Document Information

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Purpose & Scope

This Service Level Agreement (SLA) outlines the services, expectations, responsibilities, and performance standards for the Institutional Research & Planning (IRP) office at Marshall University. IRP provides strategic, operational, and compliance-driven data support to ensure that campus leadership, colleges, departments, and administrative units have access to accurate, timely, and actionable information for informed decision-making.

IRP serves as both the strategic analytics unit and the steward of enterprise institutional data. This includes responsibility for the Institutional Data Warehouse, semantic models, reporting pipelines, data governance structures, and standards ensuring accuracy, consistency, and security across all reporting environments as well as the university's system of record for institutional analytics and Business Intelligence. IRP ensures that institutional BI outputs are methodologically sound, aligned to shared definitions, and sourced from governed enterprise data.

Audience
This SLA applies to all academic, administrative, and student-support units at Marshall University.

IRP does not provide data services for personal research or external vendor solicitations unless explicitly approved by Cabinet leadership.

Data services for **student coursework or student research projects** are only provided when all of the following conditions are met:

- The request is submitted **at least 30 days in advance**
- The student provides **IRB approval or exemption documentation**
- The project has a **Marshall faculty sponsor** or course instructor confirmation
- IRP staff have sufficient bandwidth to complete the request without impacting institutional priorities

Requests that do not meet these criteria will be redirected to publicly available institutional data resources.

Core Services Provided

Banner Extraction and Reporting Tool (BERT) Reports

- IRP maintains, updates, and enhances BERT reports, ensuring accuracy in headcounts, credit hour production, student cohorts, and other academic metrics.
- BERT reports primarily generate row-level "lists" used for operational tasks rather than aggregated analytics.

Enterprise Business Intelligence (PowerBI) Dashboards

- Design and delivery of enterprise Business Intelligence dashboards supporting institutional strategy, operational monitoring, and executive oversight
- Maintenance of existing dashboards and datasets
- Ensuring data refresh reliability and performance tuning
- Partnering with units to design visualizations that support insight-driven decisions

PowerBI Data Architecture and Optimization

- Ownership of the institutional BI semantic layer and analytic models used for official reporting and decision support
- Consolidation of related datasets to improve performance and governance
- Performance tuning, relationship optimization, and incremental refresh management
- Support for appropriate RLS (Row-Level Security) architecture

Business Intelligence & Decision Support

IRP provides centralized Business Intelligence (BI) services that transform institutional data into governed, repeatable, and actionable insights for leadership and operational units. BI services emphasize consistency, scalability, and interpretability over one-off or unit-specific reporting.

- Development and stewardship of standardized institutional KPIs and analytic frameworks
- Design of cross-functional BI solutions integrating student, academic, HR, finance, and financial aid data
- Decision-support analytics for enrollment management, budgeting, staffing, program evaluation, and student success initiatives
- Translation of complex analyses into clear narratives, visualizations, and summaries appropriate for non-technical stakeholders

- Alignment of BI outputs with data governance standards, approved definitions, and enterprise semantic models

Dashboard Access & Support

- Provisioning and modifying access using the VP/BU/Org security model
- Approving access levels through Data Governance and Access Control Groups
- Troubleshooting access issues
- Managing security table updates (irdwpbi_VPBU_Access) in accordance with institutional policy

Data Governance: Lead

- Support for data definitions, standards, lineage, and stewardship
- FERPA guidance and responsible-use consultation
- Leadership in Data Governance Council activities

Grant-Related Data & Analysis

- Support for grant proposals requiring institutional data, KPIs, or strategic analytics
- Assistance with logic, methodology, data validation, and statistical analysis for grant initiatives

Departmental Data Support

- Custom data extracts aligned with approved institutional purposes
- Trend analysis, KPI development, benchmarking, and summary reporting

Institutional Factbooks & Executive Summaries

- Development and maintenance of IR, HR, Finance, and Financial Aid Factbooks
- Executive-level dashboards supporting cabinet-level strategic planning
- Weekly, monthly, and term-based reporting cycles
- Full documentation of data sets and update procedures

Data Deep Dives & Analytical Studies

- Multi-year analyses, predictive trends, and exploratory analytics
- Modeling related to enrollment, retention, financial aid, program evaluation, and faculty workload

Deep-dive analyses typically include multi-year trend analysis, predictive modeling, complex cohort work, or studies requiring integration of multiple institutional datasets.

Enrollment, Retention, & Student Success Analytics

- Term-over-term and year-over-year trend reporting
- Cohort analysis and student snapshot pipelines
- Strategic insights for cabinet, colleges, and student success units

Predictive & Advanced Analytics

- Support for retention modeling, time-to-degree calculations, and enrollment forecasting
- Advanced statistical or machine-learning analysis where feasible and aligned with institutional goals
- Collaboration with Student Success, Admissions, Registrar, Academic Affairs, and other academic units to interpret trends

Institutional & Compliance Reporting Support

- Coordination and validation for federal, state, and accreditation data needs
- Support for institutional narratives requiring validated data

Custom Data Extracts

- SQL-derived datasets from the IR Data Warehouse or production systems
- All extracts follow FERPA, security protocols, and purpose justification requirements

Data Pipeline Management & Automation

- Maintenance of nightly IRP data warehouse snapshots for student, course, HR, and finance data
- Development of automated scripts (SQL, Python, Bash, DAX) to support recurring reporting through projects AutoMagic and CleanSlate
- Ongoing improvement of data warehouse structure and efficiency

Data Quality Monitoring & Issue Resolution

- Identification and remediation of data quality issues
- Collaboration with Registrar, HR, Finance, Admissions, and IT to address root-cause data integrity issues
- Continuous monitoring of student records, academic history, HR job records, financial transactions, etc.

Consultation & Advisory Services

- Assistance interpreting data and identifying relevant KPIs
- Methodology guidance for surveys, program reviews, and accreditation
- Strategic guidance for benchmarking, evaluation, and data storytelling
- IRP analysts serve as institutional subject-matter experts in Business Intelligence, analytics methodology, and data visualization standards

Services Not Provided

- Requests for immediate turnaround without prior consultation unless related to compliance or cabinet-directed priorities
- Creation or maintenance of datasets outside the approved institutional data environment, ie, shadow systems

- Independent development of institutional BI dashboards or KPIs using enterprise data outside IRP-governed models and definitions
- Support for tools/platforms not managed by IRP or IT (e.g., Tableau, custom apps, college-created Excel systems)
- Individual employee performance evaluations
- Student row-level data without valid FERPA-compliant reason and approvals
- System integrations, ETL development, or custom software builds
- Data requests inconsistent with institutional policy or lacking clear purpose
- Certification or validation of third-party vendor analytics or methodologies
- Analyses requiring access to systems IRP is not authorized to use

Request Submission Process

Requests should be submitted via IRP's request form so that as much information is presented/collected up front to help the office fully understand the request and generate a timeline. The form can be found via IR's website at https://www.marshall.edu/irp/. Each request must include:

- Name, department, role, and contact information
- Statement of purpose and how the request aligns with institutional goals
- Deadline and justification for urgency
- Detailed description of data, metrics, and timeframes needed
- Any required approvals (VP, dean, or unit head)

Requests requiring VP-level or Presidential priority must be flagged as such by the submitting unit. IRP will adjust prioritization only when such designation is explicitly communicated.

IRP maintains internal request tracking systems. Units may inquire about status at any time.

Prioritization Framework

- Regulatory, federal, state, accreditation or compliance/reporting deadlines
- Presidential or Cabinet mandates
- Institutional strategic initiatives
- Grant proposal timelines
- Existing IRP workload and complexity of analysis

Turnaround times may extend during mandated reporting windows during peak periods, including:

- Census periods
- Start-of-term / end-of-term
- IPEDS deadlines (February, April, October)
- HEPC deadlines (January, June, October)

- Accreditation cycles

Service Standards & Turnaround Expectations

IRP strives to meet the following typical turnaround windows. Actual timelines may vary based on workload, request complexity, or institutional priority shifts:

Request Type	Typical Turnaround Time
Simple Data Extract	3–5 business days
Standard Report Request	5–10 business days
Moderate Complexity Analytics	10–20 business days
Deep-Dive Analysis or Predictive Modeling	10–30 business days
PowerBI Access Updates	1–2 business days
Dashboard Bug Review / Triage	1–3 business days
New Dashboard Development	7-30 days depending on scope
Grant-Related Data Requests	Aligned with grant deadlines, prioritized based on feasibility

Examples

Simple Extracts: Course rosters, lists of majors, basic term metrics

Standard Reports: Year-over-year enrollment summaries, CH production tables

Moderate Analysis: Program review KPIs, retention cohort studies

Deep Dive: Multi-year analyses, historical and forward-looking trends, and exploratory analytics

Dependencies

IRP turnaround assumes:

- Source data is complete and up-to-date
- Requestor needs are clearly communicated
- External processes are timely

Delays in external processes may shift delivery timelines.

Stakeholder Responsibilities

- Provide complete, accurate, and timely request details
- Secure required approvals prior to submission
- Use data responsibly following FERPA, data governance, and institutional data privacy policies
- Review delivered outputs promptly
- Provide feedback or corrections within three business days
- Participate in revision cycles when needed

Data Governance & Quality Assurance

IRP maintains documentation, data definitions, lineage, and standards to ensure consistency across reporting environments. IRP collaborates with units to support responsible data use and maintains the university's single source of truth in the institutional data warehouse.

Data Security & Access Controls

Access to dashboards, datasets, and RLS is based strictly on institutional roles and responsibilities, not personal preference, and follows FERPA, state code, and Marshall University's data governance/privacy policies.

Performance Indicators

- Percentage of requests completed within service windows
- Dashboard uptime and refresh success rate
- Error rates in published reports or datasets
- Stakeholder survey scores on satisfaction
- Volume of completed requests over time
- Accuracy of key metrics across reporting environments

IRP Guiding Principles

- Data accuracy is non-negotiable
- Transparency in definitions and methods
- Standardization whenever possible
- Governance over convenience
- Commitment to the "Single source of truth" philosophy
- Accessibility and usability for campus stakeholders
- Responsiveness balanced with institutional priorities

SLA Review Cycle

This SLA will undergo annual review to ensure alignment with institutional priorities, resource availability, and evolving data governance standards.

Appendix A: Glossary of Terms

Academic Period
A defined semester or part-of-term used for enrollment, credit hours, and reporting metrics.

Accreditation Data
Data submitted to accrediting bodies (HLC or specialized accreditors) to document institutional or program quality.

Analytic Reporting
Reports that provide insight, trends, comparisons, modeling, or metrics used in institutional decision-making.

Automated Pipeline
A scheduled or triggered process that extracts, transforms, and loads (ETL) data into the Institutional Data Warehouse (e.g., nightly snapshots).

Banner
Marshall University's student information system (SIS). It is the source for many IRP datasets.

BERT (Banner Extraction & Reporting Tool)
An IRP-built reporting solution primarily used to extract row-level operational data for campus units.

Business Intelligence (BI)
The practice of transforming institutional data into governed, repeatable, and interpretable insights, delivered through dashboards, metrics, and analytic models, to support strategic and operational decision-making.

Census Date
The official term date when enrollment is "frozen" for internal and mid-academic period state reporting. Federal and final state reporting is not affected by the census, ie, it is our "final" enrollment 21 days after the academic period ends.

Cohort
A group of students tracked longitudinally (e.g., a first-time freshman cohort).

Compliance Reporting
Reports required by federal, state, or system agencies (IPEDS, HEPC, accreditation).

Credit Hour (SCH) Production
The total number of student credit hours generated. Used for budget modeling, allocation, and workload.

Dashboard
A PowerBI visualization tool containing standardized reports, metrics, and security-controlled access.

Data Governance
A framework of policies, processes, standards, and responsibilities ensuring consistency, quality, and compliance across institutional data.

Data Lake / Semantic Model
Centralized architecture where IRP stores cleaned datasets for PowerBI usage.

Data Lineage
Documentation showing where data comes from, how it is transformed, and how it is used.

Data Pipeline
A set of processes (SQL, Bash, Python, etc.) that automate the flow of data between systems.

Data Quality Issue
An inconsistency, error, missing value, or incorrect field identified in datasets.

Deep-Dive Analysis
Projects requiring multi-year data, multiple datasets, complex calculations, or predictive modeling.

Enrollment Snapshot
A nightly freeze of enrollment data used for real-time dashboards and trending.

ETL (Extract, Transform, Load)
The process used to transfer data from Banner into IRP's warehouse in a structured, analysis-ready form.

Factbook
A set of standardized, validated metrics published nightly and maintained continually.

FERPA
Federal law governing student data privacy.

Full-Time Equivalent (FTE)
A normalized measure of student or employee load. Internally it is simply the credit hours a student is enrolled in and divided by 15 for undergraduate enrollments and 12 for graduate/professional enrollments.

Full-Time Tuition Equivalent (FTTE)
Standardizes student enrollment in terms of full-time tuition revenue. FTTE takes into consideration not only the level of the student and their credit hours, but the types of classes students are enrolled within. If an undergraduate student is enrolled in 12+ hours of courses that do not include 3rd party contract courses, they are counted as 1.0 FTTE. For undergraduates enrolled in less than 12 hours in this calculation, they are counted as the number of hours enrolled / 12. The formula is similar for graduate and professional students other than the dividing factor which becomes 9.

IRB (Institutional Review Board)
A university body ensuring protection of human subjects. Required for student research requests.

Metrics
A standardized calculation used for reporting and decision-making (e.g., retention rate).

Predictive Analytics
Models used to forecast outcomes (enrollment, retention, graduation, etc.).

RLS (Row-Level Security)
PowerBI security determining what data a user can see based on roles or org structure.

Shadow Database
Unofficial datasets or systems stored outside approved data governance frameworks.

Single Source of Truth (SSOT)
A principle ensuring that institutional metrics come from a consistent, validated data source.

Snapshot
A daily freeze of selected tables used for historical comparison even as values change in Banner.

Appendix B: Standard IR Metrics & Definitions

Headcount Enrollment
The total number of students enrolled in a term, regardless of credit load.

Full-Time Equivalent (Student FTE)
Total credit hours ÷ statutory divisor (typically 15 for UG, 9 for GR).

Student Credit Hours (SCH)
The sum of all enrolled course credit hours.

Retention Rate
Percentage of an entering cohort that returns the next fall term. Note: Officially reported retention rates are calculated based on first-time, full-time freshman entrance only.

Graduation Rate
Percentage of entering cohort completing a degree within 100% (4-years) or 150% (6-years) of normal time. Note: Graduation rate is calculated based on first-time, full-time freshman entrance only.

Course Fill Rate
Enrollment ÷ course capacity.

Yield Rate
Percentage of admitted students who enroll.

Dual Credit Enrollment
High school students receiving MU credit through approved programs.

Faculty Workload FTE
Calculated using teaching hours, release time, and salary proportion.

Time-to-Degree
Years between entry term and graduation term based on term code logic (aligned with institutional methodology).

Financial Aid Metrics
Include Pell eligibility, unmet need, institutional aid, and loan reliance.

HR Metrics
Includes vacancy data, turnover, diversity, headcount, and job position history.

Appendix C: Access Levels & Security Model

Access to dashboards and datasets follows a hierarchy that maps users to the appropriate organizational view.

FINAdmin / HRAdmin / IRAdmin

- Full access to all BUs, VPs, Orgs in the appropriate factbook
- Reserved for authorized personnel only
- Can view sensitive institutional data across all categories

VP-Level Access

- Access to **all BUs and Orgs under the Vice President's division**
- Includes budget areas, organizational units, and departments

BU-Level Access

- Access to one Business Unit and all Orgs within that BU
- Commonly assigned to budget analysts, deans, or directors

Org-Level Access

- Access to one or more specific Orgs only
- Most granular access level
- Assigned when job duties require visibility into only specific units

Rules of Enforcement

- Access is tied to *role*, not preference
- All assignments must be aligned with hiring authority or supervisor approval
- Access is removed/modified upon personnel changes
- Data is filtered through RLS (Row-Level Security) to enforce restrictions automatically

Appendix D: Request Examples by Complexity Tier

Simple Data Extract (3–5 days)

- List of majors in a department
- Course roster
- Students enrolled in a specific section
- Faculty assigned to courses for a term

Standard Report (5–10 days)

- Year-over-year enrollment comparison
- SCH production by program or department
- Graduation counts by degree level
- Trend charts already available in the warehouse

Moderate Complexity (10–20 days)

- Program review packets
- Multi-term cohort tracking
- Faculty workload output by term
- Multi-year financial aid summaries
- Degree productivity benchmarking

Deep-Dive / Advanced Analytics (10–30 days)

- Retention modeling
- Time-to-degree calculations using entry/graduation term logic
- Faculty load analysis with release-time normalization
- Student success modeling incorporating multiple data sources
- Five-year strategic trend analysis with segmentation

Outside Scope / Not Provided

- Development of custom web applications
- Creation of shadow databases
- Vendor-driven data demands
- Same-day requests without justification
- Course assignments or student projects without IRB

Appendix E: Request-to-Delivery Workflow

1. **Request Submitted**
   Via IRP Request Form with all required details.

2. **Intake Review**
   IRP reviews scope, purpose, deadlines, and alignment with institutional priorities.

3. **Prioritization**
   Based on compliance, cabinet direction, strategic importance, workload, and peak periods.

4. **Assignment**
   IRP assigns project to the appropriate analyst or technical specialist.

5. **Analysis / Development**
   - Data extracted and validated
   - Metrics constructed and documented
   - Dashboards built or analysis conducted

6. **Internal QA & Governance Check**
   Validate definitions, logic, lineage, and security alignment.

7. **Delivery to Stakeholder**
   Delivered via email, shared drive, PowerBI, or secure dataset.

8. **Revision Cycle**
   One revision cycle included; major changes may require a new request.

9. **Closeout & Documentation**
   IRP logs completion and updates internal tracking for SLA performance metrics.