phenomenon has put the U.S. economy at a disadvantage relative to those of trading partner countries. This is debatable from a macro perspective. While the benefits from globalization have not been evenly distributed throughout the economy and across different segments of the U.S. population, the overall benefits of freer trade have been documented and clearly understood for some time.<sup>12</sup> But for small businesses, the negative implications of a broad retreat from globalization are immediately apparent. There are substantial cost implications and even concerns about the viability of their business models, in addition to the potential loss of export markets, if there were to be a general retreat around the world from freer trade flows.<sup>13</sup>

Improved logistics management can help small businesses better manage their supply chains.<sup>14</sup> By adopting technology that facilitates real-time tracking of intermediate goods and products at different stages of the manufacturing process, small businesses can better protect themselves against volatility and make suitable adjustments in the production process when faced with imminent disruptions. Logistics management becomes even more important in the international context, where the uncertainties are multiplied and such tracking becomes essential.

#### What Can the U.S. Government Do?

While much of the onus of managing and optimizing their supply chains is the responsibility of small businesses, federal and local governments do have a role to play in facilitating this

https://knowledge.wharton.upenn.edu/article/veeraraghavan-supply-chain/ and https://www.mckinsey.com/business-functions/operations/our-insights/supply-chain-recovery-incoronavirus-times-plan-for-now-and-the-future. Another study of supply chain vulnerabilities specific to smaller businesses is: Chowdhury, Priyabrata; Lau, Kwok Hung; and Pittayachawan, Siddhi, "Supply Risk Management in Small and Medium-Sized Enterprises: A Systematic Literature Review," 2019. https://ssrn.com/abstract=3428943.

<sup>&</sup>lt;sup>12</sup> While economists' general consensus is that free trade improves consumer choice and welfare, the distributional effects of globalization are less clear. See, for instance, Dani Rodrik, "What Do Trade Agreements Really Do?" *Journal of Economic Perspectives*, Spring 2018. Also see Alan Blinder, *Advice and Dissent: Why America Suffers When Economics and Politics Collide*, Basic Books, 2018. <sup>13</sup> For instance, see Simchi-Levi, David, and Edith Simchi-Levi, "Building Resilient Supply Chains

Won't Be Easy," Harvard Business Review, June 2020.

<sup>&</sup>lt;sup>14</sup> The following article makes the case that businesses need to better map their supply chains in order to identify potential vulnerabilities: Choi, Thomas Y., Dale Rogers, and Bindiya Vakil, "Coronavirus Is a Wake-Up Call for Supply Chain Management," *Harvard Business Review*, March 2020. This study also references a survey of 300 firms in late January and early February, which revealed that 70 percent of firms were "still in data collection and assessment mode, manually trying to identify which of their suppliers had a site in the specific locked-down regions of China." For additional perspectives on supply chain-related risk mitigation strategies, see

process. They can provide some forms of direct support, especially in challenging economic circumstances, but also ensure a more stable business environment that would be conducive to the success of small businesses.

One obvious and immediate priority is the provision of short-term financial assistance to help small businesses cope with the impact of COVID-related business disruptions. Congress and the administration have already taken a number of steps in this regard, including the Paycheck Protection Program that was part of the CARES Act. The Federal Reserve's Term Asset-Backed Securities Loan Facility supports small businesses by lending to holders of asset-backed securities collateralized by new loans guaranteed by the Small Business Administration.<sup>15</sup>

Further assistance of this sort might be required if the recession proves to be protracted, which carries the risk of pushing many small businesses over the edge. Congressional oversight would be useful to ensure that the benefits of such government initiatives flow mainly to small and medium-sized businesses that are in most dire need of such aid.<sup>16</sup> This is particularly important given that a disproportionate share of jobs in more vulnerable small businesses is accounted for by workers with lower wages and weaker skill levels, who are also among the most economically vulnerable.<sup>17</sup>

For exporting firms, availability of trade credit and export guarantees through the Export Import Bank of the United States (EXIM) can be an important tool to promote exports in the face of weak global demand. One of the concerns often expressed about the EXIM is that the bulk of its support, in dollar value terms (rather than in terms of the number of firms that receive support), has traditionally gone to large multinational corporations.<sup>18</sup> The EXIM bank

<sup>17</sup> During the two-month period from February to April 2020, the widespread closures of small businesses have been stratified by already existing inequalities: African-American, Latinx, Asian, immigrant, and female business owners have experienced disproportionate losses. See Fairlie, Robert W. "The Impact of Covid-19 on Small Business Owners: Evidence of Early-Stage Losses from the April 2020 Current Population Survey," NBER Working Paper No. 27309, June 2020.
<sup>18</sup> In its annual report for FY 2019, the EXIM Bank states that its support for small businesses accounted for 27.5 percent of the total dollar value of authorizations and 89 percent of the total

<sup>&</sup>lt;sup>15</sup> Other initiatives include: Economic Injury Disaster Loans (EIDL), which provide up to \$10,000 of economic relief to small businesses, non-profits, tribal businesses, and cooperatives that are currently experiencing a temporary loss of revenue; Small Business Administration Express Bridge Loans, which allow small businesses that currently have a business relationship with an SBA Express Lender to access up to \$25,000 quickly; and Small Business Administration Debt Relief.

<sup>&</sup>lt;sup>16</sup> One study based on an extensive survey of small businesses suggests that many small businesses "may have missed out on initial Paycheck Protection Program funds because of low baseline awareness and differential access to information relative to larger firms." See Humphries, John; Christopher Neilson; and Gabriel Ulyssea, "The Evolving Impacts of COVID-19 on Small Businesses Since the CARES Act," Cowles Foundation Discussion Paper No.2230, April 2020. Also see <u>https://www.brookings.edu/opinions/the-small-business-relief-program-is-still-broken/.</u> The Paycheck Protection Flexibility Act (June 2020) has addressed some of these concerns: <u>https://www.congress.gov/bill/116th-congress/house-bill/7010/text</u>

has attempted in recent years to strike a better balance, but Congressional oversight could certainly help push for even more of the institution's support being directed towards smaller businesses.

The government should also continue to develop and consistently enforce domestic regulatory policies, including enforcement of anti-trust provisions already in the law that try to level the playing field between large incumbent firms and smaller firms as well as new entrants (which typically tend to be small).

More policy certainty in terms of U.S. trade relationships with other countries, including a deescalation of trade wars, would help mitigate this source of supply chain disruptions. There are certainly legitimate concerns about whether American businesses have the same level of access to foreign markets that foreign exporters have to U.S. markets. While the objective might be a level playing field in international trade, this could be better promoted through negotiation rather than by nullifying existing trade agreements and imposing trade barriers on major trading partners, which creates uncertainty that hinders rather than helps small businesses.

Rather than taking a bilateral approach, it would be more productive to fashion multilateral agreements that ensure a consistent set of standards across a number of trading partners. This would be advantageous to small businesses, in particular, as it would imply lower compliance costs than in a scenario with fragmented trading arrangements. A multilateral approach would also be helpful in extracting better terms on trade deals with major trading partners such as China. For instance, multilateral agreements such as the Trans Pacific Partnership, which the United States ultimately backed out of, could cover a number of areas including expanded market access, stronger labor and environmental standards, better protection of intellectual property rights, and more consistent regulatory frameworks. Such agreements could also set minimum thresholds for other trade agreements around the world, which would benefit U.S. businesses.

Support for international organizations, such as the World Bank and the International Monetary Fund, is important to cushion the pandemic's blow on developing economies, which matter to U.S. small businesses either as part of their supply chains or as export markets. From a longer-term perspective, it would be prudent for the government to also consider issues such as climate change, which might seem far removed from supply chain issues but in fact does have implications. The disruptive effects of extreme weather events spawned by climate change are particularly harmful for small businesses given that they have smaller buffers to cushion the effects of such shocks and their collateral effects.

number of transactions. The annual reports are available at <a href="https://www.exim.gov/news/reports/annual-reports">https://www.exim.gov/news/reports/annual-reports</a>

Effective management of supply chains has significant potential benefits for small enterprises but also leaves them vulnerable to disruptions. This period of economic turmoil should lead to a re-evaluation of the resiliency of such supply chains and suitable restructuring of supply chains to reduce vulnerabilities. Small businesses can take a number of steps to promote such resiliency, but should receive the right kind of support from the government to facilitate this process. It is my hope that this committee's work will help steer government policy in the right direction and help fortify small businesses, which are a bulwark of the U.S. economy. 50120 Pontiac Trail Wixom, MI 48393 Toll Free 800-521-4904 Local 248-560-4500 Facsimile 248-560-0600

# LYNN MEDICAL

Thursday, July 2, 2020

House Small Business Committee

Subcommittee on Economic Growth, Tax, and Capital Access Hearing: Supply Chain Resiliency

> Testimony of Chris Fagnani Co-owner and Vice President Lynn Medical

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Thank you, Chairwoman Velazquez, Chairman Kim, Ranking Member Chabot, Ranking Member Hern and distinguished members of the Committee for the opportunity to testify today.

My name is Chris Fagnani and I am co-owner and vice president of Lynn Medical. Established in 1966, my company is a second generation, family-owned medical product distributor with 30 employees located in a suburb of Detroit, Michigan. Lynn Medical is a cardiology and imaging Specialty Distributor. We represent over 100 manufacturers of medical equipment and disposable supplies related to procedures such as ultrasounds, ECG's, patient monitoring and a host of other healthcare issues. Our products find application nationally in hospitals, doctors' offices, and clinics. For this hearing, it is important to note, a significant part of our medical customers are also small businesses as they are owned and operated by the physician or groups of physicians.

I also have the pleasure of appearing before you today as the current Board Chair of the Health Industry Distributors Association (HIDA). HIDA is the industry association that represents 100 distribution companies operating 500 medical distribution centers across the care continuum nationwide. HIDA members such as Lynn Medical deliver medical products and supplies, manage logistics, and offer customer services to virtually every provider in the country. What is important to share with the Committee is that small businesses are a key segment of the distribution industry as 73 percent of members are small businesses.

### Challenges

COVID-19 created several challenges for Lynn Medical—both as a small business and as a distributor in the healthcare market. As is with any small business, human resources are limited. Most of our departments have a staff of one and most employees wear multiple hats. At the start of COVID-19, we had to quickly focus on technology and navigate how to set our employees up to work remotely due to the shelter in place requirements that occurred in many states, including my home state of Michigan. We were not set up to work remotely and did not have an IT Department to create and deploy the plan. We had to purchase hardware for our employees and tweak software capabilities to create the ability to communicate internally and remotely to serve our customers. This was a significant cost and resource drain to the company.

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Another challenge we had to deal with was significant product shortages and disruptions to the healthcare supply chain. Representing quality products is a pillar of our organization. As demand was in many cases three times the capacity from our traditional manufacturer partners, we found ourselves having to vet new sources. Again, we do not have a regulatory department whose main role is to solely navigate through information to determine the FDA's current and shifting guidance recommendations on the status on various products under Emergency Use Authorizations (EUAs).

However, we felt strongly it was our responsibility to understand, comply and educate our customers on these topics. An example is KN95 masks. Initially, according to the CDC website, 80 factories overseas were granted EUA status for KN95 masks, but that was quickly reduced to 14 factories. Once a factory was removed from the CDC list, any product from that factory was immediately stopped at US customs. What happened to my company was we had product that left China that was on the approved list, but by the time it made it to the US border had to be returned to China due to a change in labeling on the box that needed to be made. This required change from federal agencies occurred while our product was on the water. The bottom line was the product was ok, but the box was not. We had already presold the product to customers, but were now faced with a 6-week delay, which added costs to our business for the extra shipping. We then had to educate our customers for the reason there were delays and shifts in EUA status.

Another example that highlights the challenges is the COVID-19 Antibody tests. We had shipped product that was allowed as the manufacturer had filed for an EUA and the EUA was pending based on a March 16, 2020 FDA guidance document that deemed the product allowable while EUA approval was pending. However, a subsequent FDA guidance on May 4, 2020 stated it was not allowable to ship the product until the EUA was formally granted. It was very difficult to obtain clear answers from regulatory agencies and very difficult to explain to medical facilities. There was significant hardship in searching for clear documentation to ensure we were compliant.

Challenges were also present in finding, staying up to date, and implementing the information pertaining to assuring our workplace was following all the necessary and prudent guidelines to stay operational, serve our customers and protect the health of our employees. As a distribution center we had essential workers that needed to come to work for us to maintain operations and get needed products to providers. Many of

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these resources are now readily available but in mid-March when we needed to act swiftly this information was almost nonexistent from local or national sources.

Currently, we are concerned about payables from our healthcare customers. As I mentioned, many of our customers are small businesses that have been closed for months because of COVID-19. As these offices reopen, they are also having to purchase personal protective equipment (PPE) for their employees—something that is necessary but was not in their budgets. While our physician customers are beginning to see patients, it is not at pre-COVID volumes, which means their cash flow is not at normal levels. They need Lynn Medical to support them and provide longer payment windows. At the same time, with product shortages many vendors required pre-payment which is not customary.

### **Opportunities**

My company did apply and receive approval for the Paycheck Protection Program (PPP). It was an easy and painless process for us and I want to thank you for including this program in the CARES Act. This assistance is critical to Lynn Medical's financial health. It allowed us to stay whole and maintain our commitment to our employees as we support our customers to the best of our ability.

While the regulatory environment was confusing, we utilized the flexibility and agility small business has to become adept at vetting new suppliers and becoming a resource for our customers. We found ourselves partnering with other small manufacturing businesses whose primary products were deemed non-essential but wanted to keep their employees working and assist in the COVID-19 response.

We partnered with a family owned business in Michigan that was primarily a cut and sew shop for the automotive industry. They made seat covering and arm rests for cars. We collaborated with them, so they could transition to isolation gowns and fill a critical need for the COVID-19 response. We also partnered with a drum making business in New Jersey who retooled to make face shields. We found in the small business community innovation, a willingness to shift priorities and take risks to keep their businesses relevant and employees working.

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### **Recommendations**

I am proud of my company and of our industry. We have never stopped working to secure product and support our customers and communities during the COVID-19 response.

I would like to thank this Committee for its leadership on small business issues and the policies Congress included in previous stimulus packages. Those policies, such as PPP, have been critical to our financial health and commitment to our employees.

As the Committee considers future opportunities to support small business, I would like to offer a couple of recommendations:

- <u>Streamlined information source for small business</u>. Small businesses do not have regulatory and legal departments to assist them in navigating the shifting guidance and emergency use authorizations from federal agencies. Clear and simple communications for small businesses would be of great value.
- Enactment of the Medical Supplies for Pandemics Act of 2020 (H.R. 6531): This bipartisan legislation was introduced by Representative Dingell (D-MI) and Walorski (R-IN) and was included in the House-passed HEROE's Act. On behalf of Lynn Medical and our industry, I urge you to ensure it is included in the final stimulus package agreed to by House and Senate.

This legislation is important for the medical supply chain and preparedness efforts. Critical to its success is including **all medical product distributors** as their diversity in size and geography offers different perspectives and customer bases. Healthcare is a local business. Many privately-owned medical practices utilize small business medical distributors to gain access to their medical products. Not including small business distributors in the solution for emergency preparedness would create a gap in service to the local medical facilities.

Specifically, the Medical Supplies for Pandemics Act of 2020 directs the Strategic National Stockpile to work with the supply chain to enhance supply chain elasticity by:

 Creating incentives for manufacturers of critical medical supplies to diversify production, increase emergency stock and increase capacity; and

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 Working with distributors of medical supplies to manage domestic reserves of critical products such as PPE, infection prevention products, ancillary products and testing supplies. This reserve is intended to be owned by the SNS but would be stored and managed by the commercial supply chain where it would be refreshed and replenished by medical product distributors.

Thank you again for the opportunity to testify before you today. I look forward to any questions you may have.

### **Committee on Small Business**

### **United States House of Representatives**

### **"SUPPLY CHAIN RESILIENCY"**

### July 2, 2020

### David Billstrom CEO of Kitsbow Cycling Apparel

Chairman Kim, Ranking Member Hern, and the other Members of the Subcommittee, I wish to thank you for inviting me to testify in this hearing on the topic of Supply Chain Resiliency.

My comments today are in the context of someone operating a small business in America, a promising business yet vulnerable, in this unprecedented time of the COVID-19 pandemic.

And my frame of reference during this challenging time is perhaps unusual, as I have been fortunate enough to serve as a leader in two large businesses, Intel and Walt Disney, both Fortune 100 scale. And I have also co-founded startup companies, several of which became quite successful and several that failed. I have also served as a venture capital investor for a decade, resulting in both successful and unsuccessful outcomes. I have been a capitalist for as long as I can remember.

I am familiar with the challenges that small businesses face, and that positive results are never assured. I am sure you have heard that a third of small businesses (with employees) fail within the first two years, and I have seen that up close. I have been known to say that you're not a real entrepreneur until you've personally handled the wind-up of a failed business, found a home for the former employees, and sold all the furniture and fixtures before locking the door for the last time.

In addition to my business experience, I have also worked as an EMT, firefighter, and search and rescue expert for 40 years, which will turn out to be a key factor in the decisions made at Kitsbow in this time of the pandemic.

I do not approach today's topic with any particular agenda, except to speak up for the owners and operators of small businesses in North Carolina, and across our nation. Kitsbow has survived COVID-19 so far, but we have to consider that *if it was hard to operate a small business before, it is nearly impossible today.* 

But I'm getting ahead of myself. If you will allow me to describe Kitsbow's journey, you can draw your own conclusions.

### Our Supply Chain from Asia

Kitsbow Cycling Apparel is a premium brand of clothing carefully designed to meet the nuanced needs of expert mountain bike enthusiasts. We were founded in California 8 years ago by an experienced and successful entrepreneur, Zander Nosler, with the goal of making gear that was highly functional when riding a bike, made of the best materials in the world, incorporating the latest technologies offered in fabric (and fasteners such as snaps, belts, zippers and buckles) and at the same time, designed to be classy and timeless in style such that the customer could wear the same clothes to a restaurant or even a business meeting. This combination of technical performance and timeless style was unprecedented in the cycling industry for mountain bike riders.

We also wanted our clothes to be durable, both to survive a crash and tumble in the woods while riding a bike, as well as surviving for several seasons before needing replacement. Long-lasting clothes are inherently more sustainable, as whatever negative impact manufacturing the clothes has on the planet, that impact is halved (relative to competitor's products) if the clothes last twice as long as the others.

To do this, we sought out the best fabric for durability and technical performance, such as shedding rain or resisting tearing. In fact, many of our fabrics were originally developed for the military, before transitioning into civilian form and function.

Naturally, with these parameters our products as requirements, our products are among the most expensive in the market.

Eight years later, our brand is a noted success in the target market of affluent mountain bike riders. We have about 1,000 positive 5-star reviews from customers, and nearly

David Billstrom CEO of Kitsbow Cycling Apparel Page 2 of 26

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every media review in cycling apparel has weighed in with accolades for our products. As a brand, we "won."



But as a manufacturer, our first 6 years were very tough. Because there are essentially no clothing manufacturers in America doing work at this level of quality. Surely there are exceptions, but we haven't found many – and very few were available to make the clothes for Kitsbow under contract. So we did what 97% of the clothing brands in America do<sup>1</sup>, we went offshore.

The legendary Kitsbow quality and durability is due in part to our U.S.-based designers, and our choice of fabrics and raw materials, but much of the credit must go to our contract manufacturers in Vietnam and China.

But that business model wasn't sustainable. I joined the company as CEO two years ago, and it rapidly became apparent to me that the company would eventually fail if it continued to make the products offshore. The costs of the supply chain were weighing

<sup>&</sup>lt;sup>1</sup> In the 1960s, more than 95% of apparel bought in the U.S. was made in the U.S. Since 2015, 97% of clothes sold in the U.S. were imported (*Business of Fashion* 11/7/2016 and *Industry Week* 1/18/2018).

David Billstrom CEO of Kitsbow Cycling Apparel

down Kitsbow's forward momentum in several ways, well known to the experts that study offshore manufacturing.

First of all, the cashflow is terrible. Offshore manufacturers require a financial commitment 9 to 12 months prior to making the products. The direct implication is that not only is working capital tied up overseas, but brands are forced to choose color and style 9 to 12 months in advance.

The implications of these choices are severe, essentially gambling with operating capital -- if blue shirts are not popular 12 months from now, then the brand is forced to discount the blue shirts once they finally take delivery. But there is a double penalty, if the red shirts also ordered are popular, it is at least 6 to 9 months to restock the red shirts. So brands lose on the unsuccessful styles and colors, and they lose again when successful products are capped by inventory on hand.

Brands larger than Kitsbow theoretically have the volume to break up their offshore orders into multiple shipments, for a steady stream of shipments, but the advance payment is still required and the timing issue is similar. And there is plenty of evidence that the big brands gamble too, forced to guess what will be popular in the future.

The venerable Burberry brand, for example, was thrashed in the U.K. media when it was revealed they were burning unsold finished goods, to the tune of \$40M a year<sup>2</sup>. H&M revealed they had \$4.3B worth of unsold clothes<sup>3</sup>, and despite the secretive apparel industry there are numerous estimates of 30% (or more) of all new clothes are destroyed before ever worn.

As Kitsbow began to grow in 2018 and 2019, we faced the same issues. Placing million-dollar bets on styles and colors, a year in advance. Taking all of the risk, and fronting all of the cash. The problem would get even worse as our brand became more successful, not better.

In this sense, after the first six years of the company, we were not winning, but losing. The answer was obvious: make our own clothes.

Kitsbow would work to part of the 3% of U.S. apparel revenue earned on apparel made here in the U.S.

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<sup>&</sup>lt;sup>2</sup> Reuters 9/6/2018.

<sup>&</sup>lt;sup>3</sup> Forbes 9/9/2018.

### **Our Onshoring Journey Begins**

In January of 2019, the Board of Directors at Kitsbow endorsed our plan to cease ordering any more product from Asia<sup>4</sup> and invest instead in our own factory.

We turned our attention to U.S.-based contract manufacturers, and more importantly, building our own capacity to make clothes.

The U.S. contractors operate somewhat like our Asian suppliers, but without the emphasis on quality and without the latest sewing technology. In my view, these are the last of the traditional sewing operations with an older workforce, typically without access to capital for new technology, and operating on very narrow margins.

Kitsbow sources all of the raw materials, ships it to the contractor, and the cashflow is improved – although orders are still made in batches, with significant minimum quantities.

We have had mixed results in the past two years with various U.S. suppliers, including two experiences in 2019 of rejecting nearly 40% of the output of each of two contractors for quality issues. This stressful event consumed time, left us with little product when customers wanted it, and consumed our custom-ordered fabric.

So while we haven't given up on this part of American manufacturing in our supply chain it is quite challenging.

And Kitsbow isn't their ideal customer either, as we want to buy just enough product for 30 days of sales, at most 60 days. A supply chain for a niche, premium brand such as Kitsbow challenges the minimum order quantity requirements of the vendor.

These American operations all operate on a "batch" methodology of sewing that resembles Henry Ford's assembly line. The apparel industry as a whole may be the last hold-out resisting the wisdom and flexibility of lean manufacturing, of what is usually called the *Toyota Way*.

Our experience moving apparel contract production onshore has meant higher costs and many more quality control issues than our previous offshore suppliers.

In parallel with the U.S. supply chain, we also ramped up our ability to make clothes ourselves. Kitsbow built a small Toyota-type sewing operation in our California facility in

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<sup>&</sup>lt;sup>4</sup> We continue to order premium merino socks from Italy, made to our design, and gloves from Vietnam designed with our collaborative partner <u>Mechanix</u>. In both cases there simply was not an equivalent source in the U.S. We continue to search for both.

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2017, and by 2018 it accounted for 10% of our sales. In 2019, we ramped this up as part of our onshoring initiative, accounting for almost 20% of our revenue.

The cashflow was fantastic: as we could take an order from a customer in our online store on Monday, make it on Tuesday, and ship it on Wednesday. Instead of guessing at the proper size and color 9 months in advance and then attempting to sell it... we only made what we could sell. We never had to throw away, or even discount, a product we couldn't sell, because we never made it.

It didn't always work smoothly, but Kitsbow was using a basic concept for manufacturing that is used in almost every other industry, in every other sector, from iPhones to automobiles. We had proven to ourselves that it worked, and that we could do it. There was just one problem.

The San Francisco Bay Area where Kitsbow was founded did not support a community of experienced sewers. We needed to move.

### Making Clothes in North Carolina

On August 28, 2019 we held a press conference with the Governor's Office of North Carolina in the small town of Old Fort, a historic location, railway and mill town at the base of Mt Mitchell, the highest point in the Eastern United States and a few minutes drive from Asheville, NC. Old Fort is surrounded on three sides by the Pisgah National Forest.

We unveiled our plans to move almost all of our California-based operations into a former sock manufacturing building on the edge of a protected trout stream, minutes away from some of the best mountain biking in the U.S., in the Pisgah National Forest, and a short drive from Asheville, NC.

In our announcement, we promised to be making clothes by Christmas. With a new round of funding, we hired 27 employees and purchased more sewing machines. We upgraded the 23,000 square foot building and installed new, modular electrical for the sewing machines. We started training the new employees, and moved our inventory from California into the new building on December 5.

Only 1 employee relocated from California, so we added 26 jobs to a small rural town in 60 days.

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These were the first jobs of many we promised, as the first new manufacturing business in the town in at least a decade. Old Fort was a key railroad stop, and then the location of multiple manufacturing mills and operations for decades, before heading into a 30-year steady loss of jobs through the declining economies of the rural South.

We have consciously built a specific culture for our modern apparel factory, drawing upon values and norms that were proven to work in California, and adding new norms such as company-sponsored stretching exercises in the middle of production shifts.

Above all, we emphasized to our brand new team that we needed to be nimble, and respond quickly to shifts in the customer market – to make clothes to order, and adjust our designs constantly.

Unlike most rural factory operations, we provide hourly employees with 8 paid holidays each year. We initially provided 50% of the employee's health insurance premium, but when it became obvious that production employees couldn't afford their portion, we upped it to 100%. We are actively engaged in improving the lifestyle and healthy choices available here, and we have more ideas in mind for the future, so that our work force stays healthy and values their workplace, and in turn, stays with us for a very long time.

Utilizing the Toyota-style lean manufacturing model for apparel, which is used by a select few other apparel manufacturers in the U.S. (but to our knowledge, not by any other outdoor brand) is quite different from most of the apparel industry.



If you search for "images of sewing operations" on the Internet, world-wide you will only see pictures of long tables of sewing machines, with sewers sitting for the entire shift at one machine, making one item. Each sewer makes one part of the garment, performing the same action over and over.

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In a lean methodology, the sewer makes one perfect shirt, and then makes another. The sewing machines are typically arranged in a "U" so that the garment begins at the first machine, and then is taken by the sewer to the next machine, and so on until the garment is complete at the last machine.

The numerous advantages to this methodology are well-documented elsewhere, but the distinctive aspects are that the machines are moved

around on rolling casters, to be in the best position for making each type of garment. And the tables are stand-up, because the sewer will be moving from machine to machine. And the electrical system is in the ceiling, like track lighting, so that the position of the machines are easily changed.

Our new employees were trained on this equipment, and this methodology, and warned that after training we would be re-arranging the equipment to make different types of clothing, all the time. That fast-changovers of equipment were inherent in our business model of making products to order, with plenty of variety.

On December 13, 2019, with our employees standing proud, we presented our first clothes made in North Carolina and ready to sell at a ribbon-cutting ceremony celebrating the accomplishment, with the families of our employees and hundreds of supporters.

We ended the year accomplishing our revenue goals for 2019, while simultaneously building a new factory and moving a business across the country in just two months. Our investors were delighted, and the team was proud of their work.

Our future looked bright. Heck, our future was bright. We were taking small steps, but we were making clothes in the U.S., and word was getting around that you could visit Old Fort and see your clothes made, and even meet the people that made them.

We had no idea what was about to hit us.

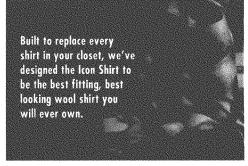
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### **Everything Changed**

January and February 2020 for Kitsbow went well, we were making more products every day and settling into a routine in Old Fort. Word was slowly getting out to the rest of the apparel industry in the South, and a few potential suppliers contacted us about supplying raw materials. We switched to using a local supplier for all of our cardboard and shipping supplies, just 10 minutes away.

Our most popular product, the <u>lcon</u> <u>woolen shirt</u> is made with Pendleton Wool made in Portland, Oregon. Additional rolls of that fabric started arriving in Old Fort as we were making and selling more shirts than we had forecast.

We also use fabric from <u>Polartec</u>, and some of their rolls come from Tennessee, near Chattanooga.



But we still required top-quality fabric and fasteners from Japan, Italy, Vietnam, and China. In every case, there was no U.S. equivalent of the quality. As with the rest of the Apparel industry, we knew that we would need to get our orders filled before February, because of the Lunar New Year.

This is the only time of the year that the Chinese-based operations halt all operations, and they don't answer phones or email. Because everyone knows about the Lunar New Year celebrations, the apparel suppliers in other countries follow suit and close up operations too. So we knew we would be waiting until after the festivities to even place new orders for supplies, let alone see them shipped.

Except this year was different. The end of the holiday came on February 8, and phones weren't answered and emails weren't returned. That's when we knew the COVID-19 crisis in China was real.

At the time, that view certainly wasn't common, although companies entrenched in Asia noticed -- Apple warned investors that iPhone production was hampered by factory shutdowns.<sup>5</sup>

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<sup>5</sup> CNBC 2/17/2020.

As a result, in the first week of March we developed our first protocol for protecting our manufacturing staff with 6 feet of separation, twice-daily cleaning, and other measures. We cancelled long-planned events to meet customers (and were met with surprise and skepticism by event organizers, who clearly thought we were over-reacting).

Our theory was that if we could keep our team safe and not infected, then we could keep manufacturing apparel and shipping it, despite the economic impact. We hoped for the best, but planned for the worst. And in early March, Kitsbow apparel sales plummeted.

But our supply chain was the problem. Our raw material in Asia wasn't shipping, and no one was answering our inquiries. Our contract manufacturers in the U.S. started warning us of delays of finished product, as Apple struggled to make iPhones in China our apparel contractors in California struggled to make our clothes. We expected shipments from Italy, and it became clear they were in crisis. Then the World Health Organization announced that COVID-19 was a pandemic.

On March 19, the Board of Directors met to discuss layoffs. As we considered this, it should be remembered that we only had new employees. We had only been making clothes for 4 months (and only shipping for 2.5 months). We've just gotten started, and it was a herculean effort. Contemplating furloughs or layoffs after all of that would be a huge setback. It wasn't the right thing to do, so we paused on taking action.

Our U.S. contractors either wouldn't answer our inquiries, or confirmed that they had sent their employees home and had stopped working on our products. This had a double-effect: we wouldn't get the finished product (we still haven't received any of it, as of July 1) and they were holding all of the raw material we had shipped them, so we didn't even have the option of making it ourselves in North Carolina.

During this same time, our North Carolina was considering stay-at-home orders (which would be announced on March 27) and our staff was worried. Two were pregnant, and worried about exposure. The science and data was not clear at this point in the pandemic, so we weren't sure our protective protocols to keep our work force safe would be adequate. It was grim, and it was frightening.

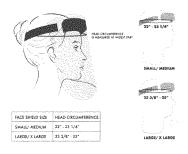
### The Pivot

On the same day of the Board Meeting to discuss layoffs, our founder Zander Nosler in California sent an email with a design for a face shield. This is a type of PPE used by medical professionals, and it makes the face mask more effective and last longer by

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protecting it from moisture. He pointed out that our new equipment in our North Carolina factory could make face shields in volume, that we had an inventory of elastic, we would only need plastic and foam... both of which were available online.

He in turn, had received the design from a group of Stanford Design School alumni, considering similar projects to provide the PPE that no one in the U.S. seemed to have. The open sharing of the design represents, I believe, the best of Americans responding to a crisis.



Our product design staff, all with less than 4 months at Kitsbow but eager to help with what was quickly becoming the defining natural disaster of our lifetime, jumped on it.

The design was tested, refined, and ingredients easily ordered online for overnight delivery. The next day the prototypes were made, the design refined again, and production began.

On the third day, most of the production employees and sewers came in on a Saturday to make the first few hundred face shields.

My personal view was that we had to do this – I wasn't thinking about a PPE business, or even a price. I have worked as a first responder in a parallel career for nearly 40 years, and I can remember treating patients as an EMT before we regularly wore gloves or face shields. Over the years, the transition to protecting ourselves while treating patients became deeply engrained. I couldn't imagine my first responder colleagues confronting COVID-19 patients with inadequate PPE, let alone no PPE.

To backup that intuition, I reached out to local public safety leaders, all long-time friends and professional colleagues, and they all said the same thing: "We don't have much, so if you can make shields and masks, make as many as you can, as fast as you can."

Anthony Penland, the chief of my own fire department <u>Swannanoa Fire & Rescue</u> helped coordinate, as he was assigned to the logistics section of the <u>Buncombe County</u> emergency operations center, charged with obtaining PPE. William Kehler, EMS director for <u>McDowell County</u> where Kitsbow is located also helped. The agencies asked for a price, so we made our best guess and took a few orders by email and phone.

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As volume production commenced for face shields that third day, the product design team turned their attention to face masks.

This was directly in their wheelhouse, as apparel designers. Kitsbow got lucky with a 4-person team with excellent collaboration skills (low ego) and strong opinions (pride in their work) so they worked through multiple prototypes, and scoured the Internet for information about filtration, fit, and other aspects of masks.

Using the production sewing machine equipment, each mask initially took about 12 minutes to make to commercial quality. The team created technical documentation, started tracking results, and measuring effectiveness using whatever techniques they could glean from the Internet. Quality control specifications were established, and product SKUs (Stock Keeping Units) assigned and barcode labels were created.



Everyone on the team treated this "project" as a consumer-grade product line, made at commercial quality standards. Like Kitsbow clothes, they aimed for a great fit, durability, and technical performance.

### **Unprecedented Demand**

Sometime that afternoon, Saturday March 21, 2020 I posted three pictures on my personal Facebook account. I showed the face shield, the first face mask prototype, and the production crew hard at work. I was proud of the way they all put their shoulder to the wheel, despite the increasing fear of the virus. The post got immediate attention locally, and with friends and relatives across the country.

Kitsbow like many companies has a social media expert, various social media accounts, a public relations firm, a website, and a worldwide email list. But that's not how our PPE

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project was announced. It was simply posted on my personal Facebook page, where normally I would post pictures of food, bicycles, and our dog.

It is hard to understand what happened next. Perhaps it relates to the demographic segment looking at Facebook on a Saturday afternoon (skewing older, more vulnerable to the virus, and thus more fearful). Perhaps it was the absence of leadership in America addressing the PPE shortage, and no believable or credible plan in sight for resolving the issue... but that post was ultimately shared 634 times.

And my email and phone blew up.



Everyone wanted to know how to get the PPE we were making. They didn't even ask how much it cost. They were almost all medical professionals and first responders, and while it was from all over the nation the most urgent and emotional requests were from the initial hotspots like Seattle.

We restricted sales to medical professionals and first responders only. It would be weeks before we could sell to civilians. In fact it would be weeks before I would send any to my own parents, vulnerable in their 80s.

Local to the region, representatives of the <u>Dogwood Health Trust</u> leapt into action that very same day. This private foundation had already been monitoring and studying the PPE shortage, with an acute interest in ensuring that enough PPE would be available in the 18-county region they serve in Western North Carolina. The concern was that the federal PPE stockpile and even state resources might be consumed by North Carolina's more populous and urban areas such as Raleigh and Charlotte, and little would reach Western North Carolina.

Dogwood Health Trust CEO <u>Antony Chiang</u> was keenly interested in providing a safety net of PPE for the medical and first responder agencies, but also for front line workers

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in public-facing roles as social services, food banks, bus drivers, and others that would continue to interact with the public.

An additional focused effort would soon develop for providing PPE to people of color, members of communities that it was quickly becoming apparent were suffering COVID-19 at three times the rate of the rest of our region.

Antony and his team reached out to Kitsbow on Saturday with an offer to help with supply chain sourcing, and a request to buy in volume (an initial order of 20,000 units). Like me, Antony had worked in technology venture capital and was familiar with making significant financial investments with limited information and limited time.

Dogwood's belief in Kitsbow came at an important time: further fueling the commitment of the team staying up late making the PPE and reassuring the Board of Directors that we were making the right decision.

It was the most profound shift in customer demand I've ever experienced in 40 years of business, let alone in a single day.

At Kitsbow, we refer to Saturday, March 21 as *Day 1 of PPE*. The crew worked Sunday too. And that's when we started running out of materials.

### The PPE Supply Chain

The first example of supply chain difficulty is the face shield. The plastic we used in the first few thousand shields was acquired on a Thursday. By Saturday afternoon, that supplier was already out. The race was on for suitable plastic, and we were competing with scores of would-be face shield makers.

Our product design team scoured the Internet, and found two more sources which would arrive Tuesday. And that was it, there was no more plastic available anywhere online in the U.S. In just four days. Over a weekend.

This experience would be repeated over and over, where the dominant suppliers of essential ingredients for PPE are located in Asia; the U.S. distributors for those suppliers maintained a shallow inventory in their place on the chain, and the users of these essential ingredients of PPE were simply overwhelming the supply. It wasn't just plastic for face shields. Elastic was completely unavailable anywhere in the U.S. within a week (and still is in very short supply).

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We needed to remain nimble, and move up to the next level beyond retail outlets. Our product design team hit the phones on Monday morning to industrial distributors. This was the next difficulty for the supply chain of a small business – these distributors aren't like Amazon, they don't move quickly, they don't have much of a website (they still use paper catalogs) and they're not accustomed to responding even on the same day that you call. And the telephone is their tool, not email. And they don't stock much either, you order it and then wait for 6 weeks.

And above all, they will generally only work with businesses they already know, have visited, and vetted. Over days of conversation they realized we were serious, and albeit new to North Carolina, an established company. Still, payment was 100% up front and by wire transfer.

At first our team got through to the distributors, but within 3-4 days they stopped answering their phones. Yes, we were in competition again with all of the other potential users of the precious ingredients. We weren't the only buyer that had moved up the supply chain from the retail outlets. Later we would hear that distributors were receiving 200-300 phone calls per day during this time, per salesperson.

We did get help: other small businesses in Western North Carolina had heard about what we were doing to make PPE, via local news and social media, and contacted us to help. And they could.

One had the equipment for cutting the face shields faster than we could with our equipment. Another had a line on plastic sitting unused. By Tuesday we acquired enough plastic for 30,000 face shields... which was a good thing, because we had already taken orders for more than 20,000.

The sense of community and support among small businesses was remarkable, especially as Kitsbow had moved to Old Fort just four months earlier. Again, the best of American spirit and cooperation was apparent in these partners, all members of the regional <u>Outdoor Gear Builders</u> association which Kitsbow had recently joined.

Then it got real. We received information that calculations had shown that if COVID-19 hit Western North Carolina region the way it had in Italy, the local hospitals and first responders would consume 400,000 face shields a month. We were asked if we could supply this. We charted a plan to make 10,000 shields each day up from 1,000.

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As a technology industry venture capitalist, I had heard the phrase "We were building the airplane while flying it" often. Now I realized that all the previous use of that phrase was an exaggeration. This was really it, and we felt that lives were at stake.

The news from Italy was horrific, and constantly in our minds. We were learning about the chemical and mechanical specifications of plastic, the importance of the width of the plastic sheet when delivered so it would fit into the machine, the specifications of filter media, and the forms it was available in, as well as the efficacy as a filter of the 0.3mu virus particles. All in parallel with negotiating schedule and price with multiple sources.

Our product team created spreadsheets of data, and cross-indexed sources. We asked for help with introductions, and vetting suppliers so we wouldn't inadvertently choose a supplier with poor customer service. Days of work went into understanding, let alone managing, our new supply chain of PPE raw material.

It was time to move up from the distributor-level. We went direct to the best of several U.S. manufacturers, and ordered custom plastic sheeting from one just 1 hour away in South Carolina. They would make plastic sheet to our specific needs including anti-fog treatment. It would take 3 weeks to make and deliver, but that lined up with our production schedule. We bought enough for 880,000 face shields, paid cash in advance, and arranged for a semi truck to pick it up. It was a massive commitment for a small business.

Another contact on Facebook, related to my family in Minnesota, provided a sample of foam for the headband of the face shield, previously sourced from overseas. We placed another huge order, delivery in 4 weeks from MN.

Ultimately, all of the ingredients of the Kitsbow Face Shield would be sourced in the U.S., making it the only completely U.S.-sourced and U.S.-manufactured face shield available in commercial production (to our knowledge). We had solved our supply chain problem for face shields.

Our second supply chain example is the Kitsbow Face Mask. That first weekend, the product design team quickly engaged a medical professional, a physician with a background in apparel, as our first advisor on the science of PPE. She had helped found a non-profit group sewing masks, <u>Masks of Love</u>. She helped us understand the latest research, and we helped the group by cutting all of their filters to size at no charge. Once again, amazing community collaboration between people who had never previously met, but assumed the best of each other.

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We also received support, information and advice from the <u>Carolina Textile District</u> and <u>SEAMS</u> (the Association & Voice of the U.S. Sewn Products Industry) during this time period, as Kitsbow is a member of each, and each was helping organize the production of gowns, masks and shields. Again, the free exchange of information, sources, testing capabilities, and distribution of finished PPE was readily available and deeply appreciated.

After considering varying materials for filtering, with the scant scientific evidence available at the time, we opted to use HEPA filter media inserted into a pocket inside the face mask. The filter media wouldn't touch the face (the fabric would) and the result would be more protection than a mask made only from fabric.

With hours of research, and consultation with filter media technicians, product engineers, and other specialists in the filter world we became confident that the HEPA material might work to save lives. You probably recognize the term, since HEPA filters are found in vacuum cleaners and HVAC air exchangers (residential heaters and air conditioners). Its also used to filter air in clean rooms, and in consumer CPAP breathing devices. It's a proven technology, and comes in a variety of grades and specifications.

But on March 24, it was hard to find. Word was getting out via the Internet, and everyone wanted HEPA filter media. Twice we had an order for approximately \$30,000 of filter media from a distributor or manufacturer, and once the wire transfer was already set up, and then they would cancel the sale, with no explanation. It was clear that others were bidding against us, or the manufacturers didn't want the liability of being involved even indirectly with PPE. We'll probably never know.

At first we were reduced to buying commercial air filters at retail, and deconstructing them to remove the filter media, smooth it out, and use it in the masks. We sent one of our employees driving to distant stores to find enough.

Eventually we found two different manufacturers, each with inventory in stock, and we bought all they had. It took hours and days to find this, and once our wire transfer was effective, we sent an employee with a truck to Virginia to pickup the precious material. We half expected that he would be turned away at the loading dock, but we got lucky and we had filter material for our first 30,000 masks.

In June we would secure a reliable, U.S. manufacturer, but the memories of the difficulties and extreme frustration of having orders cancelled will be with us for a long time to come.

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### 100% PPE Production in 4 Days

A visit to the Kitsbow factory in Old Fort, NC makes an impression. Most apparel operations are by necessity a dusty environment because of the cutting and stitching of fabric. In some facilities, debris and scrap material can be found everywhere. Many operations haven't been funded for an upgrade in years, so at Kitsbow the all-LED lighting overhead and at each station, along with a policy of twice-daily cleaning (long before COVID-19) means that the physical space is clean and gleaming.

As previously described, all of the equipment is on rolling casters, ready for re-positioning. All electricity and compressed air is modular. Everything can be easily rearranged. The flow of raw material from the inventory floor to the production floor is also thoughtful, with many carts and rolling tables.



All the equipment is at standup stations, since the sewers move from machine to machine as they make each garment.

An in-house technical team keeps everything running with periodic preventable maintenance, and this staff is a part of the production team -they know the challenges the sewers and cutters face, and work through problems with them.

So on Tuesday morning, March 24, when the sheer number of pending orders for face masks became apparent, we made the decision to halt making apparel, despite at least 100 orders pending for customers.

The technical team literally shrink-wrapped all of the work in progress for apparel and wheeled those carts, shelving units, and tables into a corner of the factory.

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The sewing machines and other equipment was re-positioned, plugged in, and tested, there was a capacity for at least 1,200 masks a day configured and ready for use before lunchtime.

We had pivoted to 100% PPE production from apparel production in just 4 days since the email with the first idea.

### **Building Out the Team**

The original work force of 27 employees was woefully inadequate for this kind of volume, so the word went out on social media that Kitsbow was hiring additional sewers in temporary positions, and within two weeks 50+ staff were making either face shields or sewing face masks, on two shifts a week.

Increasing levels of unemployment in Western North Carolina helped fuel the hiring, and the State of North Carolina workforce agency lended a hand with collecting applications and interviewing candidates.

We also realized we were running out of space, and that production of the plastic face shield was taking a toll on the leadership team and our logistics capability. Local county economic development staff put us in touch with <u>Foothills Industries</u>, a non-profit organization employing adults with disabilities and nearly 50 years of experience manufacturing regulated items, including surgical drapes and other medical devices. We quickly formed a working agreement, and shifted all production to their FDA-registered facility.

It was a "pivot within the pivot", taking us out of the plastic shield manufacturing operation in less than 6 weeks after we had entered it. We weren't adding any value, and it was in Foothill Industries' direct experience. We would continue to market and ship the shields to customers, source the raw materials and fund the raw material inventory, but they would build the product. And we kept the jobs not only in the U.S., but 10 minutes away in the same county. It was another example of our nimble leadership team taking quick action, and another example of amazing partners in the region.

Today Kitsbow employs more than 50 workers, and has 10 open positions. Many of the temporary positions in March and April were transitioned to full-time roles by May, with paid training and other benefits. We more than doubled our workforce during the Pandemic. Yes, this small business is creating jobs, and these are good jobs.

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Before the Pandemic in Q4 of 2019, Kitsbow paid its employees an average weekly wage that was **125% of the average weekly wage** paid in the area, according to statistics measured by state economists for the same period<sup>6</sup>.

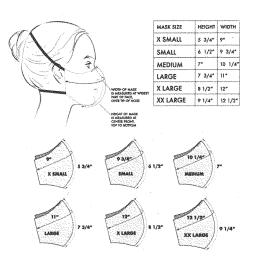
With daily production incentive pay and overtime, the weekly wage will be considerably higher in 2020 than it was in Q4 of 2019. And full-time roles at Kitsbow include 100% employer-paid health insurance, paid holidays, and other benefits.

### A Second Mask Design

The product design team at Kitsbow continued to learn about filter media, experiment with fabrics, and seek outside experts for more information. At the same time, we received contact from a team of community health practitioners at <u>Wake Forest Baptist</u> <u>Health</u> in North Carolina, led by the health system's Chief Wellness Officer, Dr. Bill Satterwhite.

It was the kind of expert collaboration that we needed, and their team needed a production partner that could manufacture a reusable, durable fabric mask for all-day comfort. The teams met in the parking lot for social distancing, and agreed that we could make a difference with a new kind of mask.

We quickly began collaborating, and eventually signed an exclusive agreement to make the Wake ProTech<sup>™</sup> mask for medical professionals, workers, and consumers that needed a close fitting mask comfortable



<sup>6</sup> Kitsbow's quarterly wage report certifying average weekly wages paid, and the Q4 2019 employment/unemployment data included in the *June 2020 North Carolina Economic Report for McDowell County* (included in Appendix 1).

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enough to wear for an entire shift. With this mask we would offer 6 sizes instead of 3 sizes, and use a different way of holding it on the user's face.

During this period, we were exchanging prototypes and running tests nearly every day. Quickly a routine developed where one of the Kitsbow staff would grab the recently completed prototypes, and drive East towards Winston-Salem, North Carolina. At the same time, one of the collaborators from Wake Forest would drive West towards Kitsbow in Old Fort. The usual meeting spot was the Walmart parking lot in Hickory, North Carolina where the exchange of goods would be made, and each driver would return to their base.

Best of all, the Wake Forest model is made of raw material entirely sourced within the U.S., even the elastic and plastic toggles.

Volume production of the new mask in Old Fort, NC began on May 22, 2020 and we announced it to the world.

### Results

As of Sunday, June 28, Kitsbow has delivered to customers **87,982 units of PPE**. That's **44,710** units of FDA authorized Face Shields, and **43,272** units of reusable face masks. All made in North Carolina.

Sunday was also Day 100 in the PPE Business.

### **Regulation Compliance Holds Kitsbow Back**

There are two ways that compliance with federal regulations is holding Kitsbow back from being successful, and providing jobs.

First, we profoundly appreciate the efforts by this Congress to support small business with the Families First Coronavirus Response Act (FFCRA); the Coronavirus Aid, Relief, and Economic Security (CARES) Act including the PPP program; and the SBA Economic Injury Disaster Loan program.

Yet compliance with these programs is rigorous and difficult for the small business, effectively creating a bias against businesses that lack a professional staff for compliance.

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Even the effort to evaluate the options and determine eligibility of these programs for Kitsbow required hours of work by our skilled finance and administration staff, and frankly set us running to outside experts in the accounting and legal industries to confirm our interpretation of the application forms, let alone the regulations.

This was made even more expensive with the ever-evolving guidance, which seemed to arrive nearly weekly, causing us to doubt anew our interpretation of the program benefits (and liabilities). Like many regulatory issues, this essentially played to the strengths of medium- and large-scale businesses with staff and compliance experience.

While we have professional staff at Kitsbow qualified to do this work, we believe many small businesses do not, and were left out, especially at the first step of correctly applying for these programs. We would respectfully ask that you consider the burden of these programs from the point of view of businesses without dedicated professional staff.

Second, Kitsow is being helped in a big way by how the FDA regulates PPE, and being held back in another way.

On April 13, the FDA took a huge step forward for new manufacturers of *face shields* and for the users desperate for the protection offered by face shields. The FDA provided a blanket emergency authorization, provided that a face shield met certain specific criteria. This allows Kitsbow (and others) to state that their face shields are authorized by the FDA<sup>7</sup>, which in turn empowers supply managers to purchase face shields from non-traditional manufacturers.

The importance of the emergency authorization cannot be overstated, as purchasers from large institutions and especially medical facilities are not allowed to buy PPE that does not carry FDA approval or FDA authorization as a matter of internal policy. Even if the PPE is made in the U.S. as the Kitsbow face shield is, and even if the PPE is made from entirely U.S. sourced raw material, as the Kitsbow face shield is. This action by the FDA was consistent with a rapid response to an unprecedented disaster, and associated lack of PPE.

By doing this, the FDA not only helped manufacturers like Kitsbow meet unmet needs, but motivated U.S. manufacturers to begin making PPE again. We believe that this is key to establishing a resilient supply chain for future epidemics and pandemics.

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<sup>7</sup> https://www.fda.gov/media/136842/download

Now we need the same mechanism for commercially-manufactured *fabric masks*. As it currently stands, we are expressly prohibited from providing any scientific data, any testing results, any information at all about the Kitsbow masks with regard to filtration.

Consistent with our focus on technical performance of our clothes since our founding 8 years ago, we of course tested the efficacy of our face masks. As have many customers in medical professions with access to testing equipment and/or independent labs. In third-party, independent testing the Kitsbow masks are very, very effective. But we cannot disclose that to you, even in this hearing.

I want to repeat that: in the absence of getting the information from Kitsbow, our *customers* have obtained testing data about the effectiveness of our masks, at their own cost and time (independent laboratory testing is not inexpensive). That is a measure of the need for this information.

The face mask regulations were apparently formed at a time when innovation in PPE was not urgent, and regulators and scientists must have concluded that disposable, single-use masks could be the only form of protection.

This has essentially guaranteed that customers, including government agencies funded by taxpayers, can only buy PPE made in China. Because with a single exception, all of the approved manufacturers for the N95 mask are not located in the U.S.<sup>8</sup>

Kitsbow has received constant inquiries from large organizations and medical facilities, but in the end these large organizations buy (FDA approved) PPE from China instead of from Kitsbow, because our masks are left in the same FDA category as a "homemade" mask -- including our Wake ProTech<sup>™</sup> mask, co-developed with a leading medical teaching and research institution.

Using a regulatory mechanism similar to the FDA's wise emergency authorization of face shields would help users get the masks they want immediately, provide a degree of comfort to corporate buyers, and bridge the time gap while non-traditional manufacturers such as Kitsbow pursue formal FDA approval of their masks.

Kitsbow has started the process to obtain approval, but we are told it will take months. In the meantime, we cannot tell any potential customer anything about our filtration efficacy.

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<sup>&</sup>lt;sup>8</sup> To our knowledge, Premiere Ameritech is the last manufacturer in the U.S. making the N95 mask. <u>The</u> <u>Washington Post</u> 5/9/2020. If there are others that have emerged, there aren't many.

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We will also point out that if reusable masks could be rapidly considered and adopted as an alternative to single-use disposables, we as a nation would also experience the substantial benefits of reduced impact on the environment by minimizing single use items disposed of in landfills in favor of reusable items.

### Lessons in the Time of COVID-19

Kitsbow made the pivot to making PPE, ultimately turning it into a sustained business line for the company, because of the incredible coincidence of multiple factors aligning at the same time. While we're grateful for our good luck, we wish that hadn't been the huge factor it turned out to be.

We are profoundly grateful for and proud of a team of some 50 people that came into a facility every day during a state-wide lockdown, some in the vulnerable population and many with vulnerable family members at home. The safest thing to do would have been to stay home. Yet they came in, and the result is nearly 90,000 units of PPE made in America in just 100 days.

But we learned a few lessons too, which I'll attempt to enumerate here:

### What went right?

- A brand new factory, with the best sewing machines money can buy and a flexible configuration for rapid changes, was available in Old Fort, NC. This enabled a pivot to 100% PPE in just 4 days.
- A "startup mentality" in the leadership at Kitsbow embraced the challenge, unencumbered with a conservative approach to rapid change, and continued innovating in design and production every day. "Nimble" is the greatest characteristic of the small business.
- Tenacious persistence by the product design team on the phone and email to secure new vendors for the supply chain, while creating new U.S. suppliers.
- The CEO knew and used PPE as a first responder for decades, and had a deep appreciation for how important it would be in the pandemic response, and had colleagues that could verify the urgency of the need.

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- A community-minded Foundation, Dogwood Health Trust, acted swiftly and definitively to offer financial support and place large orders of PPE product without bureaucracy or delay. A nimble foundation.
- Others in the Western North Carolina business community, partners such as Wake Forest and Foothills Industries, SEAMS, Carolina Textile District, Outdoor Gear Builders, and dozens of unsung heroes delivering lunch and refreshments for the Kitsbow crew, helped keep this going.
- The FDA created a blanket emergency authorization for face shields that meet a set of simple criteria, so Kitsbow can accurately and ethically state that our face shields are FDA authorized.

### What Could Have Been Different?

- To our knowledge (which is limited) the FDA did not provide emergency authorization of any reusable fabric face masks, so our commercially-quality face masks with HEPA filters fall into the same FDA category as a "homemade" mask with a single layer of fabric. Most medical institutions cannot purchase them, by internal policies that are tied to FDA approval.
- Kitsbow was competing with dozens (hundreds?) of other manufacturers for the same key material: plastic, elastic, HEPA filter media, etc. all of which was obviously critical and essential supplies in a worldwide disaster. This could have been recognized and the appropriate materials secured by a central authority.
- Kitsbow has received inquiries from medium and large organizations about the purchase of reusable face masks in large quantities (2,000 to 20,000 masks per order) from for-profit companies, non-profits, and college and universities. So far, none has purchased in volume. They confess that the lure of the inexpensive, disposable foreign mask is essentially mandated by their financial situation. This obviously works against U.S. production of PPE.
- Despite the FDA authorization for our face shields, the largest stockpile of medical face shields we know about in North Carolina is at Kitsbow. We have 60,000+ faceshields in stock, and the material to make another 800,000 face shields. Demand is low. We may need to scrap the face shields to recover some of our investment in plastic sheeting.

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### Conclusions

Small businesses supply the jobs in most communities, not the large corporations, as Chairman Kim has already stated. Large corporations can recruit talent from anywhere, and do. On the other hand, small businesses have the potential to get involved in their communities, and can make the smart choice to source locally, which isn't always (in fact rarely) the lowest bidder. Small businesses are nimble, and can move quickly to address problems and opportunities.

And we all know that running small businesses has become more and more difficult, with increased regulations, complexity of reporting on compliance with those regulations let alone reporting for various tax agencies. The cost of insurance is crippling, and has forced more than one small business to suspend. The cost of health insurance for the small business is staggering, since those business owners do not qualify for ACA subsidies.

COVID-19 was and is horrific, in the toll on human life and the impact on our society. While unemployment due to the virus is of course experienced personally by the individual furloughed or laid off, small business owners and managers such as myself experience the layoff viscerally multiple times, as we let each valued employee go.

Kitsbow has been fortunate, beyond measure, to survive the virus (so far) without forcing unemployment on its staff, but it has been difficult. Local governments and large businesses *aren't* buying our PPE. Instead, it is individual consumers across the nation buying in our online store, and a single forward-thinking, responsive community foundation intensely focused on keeping their local community safe. We got lucky.

We have deep empathy for the *millions* of American small business owners and operators who did everything right, and still had to let people go. 25% of small businesses nationwide have already closed, and 40% of the remaining small businesses expect to close, according to the U.S. Chamber of Commerce.<sup>9</sup> How many will reopen?

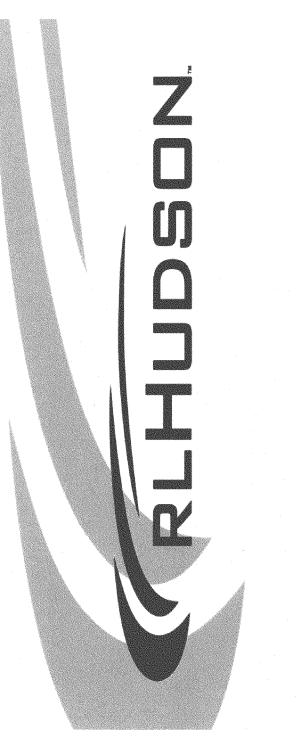
Thank you Chairman Kim and Members of the Subcommittee for your patience as we traveled the Kitsbow journey into PPE, and our challenges with the supply chain.

I hope the specific examples are helpful, as you contemplate future policy and continue to support small business in America. I would be happy to take your questions.

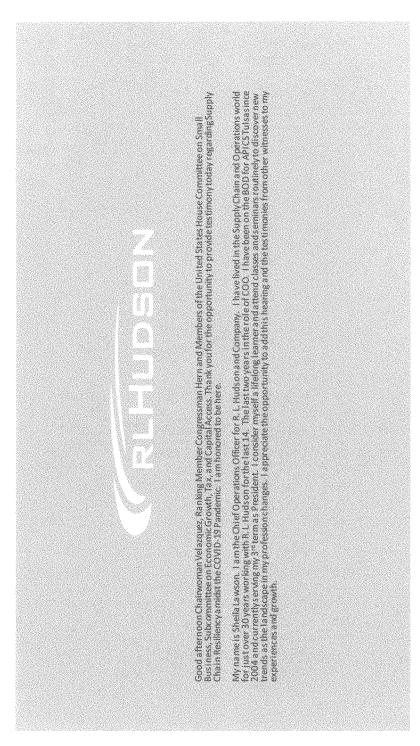
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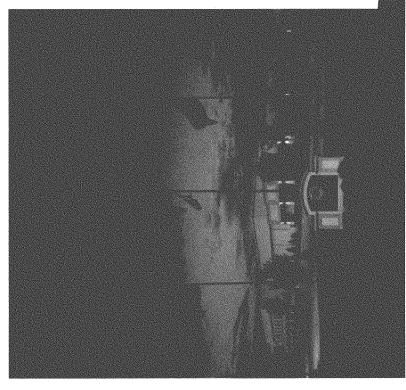
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MANUFACTURING PARTS & PARTNERSHIPS





## RL Hudson Key Facts



The company was founded in 1980 by Rick Hudson and is still owned by the Hudson Family.



HEADQUARTERS

Greater Tulsa, Oklahoma, 100 Employees

## PRIMARY PRODUCTS

Molded Rubber & Plastic

Extruded & Formed Hoses

Shock and Vibration Isolation Products

Sealing Devices

RL HUDSON & COMPANY

# History: Steering a Customer Driven Business Engine

ring seals and served Oklahoma's booming oil industry. Rick Hudson's knowledge of rubber chemistry paved the way for larger, more sophisticated Headquartered in Tulsa, Oklahoma, RL Hudson & Company was founded in 1980 by Rick Hudson. The Company began as a distributor of rubber O-

customers across the eastern half of the United States

In the early 1990s the Company created an in-house engineering department to design complex parts, and a quality lab to test and inspect parts before they were shipped to customers.

our knowledge of hoses and custom molded rubber products grew our relationships with our new customers grew to include other products such as In the late 1990s, Rick Hudson was among the first in the industry to recognize the coming trend of Asian manufacturing. He began establishing relationships with manufacturers in Taiwan and China and soon RL Hudson was supplying Asian made rubber products to customers in the U.S.

Technical capabilities and quality performance ensured the growing success of RL Hudson. Hudson developed a quality management system and hired Quality Engineers in Asia and Tulsa to eliminate these concerns. The company also invested heavily in top notch engineering design and

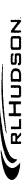
injection molded plastic and blow molded plastic components

material development capabilities.

In January of 2004, RL Hudson moved into a new 36,000 square-foot headquarters building. Continued strong growth forced an addition to the facility that brought the total square footage to 100,000+. A key feature of this new headquarters was an engineering and research center that included a rubber development and testing laboratory. For the first time in its history, RL Hudson had the capability to research, design and test unique and patentable rubber compounds. This capability allowed the company to provide a much higher level of service to a broader range of customers and led to a number of technological breakthroughs

customers. In 2017, the company launched new in-house plastic injection molding and tooling capability. Providing affordable injection molding for The debt free company sought to find additional value for a rapidly growing family of customers. To further improve delivery times and achieve better control, larger percentages of custom product assembly moved in-house. RL Hudson recently cleared the necessary space in the 108,000 square foot plant for establishing a new parts assembly line further improving the structure for company growth and added services for the prototypes, bridge tooling, validation builds and production.





Challenge 1: External Supply vs. Demand

Importing from 14 countries (over 400 containers & 92 million units annually) and exporting to 20 countries (380 customers & 78 million units annually) across the globe brought a list of challenges from the very onset of the COVID-19 Pandemic. As the Chinese New Year in all Asian countries was extended by many weeks, our component and finished goods inventory were, by customer forecast, to be consumed very quickly. We needed to take swift and creative action.

Through very strong relationships with our partners, prior to the end of the holiday extensions, we were able to secure inventory availability details along with the more challenging space on vessels. In order to keep costs to the customers in check by avoiding costly and hard to find air space, we worked to secure space or "fax" boots. A0x of our product during March/April moved in this mode adding 50% to the cost of each vessel. All during our efforts, customers were asking for daily meetings to insure product availability.

After assuring all shipments were in transit as required, the COVID-19 reached the balance of the world. As containers began arriving to RLH, the US began the stay at home orders with many customers halting production. We now had a new challenge. Where will we put all of this inventory? We have had 18 containers lining our parking fot containing bulk items. In addition, we now dad containers into off-site storage. The off-site storage has its own set of challenges and demanded new system adjustments and full-time oversight of the inventory. In addition, new input all of this inventory is own set of challenges and demanded new system adjustments and full-time oversight of the inventory. In addition, new inputs for purchasing needed to take place to predict the lack of forecast consumption by customers moving forward. Customers had no way of predicting how they would be impacted.

The events resulted in payables being greater than receivables for a short time. A first during my 14 years with the company.

We began to delay our own purchase orders. When orders could not be pushed – or cancelled – we were looking for "slow" boats. [Yes, they do really exist.] On the shelf products grew by 30% in cost. Our in-transit inventory has been controlled and reduced by 50% on average. The item counts pending receipt will be 50% and 60% less in during July and August.

Our Manufacturing partners are facing a reduction in demand which has proven to give them their own set of challenges which we will need to help them overcome. Communication, communication, communication!

As customers opened their doors, we were forced to change company policies to not allow ship dates for customers to be cancelled or pushed out. Our company policies trafficent feasibility, so this change has been challenging for both our team and the customers. We have allowed the policy to consumption the customer factory before non-operational. Our key customers provided a mountain of support by accepting earlier ship dates to make up for loss consumption in April. We are than one-operational. Our key customers provided a mountain of support by accepting earlier ship dates to make up for loss consumption in April. We are thanking the three policy for the policy to consumption in April. We are thanking for the three policy for the provided.

Sales Fun Facts:

- In House Manufacturing at R. L. Hudson represents 30% of sales
- Manufacturing partners represent 65% of sales
- Tooling and other represent the balance



Challenge 2: Work Force vs Demand

As the components began arriving and forecast from customers in February/March seeming to remain strong, our manufacturing teams went into quick action to insure product availability to the customers. At points in time, mandatory over time being required. As demand decreased due to stay-at-home orders/factory closures, we kept our teams in production by building stock for products that are high volume but with zero firm orders. With machine utilization in our injection molding dipping to 30% in April and finished goods filling the warehouse, we did move to a 4-day work week during May for ALL team members. Since that time, we are thankful for the team members longevity and experience in multiple facets of the company. Our team members have been flexible moving across departments as needed. This has really helped us to control costs and meet customer expectations.

While agriculture and heavy truck markets continues to have depressed sales, we are seeing the boating and power sports industries continue to be strong. With the increases in recent firm demand, we believe over-time hours will be required soon.

We are thankful that the PPP loan allowed us to avoid lay-offs or furloughing our team members. In addition, although our work hours were reduced in May, we were able to pay employees for a full 40-hour work week.

With our in-house production and manufacturing partner support, Rt. Hudson has been able to support more than 10 new customers.

KPI Fun Facts:

- 2020 Average On-Time Delivery 99.6% (Historical 99.3%)
- 2020 Average PPM 63 (Record low! 2019 = 72)
- Inventory Turns 4.03 (No so fun fact! Goal is >6)



**Challenge 3: Team Member Safety** 

As an essential manufacturing company, it has been important for us to think safety first for our team members. Our Leadership Team has taken quick actions to insure we are doing what is needed for all team members:

- Cleaning and disinfecting. We have a team arriving before the beginning of the shift to disinfect each work-station and office with hospital PPE.
- 2. At the end of each break, the break rooms are cleaned and disinfected.
- 3. Increased breaktimes to allow social distancing.
- 4. Outdoor tables and chairs have been added for breaks and lunch
- No lights out or closed doors to avoid transmittinggerms on common surfaces. (These will be cleaned each night) <u>ب</u>
- 6. Leadership Team daily stand-up 15 min meetings to discuss any issues or concems
- $7.\;$  Temperature check points at the beginning of each shift for those who cannot complete at home.
- 8. Mask and hand sanitizershave been provided to all employees as needed
- 9. Work from home options
- 10.Conference tools to limit group meetings

Fun Fact:

All work cells are 6 foot apart – Standard

All Office Team Members have a private office with door



## Questions?

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