

Progress Narrative for 2021-Q2

Operating Outcomes

CAR Client Activity Levels by Type of Company

Client activity levels with a focus on very small, rural, start-up, small and mid-sized manufacturers

NCMEP continues to leverage partnerships and utilize customer feedback to serve very small, rural and start-up clients. Notable projects include the following examples: Industry Expansion Solutions (IES) identified and placed an engineering intern at rural manufacturer Schindler Elevator Corporation (Sampson County) as part of the NC State University College of Engineering's Rural Works program. IES also provided a competitiveness review using CARES Act funding for very small manufacturer Haand, Inc. (2 employees). Partner NC Community College System (NCCCS) provided a customized training program to start-up Bulldog Hose Company focused on supporting the company's job growth plans and upskilling incumbent and new employees to meet market plans. NCCCS also assisted very small and rural manufacturer American Zinc Products (Cleveland County; 5 employees) with an assortment of classes covering safety, leadership, operational specific and technical topics. Partner the Polymers Center of Excellence (PCE) conducted injection molding work for very small manufacturer Reedy International Corporation (14 employees) and material testing for very small manufacturer Technimark, LLC (2 employees). Partner the Economic Development Partnership of North Carolina (EDPNC) assisted rural manufacturer Crown Equipment Corporation (Lenoir County) to explore expansion options through purchasing the closed Lenox facility in Kinston.

NCMEP and its partners have also conducted programs for mid-sized clients. Partner the Manufacturing Solutions Center (MSC) provided samples for O'Mara Incorporated (150 employees) to give to clients. NCCCS provided a customized training program to Moog Incorporated (400 employees). This program consisted of helping MOOG to combine its components group into its Industrial Division, creating a significant amount of new work and the addition of 20 jobs.

Client activity with transformational clients

NCMEP continues to support transformational engagements with clients. Examples include the following: EDPNC provided expansion assistance to Aggrist. This assistance includes significant facility and equipment upgrades necessary to support national and international client projects. J.E. Ekornes USA, Inc. plans to double its manufacturing space to add a new luxury product line thanks to expansion assistance from EDPNC. NCCCS provided Cataler North America Corporation with a project that supported maintenance, TPM, leadership, safety and ISO training, and this training has a direct impact on their future growth. NCCCS also assisted Ennis Flint with a three-year job growth project that included leadership development, technical and safety training that impacted multiple areas in the company.

Top and Bottom Line Growth

Engagement in top line growth

NCMEP top-line growth projects remain very strong, especially as the Center focuses on services that enhance COVID-19 manufacturing response. Partner PCE provided PPE testing assistance for Whitewood Contracts LLC and helped the company make contact with an expert for further PPE assistance. Partner EDPNC hosted a webinar on export controls that reviewed export control agencies and how to find them; understanding the three ways an export can be licensed; knowing your customer; using due diligence in reviewing the seven lists from denied parties to sanctioned countries. Several manufacturers attended this webinar including Avient Biosciences, LLC, Apex Instruments, Inc, Davy Textiles, Green Stream Technologies, Inc., Brilliant Sole and Flow Sciences. Partner East Carolina University (ECU) provided leadership training for 23 managers at Duplin Wine Cellars. The training focused on motivation and communication for top and middle managers. IES provided Growler Manufacturing and Engineering with a website redesign and marketing project and Aplix Inc. with Technology Driven Market Intelligence (TDMI).

Engagement in bottom line growth

Projects impacting the bottom line remain strong with NCMEP partners IES and NCCCS leading the Center's efforts via continuous improvement and standards project facilitation. IES provided GM Nameplate with Core Quality Tools and IATF Internal Auditor Training and Dill Air Controls Products with assistance to update its ISO 9001:2015 Quality Management System (funded by the CARES Act). NCCCS helped HIBCO Plastics Inc with a project that included lean, Solidworks and leadership training. NCCCS also assisted Dorsett Technologies Inc with a productivity enhancement project that trained all levels of staff in coaching, customer service, management essentials, lean manufacturing and a leadership toolkit. This company had been affected by COVID and a buy out.

Making new technologies available

NCMEP continues to make new technologies available. Partner MSC continues to help North Carolina textile manufacturers with testing for mask and gown PPE production. Partner IES and UNC Charlotte developed a project using UNC Charlotte's engineering senior design program and funded by the CARES Act that would help Actev Robotics. Due to the pandemic, Actev Robotics has developed a Pathogen Disinfecting Robot for use in hotels to disinfect guest rooms, lobbies and gyms using UV-C light. The senior design team provided a radar detection system to help the robot detect objects and avoid collisions.

NCMEP also continues to make advancements in executing a strategy to bring Industry 4.0/Advanced Manufacturing technologies to NC manufacturers. The Center is actively recruiting for a Manufacturing Technology Specialist designed to bring staff expertise to assist with the launch of NCMEPs automation and robotics program. NCMEP has also bought and is in the process of programming a robot that can be taken to client sites. The robot and 3D printer are the first building blocks of a small demonstration center NCMEP plans to develop. The Center has also recently deployed an online course on additive manufacturing.

Other key initiatives

Like most MEP Centers, NCMEP has spent the last year working to help clients identify needs and challenges that CARES Act funding could address.

- As the CARES Act funding approaches its end, NCMEP is proud to report that it has conducted 117 projects that include ISO 9001:2015 certification, Economic Gardening, TDMI, FDA assistance, and PPE testing.
- NCMEP is in the process of planning for its annual manufacturing conference. All tracks have been defined and filled, but the Center and its partners will be deciding in the next few weeks to hold it in person in November 2021 as planned or move it to the Spring of 2022.
- The Center continues to build relationships with the Manufacturing Institutes. We have had several meetings with America Makes around workforce development for additive manufacturing, and we have received a textiles workforce development grant for primarily rural counties in Southwestern NC with AFFOA.
- NCMEP continues to work to spread the word about NC manufacturing and Made in NC through partnership opportunity discussions with *Our State Magazine* (they host a competition) as well as helping to sponsor the second annual “Coolest Things Made in NC” competition spearheaded by the NC Chamber.
- The Center also received a few media mentions during this time:
 - NCMEP Director Phil Mintz has been included in 3 articles (to date) on manufacturing that the *Randolph Courier Times* and the Burlington Times-News has run.
 - NCMEP was also interviewed about Supplier Scouting for an article published by IndustryWeek.

Board Development

The pandemic continues to disrupt the center’s ability to optimize the NCMEP advisory board process. We are engaging some new board development resources at NIST MEP to restructure and revitalize the function of our board. Some members have aged out and there are several new contacts who are interested in helping as the center moves forward with strategies that address evolving client needs. We are establishing the board consultations for Fall 2021 and looking to reestablish effective board activity by calendar year 2021 end.

NCMEP Performance Measures

Q1 2021 Impact Results

| Metric | Amount |
|------------------------------|---------------------|
| Jobs Retained and Saved | 1,455 |
| Cost Savings | 2,611,861 |
| Increased Sales | 2,741,689 |
| Retained Sales | 704,301 |
| Investment Created | 16,555,648 |
| Total Economic Impact | \$22,613,499 |

IMPACT metrics as of 2021 Q1

NCMEP's score on the IMPACT metrics remains strong in most impact categories, but we remain concerned about our clients served per federal million number because we have not met that goal consistently. We are addressing this problem by working with MEP reporting staff to ensure we understand exactly what the reporting requirements are, examining our internal processes to determine if we are unintentionally overlooking submittable clients and projects and discussing the issue with field staff and partners so that everyone is aware of what our requirements are. We will continue to monitor these metrics closely. We believe that the connections we have made with clients due to the CARES Act funding has been helpful for us to meet our metrics. As well, we have missed the Retained Sales and Percent Improving Competitiveness goals the last couple of quarters. We suspect that some of this is due to lingering COVID impacts on business, but we are also retraining our field staff and partners to make sure they understand what these goals mean and how they can prep clients better.

| Impact Metrics | Center Score | Center Reported Impact |
|-------------------------------------|--------------|------------------------|
| New Sales | 10 | \$ 153.7 M |
| Retained Sales | 0 | \$ 91.1 M |
| New/Retained Jobs | 10 | 5,761 |
| New Investment | 10 | \$ 900.7 M |
| Cost Savings | 10 | \$ 24.8 M |
| Percent Improving Competitiveness | 0 | 74.5% |
| Survey Response Rate | N/A | 81.2% |
| Net Promoter Score | 10 | 86.1 |
| Mfg. Clients/\$M Fed | 15 | 303 |
| New Mfg.Clients / \$M Fed | 15 | 196 |
| Impact Metrics Score (Total) | 80 | |

Operating Plan Performance Goals

NCMEP has made extreme progress in achieving its goals on client level activities by type of company and is on track to exceed them. The center continues to monitor these metrics and will course correct if necessary. After working with MEP Reporting staff and the center's partners and field staff, we remain pleased that our transformational projects continue to reflect a number that better represents the client work our center is doing and that our work with very small and rural manufacturers is expected to

exceed our goal. The Center is also making strategic decisions to ensure that we continue to serve these operational categories through new subrecipients and programs. One such program is the Rural Works program sponsored by the NC State College of Engineering which seeks to place engineering students with manufacturers in rural areas for the summer in order to try to develop a workforce pipeline for those companies.

| | Very Small | Rural | Start-Up | Transformational | Other | Total Unique |
|------------------|------------|-------|----------|------------------|-------|--------------|
| Actual | 107 | 260 | 1 | 148 | 349 | 864 |
| Projected | 208 | 174 | 78 | 286 | 273 | 803 |
| Goal | 80 | 75 | 50 | 100 | 200 | 400 |

NCMEP is ahead on its Top Line Growth target and on its Bottom Line Growth target. The Center’s goal is 50-50 in both but that represents a minimum target for top-line growth and a maximum for bottom-line growth projects. Recent quarters have contained a high number of top-line growth projects due to client projects submitted around PPE testing and development to generate new demand.

| | Top-Line | Bottom-Line |
|------------------|-------------|-------------|
| Actual | 63% | 37% |
| Projected | 66% | 34% |
| Goal | 50% minimum | 50% maximum |

NCMEP Goals for day-to-day management

The clients served and new clients served per federal million numbers remain a concern, and the Center is working with its partners to make sure we are capturing all interactions. We are also monitoring the Client Retained Sales since we have not reached the goal recently as well as the Client Cost Savings amount because we are close to not meeting in subsequent quarters.

| Category | Impact Measure | Metric | As of Q3 2020 |
|-------------------------|-----------------------------------|-------------------|---------------|
| Surveyable Interactions | Mfg. Clients Served / \$M Fed | >=253 | 303 |
| Surveyable Interactions | New Mfg. Clients Served / \$M Fed | >=103 | 196 |
| Economic Impact | Client New Sales | > \$51.2 million | \$ 153.7 M |
| Economic Impact | Client Retained Sales | > \$119.4 million | \$ 91.1 M |
| Economic Impact | Client New & | > 1705 | 5,761 |

| | | | |
|-----------------|-----------------------|------------------|------------------|
| | Retained Jobs | | |
| Economic Impact | Client New Investment | > \$51.2 million | \$ 900.7 million |
| Economic Impact | Client Cost Savings | > \$23.9 million | \$ 24.8 million |

Additional NCMEP performance metrics are outlined below. We were disappointed to see that our Percent Quantified Impact Score is still a concern after the Q1 2021 survey and will be reviewing it and what it entails with our staff and partners.

| Category | Impact Measure | Metric | Score |
|------------|---------------------------|--------|-------|
| MEP Survey | Survey Completion Rate | 70% | 81.2% |
| MEP Survey | Percent Quantified Impact | >=80% | 74.5% |

NCMEP also has established annual economic impact targets for partners. While the majority of partners will meet or exceed their goals, we constantly work with them to strengthen their survey preparation processes and better understand the requirements of the survey. We have developed individual scorecards for each partner to reflect their contribution to NCMEP goals after each survey, giving them greater visibility and insight into how their work impacts the overall score. Our three new partners have either had their clients go through their first survey or have projects submitted to be surveyed. We continue to work with them to ensure they understand the reporting and survey process and how to prep their clients.

| Partner | Clients Served Target | Economic Impact Target | Progress FY 21 (3 Q) |
|---------------|-----------------------|------------------------|---------------------------------|
| ECU | >=6 | \$200,000 | \$600,000 EI; 3 clients |
| EDPNC | >=40 | \$100 million | \$100 M EI; 57 clients |
| FFVC/Hangar6 | >=5 | \$150,000 | \$865,750 EI; 7 clients |
| IES | >=80 | \$80 million | \$29.0 M EI; 137 clients |
| CVCC/MSC | >=10 | \$2 million | \$1.98 M EI; 5 clients |
| NCA&T | >=4 | \$200,000 | \$650,572 EI; 4 clients |
| NCWorks/NCCCS | >=60 | \$125 million | \$696.1 M EI; 54 clients |
| PCE | >=45 | \$15 million | \$11 M EI; 35 clients |
| UNC Charlotte | >=6 | \$200,000 | \$ 0 EI; 1 client |