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# 2016 EXCELLENCE IN INNOVATION Awards Program

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<b>Project ID</b>	IGC-7
<b>Title of Program</b>	Expanding Homebound Meal Delivery via GIS Mapping Services
<b>Program Category</b>	Intergovernmental Collaboration
<b>Submission Date</b>	6/24/2016 12:13:50 PM
<b>County</b>	Mecklenburg
<b>Employee</b>	Laura Wasson
<b>Employee title</b>	Senior Manager
<b>Email</b>	Lauras.Wasson@mecklenburgcountync.gov
<b>County Department</b>	Department of Social Services and County Geospatial Information Services
<b>Phone</b>	980-314-7063
<b>Address</b>	301 Billingsley Road Charlotte, NC 28211
<b>County Manager</b>	Dena Diorio
<b>Supervisor</b>	Kajal Patel
<b>Implementation Date</b>	4/22/2015
<b>FLSA Designation</b>	Both (if applicable to a team)
<b>Project Team Members</b>	Kajal Patel, SCNP Program Manager, Karen Hefner (retired) SCNP Supervisor, Heather Shrewsbury, Administrative Support Assistant, Todd Wilson, GIS Technology Solutions Manager Bruce Smith, GIS Technology Senior Analyst

### **Description of Productivity Improvement**

The Mecklenburg County DSS Senior Citizens Nutrition Program (SCNP) partnered with Mecklenburg County GIS (GIS) to increase the efficiency of meal delivery to homebound seniors thus allowing additional clients to be served without incurring any additional delivery/staff costs.

The goal of the SCNP is to provide a meal service to enable senior adults to maintain and improve nutritional health and help them remain independent in their own homes. Customers who receive home-delivered meals receive five frozen meals delivered one time per week. Meals are delivered in a specialized "Hot Shot" truck to ensure proper temperature control throughout the delivery process. There are currently four full time and one-part time driver.

For as long as the SCNP program has been in existence, home-meal delivery routes for new customers were assigned by finding their address in a map book and later, online maps. There was no technology available to plot and view all customers on a map to determine if they were assigned to the correct" routes that enabled the most efficient and maximum delivery process. As the program grew through the years, there were challenges in assigning a new customer to a route as it appeared routes were full. Drivers would sometimes find themselves crossing over each other while delivering and staff knew there had to be a better way to make routes more efficient.

During a meeting with IT staff, it was recommended SCNP consult with county GIS to begin the conversation on how the program could employ more efficient practices to serve additional people. A meeting was held between GIS and SCNP staff and the options were explored. GIS was able to develop an application specifically designed for the program which mapped current clients in addition to those over 100 clients on the waiting list.

With the assistance of GIS, the addresses of the entire customer base were plotted on a map. With this mapping technology, SCNP was able to identify clients residing in homes and those in apartment complexes. The delivery routes were re-structured to create three door to door routes and one apartment complex route each day. The boundaries of the delivery regions were also re-defined to eliminate overlapping of routes and drivers crossing each other. With these changes SCNP was able to add more new customers on the routes and deliver meals timely and efficiently.

### **Description of why this project was initiated**

Due to the high demand for service and growing homebound meal delivery wait list, SCNP sought a solution on how to add additional customers without adding additional drivers and fleet. At the time, route assignments for new clients were done manually with map books and online maps and there were five routes. The route assignments were based on zip codes. The program lacked the technology to view all homebound routes on a map at one time. The lack of efficient routing gave the perception that the capacity to deliver was limited to 550 clients. Drivers would report driving past each other on their particular routes. Some drivers were going on the same street on different days. SCNP management wanted to explore ways to gain efficiencies by improved routing. At the time there were 157 individuals waiting for service.

### **Quantifiable results (sustainability, cost savings, cost avoidance and/or a higher level of service).**

### **Indication of what resources were used and what was done with any accrued time savings**

The capacity to serve homebound meal recipients has increased by 22% as a result of this partnership. At the time of this initiative, the program had a capacity to serve 550 homebound customers. Since the routing was fully implemented, we are now serving 660, and have the capacity to serve over 700. The only wait time we have to add additional customers is the time it takes to determine eligibility and process paperwork to get them started.

The addition of 110 new customers allows the program to meet its goal of serving some of the most vulnerable adults in our community, and assure their nutritional needs are met. By virtue of having meals delivered weekly, the delivery driver has eyes and ears on this customer every week, and can be key in identifying if someone's condition has deteriorated or whether their safety might be compromised. By continuing to utilize this method of routing, the program can assure we are delivering to as many customers as possible, and virtually eliminate the need for a wait for service.

#### **Other descriptive information**

This increase in the ability to serve additional homebound customers would not have been possible without the commitment of both SCNP staff and GIS staff. SCNP was able to leverage the available resources to maximize its capacity to deliver meals efficiently and in a cost effective way.