

# Enterprise Software Applications

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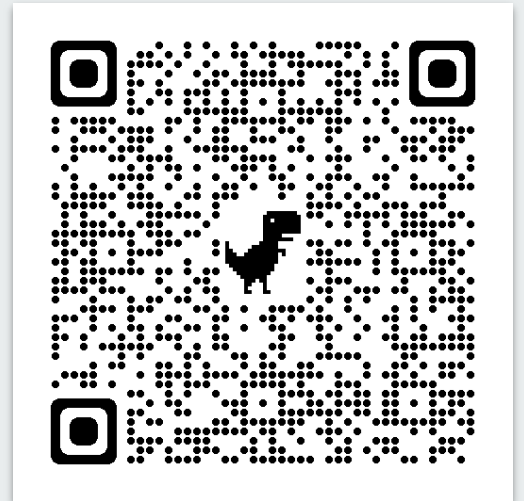
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September 26, 2023



Presentation

<https://tinyurl.com/MSBO-Ent-Apps-2023>

# Materials

Can be found at:

<https://www.msbo.org/msbo-certification-program-old/msbo-certification-class-materials/>

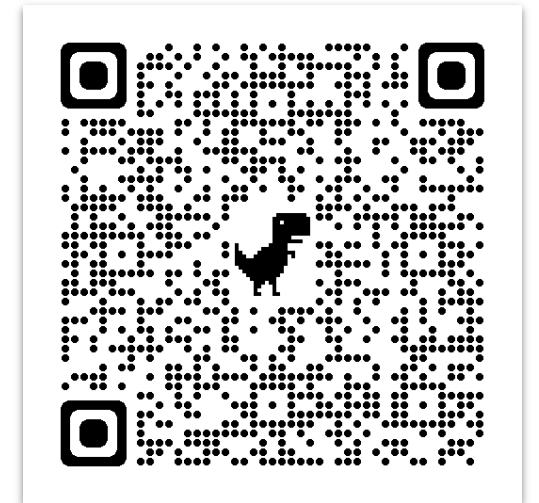


Materials



# Objective

1. Systems and their stakeholders (users)
2. System content and the processes they support



Presentation  
<https://tinyurl.com/MSBO-Ent-Apps-2023>

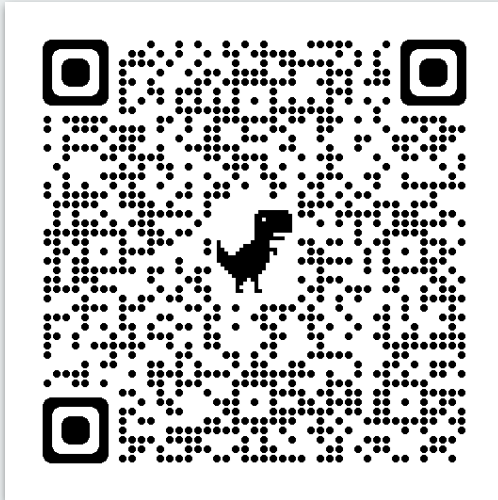
# What type of organization do you represent?

[www.menti.com](https://www.menti.com)

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# Terminology



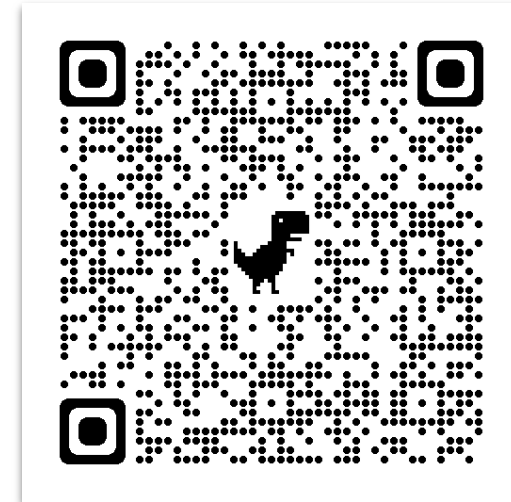
Presentation

<https://tinyurl.com/MSBO-Ent-Apps-2023>

- Enterprise Software Systems
- Categories of Systems
- Users
- Providers

# Enterprise Software Systems

- Large scale application software packages for complex organizations that support:
  - business processes
  - information flows
  - reporting
  - data analytics



Presentation  
<https://tinyurl.com/MSBO-Ent-Apps-2023>

# Categories of Systems

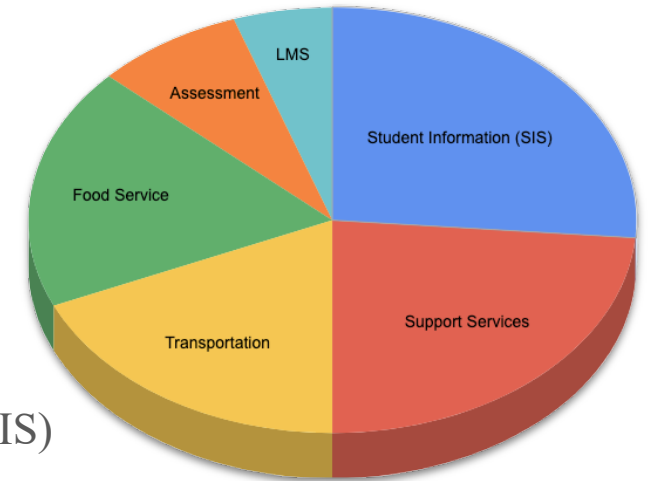
## Business Systems

- Accounting
- Payroll
- Finance
- HR
- Facilities



## Student Systems

- Student Information (SIS)
- Support Services
- Transportation
- Food Service
- Assessment
- Learning Management Systems



# Users

- Central Office Administrators
- Building Administrators
- Clerical Staff
- Facilities Staff
- Transportation Staff
- Teachers
- Students
- Parents







# System Provider

- Purchased Third Party
- In House / Consortium Developed



# Purchase Third Party

## PROS

- Development managed by vendor
- Vendor responsible for:
  - compliance reporting
  - technology
  - security
- Shorter implementation

## CONS

- Lifetime Cost – upgrades, licensing etc.
- May not suit local needs
- Less control
- Company viability



# In-House / Consortium Development

## PROS

- Control over Development and Prioritization
- Long Term Cost Savings
- Personalized Support

## CONS

- Maintaining development staff
- Initial development investment
- Ongoing development investment

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# Business Systems



# Human Resources (HR)

Managing Employees

1. Demographics
2. Employee Life Cycle
3. Job/Position Tracking
4. Benefit Management
5. Professional Growth



# HR - 1. Demographics

- Name
- Address
- Phone
- Email
- SSN
- Emergency Contacts
- Vaccination Status



## HR - 2. Employee Life Cycle

- Hire Information
- Seniority
- Leaves>Returns (with/without pay)
- Terminations



## HR - 3. Job/Position Tracking

- Assignment History
- FTE and Work Days
- Pay Frequency
- Salary Schedule Tracking
- Open Positions





## HR - 4. Benefits Management

- Health, Vision, Dental
- Short and Long Term Disability
- Enrollment
- Premiums – Provider Bills
- Employee deductions
- ACA Tracking
- Ledger Posting
- ORS Reporting



## HR - 5. Professional Growth

- Professional Development Tracking
- Certification/Endorsements
- Licenses
- Degrees, Additional Credit Hours
- Tuition Reimbursement
- Performance Evaluation
- Reported through REP



# Payroll

Paying employees

1. Contract Management
2. Time and Attendance Entry
3. ACH Transmission
4. ORS Reporting
5. Summer pay (reporting and accruals)



# Payroll - 1. Contract Management

- Bargaining Unit
- Salary - Schedule, Steps
- Leave accrual
- Overtime
- Extra Pay



## Payroll - 2. Time and Attendance Entry

- Hours worked (default)
- Overtime
- Daily Rate
- Attendance type (sick, PB, vacation...)
- Attendance hours



## Payroll - 3. ACH Transmission

- Bank routing information
- Individual amounts
- Total cash amount
- Verification



## Payroll - 4. ORS (Office of Retirement Services)

- Pay Schedule Configuration
- Intensive Submission Schedule
- Numerous Plan Options
  - Basic
  - MIP (Fixed, Graded, Plus...)
  - Pension Plus
- Benefit Types
  - Defined Benefit
  - Defined Contribution
  - Personal Health Fund
- System Automates Deduction Configuration



# Payroll - 5. Summer Pay

- Spreading Pay (10/11/12 months)
- Benefits deductions
- Contract Balance
- Retirement Earnings

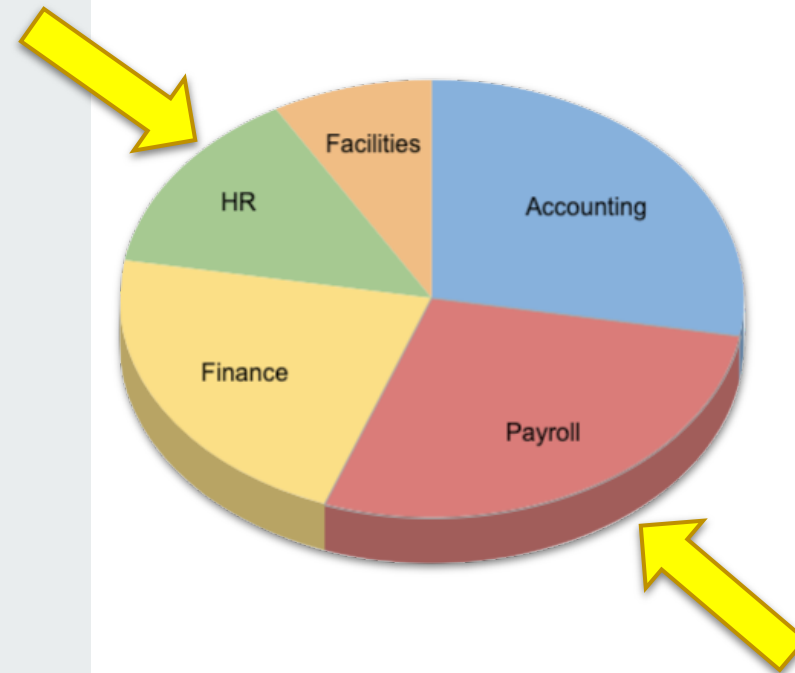




# HR & Payroll

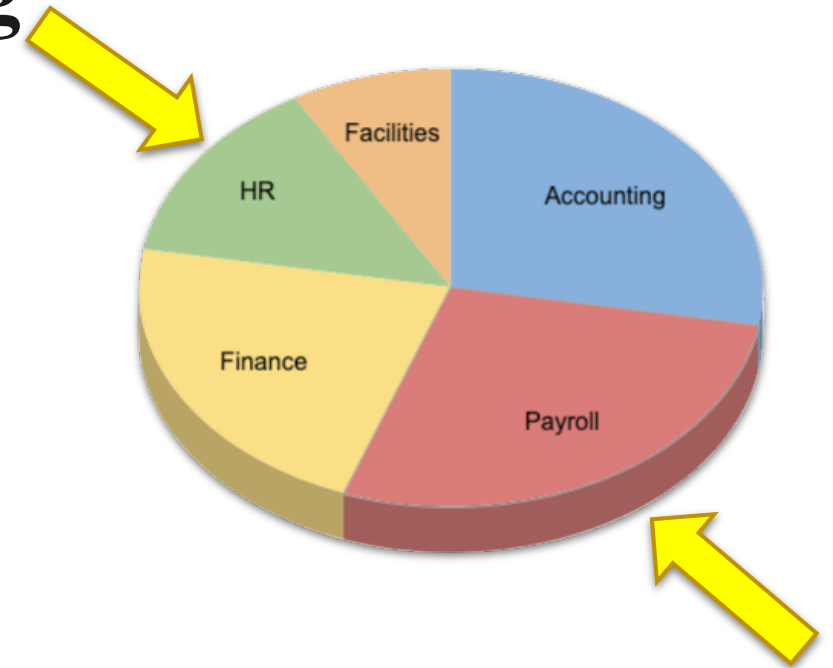
1. State Reporting
2. Federal Reporting
3. Interfaces

Reporting employee pay



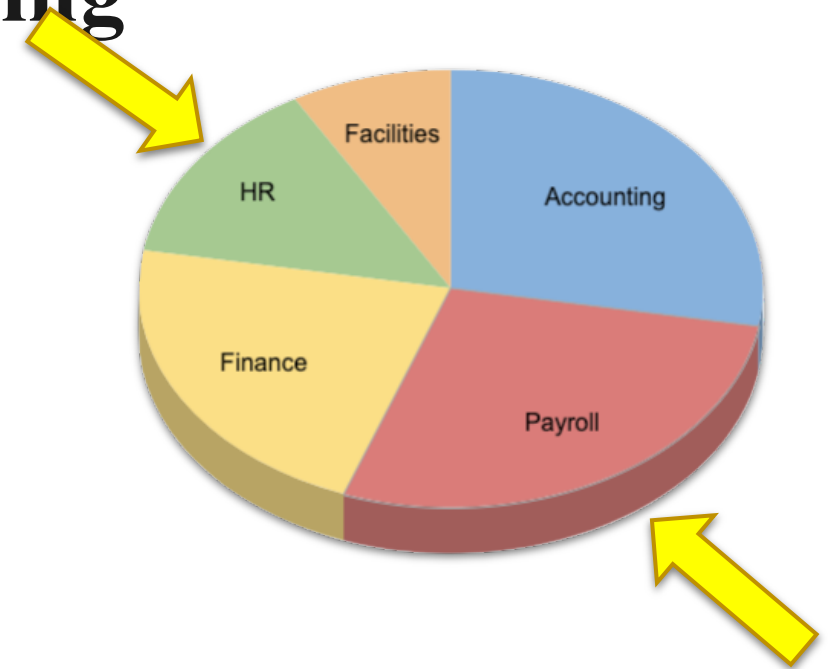
# HR & Payroll - 1. State Reporting

- REP (Register of Educational Personnel) includes PD
- ORS (Retirement Reporting)
- UIA (Unemployment Insurance Agency)
- Workers Compensation



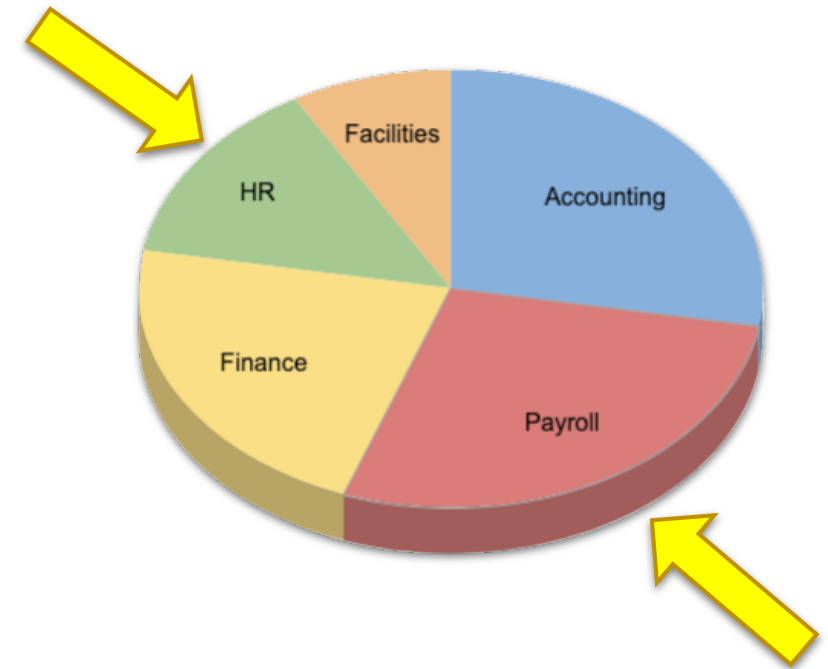
## HR & Payroll - 2. Federal Reporting

- 941 Quarterly Wage/Tax Reporting
- W2 Reporting
- ACA (Affordable Care Act)
- EEO-5 Report (Office of Equal Employment Opportunity)
- BLS 3020/790 Report (Bureau of Labor)
- 403B File for Third Party Administrator



# HR & Payroll - 3. Interfaces

- Applicant System
- Benefit Management
- Time and Attendance Tracking
- Document Management
- Internal information
  - Attendance
  - Contract
  - Discipline
  - Contract “extras”



# Finance

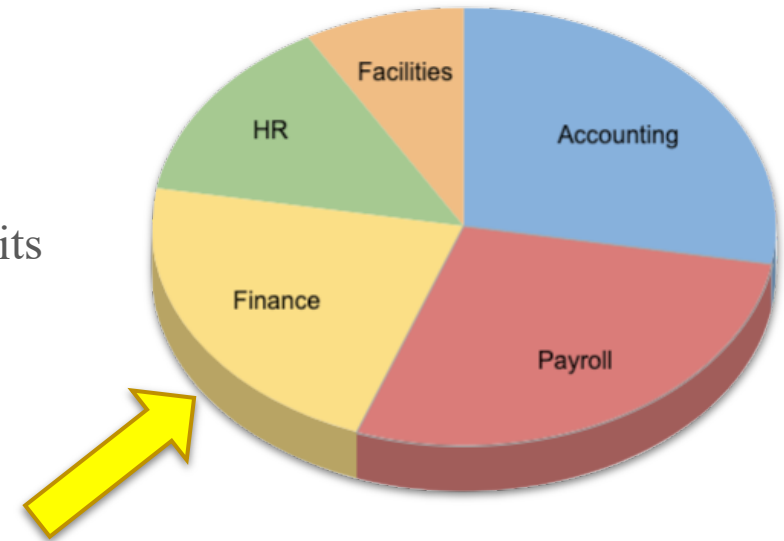
Managing Assets and Liabilities

1. General Ledger (Chart of Accounts)
2. Budgeting
3. Fixed Asset



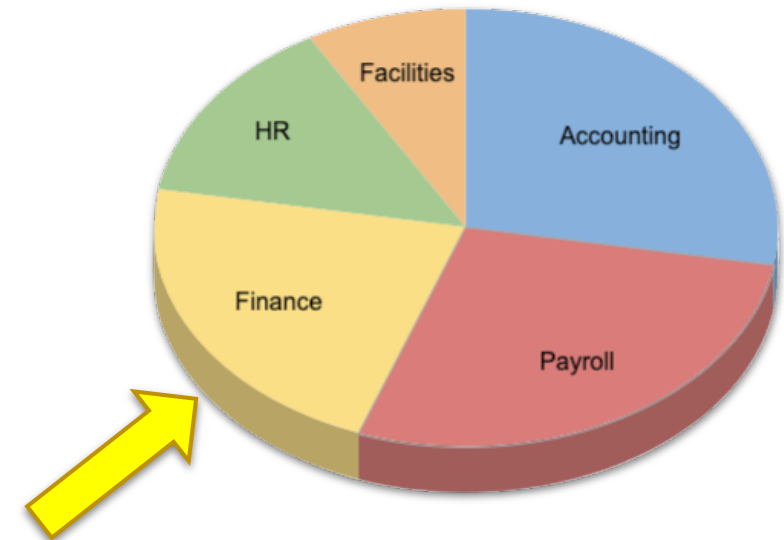
# Finance - 1. General Ledger

- Management of District Chart of Accounts
- Defined by 1022 Accounting Manual
- Serves as a mandatory guide to accounting transactions
- Fund Accounting – Self Balancing Independent Accounting Units
- Structure contains 8 dimensions, 26 numbers
- Setup and Managed by Fiscal Year



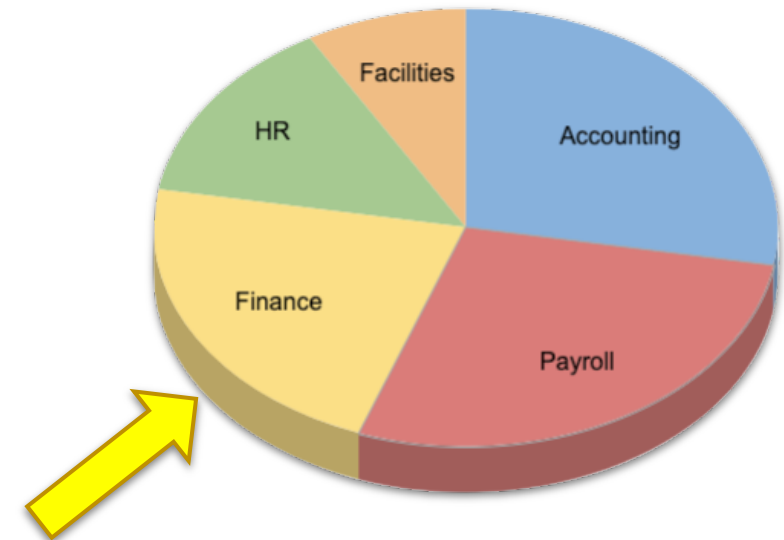
## Finance - 2. Budgeting

- Load individually or using Worksheet
- May interface from third party tool or Spreadsheet
- Original Budget must be retained for the fiscal year
- Amended Budget used for managing changes during fiscal year
- Systems typically allow additional (scenario) budgets



## Finance - 3. Fixed Asset

- Accounting for Capital Assets and Improvements
- Land, Buildings, Equipment, large purchases > \$5,000
- Construction in Progress
- Technology Inventories and Tracking

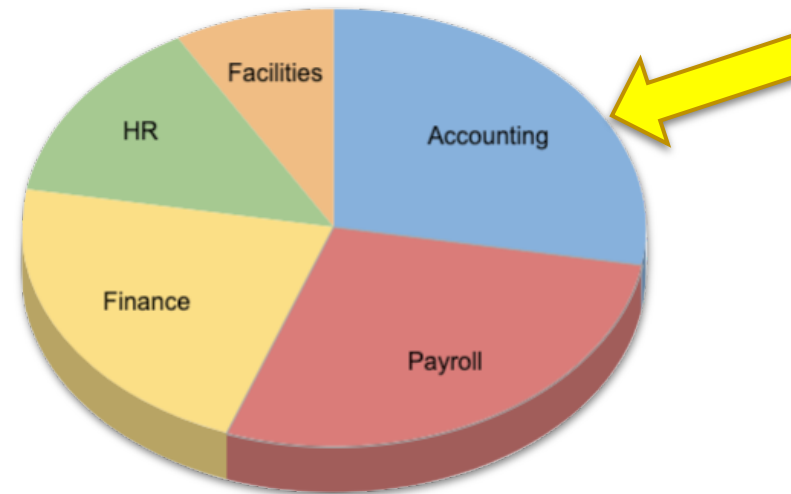




# Accounting

Day-to-day Flow of Money

1. Journal Entry
2. Accounts Payable
3. Accounts Receivable
4. Purchasing
5. Reporting



# Accounting - 1. Journal Entry

- Recording of Accounting Transactions
- Payroll and Benefits Postings
- Importing from external sources



## Accounting - 2. Accounts Payable

- Vendor Invoicing
- Scheduled payments
- Purchasing Cards
- Receive Process
- ACH Processing



## Accounting - 3. Accounts Receivable

- Billing
- Cash Receipts
- Client Statements
- Invoice Aged Report



## Accounting - 4. Purchasing

- Requisitions – Requests for Purchase
- Budget Checking - (y/n/warning)
- Hierarchy of Approvals
- Account Based – Dynamic
- Position Structure
- Email Approver and Vendor notification
- Interface to online Purchase (Amazon Business)



# Finance and Accounting - 5. Reporting

- FID (State Reporting)
- Trial Balance
- Financial Statements
- Transaction Analysis (Account and Budget status)



# Facilities

Building and Grounds

1. Event Management
2. Room Scheduling
3. Work Orders
4. Power Management
5. Environmental
6. Security



# Facilities - 1. Event Management

- Room Setup
- Attendee Registration
- AV & Technology Support





## Facilities - 2. Room Scheduling

- Room Configuration
- Meetings



## Facilities - 3. Work Orders

- Regular maintenance
- Break/Fix tracking
  - Plumbing
  - Electrical
  - Mechanical
- Refresh / Remodel
- Installation new equipment



## Facilities - 4. Power Management

- Generator
- Uninterruptible Power Supply (UPS)
- Lighting
- Standby Equipment



## Facilities - 5. Environmental

- Heating - Boilers
- Cooling - Chillers
- Thermostats
- Air Handlers
- Security Systems
- Camera Systems



## Facilities - 6. Security

- Cameras
- Alarms / Monitoring
- Badge Entry
- Screening



Rank the value of these business systems to a district.

[www.menti.com](https://www.menti.com)

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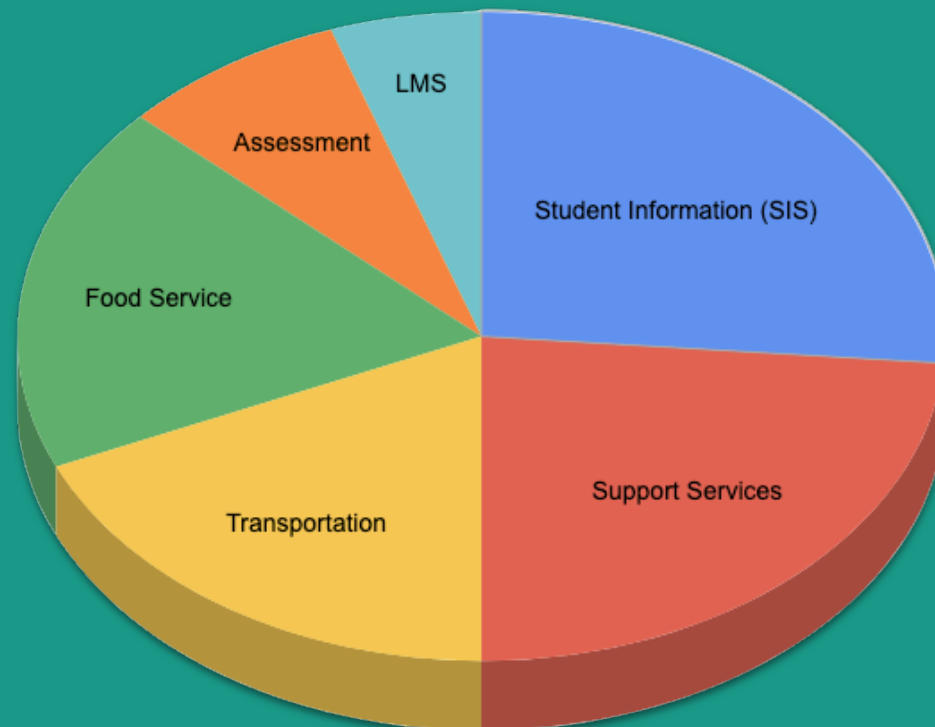
# Break

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# Student Systems

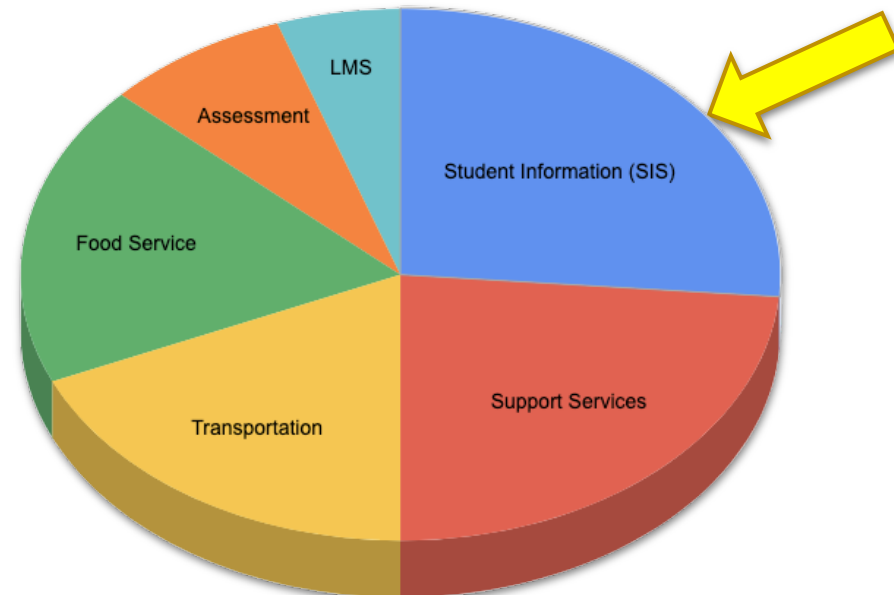




# Student Information

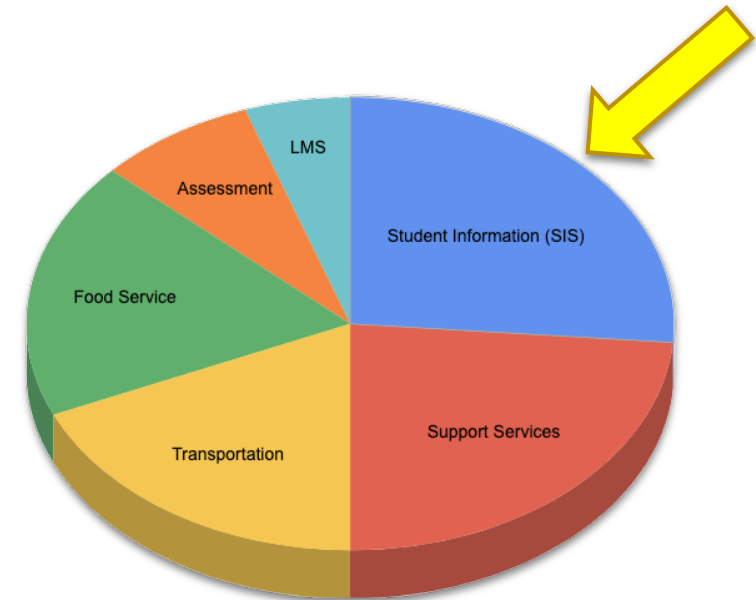
Student Information Management

1. Enrollment and Scheduling
2. Attendance
3. Pupil Accounting
4. Mark Reporting / Transcripts
5. Behavior and Discipline
6. Teacher / Parent Communication



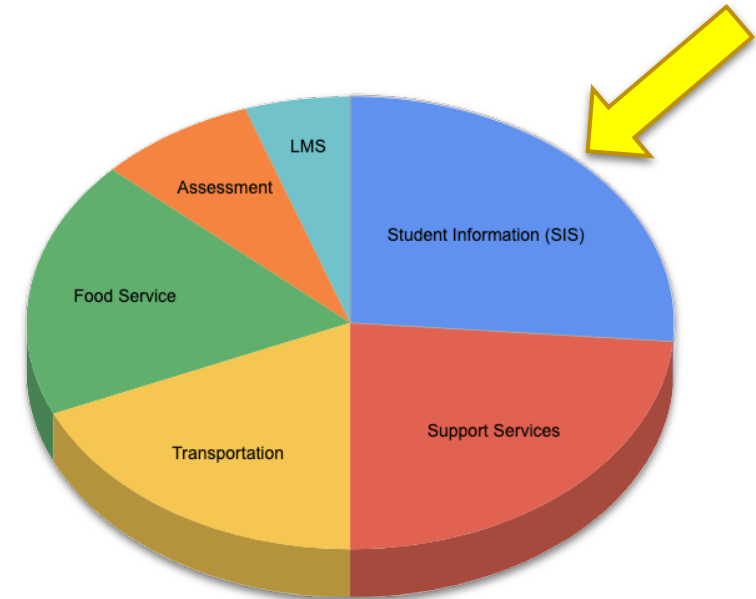
# SIS - 1. Enrollment and Scheduling

- Pre-Enrollment Functions
- Active and Inactive Students
- UIC Acquisition
  - Required Services - IEP, Title I, LEP, SES
- Household Groupings
- Master Schedules
- Course Requests
- Staffing Restrictions



## SIS - 2. Attendance

- Call-in / Parent Reporting
- Class Attendance / Grade book
  - Daily, AM/PM, or hourly
- Daily Attendance
- School Functions



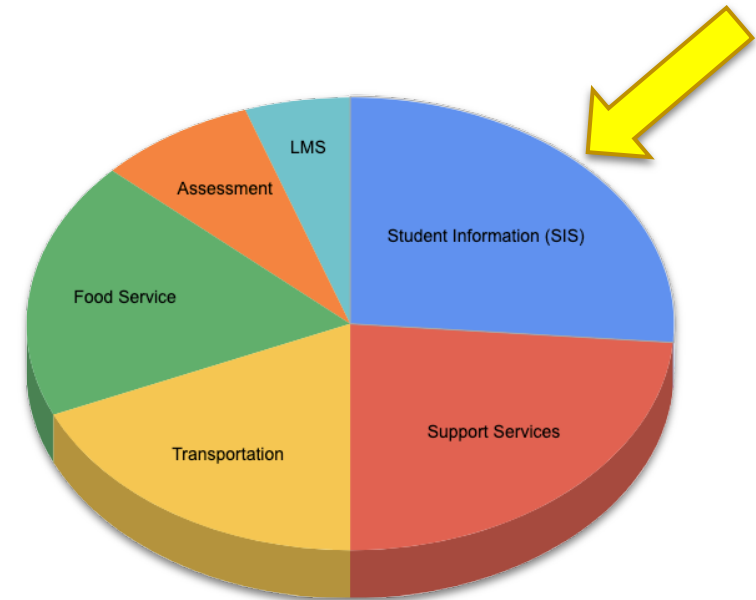


## SIS - 3. Pupil Accounting / MSDS

- FTE
- Enrollment Dates
  - Fall / Spring / End of Year
  - Section 25e
- Services - IEP, Title I, LEP, SES
- Student Record Maintenance (SRM) vs Early Roster
  - Direct Certification for SES
- “Exit” status - Graduation / Dropout
- Attendance upon “exit”
- Teacher Student Data Link (TSDL)

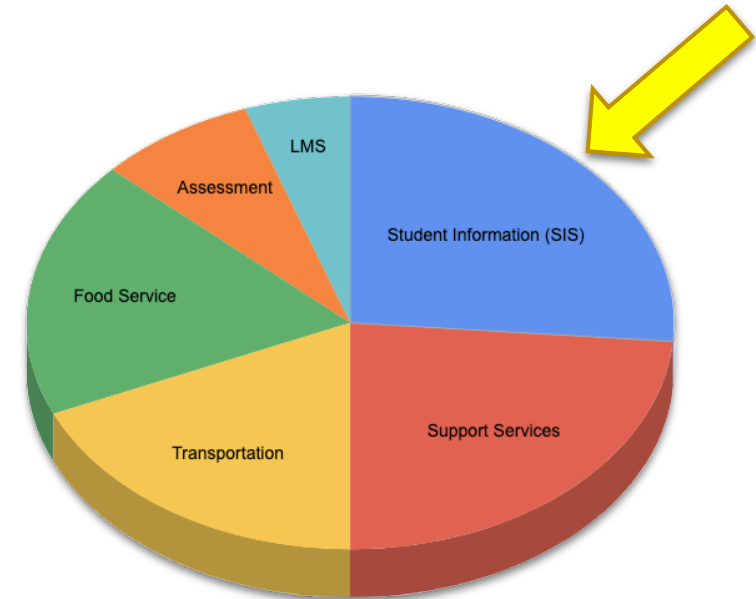
## SIS - 4. Mark Reporting / Transcripts

- Progress Reporting
- Report Card Printing
- Traditional Grading vs. Standards-Based Grading
- Honor Roll
- GPA & Course Credit
- Michigan e-Transcript initiative



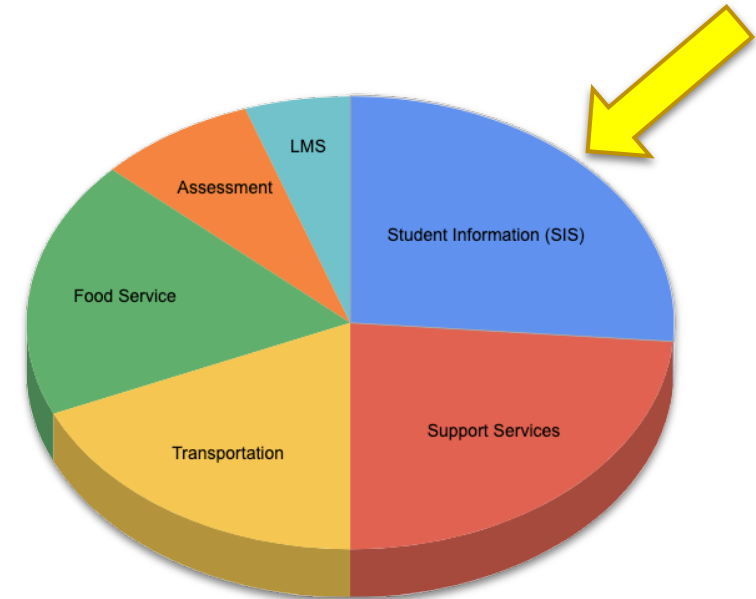
## SIS - 5. Behavior / Discipline

- Tracking Positive and Negative Behavior
- Data Availability to District Staff
- Track Disciplinary Consequences
  - State/Federal Reporting
- Impact on attendance



## SIS - 6. Teacher / Parent Communication

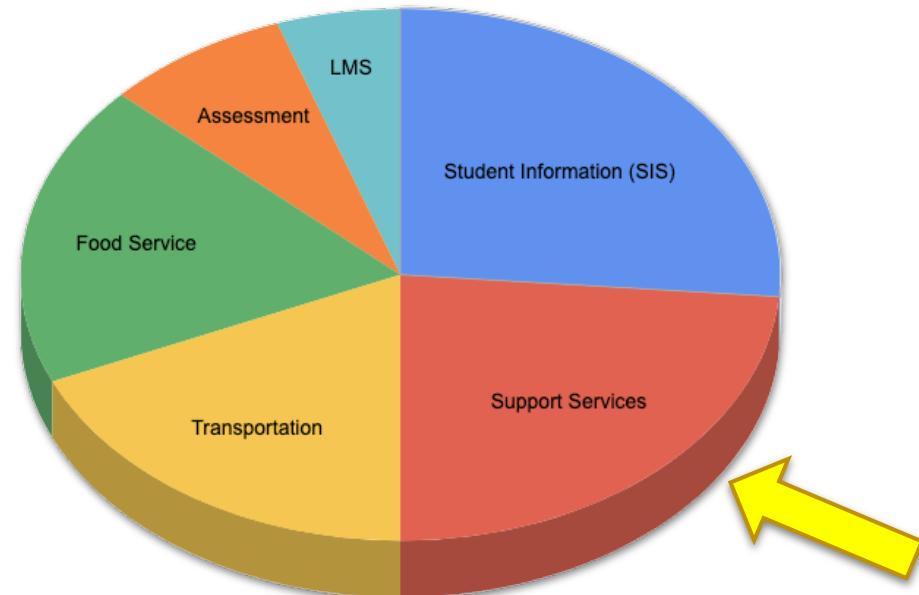
- Parent able to view Student information online
  - Grades / Progress
  - Attendance
  - Graduation Requirements
  - Food Service balances
  - Assessment Scores
- District/School/Classroom communication to Parent
- Parent ability to update information online
- Students view same data and requests courses for next year
- Automated Calling



# Support Services

Special Support and Intervention Programs

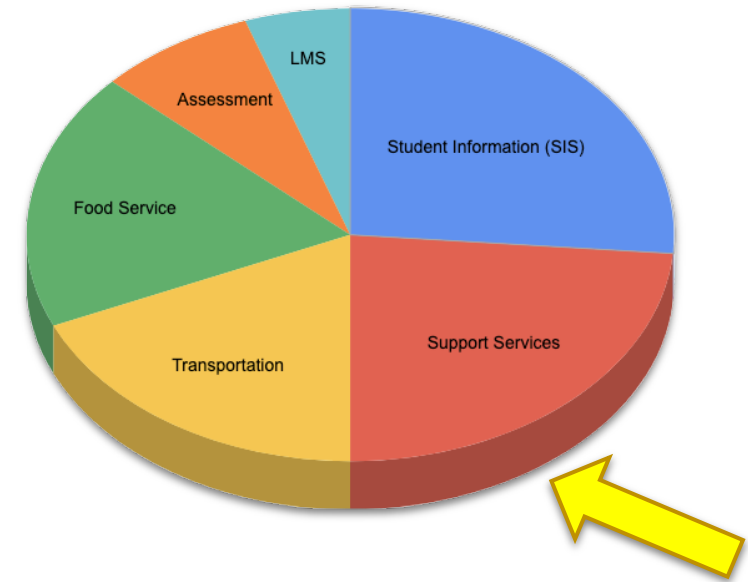
1. IEP - Special Education
2. Socio-Economic Status (SES)
3. Title I
4. LEP
5. Section 31a





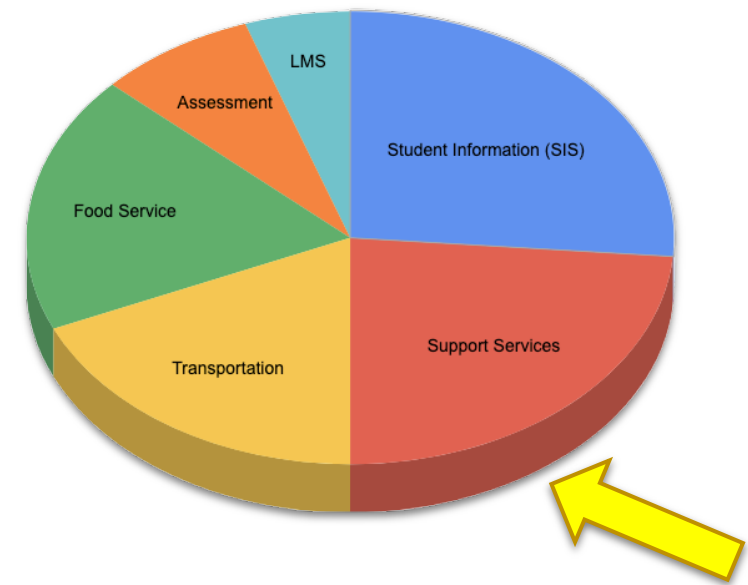
# Support Services - 1. IEP - Special Education

- Special Education Electronic Forms (SEEF)
- Data Flows between SEEF and SIS management
- Tracking progress towards IEP Goals and Objectives
- Provider caseload management
- Accommodations



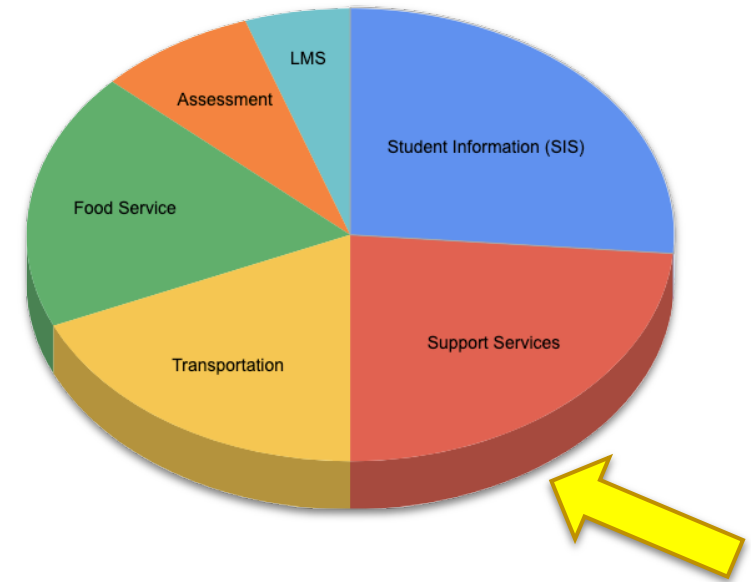
## Support Services - 2. Socio-Economic Status (SES)

- Begin / End Eligibility - by school year
  - SNAP - Supplemental Nutrition Assistance Program
  - TANF - Temporary Assistance for Needy Families
  - Foster Care
  - Medicaid Eligibility
- e-Rate



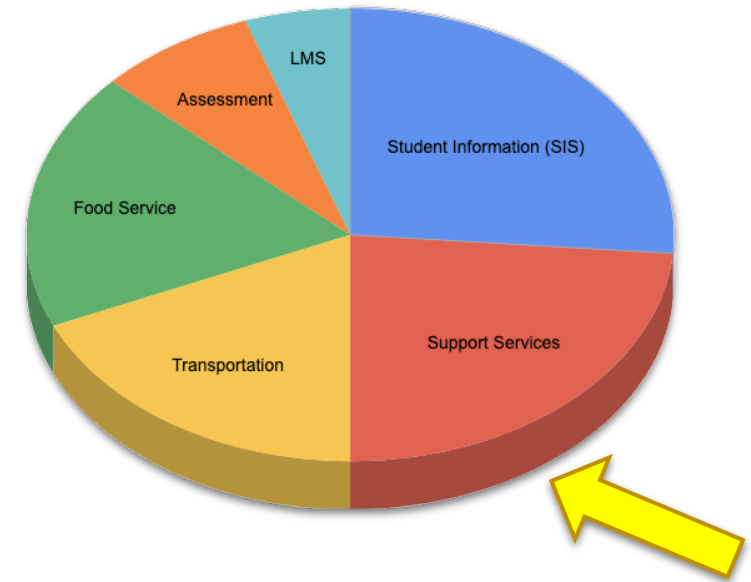
# Support Services - 3. Title I

- Participation begin / end dates
- Schoolwide
- Targeted assistance



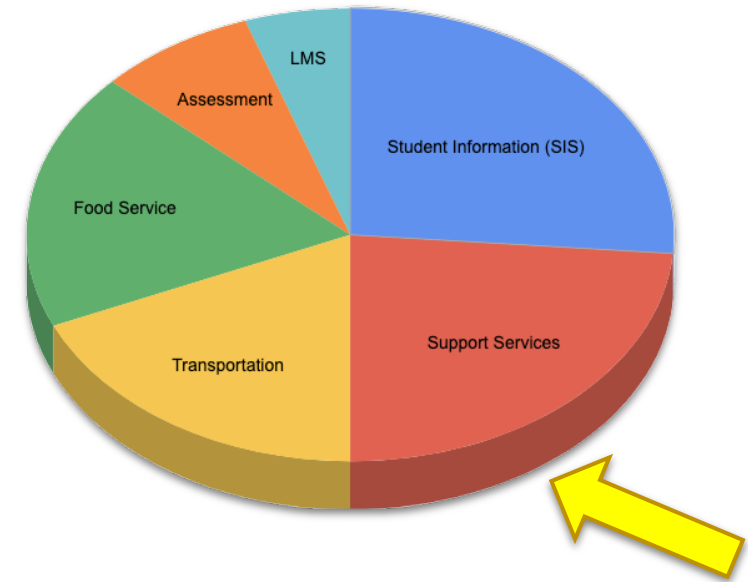
# Support Services - 4. LEP

- Limited English Proficient
- Participation begin / end dates
- WIDA tests
- Minimum two year qualification



# Support Services - 5. Section 31a

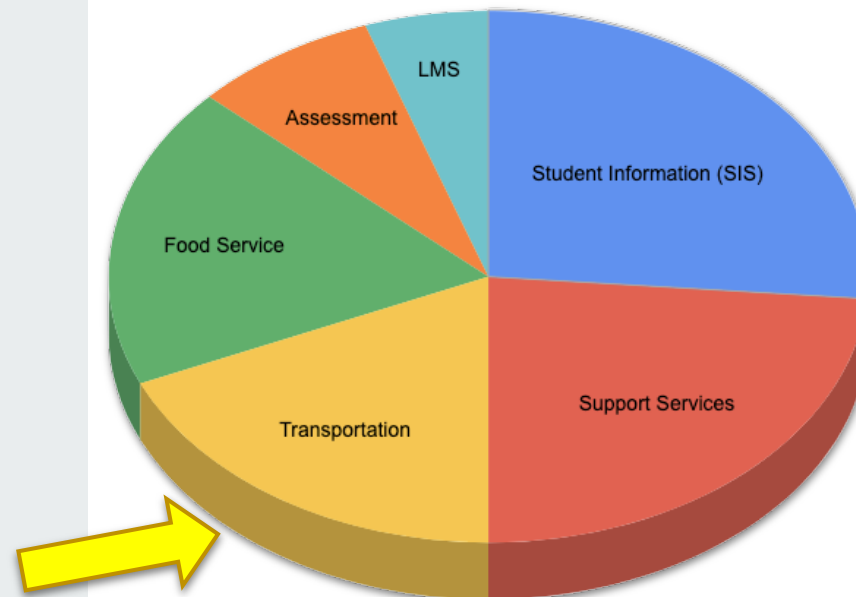
- Participation begin / end dates
- Michigan Supplemental At-Risk Funding
- Multiple Factors
  - SES
  - English Learner
  - Immigrant (< 3 yrs)
  - Attendance
  - Academic state assessments - ELA, Math, Science or Social Studies
  - Academic local assessments - ELA or Math
  - In high school greater than 4 years
  - Child Abuse/Neglect
  - Teen Pregnancy
  - Family History school failure/incarceration/substance abuse



# Transportation

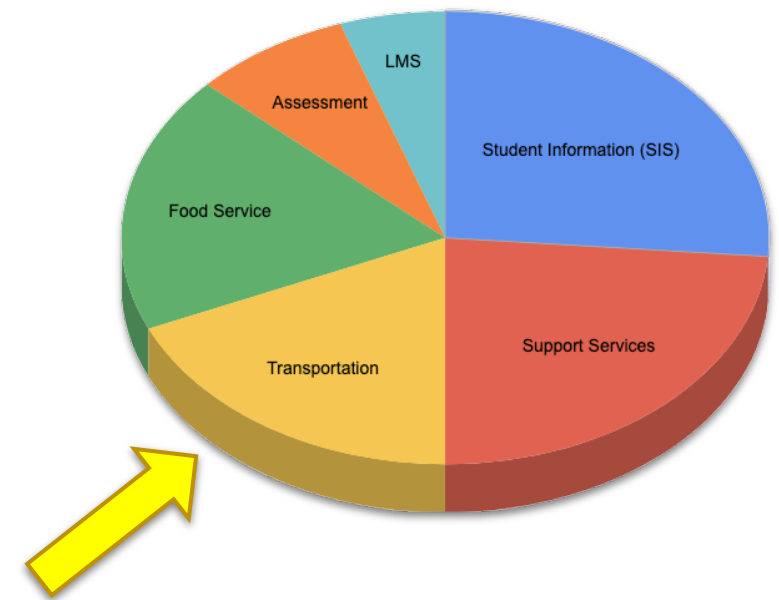
Managing Student Transportation

1. Routing and Student Management
2. Fleet Maintenance
3. Trip Management
4. Driver Certification



# Transportation - 1. Routing and Student Management

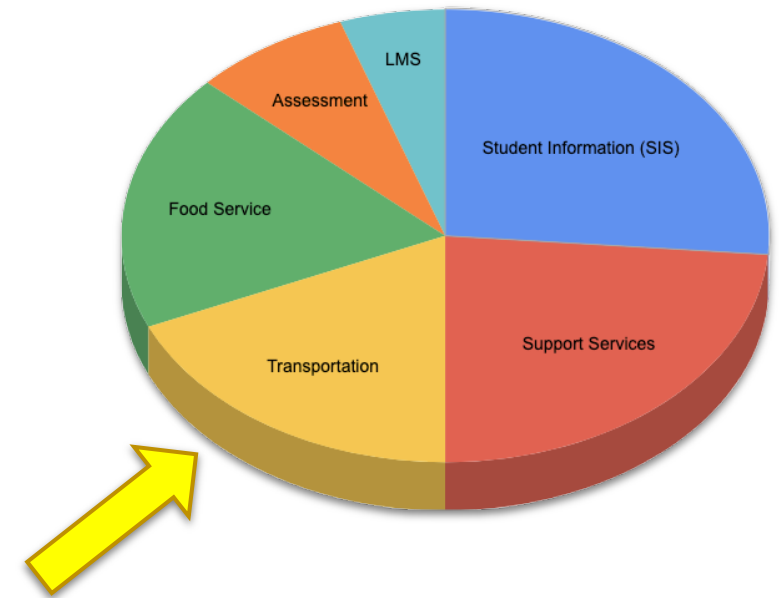
- Digital Map Based Interface
- Address Ranges, Speed Limits, Boundaries
- Integration with SIS
- Student Address Matching
- Eligibility Determination
- Stop Assignment
- Route Development and Timing
- Boundary Planning/Redistricting
- Interface with GPS Systems for Live Tracking





## Transportation - 2. Fleet Maintenance

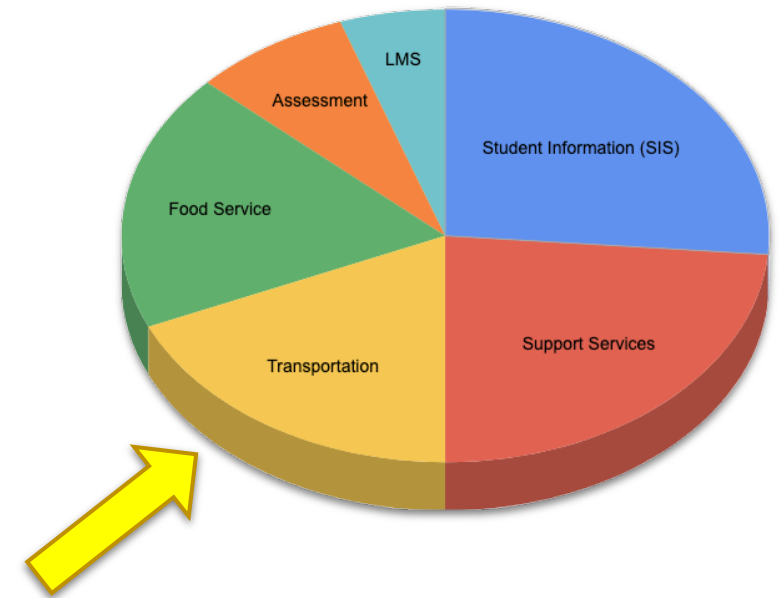
- Vehicle information
- Parts Inventory
- Work Orders
- Scheduled Maintenance





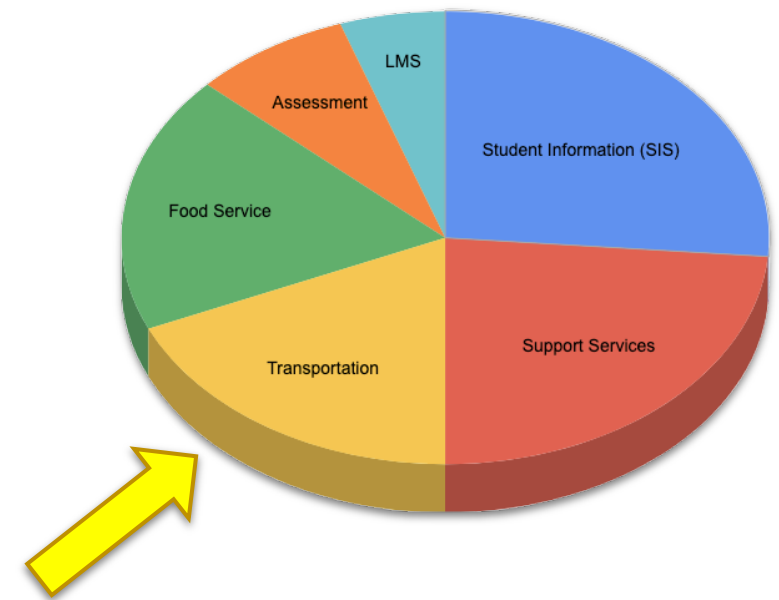
# Transportation - 3. Trip Management

- Requests and approvals
- Driver assignment
- Cost calculations



## Transportation - 4. Driver Certification

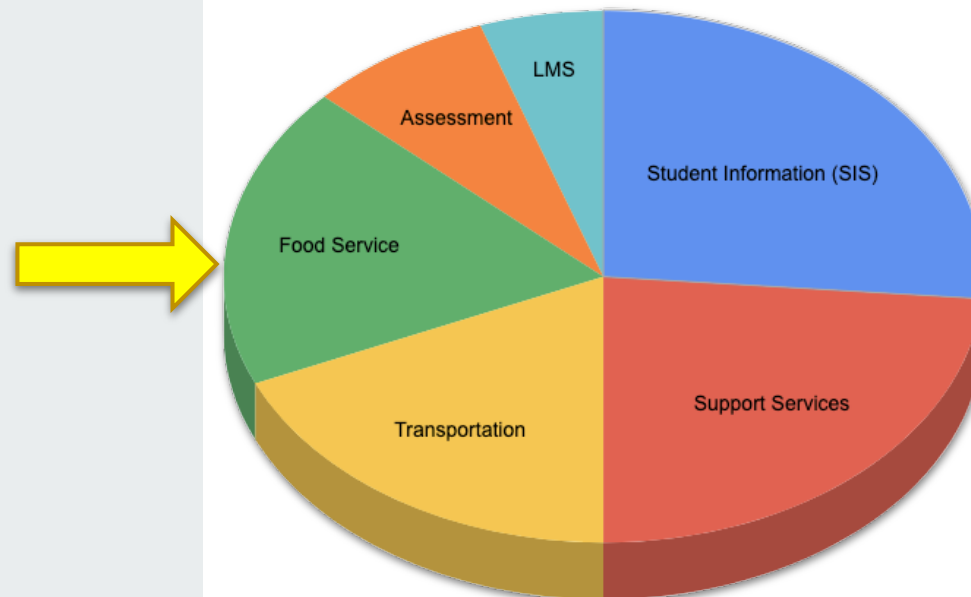
- Monitor certification status
- Track driver training courses
- Seniority dates for bidding



# Food Services

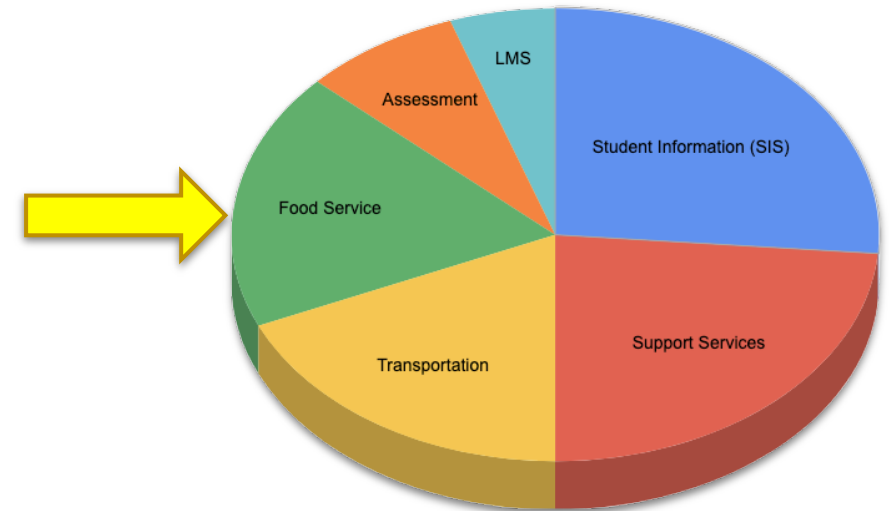
Cafeteria and School Lunch Program

1. National School Lunch Program (NSLP)
2. Point-of-sale (POS)



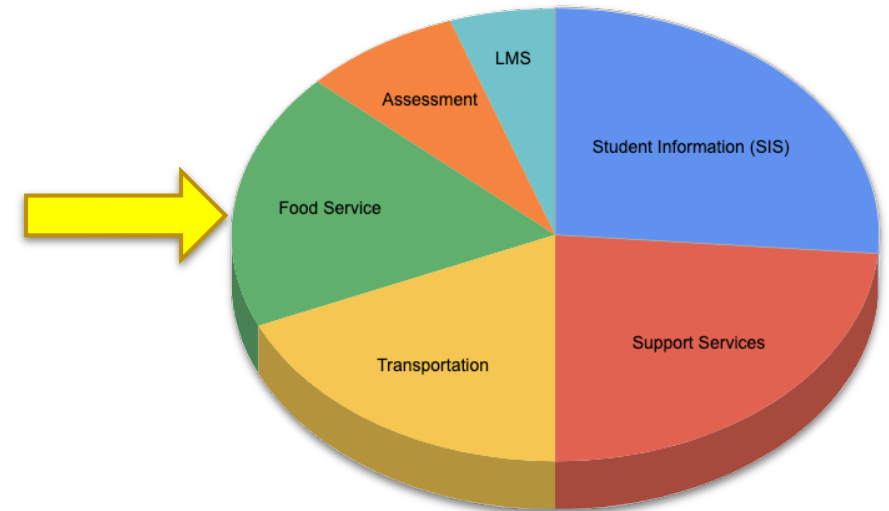
# Food Service - 1. NSLP

- Free/Reduced Eligibility Determination (SES)
  - Direct Certification
  - Application
  - Community Eligibility Program (CEP)
- Verification
- Nutrition
- Reimbursement



## Food Service - 2. Point-of-Sale

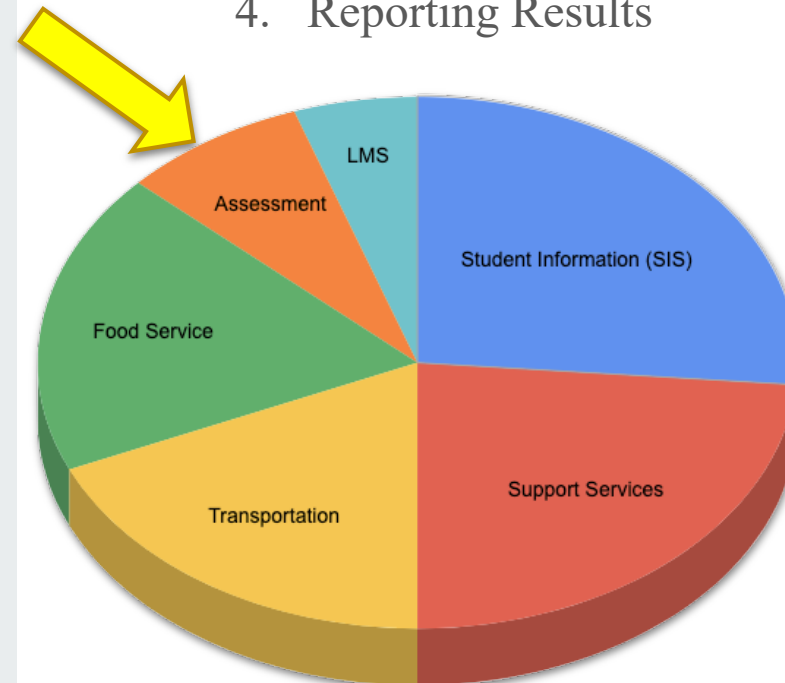
- Price Changes
- Point-of-sale (POS) / Cash Register
- Online Deposits
- Protect SES
- Cash management
- A-la-carte purchasing



# Assessment

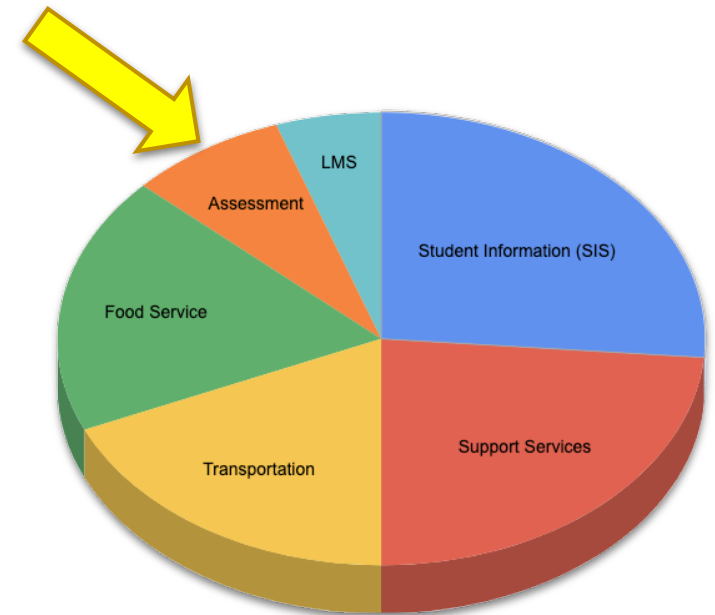
Online and Common Assessment  
delivery and analysis

1. Test Creation
2. Test Delivery
3. Results Analysis
4. Reporting Results



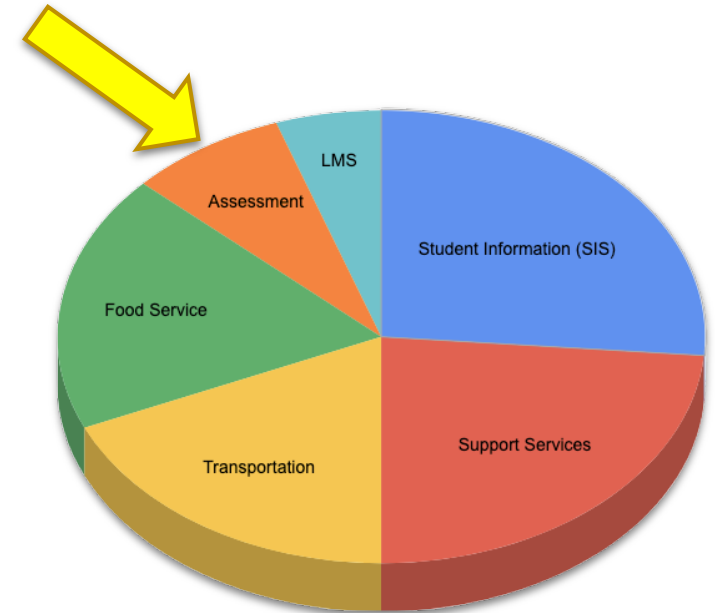
# Assessment - 1. Test Creation

- Standards / Objectives
- Test Items
- Pre-built Assessments



## Assessment - 2. Test Delivery

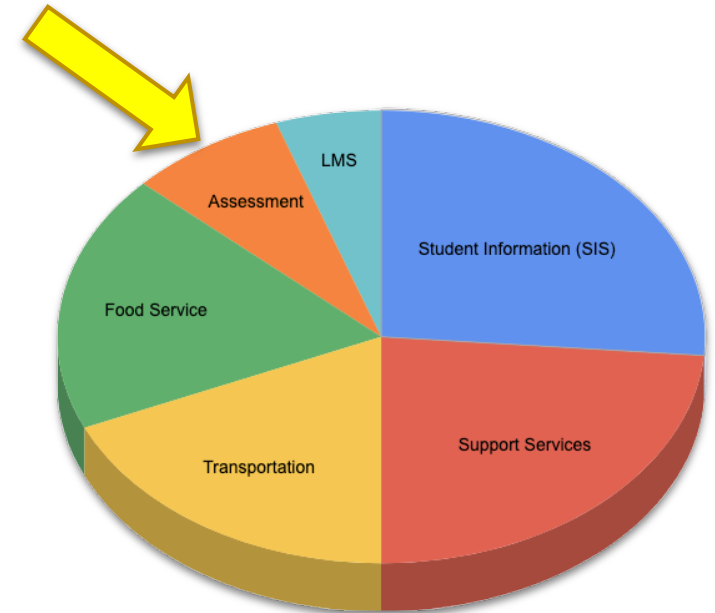
- Rostering
- Bubble-sheets
- Scanning
- Online portal & browser





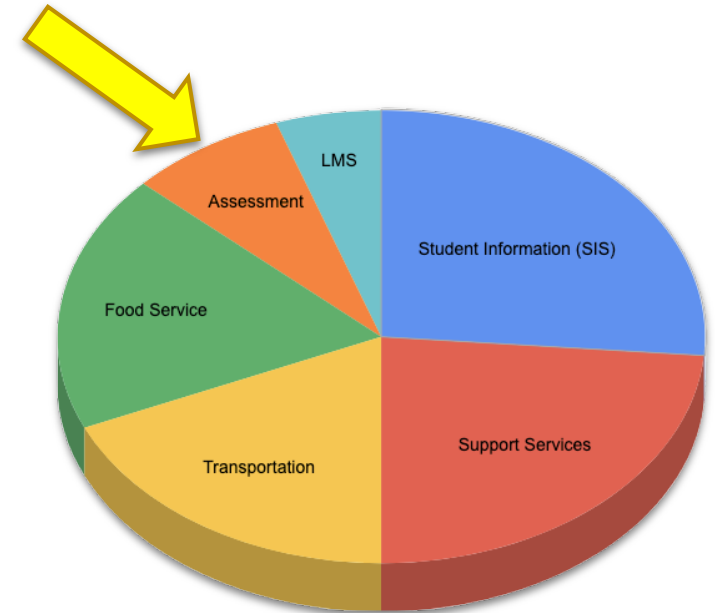
# Assessment - 3. Results Analysis

- Item validity
- Results by standard
- Results by sub-group
- Results compared/with to other assessments
- Results over time



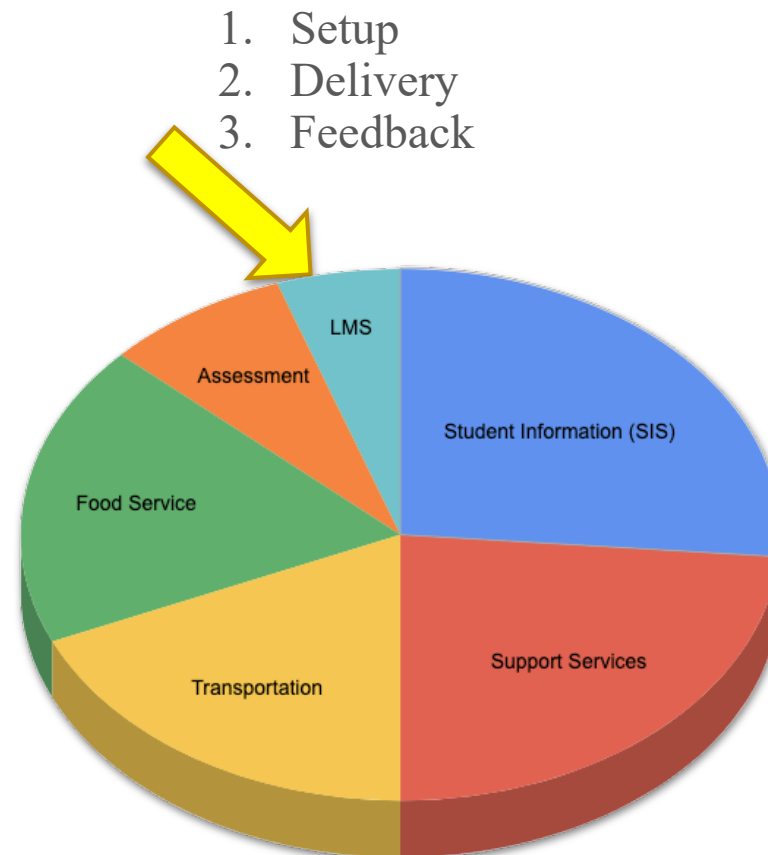
## Assessment - 4. Reporting Results

- State Accountability
- Federal Accountability
- Community Stakeholders
- Parents
- Staff use for placement and supports



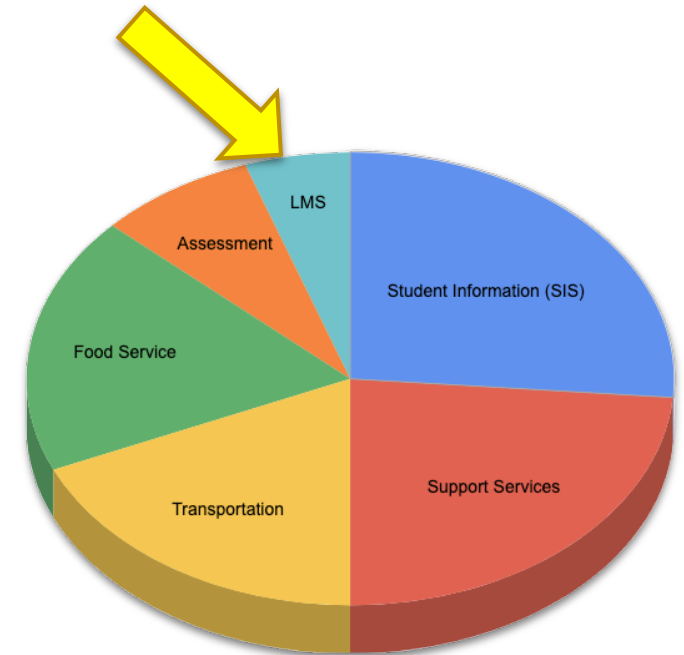
# Learning Management

Instruction and curriculum delivery



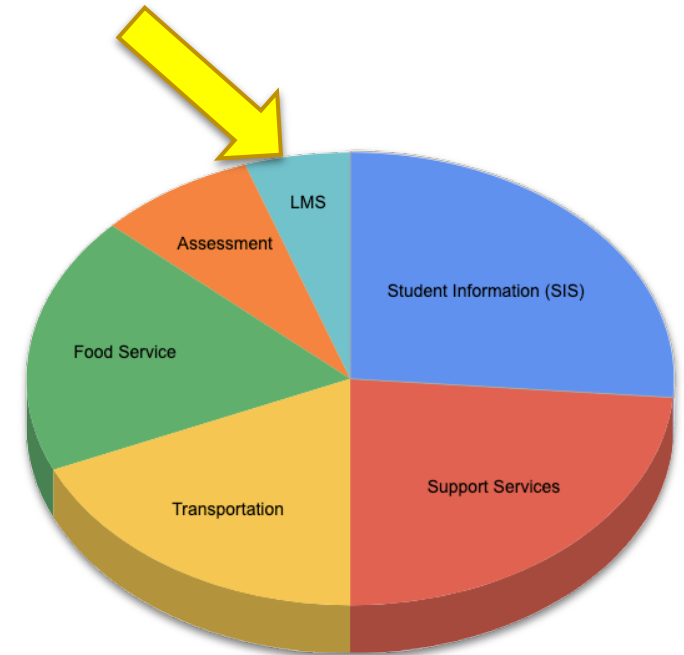
# LMS - 1. Setup

- Roster based on schedules
- Self-enroll
- Teacher content
- District content
- Standards/Expectations alignment



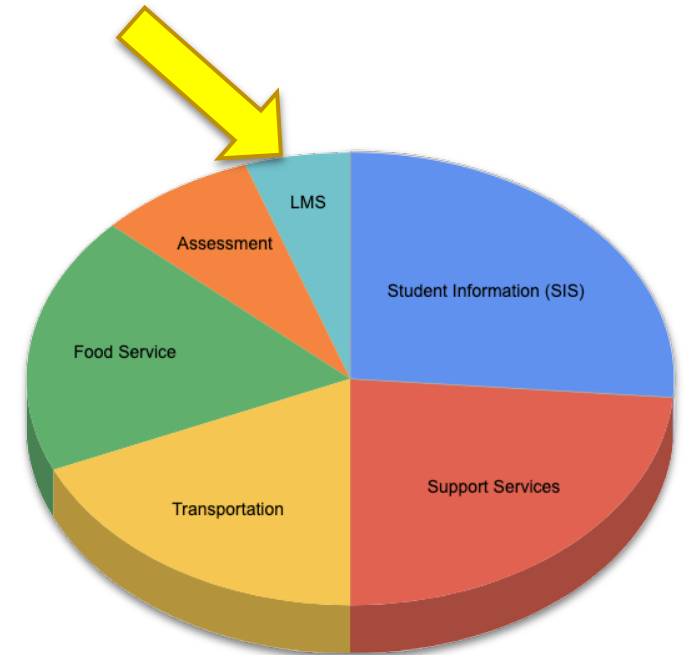
## LMS - 2. Delivery

- Online vs in-person ratio
- Content reuse
- Standards alignment



## LMS - 3. Feedback

- Student work
- Teacher feedback to students
- District inventory of lessons / content / resources



Rank the value of these student systems to a district.

[www.menti.com](https://www.menti.com)

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# Michigan Data Hub





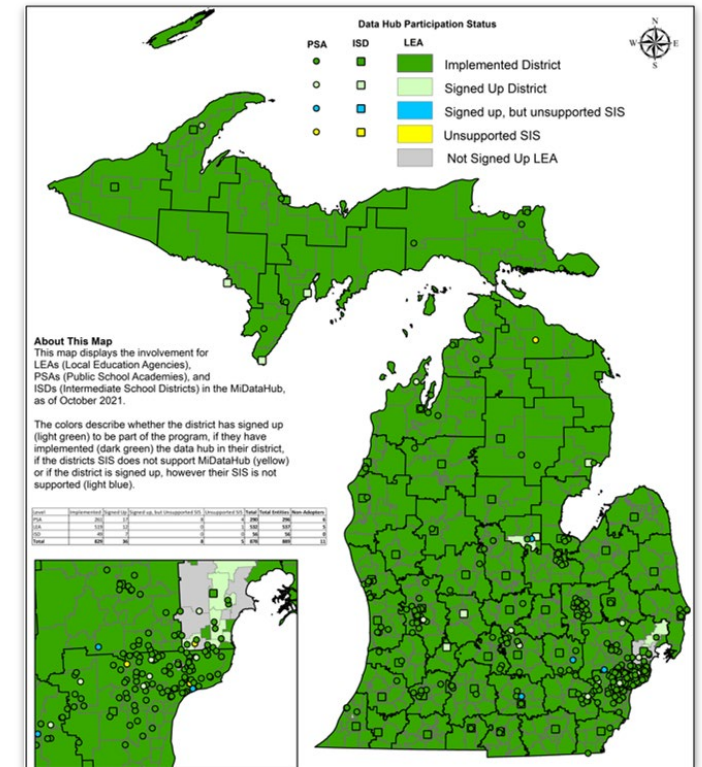
# What is the Data Hub?

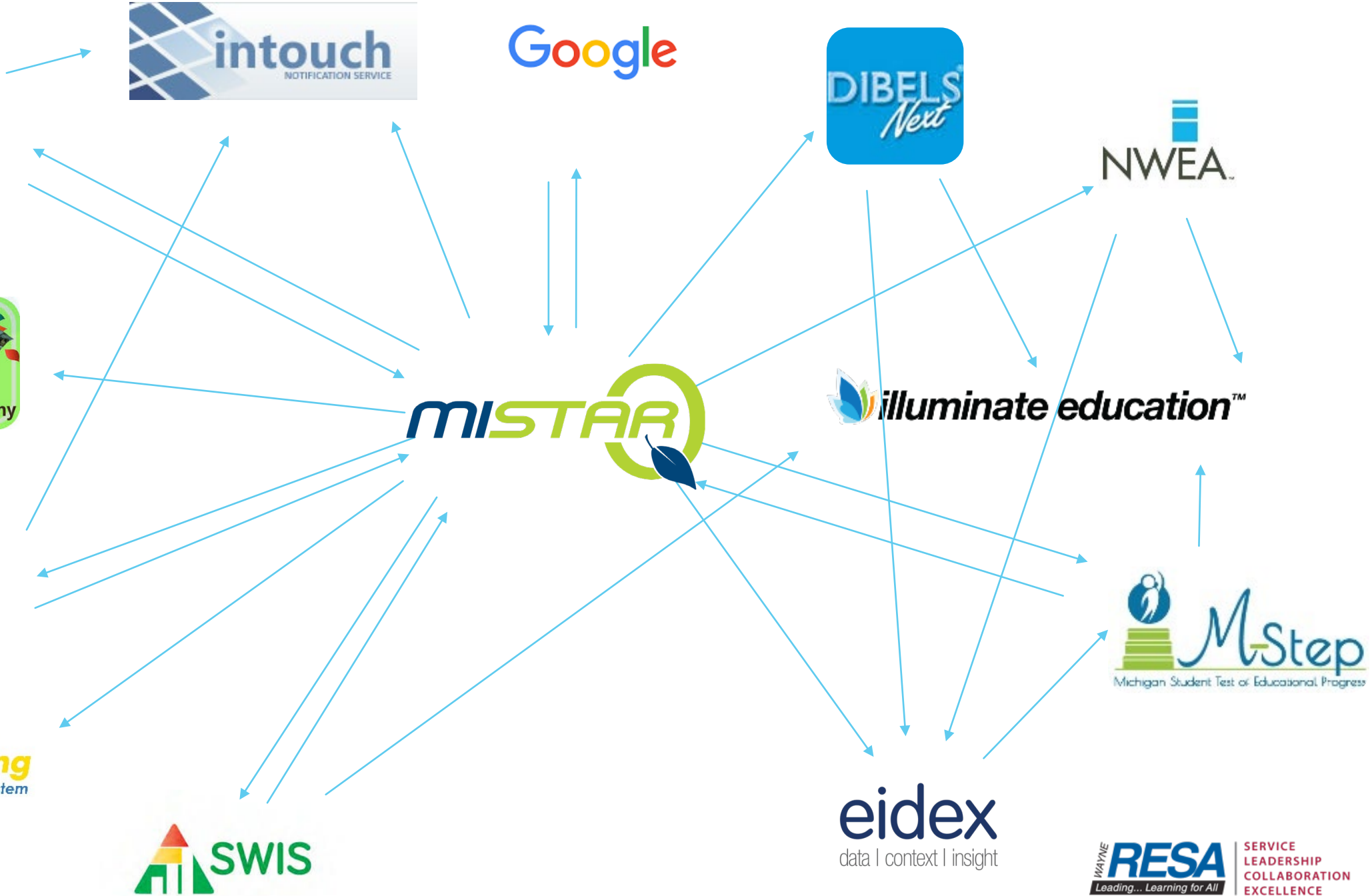
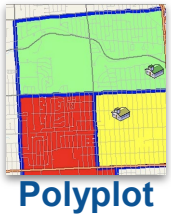
- Collaborative, Statewide Effort to Streamline data flow
  - Spend \$163M/yr - **Saves \$56M**

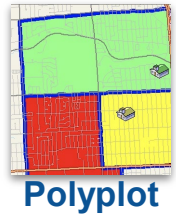


## How?

- Standards-Based Exchange of Data
- Common Tools and Dashboards
- Local Control and Stewardship of Data
- Statewide Support Network
- Section 22m of the School Aid Act
- Free to Michigan Districts, ISDs & PSAs







## Data Hub Benefits

- MiLearn - M-Step Portal
- MSDS - State Reporting
- UIC Services
  - “SnackPack”
- MiRead
- MICIP
- MiStrategyBank



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# Questions?

# Thank You!

# Finalize Credit for Attendance

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- Receive an email from survey monkey for the MSBO evaluation. Please fill out the evaluation by Thursday, September 28, 2023.  
Receive e-mail from MOECS-noreply@michigan.gov to fill out an evaluation for SCECHs if you hold a certificate with the State of Michigan.