

Wisconsin Department of Public Instruction

FY16 IT Strategic Plan

Draft



OVERALL AGENCY IT PLAN GUIDELINES:

I. Top Five IT Goals – Identify your agency’s top five goals/objectives for utilizing information technology in FY15, and how they serve your agency’s business needs. This response can be a high-level, one-page summary.

Agency Mission

Wisconsin is advancing education reforms to ensure every child graduates ready for further education and the workplace. State Superintendent Tony Evers has set these target goals to achieve by 2017:

- Further increase graduation rate from 85.7 percent to 92 percent.
- Increase career and college readiness from 49 percent to 67 percent.
- Close graduation and career and college readiness gaps by 50 percent.
- Increase the percentage of students scoring proficient in third-grade reading and eighth-grade mathematics.
- Adopt the Fair Funding for Our Future plan to make school finance more equitable and transparent.

To achieve these goals and advance education for all students, we must **focus around four simple, but powerful areas:**

- Standards and Instruction: What and how should kids learn?
- Assessments and Data Systems: How do we know if they learned it?
- School and Educator Effectiveness: How do we ensure kids have highly effective teachers and schools?
- School Finance Reform: How should we pay for schools?

IT focus areas to achieve these goals include:

- Use digital learning to change and enhance instruction; and
- Launch statewide information and data systems that support districts, streamline operations, and expand research.

II. Provide your agency’s IT budget – At a minimum, include the budget for your central IT organization. If you also have budget figures for IT within program areas, please include those and identify the additional areas from where the numbers are derived.

Source of Funds	Amount
Federal Race to the Top- Early Childhood Grant budget yr 4	\$1,271,282
Federal Gear Up Grant (year 4)	\$600,000
<i>Total Federal Funds Available</i>	<i>\$1,871,282</i>
GPR (2015-16) WISEdash	\$3,313,100

GPR (2015-16) for WISEdata	\$3,100,000
GPR WISElearn	\$1,450,000
<i>Total State Funds Available</i>	<i>\$7,863,100</i>
Grand Total Available	\$9,734,382

III. Provide your agency’s number of IT employees – At a minimum, include the employee numbers for your central IT organization. If you also have numbers for IT employees within program areas, please include those and identify the additional areas from where the employee numbers are derived.

FTE: 30.0
LTE: 12.0
Contractors: 27.0
Open positions: 9.0

IV. Agency Projects – List all of your agency’s IT projects expected to cost \$1 million or more. (\$1 million is the statutory threshold for reporting to the Legislature on IT projects, e.g., Wisconsin s.16.973(16), stats.) This includes projects that are starting, ongoing or ending anytime between July 1, 2014 and June 30, 2015. Include all types of IT projects (not just application development). You also can include IT projects expected to cost less than \$1 million that your agency views as high-visibility and/or particularly critical to serving business needs.

For each project listed for Item IV, complete the table on page 4 of these instructions.

The majority of the DPI’s priority IT projects are focused around implementation of the Wisconsin Information Systems for Education (WISE) efforts.



The Wisconsin Information System for Education is comprised of multiple tools that support ID generation and data collection to meet all required district and school state and federal reporting mandates which will in turn inform education research and data analysis through dashboard and reporting tools to better understand and improve educational outcomes for Wisconsin students. These systems will maintain high data quality and security policies and standards to ensure data privacy. Each of these tools can and should be used by multiple stakeholders including educators, district and school officials, and DPI staff. Specific tools such as the WISEdash

Public Portal are also available for parents and community members.

The high-level objective is to provide a sustainable, cost-effective, integrated education analysis and reporting system that supports:

1. Teachers and school administrators making informed decisions to improve educational outcomes and to help ensure every child graduates from high school prepared for both college and career pathways;
2. Data-informed decision-making at the state, district, school, classroom, and student levels;
3. Accurate and timely data reporting to meet Federal, State, and local requirements, including [EDFacts reporting](#) in which State data is aggregated and reported as required by law to the U.S. Department of Education's national data sets;
4. Parents and community members, including media, legislators, and community groups, learning more about their schools;
5. Diagnostic and policy-relevant research.

The specific projects included under the WISE umbrella are:

- WISEdash, for which there are three instances, and a user support function
 - WISEdash Public Portal
 - WISEdash for Districts Secure
 - WISEdash Local
 - WISEExplore
- WISEdata
 - WISEid
 - WISEstaff
 - WISEsecure

WISEdash (all instances including Local, plus WISEExplore)

WISEdash Public Portal <http://wise.dpi.wi.gov/wisedash>

The WISEdash Public Portal is the front door for parents and community members to discover all types of data about Wisconsin schools and districts. Educators should send parents to WISEdash for public data reports. Educators and school staff should use the WISEdash for Districts, a secure version that requires a username and password, for student-level analysis.

WISEdash for Districts Secure http://wise.dpi.wi.gov/wise_wisedashdistricts

WISEdash for Districts (secure site for district staff) is a companion to the WISEdash Public Portal, and provides:

- a way of organizing our education data (called a data model) that enables easy, intuitive, and smart reporting;
- role-based data access and dashboards;
- public and secured reporting that can reach a wide variety of users with diverse data

needs;

- simple ad hoc reporting functionality (choose a district, choose a demographic);
- advanced reporting capabilities for power users at the district and state level to create customizable reports; and
- professional development resources such as pre-made workbooks to guide use and understanding of tools, dashboards and reports.

WISEdash Local <http://wise.dpi.wi.gov/wisedashlocal>

WISEdash Local is hosting option for Wisconsin K-12 school districts where local tests and datasets can be stored for powerful analytics that support school improvement processes.

The [project is self-organized by the WISEdash Local Consortium](#), a group of CESAs and school districts working with the analytics vendor, Versifit. WISEdash Local is not a DPI project, except for financial support of the shared infrastructure. The infrastructure is being built at the DET data center in Madison. Neither the equipment or software is located at DPI. The analytic software is based on the WISEdash for Districts analytics but will be completely separate databases. The infrastructure is managed through a governance arrangement being developed between the CESAs, DPI, and DET.

WISEExplore <http://wise.dpi.wi.gov/wisexplore>

Using data effectively can be a challenge. To address this, DPI partners with the CESA Statewide Network (CSN) to develop a common data inquiry process for teachers and school leaders. This team is called WISEExplore. The purpose of the WISEExplore Project is to design, develop, pilot and disseminate a consistent data inquiry process for use by school boards, administrators and classroom educators to improve student achievement in Wisconsin.

WISEExplore partners help educators to actively discuss the data available through WISEdash portals and other sources. The partners help school staff grow internal capacity for data inquiry, and to design and implement a thoughtful school improvement action based on their analyses.

WISEdata <http://wisedata.dpi.wi.gov/>

Under the plan approved by the legislature in 2014, the department will create a multi-vendor, open data collection system that allows school districts, charter schools, and private schools participating in a parental choice program to submit data to the department from the student information system (SIS) vendor of their choice. The system addresses the following goals:

- Meet all required state and federal reporting mandates. Only data which are state and federal legislatively mandated and required are to be submitted in the system.
- Create value at the school and classroom level by presenting data through the district WISEdash data portal to support instructional decision-making.
- Eliminate duplicate data collection tools and processes work by school district, charter school, private school, and department staff.
- Partner with SIS vendors on data collection standards making high quality data available more easily and frequently.

The proposed system includes four specific projects each of which are described below. Various phases of the project are to be completed through the 2016-17 school year. Details of the project work plans and time lines are found [here](#).

1. Provide Privacy Protection to Users

The system is to include an integrated Access Management System that allows districts flexibility, while maintaining privacy and security in accordance with the Family Educational Rights and Privacy Act and Wisconsin statutes. The new system provides the right people with the right access to the right data at the right time, while ensuring that districts and schools maintain local control over granting user rights to secure DPI applications.

2. Provide Unique ID Numbers for Students and Staff

The system creates a single, secure and consistent statewide identification number assignment system, to be used across both staff and students, that protects and safeguards data. The system consolidates the existing student unique ID generation system and a new staff unique ID generation into one interface resulting in efficiencies in support, training, security, and application maintenance while improving data quality.

3. Replace Outdated Data Collection Software

The department plans to create a data collection system that is adaptable to changing federal and legislative requirements. Instead of collecting specific data through many different software applications and interfaces, the new system involves districts sending required data to the department with one tool. This also saves time for districts as it eliminates the need for them to create specific file exports for specific collections. The project calls for partnering with school districts' existing SIS vendors to automate processes and validate data integrity to ensure accuracy. This is critical to ensure the legislatively required data uses are of the highest possible quality.

4. Integrate the New Data Collection Systems with the Department's Data Warehouse

The department will integrate the new data collection system with WISEdash, the Wisconsin K-12 data warehouse. These changes will impact both the secured version of WISEdash (WISEdash for Districts), accessible only to school district staff, and the public version (WISEdash Public Portal).

WISELearn <http://dpi.wi.gov/wiselearn>

WISELearn is the instructional component of the WISE suite. Funding became available on July 1, 2015. WISELearn creates a "Digital Learning Portal" which would be a single point of entry (like a Google homepage) that provides access to three separate pieces of functional software:

1. Learning Management System – Software that allows for the development of courses or learning modules with digital content. Several districts use something like this currently. DPI has acquired licensing through a partnership with the [Wisconsin Digital Learning Collaborative](#) to provide a learning management system platform for every educator in the state. This platform can be used to provide online professional development to those educators.

2. Content Repository – Software that allows storage of and access to digital content by all Wisconsin students and teachers. Further, teachers could "tag" or "rate" specific content based

on how effective it was with their students, making resources more useful and efficient for teachers than a time-intensive Google search. DPI has partnered with the Utah Education Network for use of a content repository as part of WISELearn. Current efforts now include identifying and curating quality content to include in the repository, an activity being carried out with Wisconsin educational professional organizations and CESAs.

3. Collaboration Tools – Software that would enable social networks and virtual professional learning communities. DPI has selected to use the Google API for this purpose within WISELearn, specifically leveraging the Google+ Communities platform. This decision is based on the widespread use of Google Apps for Education across Wisconsin K-12 school districts and their familiarity with the tools.

In addition to the WISE projects, it is worth noting one other high profile efforts for FY16.

Academic and Career Plans (ACPs) <http://acp.dpi.wi.gov/>

During the 2013-15 budget cycle, Wisconsin passed a budget bill that included funding and legal authority for the Department of Public Instruction (DPI) to develop an academic and career planning process. More specifically, the State Superintendent must:

- Ensure that beginning in the 2017-18 school year, every school board is providing academic and career planning services to pupils enrolled in grades 6 to 12 in the school district.
- Procure, install, and maintain information technology, including computer software, to be used statewide by school districts to provide academic and career planning services to pupils in grades 6 to 12.
- Provide guidance, training, and technical assistance to school districts and school district staff, including teachers and counselors, on how to implement model academic and career plans, including training and technical assistance that is necessary to implement the information technology.
- Promulgate rules to implement academic and career plans. (s. 115.28(59), Stats.)

Academic and Career Plans (ACPs), often referred to as Individualized Learning Plans, present an opportunity to improve academic achievement and post-secondary success for all students.

DPI IT will provide technical support to the project in the areas of software selection, operations, and integration.

V. Potential Agency Projects – List all potential agency IT projects expected to meet the \$1 million cost threshold that are in the conceptual phase, or that might be initiated in FY15 due to potential legislative changes (state or federal), or that might be dependent on securing grant funding (from a state, federal or nongovernmental organization). Note: The difference between projects listed in Item IV above and Item V is that projects in Item IV are currently active or scheduled projects, and Item V is for projects that are only in the conceptual or planning phases.

Provide just the following basic information for each potential project in the following table format.

Potential Project Name:
Description:
Anticipated Total Cost:
Resourcing:

Project Name: Full name of the project (not acronyms).

Project Description: A few sentences providing a high-level overview of the potential project. Include the business problem being addressed.

Anticipated Total Cost: Same definition as 8a on page 3.

Resourcing: Anticipated funding source(s).

DPI does not currently have a potential project list.

VI. IT Infrastructure Projects or Expenditures – Describe any projects or anticipated expenditures over \$100,000 related to augmenting IT infrastructure (e.g., hardware, servers, storage, networking components, security, backup and disaster recovery), if these projects have not already been described in sections IV or V above. Use the same abbreviated format as in section V.

DPI collaborated with DET to establish a private cloud at the Fenrite data center for which the above mentioned projects can be located. DPI will continue to collaborate with DET on maintaining and utilizing this resource on behalf of the agency as well as the school and library community.

VII. Issues (OPTIONAL) – Identify and explain issues or other activities not described already that are influencing, or could influence, successful execution of your agency’s IT plan and about which DOA/DET should be aware. Be sure to include the issue type and description. Here are samples cited by agencies in prior years’ plans:

- Application modernization challenges**
- Competing timelines**
- Dependent on federal funding**
- Dependent on legislative approval**
- DOA/DET rates**
- DOA/DET resource availability**
- Funding shortage**
- Increasing costs**
- Legislative action**
- Infrastructure issues**
- Recruit/retain qualified staff**
- Acquisition changes affecting vendor**
- Workforce planning**

DPI struggles with many of the same issues of other state agencies. Resources could always be greater to accomplish goals. Certainly, there are competing priorities as well given the array of strategic efforts. Our goal is to connect as many of these initiatives as possible such that they can share solutions simultaneously. Another concern is the need to retain high quality staff. We have implemented some innovative recruitment strategies that appeal to the agency mission. These have provided some level of success in the short time they have been in place.

DETAILED COMPLETION DIRECTIONS FOR LISTED PROJECTS IN ITEM IV (One table completed per project):

- 1) Project Name: Full name of the project (not acronyms only).
- 2) Project Type: Checkbox designation of new FY15 project or continued from FY14 (ongoing).
- 3) Project Description: A few sentences providing a high-level overview of the project. Include the business problem being addressed.
- 4) Project Schedule: Start and completion dates, or expected start and completion dates if the project has not been initiated yet.
- 5) Application Platform: Check all that apply.
- 6) Application Type: Check all that apply.
- 7) Technical Architecture Components: Please provide information about the application and technical infrastructure components (e.g., Java Application Code Base using Oracle RDBMS, WebSphere, and Business Objects).
- 8) Estimated Total Project Hours: Report the project's total estimated staff hours, including business, technical and contractor staff. If the project analysis has not been completed yet, please supply an estimated range of total project hours.
- 8a) Estimated Total Project Cost: Report the project's total estimated cost, including all direct and staff costs (business, technical and contractor staff). If the project analysis has not been completed yet, please supply an estimated range of total project cost.
- 9) Related Projects and Dependencies: Report any related projects, including a description of the relationship and dependencies between the projects.
- 10) Identify project sponsors and all sources of funding and the amount: GPR – General Purpose Revenue; PR – Program Revenue; SEG – Segregated funds; FED – Federal funding. The funding sources should add up to the estimated total project cost cited in 8a.
- 11) Issues that may influence successful execution of the project. Please explain.

NOTE: If your agency adds projects during FY15 that meet the \$1 million-or-more cost threshold, and these projects were not originally included in the annual plan due March 31, 2014, please provide an update to DET as soon as possible (and minimally on a quarterly basis). Include the same information in the table format for those additional projects.

1. Project Name: WISEdash
2. Project Type: New FY16 Ongoing
3. Project Description: WISEdash is the business intelligence system available to the WI K-12 community. There are instances for public use as well as secure district use that allows access to student granular levels. FY15 is the launch year for a new WISEdash instance known as WISEdash Local. See IV above for additional details.
4. Project Schedule
 - a. Start: Prior to FY16
 - b. Completion: Will continue beyond FY16
5. Application Platform (Check all that apply):
 - a. Mainframe
 - b. Windows Multi-Tier
 - c. Client-Server
 - d. Web Internet
 - e. Web Intranet
 - f. Physical
 - g. Consolidated
 - h. Co-located
 - i. Virtual
6. Application Type (Check all that apply):
 - a. State Developed
 - b. SaaS
 - c. Transfer
 - d. COTS
 - e. Vendor Managed/hosted
 - f. Other (specify) _____
7. Technical Architecture Components: Utilizes Microsoft SQL Server framework. Dashboard tools are proprietary from vendor. Environment is hosted at DET.
8. Estimated Total Project Hours: 24,000
 - 8a.) Estimated Total Project Cost: \$3,313,100
9. Related Projects and Dependencies: The WISEdata project will change the source data files for much of WISEdash. That work is planned during both FY16 and FY17.
10. Project Sponsorship and Funding (*please complete the information below*)
 - a. Executive Sponsor: Kurt Kiefer Division: Libraries and Technology
 - b. Business Sponsor: Kurt Kiefer Division: Libraries and Technology
 - c. Senior Project Manager: Melissa Straw IT Authority: Data Warehouse and

Decision Support Team

11. Is Full Funding for Project Approved/Secured? Yes No

Funding Source for the Project:

GPR \$ 3.3MM PR \$ SEG \$ FED \$

12. Issues that may influence successful execution of the project: Staffing issues are a recurring issue, although we have been fairly stable with the existing team for about two years. Team processes have become routinized and we follow an Agile methodology so we anticipate less risk as a result. Competing priorities from policy makers can create changes to work plans.

1. Project Name: WISEdata
2. Project Type: ___ New FY16 Ongoing
3. Project Description: WISEdata is the new suite of tools established for all of the primary school district data collections. It replaces legacy software. Objectives include streamlining processes for school districts to save staff time and financial requirements. See IV above for additional details.
4. Project Schedule
 - a. Start: Prior to FY16
 - b. Completion: Initial phase during School Year 15-16, subsequent phases after that
5. Application Platform (Check all that apply):
 - c. ___ Mainframe
 - d. ___ Windows Multi-Tier
 - e. ___ Client-Server
 - f. Web Internet
 - g. ___ Web Intranet
 - h. ___ Physical
 - i. ___ Consolidated
 - j. Co-located
 - k. Virtual
6. Application Type (Check all that apply):
 - l. State Developed
 - m. ___ SaaS
 - n. ___ Transfer
 - o. ___ COTS
 - p. ___ Vendor Managed/hosted
 - q. Other (specify) SIS vendors must create data integration procedures
7. Technical Architecture Components: Utilizes Microsoft SQL Server framework. Dashboard tools are proprietary from vendor. Environment is hosted at DET.
8. Estimated Total Project Hours: 45,000
 - 8a.) Estimated Total Project Cost: \$3,100,000
9. Related Projects and Dependencies: The WISEdata project will change the source data files for much of WISEdash. That work is planned during both FY16 and FY17.
10. Project Sponsorship and Funding (*please complete the information below*)
 - a. Executive Sponsor: Kurt Kiefer Division: Libraries and Technology
 - b. Business Sponsor: Jeff Post Division: Libraries and Technology, Customer Services Team
 - c. Senior Project Manager: Dan Retzlaff IT Authority: Applications Development

Team

12. Is Full Funding for Project Approved/Secured? ___ Yes _X_ No

Funding Source for the Project:

GPR \$_3.1MM__ PR \$_____ SEG \$_____ FED \$_____

13. Issues that may influence successful execution of the project: One risk involves the private student information system (SIS) vendors who must create backend data integration procedures to conform to the state adopted interoperability framework. We have mitigated this risk in two ways. First, we have adopted a framework that has been successfully implemented in other states for this same purpose. Second, the budget includes funding to help support the vendor's work so costs are not passed to the school districts. Otherwise, the same risks exist as with other IT projects, e.g., competing priorities, staffing, etc.

5. Project Name: WISELearn
6. Project Type: New FY16 Ongoing
7. Project Description: WISELearn is an educator resource portal which connects several functional software components into a single suite. It is designed to create a K-12 oriented search tool that access instructional resources including lessons, unites, courses, research, assessment tools, and smaller learning objects that can be incorporated into instruction. It also has a social layer to establish virtual professional learning communities. See IV above for additional details.
8. Project Schedule
 - a. Start: FY15
 - b. Completion: Initial phases will be available during the 2015-16 school year, but further development is anticipated into subsequent school years followed by annual maintenance
5. Application Platform (Check all that apply):
 - c. Mainframe
 - d. Windows Multi-Tier
 - e. Client-Server
 - f. Web Internet
 - g. Web Intranet
 - h. Physical
 - i. Consolidated
 - j. Co-located
 - k. Virtual
6. Application Type (Check all that apply):
 - l. State Developed
 - m. SaaS
 - n. Transfer
 - o. COTS
 - p. Vendor Managed/hosted
 - q. Other (specify) Vendor solutions are anticipated for some component functionality, e.g., learning management system, content repository
7. Technical Architecture Components: Utilizes the open source Drupal content management system as a framework. Social layer leverages the Google platform, i.e., Google+. Environment is hosted at DET.
8. Estimated Total Project Hours: 8,000
 - 8a.) Estimated Total Project Cost: \$1,450,000
9. Related Projects and Dependencies: The WISEdata project will change the source data files for much of WISEdash. That work is planned during both FY16 and FY17.
10. Project Sponsorship and Funding (*please complete the information below*)

- a. Executive Sponsor: Kurt Kiefer Division: Libraries and Technology
- b. Business Sponsor: Sheila Briggs Division: Academic Excellence
- c. Senior Project Manager: Janice Mertes IT Authority: Instructional Media and Technology Team

13. Is Full Funding for Project Approved/Secured? ___ Yes ___X_ No

Funding Source for the Project:

GPR \$ _1.45MM_ PR \$ _____ SEG \$ _____ FED \$ _____

14. Issues that may influence successful execution of the project: The same risks exist as with other IT projects, e.g., competing priorities, staffing, etc.