# Board Meeting
# January 15, 2019

IDAHO STEM ACTION CENTER

**Room WW17**

**1:00 - 4:00 pm**

# Approval of Oct Board Minutes and Welcome New Board Members

- **Request for Motion to Approve Minutes**

# STEM AC Board

**Dr. Dave Hill / Chair**
State Board of
Education Member

**Dee Mooney / Vice Chair**
Executive Director,
Micron Foundation

**Tom Kealey**
Director,
Idaho Department of
Commerce

**Jeff Rosser**
Director of Continuous
Improvement,
Hela Mining

**Jennifer Jackson**
Public Affairs and
Strategic Initiatives,
Idaho National Laboratory

**Jani Revier**
Director,
Idaho Department of
Labor

**Paul Casey**
Director Research and
Development,
Chobani

**Tim McMurtrey**
Deputy Superintendent of
Operations,
State Department of
Education

**Von Hansen**
CEO,
AlertSense Inc.

# Welcome Greg Wilson
# Senior Education Policy Advisor to Governor Little

# Idaho STEM AC Statutes

- **Idaho Code 67-823**: Established the Idaho STEM Action Center
- **Idaho Code 33-1633**: Computer Science Initiative
- **Idaho Code 67-824**: Established the STEM Education Fund
- **Idaho Code 33-4701**: STEM School Designation
- **Idaho Code 33-1634**: Computer Science for All
- **Idaho Code 33-523**: Established a STEM Diploma
- **Idaho Code 63-3029A**: Established STEM AC as an Idaho Education Tax Credit

# As Legislated in Idaho Code

## (Idaho Code §67-823, §33-1633, and §33-4701)

- Support high-quality STEM and CS **professional development** for educators
- Distribute **grants** to students, educators, and communities
- Engage **industry** to support STEM/CS education outcomes
- Support student STEM and CS **competitions**
- Support STEM and CS **pilot projects**
- Serve as a **resource** center for instructional materials and best practices
- Support **traditionally underrepresented population** in STEM and CS
- Identify and recognize high-quality **STEM Schools**
- **Work well with other** agencies and partners!

# Idaho STEM Action Center

Connecting STEM education and industry to ensure Idaho's long-term economic prosperity.

Engineering innovative STEM opportunities for educators, students, communities and industry to build a competitive Idaho workforce and economy.

# Legislated Goals of STEM AC

- **GOAL #1**: Coordinate & facilitate implementation of STEM programs throughout Idaho
- **GOAL #2**: Align STEM education and workforce needs throughout Idaho
- **GOAL #3**: Increase awareness of STEM throughout Idaho

# Analysis by Project – FY19, $4M

| BY PROJECT | | |
|---|---|---|
| | FY19 – Proposed % (Aug 2018) | FY19 – Proposed Cost (Aug 2018) |
| Grants | 16% | $640,000 |
| PD | 28% | $1.1M |
| Sponsorships (Competitions, Events, P3 and Sponsorships, Mentorship, Scholarships, Externships, MakerMinded, Co-Op, STEM schools, pilot projects) | 39% | $1.5M |
| Outreach, Promotion, and Presentations | 5% | $200,000 |
| Operating Expenses | 12% | $480,000 |

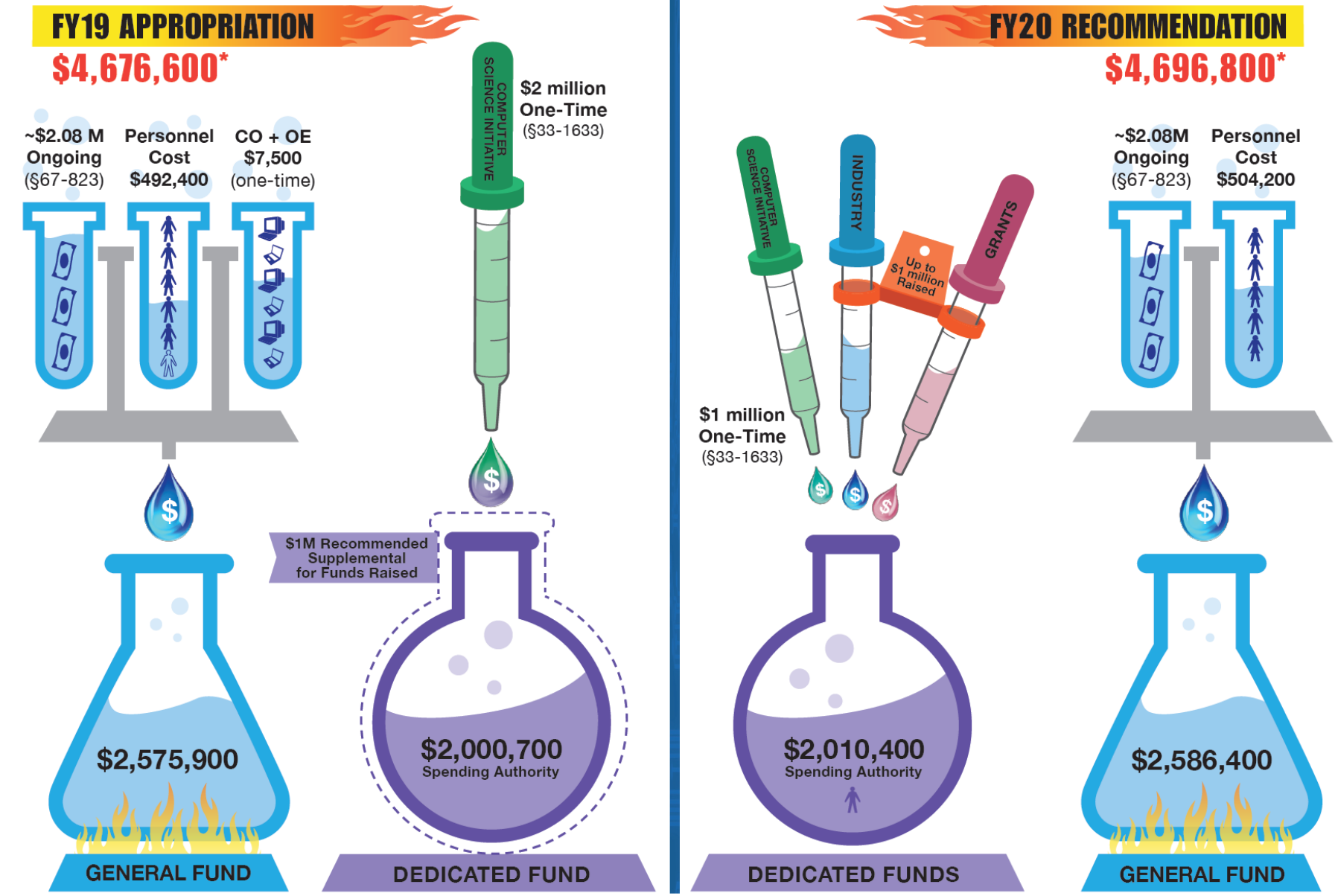
# FY20 Budget Recommendation

**FY20 Budget Recommendation:**

- $2M for STEM – ongoing
- $1M for CS – one time
- Funding for Data Analyst Funding
- Increase spending authority by $1M for FY19 (supplemental)

IDAHO STEM ACTION CENTER

802 W. Bannock St., Ste. 900 Boise, ID 83702
208.332.1729 | Angela.Hemingway@stem.idaho.gov

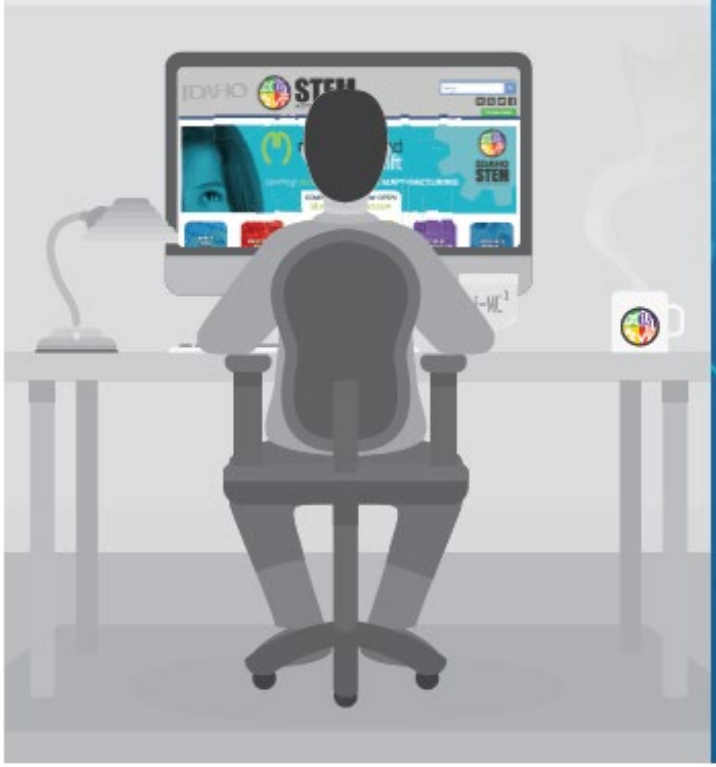



*Includes $100,000 in miscellaneous spending authority

## 2018 *(actual)*

6,328 unfilled STEM jobs
$412 million in lost personal income
$22.4 million in lost tax revenue

### Actual STEM Tech Sector Growth 2004-2014




## 2024 *(predicted)*

~100,000 available STEM jobs
$350 million in tax revenue
$6.5 billion in personal income from Idaho's STEM economy

### Predicted STEM Tech Sector Growth 2014-2024

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802 W. Bannock St., Ste. 900 Boise, ID 83702
208.332.1729 | Angela.Hemingway@stem.idaho.gov

# GOAL #1: Coordinate & facilitate implementation of STEM programs throughout Idaho

- **Professional Development** – Next slide
- **Grants**: PK12, CS Device & Software, Camps & Out-of-School Programs, Family/Career STEM Events, and Sponsorships
- **Camp Scholarships**: STEM, CS, and Coding

- **Competitions**: Next slide
- **Awareness Events**: STEM Day at the Fair, STEM Matters Day at Capitol, STEM on the Blue, Hour of Code, and CS Education Week

# Professional Development

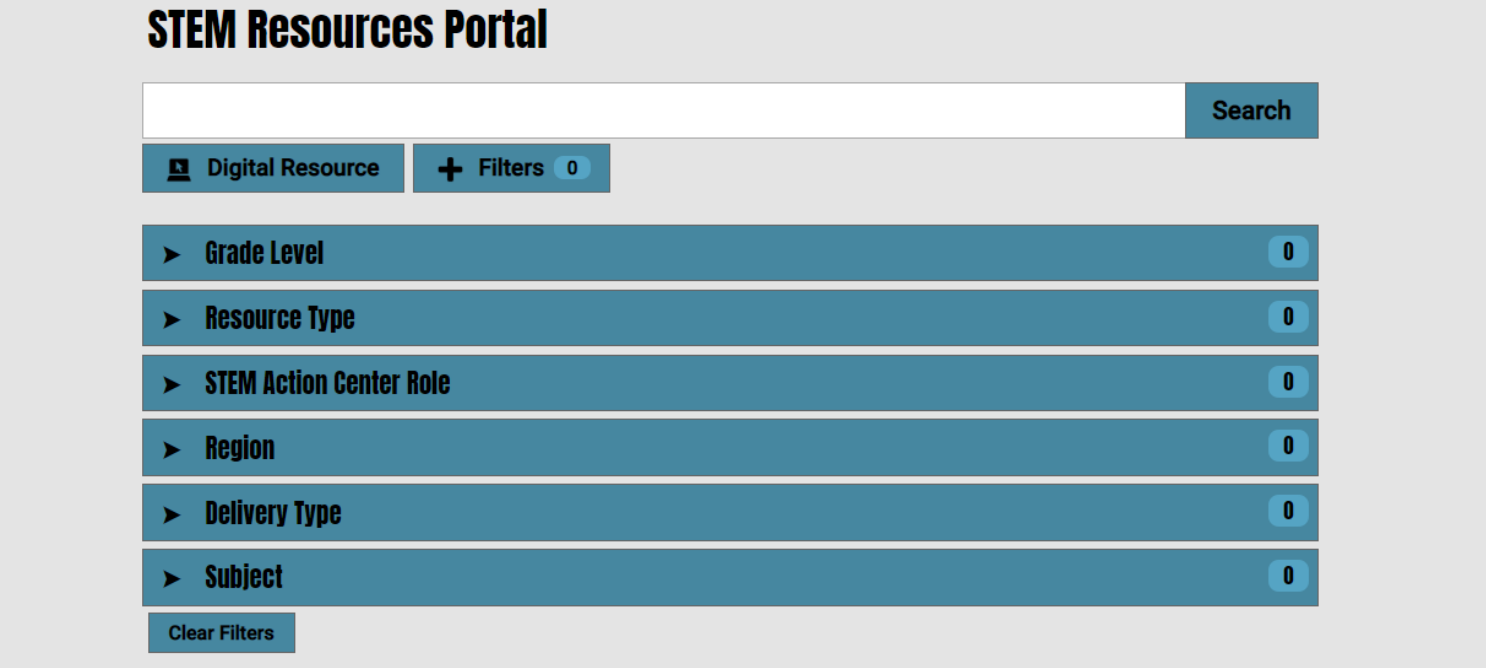
- i-STEM Summer Institutes in six regions with SDE
- STEM Leadership Training with OSBE (Teacher and Admin)
- Early STEM Education
- Rural STEM Community Engagement
- Code.org PD with IDLA
- Dual Credit CS PD with UI
- Virtual Reality PD and Resources
- Drones PD and Resources
- Making Sense of Science
- Engineering Design Process Training
- Educurious

# Student Competitions

- State, Regional/Multi-state, and National Competition Travel
- Regional Idaho Science and Engineering Fairs
- FabSLAM – 3D Fabrication Middle School Competition
- Jr. BotBall Competitions (Regional and International)
- FIRST Robotics
- Invent Idaho
- Future Cities
- VEX Robotics
- Drone Competition with CTE
- Science Bowl
- Congressional App Challenge
- Math Counts

# STEM Resources NOW Available

- Focused on providing links to relevant **resources**
- Will include **lesson** plans, **toolkits**, and **best practices**
- Will allow educators to upload and **share** resources
- Shows up-to-date **STEM job** information
- https://resources.stem.idaho.gov/



# GOAL #2: Align education and workforce needs throughout Idaho

## MakerMinded Update

- A Quick Review
  - A free, online advanced manufacturing learning platform for public school students in grades 5-12.
  - Purpose is to give students foundational skills in advanced manufacturing and inspire the next generation of innovators and makers.
  - Soft Launch - Site went live October 2nd.
  - Officially launched January 2, 2019.

# GOAL #2: Align education and workforce needs throughout Idaho

## MakerMinded Update (cont.)

- Goals:
  - Sign up 50 schools/1000 users during first year of competition.
    - To date we have 36 schools and 87 users.
  - Offer 50 student activities.
    - Currently have 103 student activities and 11 PD options for teachers.
  - Directly connect students and schools to industry with at least 25 collaborative opportunities.
    - Thus far, 66 manufacturers have signed up to be in our directory.

# Virtual, Project-Based, Statewide Mentorship Platform

- Focused on student projects, especially related to competitions
- Industry and higher ed support for educators whose students are working on projects that could benefit from additional outside-the-classroom support
- One of the most powerful tools for retention of students (especially females) in STEM is having a strong mentor
- Available NOW! Populated with 500 teachers and 100 mentors
- https://mentorship.stem.idaho.gov/

# Legislation

## STEM School Designation - HANDOUTS

- Team of 25 selected AdvancEd model
- Working on agreement with AdvancED detailing badging system, use of AdvancEd program/school chart, provide schools/districts external reports, and training for on-site evaluators and support team
- STEM AC will engage with schools with agreement and various level of attainment
- Support will be financial and in-person

# STEM School Designation
## (§33-4701)

- Selection Committee chose AdvancEd STEM School Certification Model
- The AdvancEd Model is incredibly rigorous
- Creates a similar criteria by which schools can communicate
- State, national, and international recognition
- Support for emerging STEM Schools
- STEM Diploma (Idaho code §33-523)

# STEM Certified Schools Requesting MOTION to Send to OSBE Approval for Designation (§33-4701)

- **Barbara Morgan STEM Academy**, K-5, West Ada
- **Bingham Academy**, 9-12, Blackfoot
- **Galileo STEM Academy**, K-8, West Ada
- **Temple View Elementary**, P-K6, Idaho Falls

AdvancED STEM CERTIFIED

# State and National STEM Initiatives

- Governor's Executive Order on Nuclear Production and Manufacturing
- White House – 5-Year STEM Strategic Plan

# Federal STEM Strategic Plan

**GOALS FOR AMERICAN STEM EDUCATION**

*** Build Strong Foundations for STEM Literacy ***

*** Increase Diversity, Equity, and Inclusion in STEM ***

*** Prepare the STEM Workforce for the Future ***

| Pathways | Objectives | DOC | DoD | DOE | DHS | DOI | DOL | DOS | DOT | ED | EPA | HHS | NASA | NSF | SI | USDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Develop and Enrich Strategic Partnerships** | Foster STEM Ecosystems that Unite Communities | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Increase Work-Based Learning and Training through Educator-Employer Partnerships | ● | ● | ● | ● | ● | ● | | | ● | ● | ● | ● | ● | ● | ● |
| | Blend Successful Practices from Across the Learning Landscape | ● | ● | ● | ● | | ● | ● | | ● | ● | | | ● | ● | ● |
| **Engage Students where Disciplines Converge** | Advance Innovation and Entrepreneurship Education | ● | ● | ● | | | | ● | | ● | ● | ● | | ● | | ● |
| | Make Mathematics a Magnet | ● | ● | | | | | | | ● | | | | ● | | ● |
| | Encourage Transdisciplinary Learning | ● | ● | ● | ● | ● | | ● | | ● | ● | ● | ● | ● | ● | ● |
| **Build Computational Literacy** | Promote Digital Literacy and Cyber Safety | ● | ● | | ● | | | ● | | ● | | ● | | ● | | ● |
| | Make Computational Thinking An Integral Element of All Education | ● | ● | ● | ● | ● | | | | ● | | ● | | ● | ● | ● |
| | Expand Digital Platforms for Teaching and Learning | ● | | ● | ● | | | ● | | ● | | | | ● | ● | ● |

# Required Documents STEM AC: FY18 Performance Report and Strategic Plan

- Strategic Plan – Final Copy Attached; Due annually on
- FY18 Performance Report

# Computer Science Update

- Idaho is a national leader in CS! We are the 2nd state in the nation to implement all of Code.org's nine recommendations to move CS forward!
  - To see all nine recommendations: https://code.org/files/Making_CS_Fundamental.pdf

- To view the finalized state plan or Blog/media post visit Idaho STEM Action Center's CS Website:
  - https://stem.Idaho.gov/computerscience

# STEM AC Foundation Update

| Fiscal Year | Total Foundation Donations Received |
|---|---|
| FY2018 | $ 139,574 |
| FY2019 (to date) | $ 206,812 |

## FY2019 Fundraising Plan Priorities In Action

- Donor Relationship Management System Implemented
- Invitation-only grant funder relationship development
- Increasing support through new key partnerships
- Outreach on industry in-kind support opportunities
- Gratitude program development
- Event presence

- **Upcoming Event Opportunities:** STEM Matters!, Idaho Tech Expo, STEM Day on the Blue

IDAHO STEM ACTION CENTER FOUNDATION

# GOAL #2: Align education and workforce needs throughout Idaho

## Donor Totals for FY19 = ~$615,000

- Micron Technology Foundation – $194K
- Idaho National Laboratory – $127K
- Laura Cunningham Foundation – $50K
- Let's Save America Foundation – $30K
- Citizen Schools, Inc. – $25K
- Sesame Workshop – $19K
- Love Abounds Foundation – $18K
- Individual Donors – $17K

# GOAL #2: Align education and workforce needs throughout Idaho

## Top Donor Programs in FY19

- **Educator PD:** $135K
- **Competitions:** $93K
- **INDEEDS Award:** $10K
- **STEM Awareness Events:** $14K

# Total In-Kind Donations

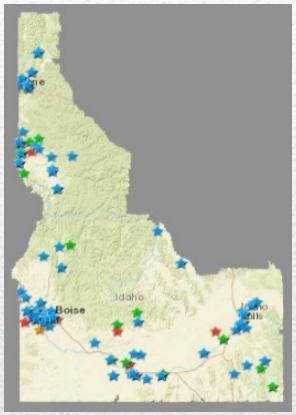
## FY 2019

$3.1M

Includes judges, mentors, industry partnerships, and media coverage

# GOAL #3: Increase awareness of STEM throughout Idaho

Data Map Link



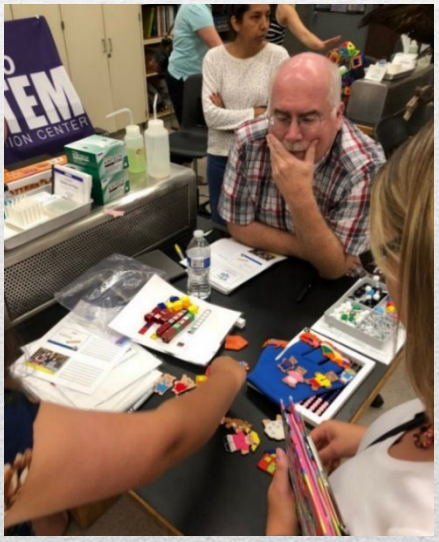

## Updating our Data Collection Methods and Outcome Metrics

## HANDOUT: Performance Report Draft

| | FY16 | FY17 | FY18 (estimates) | FY18 (actuals) |
|---|---|---|---|---|
| Student Engagements | 10,428 | 204,000 | 210,000 | 406,239 |
| Educators Interactions | 1,200 | 4,800 | 5,000 | 12,680 |
| Community STEM Events | 36 | 45 | 75 | 143 |
| Cash | $72,000 | $205,000 | $500,000 | $736,938 |
| In-Kind (and cash equivalent) | Did not track | $662,000 | $750,000 | $1,742,217 |

# GOAL #3: Increase awareness of STEM throughout Idaho

**Awareness Events**: Hispanic Youth Conference, SWIMA, Boise Startup Week, ITC's Hall of Fame Gala, Idaho Math and Science Teachers
Upcoming Events: ISBA, SheTech, ITEA, STEM Matters at the Capitol



**Media Coverage**
National Coffee Day, INDEEDS, Idaho's Code.org Policy Objectives, Hour of Code, AAUW/Girl Scouts

# Volunteer Portal

# Micron Gives

## A Micron Foundation of Giving for Good

Dee Mooney

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# Micron Foundation

Non-profit organization

**Founded**

Founded in October 1999

**Budget**

Annual Global Budget ~$10M

**Serving**

Serving Micron's site communities around the world

**Team**

Micron Gives operates with 7 team members

Micron

# GIVES

A Micron Foundation of Giving for Good

## Corporate Goodness Tools

Outreach & Events

People / Volunteerism

Sponsorships

In-kind Donations (products/tools)

Customer & Vendor Leverage

**GIVES Portal**

## Foundation Tools

Cash Grants

Outreach & Events

Matching Gifts

Disaster Relief

Consultants for Good

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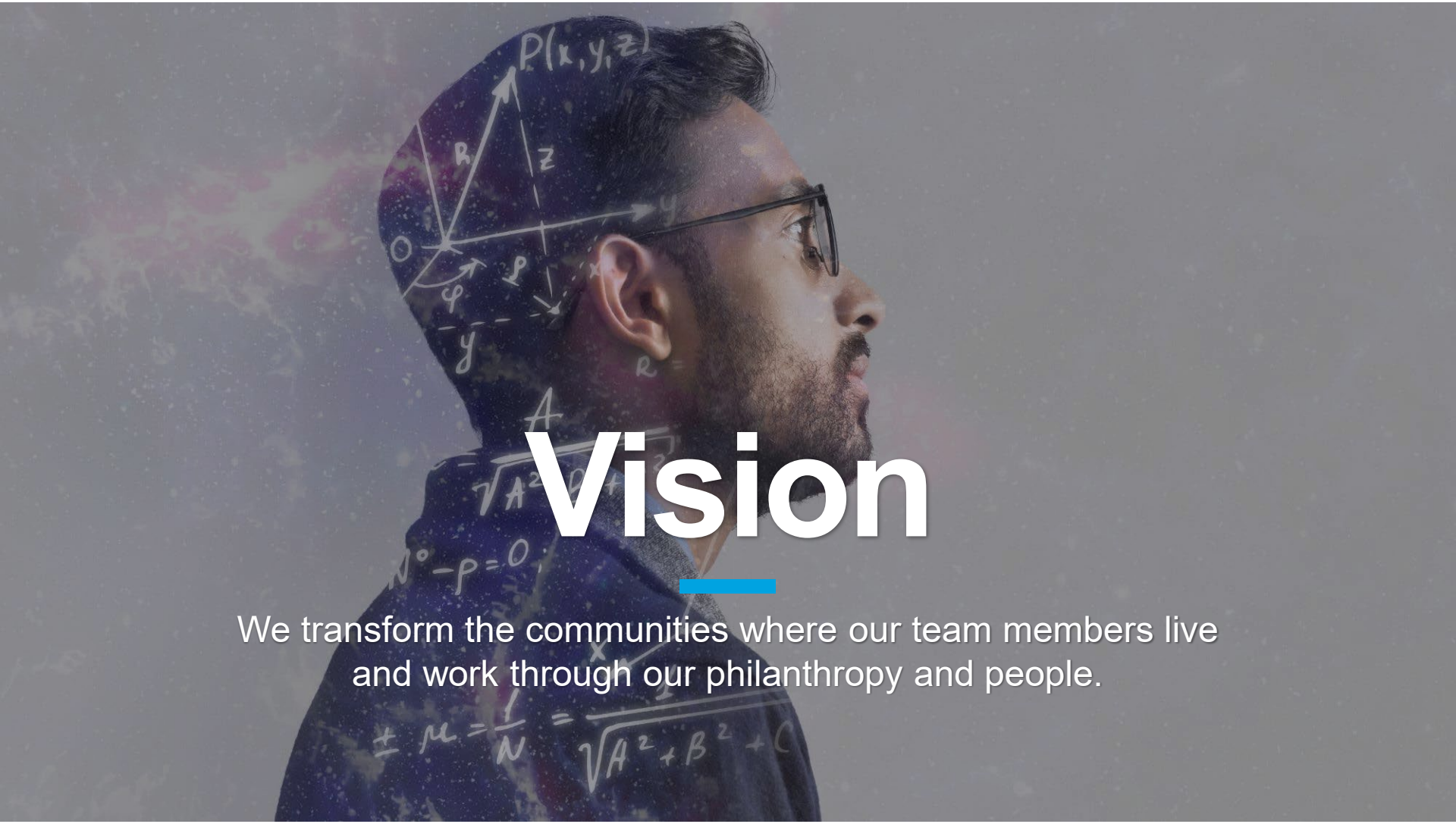
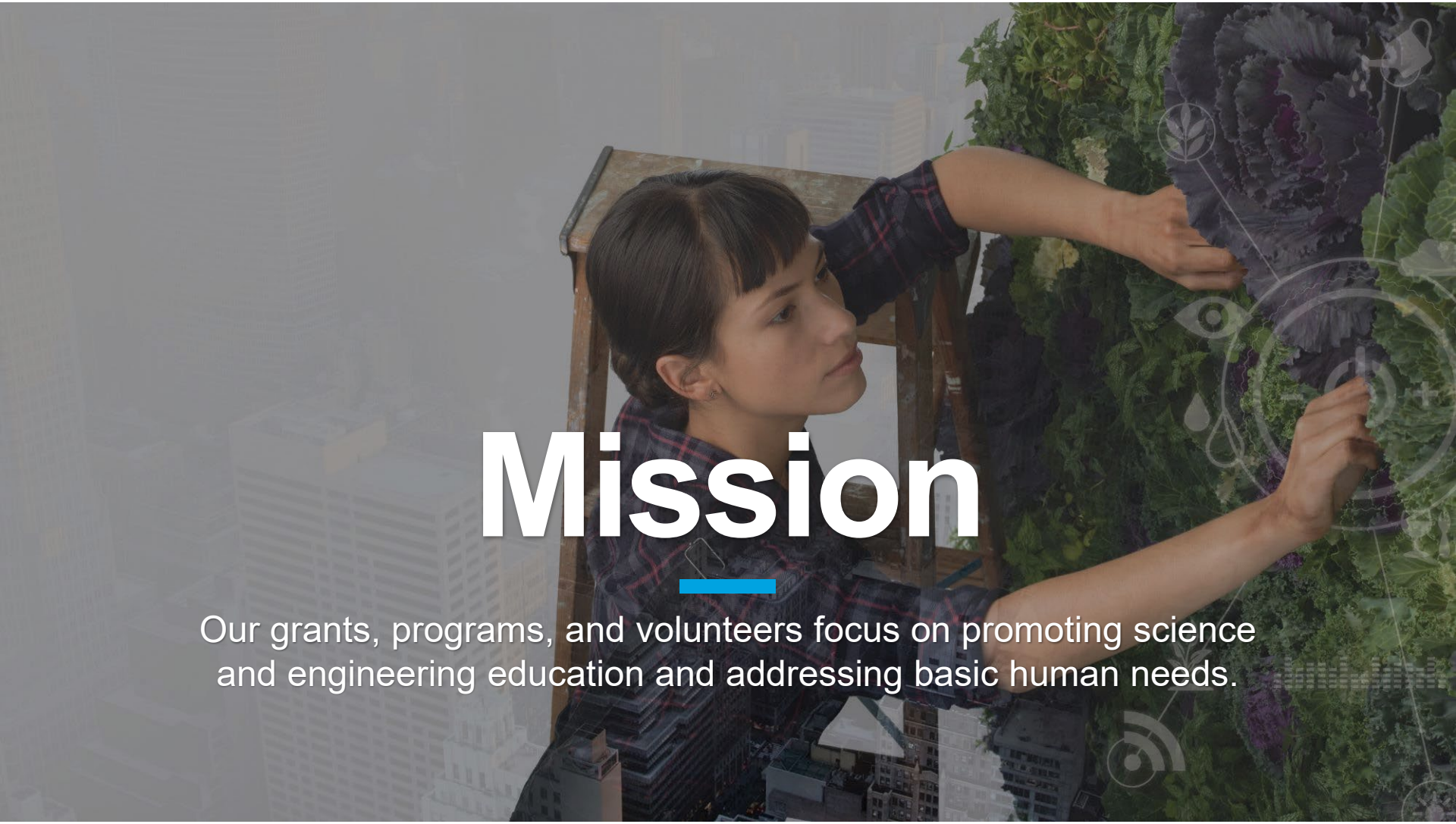


# Vision

We transform the communities where our team members live and work through our philanthropy and people.



# Mission

Our grants, programs, and volunteers focus on promoting science and engineering education and addressing basic human needs.

# 1 Strategy

# Inspire Learning

## University Relations*

Research

Capital campaigns and program support

Corporate Collaboration

## K-12 Support

STEM grants

Career Awareness

STEM competitions

School programs and lessons

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# 2 Strategy

# Enriching Community

## Basic Human Needs

Hunger

Homelessness

Safety

Stability

## Charity of Choice

## Thought Leadership



Micron

# 3 Strategy

# Cultivate Giving

## Matching Gifts

1:1 match

$2,000 matched per TM

$2M program cap

## 2019 Updates

**Minimum match lowered to $5**

**Micron and Team Member total:** CY18 | $3.6M

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# 3 Strategy

# Cultivate Giving

## Volunteerism

**16**
hours paid time off

**100,000**
hours goal for CY18 met in November

**150,000**
volunteer hours goal set for FY19

**Idaho Team Member Volunteer hours:** CY18 to date: **29,763** | FY19 to date: **8,365**

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# GIVES

A Micron Foundation of Giving for Good

# INL Update on the Governor's Executive order on Nuclear Production and Manufacturing

Executive Order NO. 2018-07
Establishing a Policy for Nuclear Energy Production and Manufacturing in Idaho

https://prezi.com/view/bvhQ3UM2I3cclIP5Qd1Y/

# Public Comment

# Areas You Can Support

## Messaging

**-Introductions to STEM Supporters**

**-Mentorship Portal Recruitment**

# Upcoming Events

**STEM Matters Day at the Capitol**
**January 23, 2019**
**10 am – 2 pm**

**Board Calls: February**

**North Idaho Science and Engineering Fair**
**March 1, 2019**
**9 am – 6 pm**

**Next Board Meeting:**
**March 14, 2019**
**1pm – 4pm**