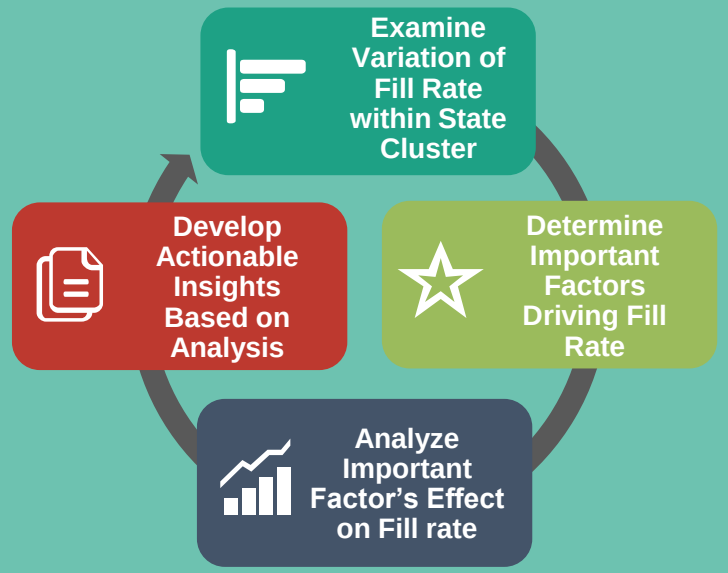
ERADICATING HUNGER WITH OPEN DATA

One in six Americans suffer from food insecurity. To address this, the US Department of Agriculture (USDA) spends $76 billion annually on the Supplemental Nutrition Assistance Program (SNAP). Nationally, 26% of eligible Americans do *not* participate in SNAP, but this "fill rate" varies state to state. USDA sought to understand this variation to identify ways to increase SNAP participation. To this end, Booz Allen analysts leveraged the potential of open data by applying data mining and machine learning techniques to gain valuable insights and provide USDA with data-driven recommendations.

APPROACH

1. Cluster states by similar characteristics and identify fill rates within clusters
2. Identify factors driving variations
3. Determine the effect these factors have on fill rates
4. Combine analysis with USDA knowledge to make actionable recommendations



OPEN SOURCE TOOLS

Using open source analytic tools creates cost and time savings, and makes outputs highly accessible, repeatable, and scalable.

The SNAP team leveraged:

- Tableau
- Amazon Webservices
- R

These open source tools were used in conjunction with common data mining, and data analysis techniques.

IMPACT

Project-Specific: This analysis helped USDA better understand the causes for SNAP's performance variation. This, in turn, will allow USDA to make data-driven decisions to improve the SNAP program, thereby reducing hunger in the US.

Future Applications: This open source analytic methodology can be easily repeated with different data types to answer different questions, providing similar cost and time savings.

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