Government organizations are unlocking new insights with advanced analytics, but not all organizations are equipped with the strategy, capabilities, tools, and training to successfully implement them.

At LMI, advanced analytics is at the center of our tradecraft. We combine deep functional knowledge and domain expertise with a proven, repeatable four-step process to create roadmaps and customized curriculum for organizations to build and sustain organic advanced analytics capacity.

We build training programs around three core data analytics competencies: mathematics, computer science, and presentation. We specify sub-competencies within each core to serve as the baseline for advanced analytics within an organization, from introductory and intermediate to advanced (levels 1 through 3). Our interactive, hands-on training programs are tailored to meet your organizational needs, from the perspective of an executive to an advanced data scientist.

At LMI, we’re dedicated to helping federal agencies stay ahead of the curve, delivering expertise and training to ensure data science has an immediate and sustainable effect on mission success.

Courses for Federal Executives and Non-Practitioners:
- Introduction to Advanced Analytics for Federal Executives
- The Art of the Possible: Facilitated one-day visioning session, where decision makers define their current problem and how to measure success, discuss their data access and limitations, brainstorm opportunities for data analytics given the data constraints, and walk away with a strategy, roadmaps, metrics, and return on investment for data analytics.

Data Science Curriculum

Level 1: Introductory topics
- Probability
- Statistics
- Linear algebra
- Bayesian models
- Data engineering I
- Time series models
- Basic neural network architectures and learning algorithms
- Agent-based models
- High-performance computing
- DevOps
- Neural networks
- Visualizing high-dimensional data

Level 2: Intermediate topics and their applications
- Graph theory
- Bayesian statistics
- Computational statistics
- Data engineering II
- Bayesian models
- Data processing and feature engineering
- Parallel computing
- Distributed computing
- Graph theory
- Data processing and feature engineering
- High-performance computing
- DevOps

Level 3: Deep dive into advanced topics
- Graph theory
- Bayesian statistics
- Computational statistics
- Data processing and feature engineering
- Agent-based models
- High-performance computing
- DevOps

*Other advanced topics are prioritized and added as needed. These courses include the state of the field, examples from industry and government, and fundamental concepts to pushing the frontier.

CURRICULUM