





Empower every student in Michigan to excel at next generation assessments, to leverage technology for learning, and to achieve lifetime success in a global economy.

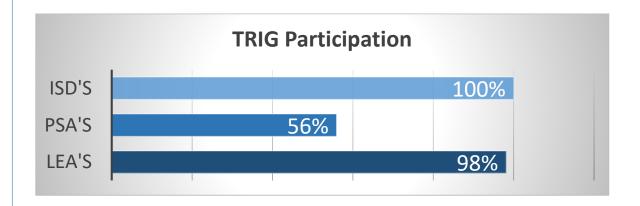


EXECUTIVE SUMMARY

The Technology Readiness Infrastructure Grant (TRIG) continued to prepare Michigan schools for online assessment and learning by implementing the following three goals:

- Provide opportunities to increase capacity to deliver personalized learning in districts and classrooms
- Create sustainable collaborations which increase the ability of districts to leverage actionable data, maintain reliable technology, and support learning
- 3. Increase the capacity of local districts to provide ubiquitous access for "Any Time, Any Place, Any Way, Any Pace" learning





TRIG represented 1,507,743 students, 100% of ISDs (56), 98% of LEAs (530), and 56% of PSAs (169).

Additionally, TRIG expanded its online presence through social media and by offering professional development information and M-STEP Tech support on its website, **22itrig.org**. TRIG also designed additional activities, which aligned to the original six activities, to better serve the ISDs, LEAs, and PSAs:

• Implemented in 2015-2016: *Targeted Site Transformation (TST)* to transform schools into 1-to-1 learning environments and *Strategic Readiness Support (SRS)* to provide customized assistance designed to increase technical and instructional readiness in schools to ensure they are ready for online assessment and learning.

In 2015-2016, the districts participating in TRIG received \$21,325,974.00 through direct funds. These districts also realized \$54,315,828.00 in value-added and indirect savings.

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STATEWIDE INDIRECT AND VALUE-ADDED COST SAVINGS TO PARTICIPATING DISTRICTS

- \$640,110: As a result of *E-Rate*, districts were able to expand their bandwidth
- \$8,419,985: Savings from Data Integration planning, vendor development activities, training, data hubs, and a ROI Survey incentive
- \$278,964: Savings in planning through *MTRAx*
- \$35,169,291: Savings through Device Purchasing discounts and professional development, as well as \$6,194,314 in direct incentive payments
- \$9,794,035: Savings for downloading 92,252 digital textbooks developed by Assessment and Curriculum and for 7,188 webinar viewings
- \$111,362.00: Savings resulting from *TRIG Operations* communication, support, & outreach

TRIG OPERATIONS OFFICE

The TRIG Operations Office supports all TRIG activities and collaborates with the Michigan Department of Education (MDE), Michigan Association of Intermediate School Administrators (MAISA), Michigan Association of School Administrators (MASA), and Michigan Institute for Educational Leadership (MIEM) to advance TRIG goals. The TRIG Operations Office personnel publish weekly updates, organize workshops, present at conferences, facilitate informational meetings, update the website, provide outreach to Michigan educational agencies, archive TRIG files, create evaluation templates, convene Steering Committee and Project Manager meetings, and provide budget support.

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OPERATIONS PERSONNEL

Dave Cairy Project Director

Jan Vogel Project Coordinator

Deb Kopkau Conference/Communications Coordinator

Summer Franck Communication/Device Training Coordinator

Kristin Margelot Project Assistant

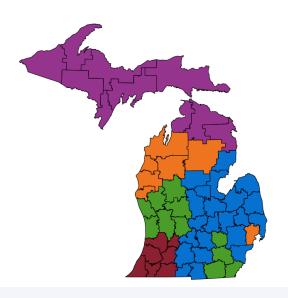
Taylor Eastlund Administrative Assistant

2016 Annual Report Technology Readiness Infrastructure Grant

TRIG CONSORTIA

The five consortia advocate for TRIG, lead local and regional implementation of all TRIG activities through effective communication networks, organize the membership to increase participation, and collaborate with other organizations. Representatives of the following five consortia are members of the TRIG Steering Committee.

- Greater Michigan Education Consortium (GMEC)
- Intra-Michigan Consortium (iMC)
- Kent ISD Consortium (Kent ISD)
- Southwest Michigan Consortium (SWC)
- Rural Northern Michigan Consortium (RNMC)



TRIG 3.0 STEERING COMMITTEE

The TRIG Steering Committee advises the TRIG Operations Office and monitors the activities.

Greater Michigan Education Consortium (Genesee ISD)

- Dennis Buckmaster
- Tammy Evans
- Rhonda Provoast
- Luke Wittum

Rural Northern Michigan Consortium (Copper Country ISD)

- Timothy Davis
- Valerie Masuga
- Michael Richardson

Intra-Michigan Consortium (Wexford Missaukee ISD)

- Lisa Lockman
- Thomas Johnson

Southwest Michigan Consortium (Kalamazoo RESA)

- Tom Harwood
- Brian Schupbach
- Diane Talo

Kent ISD Consortium

- Glen Finkel
- Phillip Carolan
- Tonya Harrison

Non-voting Members

- Linda Forward, Director, Office of Education Improvement and Innovation, MDE
- David Judd, Director, Office of Systems
 Integration, MDE
- Michelle Ribant, Assistant Director of Office of Education Improvement and Innovation & State Director of 21st Century Learning, MDE
- Amanda Stoel, Department Technician,
 Office of Education Improvement and
 Innovation, MDE
- David E. Schulte, MAISA Representative
- Michelle Johnston, Evaluation
 Consultant
- Karen Mlcek, Evaluation Consultant

TRIG 3.0 PROJECT MANAGERS

The TRIG Activities are interrelated and support district, school, teacher, and student access to resources, data, and learning for online assessment and teaching. Each activity, which focuses on either access, data, or learning, has a project manager, an activity advisory committee, and a specific list of deliverables.

Activity Project Managers

MiOpen Books	Learning — Training teachers to effectively use technology to improve student learning	Dave Johnson			
EduPaths		Danielle Letter			
Targeted Site Transformation	1	Anthony Buza			
Statewide Education Network (MISEN)	Access — Access to devices, bandwidth, and content for "Any Time, Any Place, Any Way,	David Childs			
E-Rate	Any Pace" learning	Ann-Marie Mapes			
Device Purchasing		Karen Hairston			
Data Integration	Data — Resources for schools to assess	Donald Dailey			
Data Services	their readiness for online assessment				
Collaborative	and learning, and access to data hubs that provide actionable data for	Kevin Bullard			
MTRAx					
Strategic Readiness Support		Tom Johnson			

TRIG ACTIVITIES AND TRIG 3.0 ACCOMPLISHMENTS

ACCESS

Statewide Education Network (MISEN) – SEN is working with E-Rate to ensure that SEN services do not conflict or jeopardize a district's E-Rate filing processes. By the end of May, SEN worked with ISDs on installation equipment to support the core backbone routes for SEN in 20 of the 55 locations. Specifically, SEN has 36% of the ISDs connected and 6 out of 11 segments, representing 54% of the backbone completed.

E-Rate – The E-Rate Activity enhanced E-Rate communications through weekly consultant calls, its forum, and addressing applicant questions electronically. Additionally, its collaborative work with SEN is ensuring that the SEN can progress in establishing the statewide secure educational network. Working with the E-Rate consultant, the E-Rate Activity became proactive, making progress toward its goals in ensuring all Michigan schools and libraries can benefit from the Universal Service Fund (USF) and reduce funding disparities across the state. Lastly, this activity aligns to the National Education Technology Plan.

Device Purchasing – Device Purchasing developed, issued and administered statewide bids for personal learning devices and desktop computers in order to support on-line testing and the "Any Time, Any Place" initiative. The goal is to aggregate demand statewide for these devices in order to drive down the purchase price for these products. The process included the following steps for the Spring 2015 Bid Cycle:

- Determined how incentives would be allocated
- Determined bid specifications
- Ran forecast window to determine statewide demand
- Issued Invitation to Bid
- Evaluated bid responses
- > Awarded contracts to selected vendors
- Opened purchase window from April 15, 2015 to September 30, 2015
- During this cycle 174,763 devices were purchased by 460 ISDs and districts (LEAs / PSAs)

Strategic Readiness Support (SRS) – SRS identified Phase I, II, and III schools with multiple needs. The majority of schools, LEAs, and public school academies (PSAs) participating in the SRS Activity report that this project helped them engage in technology assessment, teaching, and learning. During evaluation visits to the schools, most respondents discussed changing instructional practices to 21st Century best practice strategies, such as blended instruction. In fact, one LEA superintendent believes that his high school can now be a model for blended instruction. Teachers and coaches from the SRS schools attended a coaching professional learning workshop; on a 10-point scale, 94% of the participants gave the workshop a 10. They wrote about taking their new skills, knowledge, and strategies back to their schools to be teacher leaders who will be better able to transform education at their schools and in their regions. SRS is preparing LEAs and PSAs to meet the MDE Goals and Strategies Top 10 in 10 Years.

DATA

Data Integration – The Data Integration Activity, which is in its implementation phase, is collaborating with SEN and EduPaths to ensure that the three projects effectively accomplish their goals. Through its Project Manager, Advisory Committee, and Workgroup, this activity is communicating with vendors to ensure that they are able to provide connector services through the data hubs. Five of the six student information systems (SIS), eSchoolPlus, MISTAR, PowerSchool, Skyward, and Synergy, are fully integrated into the data hubs, allowing about 90% of the LEAs in Michigan to engage in the data hubs. As of June 2016, Data Integration had five functioning hubs at the consortia, which comprise the Michigan Data Hub. The Michigan Data Hub can now exchange data and benefit districts in the following ways:

- 1. Saving money through the integration of different data systems
- 2. Using a common format which facilitates data exchanges across Michigan
- 3. Promoting common reporting and dashboards for equitable, actionable data
- 4. Allowing a single-sign on system
- 5. Having secure collaborations on statewide initiatives
- 6. Easing access to actionable data for teachers; and
- 7. Facilitating instructional decision making

The Data Integration Activity has five live LEAs, 102 districts with log-ins, and 112 accepted agreements at the following five data hubs that represent the TRIG Consortia (on the right).

	Data Hubs	Agreements
1	Copper Country	7 (7)
2	Kent County	25 (25)
3	Kalamazoo	21 (19)
4	Oakland Schools	56 (53)
5	Wexford-Missaukee	3 (3)

Data Systems Collaborative (DSC) – Overview of the DSC's five initiatives:

- 1. The **MiCASE** initiative is complete, on time, and within its budget as 14 districts are either in some stage of implementation with the payroll, purchasing, and accounting. Four of the districts are live.
- 2. The **Edify** component of this project is on time for completion by mid-July. Teacher gamification and Teacher PD are being worked on. Edify will continue incorporating MI Open Book as it becomes available and has been vetted.
- 3. The **Green Pupil Audit** procedures and processes were developed with clear instructions for reports and report templates. This project, with its template or the PowerSchool extraction template, provides schools with all the Michigan Pupil Accounting state reports necessary for school count day. Feedback sessions are scheduled.
- 4. The **Science Assessments** project had a two-day TRIG "dry run" practice event with the Science Math Technology Center administrative team, graduate assistants, an MDE assessment writer, and consultants to prepare for its August writing days. During the dry run, processes were vetted. In addition, this activity is collaborating with an Oakland Schools assessment specialist.
- 5. The **Collaborative Purchasing** has three projects that have accepted bids for the Spring 2016 grant cycle: Student Information Systems, Data Warehouse, and Library Automation. Student Information Systems received six bid responses. One was not considered for award for insufficiently meeting bid specifications. Two bidders ended negotiations. Three companies were awarded: Aequitas, Edupoint, and SunGard K-12. Data Warehouse received two bid responses. One bid was not considered for award for insufficiently meeting bid specifications and due to high cost. One company, Illuminate Education, was awarded. Library Automation received no bids, which will affect the budget.

MTRAx Activity – MTRAx worked with MDE to identify requirements around a 2016–2017 data collection window, including window dates, compliance considerations, and communications planning. This activity also identified the scope of developing additional enhancements for the MTRAx application based on priorities identified by the MTRAx Advisory Committee. As of spring of 2016, 96% of Michigan students and districts successfully tested online.

LEARNING

EduPaths (Classroom Readiness) – EduPaths reached out to users in many ways to promote communication. Through the use of monthly talking points, weekly updates for Ambassadors, online Smore flyers and through the use of social media, EduPaths currently has over 3,000 users. It uses social media platforms, including Facebook, Google+, and weekly Twitter chats. Currently, over 200 educators are participating in summer professional development to create content. At the end of the fourth quarter, sixty-five EduPaths courses were available for SCECHs. The number of courses available for SCECH credits and number of users increases weekly. EduPaths continues to establish partnerships with statewide

educational organizations in addition to organizations who have self-paced professional learning and webinars. Additionally, it is implementing Articulated Storyline in modules for e-learning and has implemented a flipped model of instruction for summer professional development.

MI Open Books Project (Assessment and Curriculum) – MI Open Books announced a forthcoming release of new materials. One LEA will be using MiOpen Books extensively. As of July 1, 2016, there were 92,252 downloads of the Year 1 materials. Writing teams completed their work on most of the Third-, Seventh-, and Eighth-Grade Social Studies eBooks and high school-level Civics and U.S. History eBooks. Editors are working on the final usable format, and revisions to the Fourth Grade eBooks will coincide with the release of materials in 2016–2017.

Targeted Site Transformation (TST) – The following five TST sites closed out the year of planning for 2016–2017: Fowlerville Junior High (Fowlerville Community Schools); Star Elementary (Hastings Area School System); Superior Hills (Marquette Area Public Schools); Shelby High School (Shelby Public Schools); and Stockbridge High School (Stockbridge Community Schools). Fowlerville, Hastings, Marquette, Shelby, and Stockbridge also participated in the first year of a 1:1 deployment. Based on need, each site had network infrastructure and classroom technology upgrades, purchased mobile devices and received ongoing professional development and support. Those LEAs are now planning for the 2016–2017 academic year, with most of their emphasis on continued professional development. TST is finalizing Panorama data collection for staff, student and data reports. The post-survey demonstrates growth areas for individual site reviews to help with the 2016–2017 planning. Additionally, TST continues the ongoing work of the initial site reviews for Negaunee, Perry, and Montrose. In 2016–2017, there will be three additional TST sites: Kuehn-Haven Middle School (Montrose Community Schools); Lakeview Elementary School (Negaunee Public Schools); and Perry Middle School (Perry Public Schools). An initial needs assessment is complete, and equipment is being ordered (mobile devices, classroom technology, and network infrastructure) for each site.

Because the TST sites are part of a shared journey to 1:1 teaching and learning, they have connected technology integration practices with experts to share best practices, which adds value to the project and LEA participation.



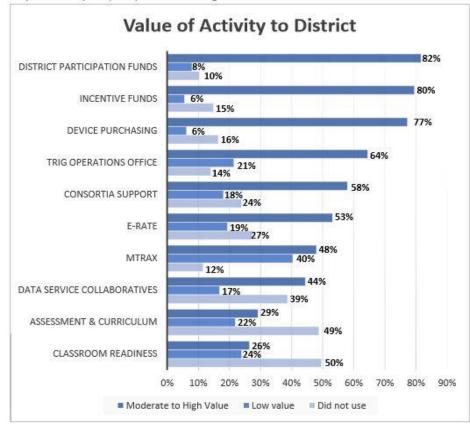
COMMUNICATION

In the focus group, surveys, and interviews - which included a statewide representation of educational leaders and some vendors — all parties addressed the relevance of TRIG communications. Specifically, participants commented about the importance of the TRIG Weekly Updates and TRIG website, (www.22itrig.org), as exemplary communication tools. In addition, respondents reported that TRIG representatives also regularly participated in further communications with the Michigan Department of Education (MDE), Center for Educational Performance and Instruction (CEPI), Department of Technology, Management, and Budget (DTMB), General Education Leadership Network (GELN), ISD Tech Directors, as well as other educational agencies and groups. Lastly, they reported that they have experienced easy and open communication with the TRIG Operations Office, Steering Committee, and Project Managers.

Communication strategies highlighted are:

- 1. TRIG Talking Points are published monthly to inform superintendents, business officials, technology directors, teachers, and curriculum directors about activity deadlines and progress.
- 2. TRIG Operations Office published 52 TRIG Weekly Updates for statewide stakeholders providing information about all TRIG activities, M-STEP, professional development, and other educational issues.
- 3. EduPaths holds weekly Twitter chats for interested audiences on a variety of topics.
- 4. EduPaths provides weekly online Ambassador Updates regarding professional development opportunities.
- 5. The E-Rate Forum sends weekly communications to assist district personnel and consultants in clarifying the rules and application process of E-Rate.
- 6. TRIG Operations Office collaborates with the Communications Advisory Committee quarterly.
- 7. Weekly TRIG Operations Office meetings are conducted that enhance internal communications.
- 8. Increased presentations to target audiences such as: MDE, MASSP Membership Committee, MELG Leadership Group, MASA Mid-Winter and Fall Conferences, MACUL 2016 Conference, MDE School Improvement, and the GELN Board.
- 9. Device Purchasing professional development assistance including electronic flyers, TRIG Website listings, Twitter and TRIG Weekly Update articles.
- 10. Collecting and sharing TRIG Success Stories with the field.
- 11. Maintaining the TRIG Press Files, documenting all TRIG-related news articles.
- 12. Gathering the Quarterly reports with data points from 10 projects and 5 consortia.

- 13. Facilitating the TRIG Listserv with 3,744 participants
- 14. Developing and distributing the third TRIG Infographic.
- 15. Sharing M-STEP communications
- 16. Managed the TRIG State Survey with a 100% response rate.
 - Supports received from the Technology Readiness Infrastructure Grant (TRIG) that have helped build the capacity of your educators to plan and implement online assessments and "Any Time, Any Place, Any Way, Any Pace" learning:



PROCESS

The TRIG statewide implementation structure of five consortia, a Steering Committee, and Project Managers with activity oversight, works very efficiently. In the survey of the Activity Advisory Committee members, Project Managers and interviews with Steering Committee members, all the respondents commented on the success of the structure in sharing information from the field to TRIG and vice versa. Furthermore, in the focus group, participants spoke about how the structure has helped with statewide implementation. By using this comprehensive structure, TRIG gave all Michigan districts the opportunity to upgrade their technology, while providing a model for any future collaborative projects needing a common, statewide purpose.

To that end, the Steering Committee and Project Managers met jointly with TRIG Operations Office staff, as well as separately. When the Steering Committee and Project Managers met, they continued to support collaborative relationships, such as EduPaths with Data Hubs and E-Rate with the Statewide Educational Network (SEN). When the Steering Committee met separately, they invited specific project managers to give progress reports. In addition, having active GELN participation and representation on the Steering Committee gave TRIG new insights about teaching and learning through technology to use in its transition.

During the Steering Committee's three separate meetings and the Project Managers' two meetings, the TRIG Operations Office staff helped them examine issues around sustainability. The Steering Committee had 98% attendance at its meetings, and there was 60% attendance at the Project Manager meetings. In each case, they developed and reviewed their sustainability plans for future discussions and implementations.

Each consortium met one to three times to support the activities through technical assistance, professional development, and enhanced communications with constituents. The consortia have listservs and workgroups to ensure that all the ISDs and LEAs within their areas have thorough knowledge of the TRIG activities. In interviews, the consortia representatives discussed being conduits of two-way communications from TRIG to the LEAs and the LEAs to TRIG.

The activities with their advisory committees had three meetings each facilitated by the Project Managers. The attendance ranged from 50% to 82%. In the Activity Advisory Committee survey, both the Project Managers and their advisory committee members reported that the meetings were productive for the implementation and management of the projects. These meetings also provided a vehicle for disseminating information about the implementations. Three activities did not have advisory committees.

To ensure that all of the projects are progressing, the TRIG Operations Office staff participated in weekly internal meetings and facilitated weekly Project Manager calls. In addition to working with GELN and the ISD Tech Directors, they are collaborating with Michigan Virtual University (MVU) to support the work of EduPaths (the Classroom Readiness Activity). This MVU connection has the potential for being an important addition to other TRIG connections, which include MDE, GELN, Regional Educational Media Centers (REMC), and Michigan Association of Computer Users for Learning (MACUL).

TRIG Operations Office staff increased its collaboration with MDE and participated in Digital Learning Day 2016. Additionally, TRIG distributed infographics showing its support of the MDE goals and impact on 96% of the districts in Michigan. By using infographics, TRIG Operations improved the communication process by visually representing the impact the activities have on a state-level, ISD-level and district-specific level.

COST EFFICIENCIES

During the focus group and school visit interviews, respondents spoke of cost efficiencies. Specifically, an Upper Peninsula representative spoke about having doubled their broadband for the same cost and about districts saving funds through the SPOT Bid/Device Purchasing Activity. ISD and local school district (LEA) representatives reported similar cost savings. Others experienced savings through TRIG-initiated professional development and anticipated more savings with the implementation of the Michigan Data Hubs.

Specific examples of cost savings include:

- 1. Free State Continuing Education Clock Hours (SCECHs) for Michigan educators
- 2. TST schools realized direct cost savings of \$115,405.95 for mobile devices, classroom technology (projectors, teacher computer stations), network/wireless equipment, and/or teacher professional development
- 3. TRIG Operations distributed incentive checks of \$915 to 459 LEAs participating in the Data Integration Return on Investment (ROI) study

Other cost efficiencies will emerge through future activity implementations. Furthermore, together the activities are providing more and better services at higher levels of quality without costs.

VISION FOR THE FUTURE

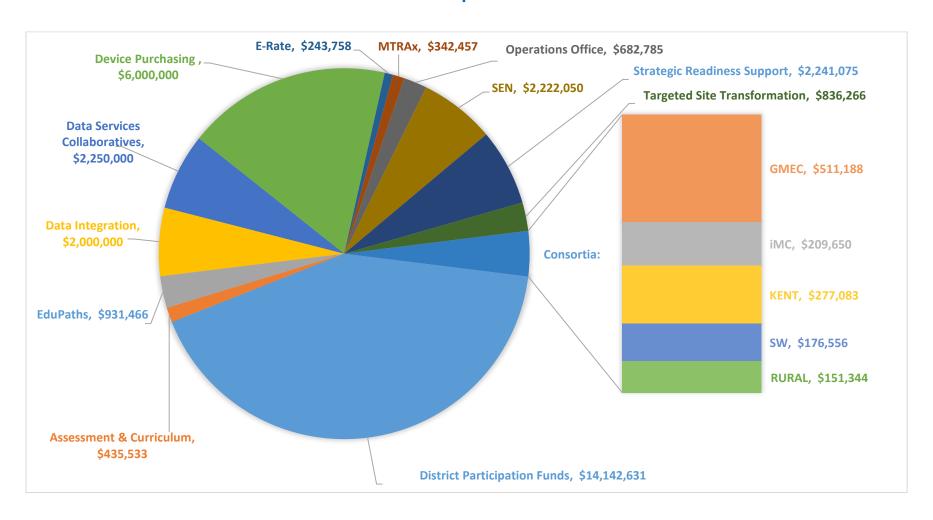
- 1. Prepare for the future transition of TRIG and communicate its importance
- 2. Promote transformational teaching and learning models
- 3. Support the E-Rate future vision, which promotes statewide coordination
- 4. Find ways to expand an SRS-model to provide support to individual LEAs and PSAs
- 5. Identify strategies for sustaining Michigan Data Hub deployment
- 6. Monitor Talking Points and TRIG Weekly Updates to ensure that all activities participate in communication strategies, having sufficient coverage
- 7. Collaborate with MISEN to continue the work of SEN by completing the backbone and collaboration with E-Rate
- 8. Continue to promote the consortia communication structure as a model for the implementation of statewide initiatives
- 9. Continue to develop the TRIG Operations Office sustainability plan



TRIG 3.0 BUDGET

3.0 TRIG Awarded Funds							
Description:	Original Award: Expenditures:		Work Project:				
District Participation Funds	\$	1,437,383.00	\$	14,142,631.00	\$	569,044.00	
Assessment & Curriculum	\$	600,000.00	\$	435,533.00	\$	164,467.00	
Classroom Readiness	\$	3,277,950.00	\$	931,466.00	\$	2,346,484.00	
Data Integration	\$	2,000,000.00	\$	2,000,000.00	\$	-	
Data Services Collaboratives	\$	2,250,000.00	\$	2,250,000.00	\$	1	
Device Purchasing	\$	6,000,000.00	\$	6,000,000.00	\$	-	
E-Rate	\$	350,000.00	\$	243,758.00	\$	106,242.00	
MTRAx	\$	500,000.00	\$	342,457.00	\$	157,543.00	
Operations Office	\$	1,200,000.00	\$	682,785.00	\$	517,215.00	
SEN	\$	2,222,050.00	\$	2,222,050.00	\$	-	
Strategic Readiness Support	\$	5,000,000.00	\$	2,241,075.00	\$	2,758,925.00	
Targeted Site Transformation	\$	2,000,000.00	\$	836,266.00	\$	1,163,734.00	
TOTAL ACTIVITIES:	\$	25,400,000.00	\$	18,185,390.00	\$	7,214,610.00	
GMEC	\$	511,188.00	\$	511,188.00			
iMC	\$	209,650.00	\$	209,650.00			
KENT	\$	278,327.00	\$	277,083.32	\$	1,244.00	
SW	\$	176,556.00	\$	176,556.00			
RURAL	\$	151,344.00	\$	151,344.00			
TOTALS CONSORTIA:	\$	1,327,065.00	\$	1,325,821.32	\$	1,244.00	
Grand Total:	\$	28,164,448.00	\$	33,653,842.32	\$	7,784,898.00	

TRIG 3.0 Expenditures



Direct, Indirect, and Value Added Savings: \$75,641,802

Description:	Indirect	Direct		
Participation Funds		\$	14,711,675.00	
Assessment & Curriculum	\$ 9,794,035.00			
Data Integration	\$ 8,000,000.00	\$	419,985.00	
Device Purchasing	\$ 35,169,291.00	\$	6,194,314.00	
E-Rate	\$ 962,176.00			
MTRAx	\$ 278,964.00			
Operations Office	\$ 111,362.00			
Strategic Readiness Support		\$	3,372,488.00	
KENT		\$	218,922.00	
SW		\$	46,000.00	
TOTAL	\$ 54,315,828.00	\$	21,325,974.00	
TOTAL Indirect & Direct		\$	75,641,802.00	

3.0 TRIG Awarded Funds: \$41,476,240

TRIG 3.0 Return On Investment (ROI)

