ISAAC B. MICHAEL

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EXECUTIVE PROFILE

Program, Analytics & Services leader who productizes complex services at scale. Builds operating models, SLAs, pricing and governance; deploys automation and reproducible analytics to standardize delivery, cut cycle time and lift margins. Leads national programs in regulated domains; aligns with finance; manages exec escalations with audit-ready quality systems.

STRATEGIC IMPACT

- **Policy Adoption & Standards (CDC)**: Co-authored guidance and nonresponse-bias research adopted by the **Office of Management and Budget (OMB)**, retiring outdated response-rate thresholds for quality-focused evaluation.
- **Governance & Controls (CDC)**: Instituted **enterprise-wide, audit-ready KPI scorecards** and codified **standardized SLAs/runbooks with escalation paths**, improving reproducibility and on-time delivery across 50 jurisdictions.
- **Commercial Model & International (LSU)**: Built **profit-sharing SOW** and negotiated a **Zhejiang MOU** with FERPA governance, defined milestones, and consistent reporting cadence—establishing durable margins for STEM programs.
- **Systems Architecture (Far Harbor)**: Designed a census-style **weighting system** with an **end-to-end, robust** auto-generated statistical report pipeline, delivering scalable, reproducible analytics to public-health clients.

EXPERIENCE

2025–Present **Public-Sector Client**

Research Scientist, Independent Consultant   Atlanta, GA

Summary: Lead architect for a production SAS-based weighting/analytics framework for public-health clients—scalable, reproducible, and designed for nontechnical analyst enablement with automated QA.

- **Service Design & Automation:** Implemented a three-stage SAS pipeline with reusable macros, automated QA/exception handling, and standardized runbooks to reduce manual effort and variability.
- **Validation & Parity:** Integrated duplicate detection, sampling verification, and nonresponse modeling into versioned workflows; added parity checks and audit logs for consistent, reproducible results.
- **Governance & Enablement:** Delivered analyst-ready templates, job controls, and documentation (SLAs, escalation paths) to improve handoffs, observability, and on-time delivery for client teams.

2023–Present **Centers for Disease Control and Prevention**

Mathematical Statistician, Division of Reproductive Health   Atlanta, GA

Summary: Senior service-operations lead for PRAMS (**50 jurisdictions**, **81% of U.S. births**). Co-led national delivery and modernization across the 2022–2023 cohorts—standardizing methods, automating QA, and strengthening decision support for federal and state partners. Built reproducible analytics and quality systems to lift reliability, cycle time, and KPI performance in a regulated environment.

- **National delivery & automation:** Co-led 2022–2023 PRAMS weighting across **50** jurisdictions, standing up modular toolchains with automated QA/validation, response targets, and clear, documented escalation paths—standardizing outputs and compressing cycle time nationwide.
- **Quality System & Methods:** Authored sampling-verification protocols (e.g., t-tests, Bonferroni-adjusted chi-square); resolved stratification errors and duplicates; instituted audit-ready documentation and KPI scorecards to raise accuracy, reproducibility, and cross-site consistency.
- **Data modernization:** Advanced automation and platform shifts (AI-assisted SAS QC code; SAS-to-R parity reviews for outputs, QA, and test coverage), improving maintainability and long-term reliability.
- **Stakeholder leadership & enablement:** Delivered national briefings on weighting/data quality; served onsite at the PRAMS National Grantee Meeting (Seattle) and state site visits (e.g., Alabama) to troubleshoot, implement, and upskill teams with codified playbooks and trainings.
- **Client advisory & mentorship:** Advised the Virginia Dept. of Health (co-authored a 100-page CHR report with automation); mentored researchers through CDC's SAG program (e.g., SEM, regularized regression), and served on grant/manuscript panels to uphold methodological rigor.
- **Reporting & decision support:** Produced actionable dashboards/briefings, improving transparency, timeliness, and coordination among federal and state partners in regulated environments.

2019–Present	**Louisiana State University**

Program Director, Gordon A. Cain Center for STEM Literacy (2020–Present)   Baton Rouge, LA / Atlanta, GA

Summary: Built and scaled a **productized services** offering—operating model, pricing, and quality governance—standardizing multi-site delivery and improving margins. Partnered with education/applications teams to improve outcomes; codified commercial models (MOUs, pricing, SLAs).

- **Funding, Budget & Governance:** Secured AMS Epsilon grants (2022–2025), blended with tuition to sustain VMC; governed student-support grants—**100% on-time disbursement**; set need-based rubric and documentation; led quarterly reviews, compliance reporting, stakeholder communications.
- **Financial & HR Operations:** Managed stipends/payroll with LSU HR; drafted roles, ran hiring/onboarding for mentors/instructors, and maintained payouts, compliance, and continuity.
- **Capacity & Resource Planning:** Built intake forecasting and staffing workflows (backlog coverage, skills-based routing) to balance instructor load and standardize go-live readiness across cohorts.
- **Leadership & Scale:** Led **18+ research contractors** across cohorts and **116 students** (2022–2025); created a lead layer and cadences (standups, retros, QA) to improve execution and knowledge sharing.
- **Customer Insights & CSAT (VMC):** Ran post-program surveys; issued CSAT/NPS scorecards and closed-loop actions (syllabus updates, comms SLAs), informing conversion and service quality.
- **Analytics & Reporting:** Engineered an applicant-insights pipeline (schema harmonization, dedup/QA, NCES/Census enrichment) delivering exec-ready geo/SES/referral reporting with PII safeguards.

Head Supervisor, College of Engineering (2020–Present, Seasonal)   Baton Rouge, LA / Atlanta, GA

Summary: Lead summer operations for LSU's Bridge to Engineering Excellence (BEE) math program—staffing and training GAs, directing curriculum and schedules, and managing ed-tech/vendor readiness. Standardized workflows and grading and automated delivery to scale quality across sections.

- **Scale & Delivery (2025):** Directed five sections serving 156 students and implemented a program-wide dual grading system to ensure fairness and cross-section comparability across cohorts.
- **Learning Impact (2025):** Achieved pre->post gain **+28.56** points; **96%** of students improved.
- **Operations & Enablement:** Supervised/trained GAs; standardized SOPs, pacing, grading; automated reporting/QA with vendor integrations (SSO, access), improving visibility and audit readiness.

Postdoctoral Researcher, Department of Mathematics (2019-2022)   Baton Rouge, LA

Summary: Led research in differential equations and operator theory; collaborated internationally; mentored graduate students and taught mathematical statistics, with peer-reviewed publications.

- **Research outputs:** Produced peer-reviewed publications in differential equations/operator theory; contributed to proposals and collaborations that advanced funded research directions.

2022–2023	**U.S. Census Bureau**

Mathematical Statistician, Decennial Statistical Studies Division   Baton Rouge, LA

Summary: Supported national survey operations and analytics for decennial programs—advancing undercount measurement, migration analyses, and methodological review. Improved pipelines (SQL/Redshift), rigorous quality controls, and formal documentation, strengthening population insights.

- **Undercount & Mobility Analytics:** Analyzed differential undercount and COVID-era migration patterns; built reproducible models and monitoring artifacts to improve accuracy in estimates.
- **Data Engineering & Method Review:** Optimized ETL pipelines in SQL/Redshift and expanded QA checks; reviewed publications for methodological soundness and standards compliance.

TECHNICAL SKILLS

Data & Automation

SAS; SAS Macros; R; Python; SQL; R Markdown; scikit-learn; TensorFlow; Git; GitHub; GitHub Actions; Docker

Methods & Governance

Survey sampling and weighting (complex designs); nonresponse bias; QA automation; KPI scorecards; SLAs and runbooks with escalation paths

Cloud & Analytics

Google Cloud Platform (BigQuery); Amazon Redshift; Tableau; Microsoft Power BI (basic)

EDUCATION

2023	**Master of Applied Statistics, Louisiana State University**	Baton Rouge, LA
2019	**Doctor of Philosophy in Mathematics, Baylor University**	Waco, TX
2015	**Master of Science in Mathematics, Baylor University**	Waco, TX
2013	**Bachelor of Science in Mathematics, Tarleton State University**	Stephenville, TX