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# STEM WORKFORCE DEVELOPMENT IN MAINE

Session II: Non-traditional Fields  
& Recruitment Strategies

November 12th, 1:00 - 3:00pm EST

For more information:

[bit.ly/siu111220](https://bit.ly/siu111220)



Science is US

## EVENT ANNOUNCEMENT

# STEM WORKFORCE DEVELOPMENT IN MAINE

## Session II: Non-traditional Fields & Recruitment Strategies

NOVEMBER 12th, 1:00 - 3:00pm EST

RSVP & WEBINAR LINK: [bit.ly/siu11220](https://bit.ly/siu11220)



The Maine Chamber of Commerce's Education Foundation and Science is US have launched a series of virtual discussions on STEM Workforce Development in Maine. Join us on November 12th for Session II: Non-traditional Fields & Recruitment Strategies.

### ABOUT THIS SERIES:

These virtual discussions will provide participants with best practices for businesses and stakeholders to help recruit, train and expand the STEM workforce in Maine. By the end of the series, a set of recommendations will be developed to help shape future decisions in Maine.

### SESSION II SPEAKERS:

#### Introductions:

**DANA CONNORS**

President, Maine Chamber of Commerce

#### Panelists:

**RACHEL KERESTES**

Executive Director, Science is US

**DR. LILY CALDERWOOD**

University of Maine.  
Cooperative Extension

**ALLY COOMBS**

Director, Bath Iron Works

**MARIA MACDOUGAL**

College Access Counselor,  
Finance Authority of Maine

#### Moderated by:

**BEN GILMAN**

General Council, Maine Chamber of Commerce Education Foundation

For more information about this event, visit the Maine State Chamber of Commerce - Calendar of Events ([www.mainechamber.org](http://www.mainechamber.org)) or click [HERE](#) to RSVP today.

#### Event Sponsors:



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# STEM and the Future of the Workforce

STEM Workforce Development in Maine

November 12, 2020

Rachel Kerestes  
Executive Director

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# About

**Science is US is a foundation-supported effort that brings together a diverse group of science, engineering, industry, higher education and labor organizations to galvanize a broad, bipartisan political base of support for science and technology**

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# Steering Committee

## **AAAS**

American Association for  
the Advancement of  
Science

## **ACS**

American Chemical Society

## **AGU**

American Geophysical  
Union

## **AIA**

Aerospace Industries  
Association

## **APS**

American Physical Society

## **COSSA**

Consortium of Social  
Science Associations

## **Council on Competitiveness**

## **FASEB**

Federation of American  
Societies for Experimental  
Biology

## **IEEE-USA**

Institute of Electrical and  
Electronics Engineers-USA

## **SIA**

Semiconductor Industry  
Association

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# STEM and the American Workforce

**We wanted to get a better sense of how  
STEM contributes to the U.S. economy and  
the economy of the states**

**We found that STEM powers U.S. economic  
growth and creates jobs for Americans of  
all backgrounds and levels of education**

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# Total STEM contributions to USA

When considering the full impact of STEM on the U.S. economy—direct, indirect and induced contributions—we found an outsized impact with STEM supporting:

**2/3**  
of U.S. jobs

**69%**  
of state tax  
revenue

**69%**  
of GDP

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# Total STEM contributions to Maine

We found that the majority of Maine's employment, economic activity and tax revenues are supported by STEM:

**58%**

of Maine jobs

**\$4.8 billion**

in Maine state  
and local tax  
revenues

**61%**

of Maine's  
GDP

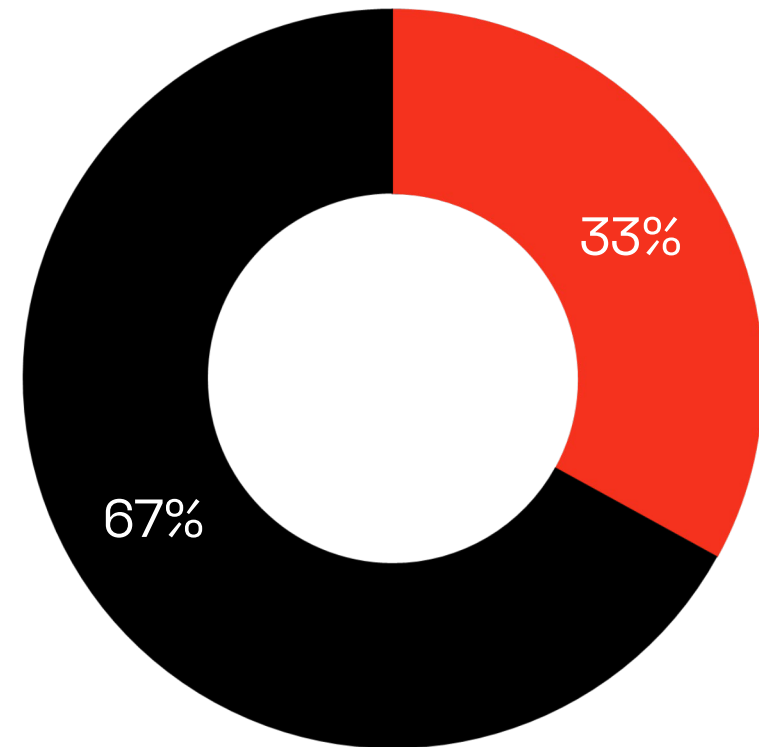


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# STEM employment in the U.S. workforce

Direct STEM employment accounts for one-third of U.S. jobs

- STEM Jobs
- Non-STEM Jobs

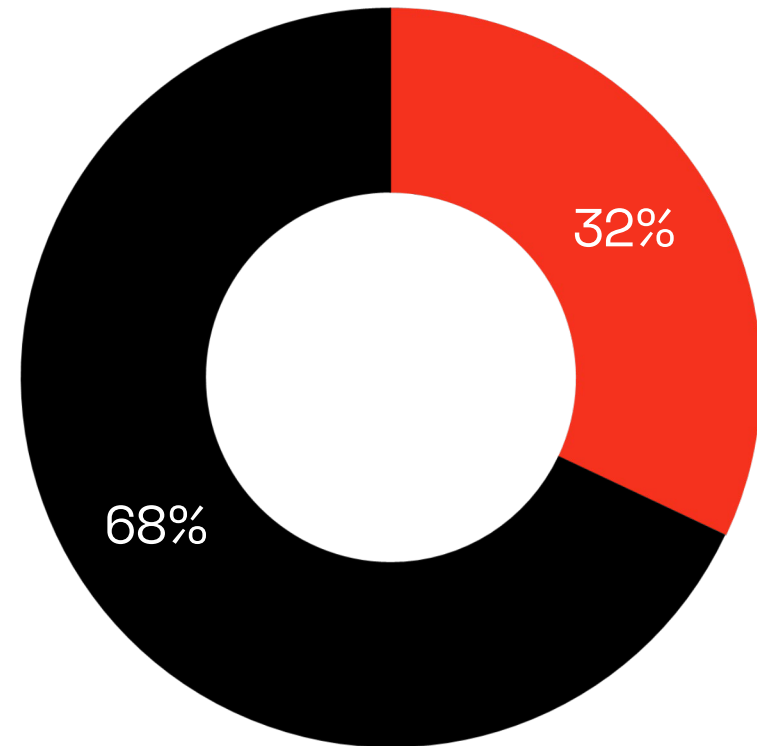


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# Direct STEM employment in the Maine workforce

Direct STEM employment accounts for 32% of Maine jobs

- Direct STEM Jobs
- Indirect STEM Jobs & Non-STEM Jobs

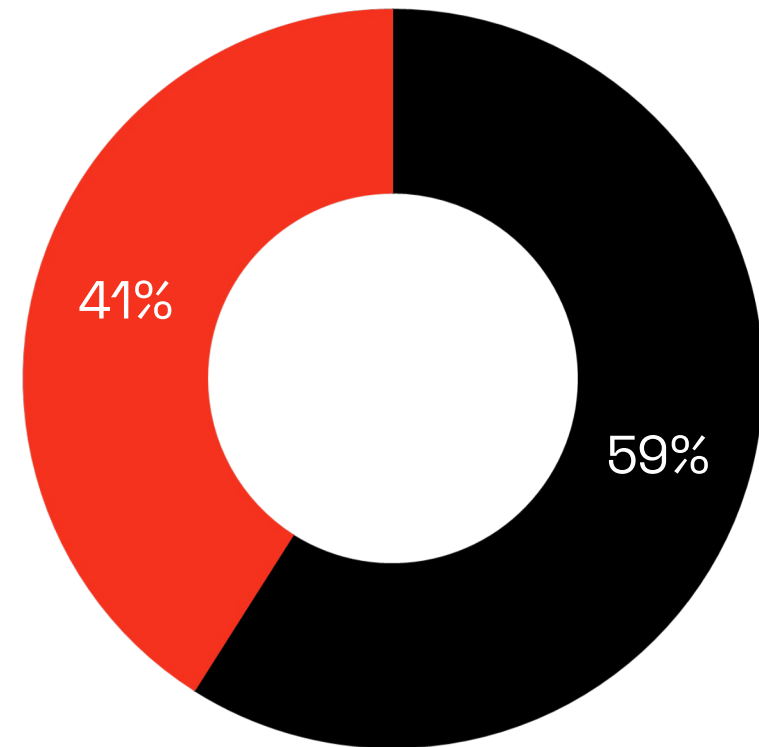


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# U.S. STEM employment by level of education

Six in ten U.S. STEM jobs are held by individuals with less than a bachelor's degree

- Bachelor's Degree or Higher
- Less Than a Bachelor's Degree

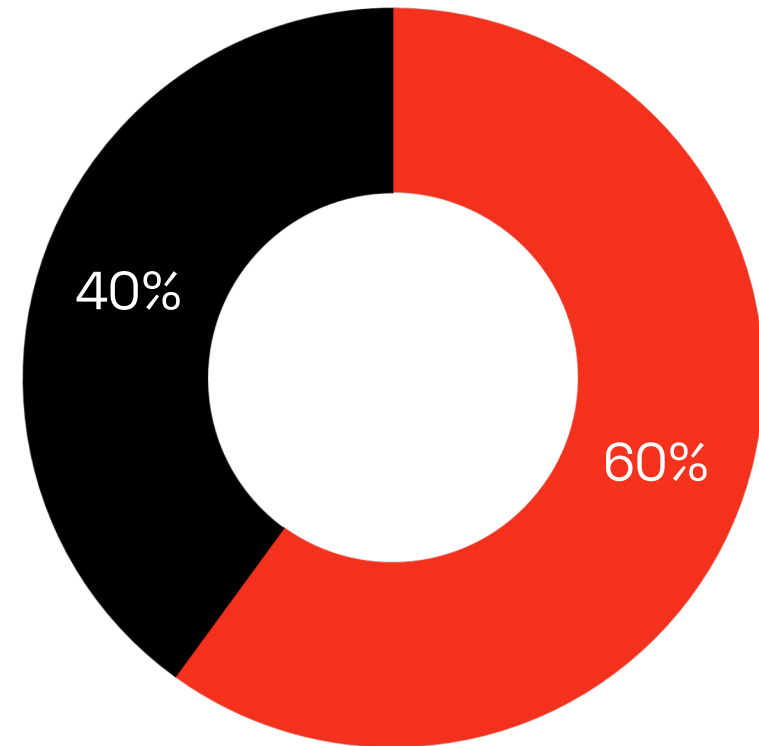


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# Maine STEM employment by level of education

60% of Maine STEM jobs are held by individuals with less than a bachelor's degree

- Less Than a Bachelor's Degree
- Bachelor's Degree or Higher



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# Who is a STEM Professional?

**Biochemists**

**Mechanics**

**Pharmacists**

**Anthropologists**

**Mental health  
counselors**

**Architects**

**Nurses**

**Electricians**

**Coders**

**Museum  
technicians**

**Logisticians**

**Math teachers**

**Policy analysts**

**Bookkeepers**

**Radio  
operators**

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# How can STEM lead Maine forward?

## Mitigating the pandemic

- Discovering a vaccine and therapeutics
- Contact tracing and epidemiology
- IT systems, logistics

## Building the future

- Opportunity regardless of educational attainment
- Higher salaries
- Innovation – opportunity feedback loop

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**How can we ensure that  
science can thrive?**

**We believe policy has a role to play in advancing  
science and technology.**

**Sound government policy—at all levels—that  
supports and nurtures science and engineering  
provides an environment that allows science  
and engineering to thrive.**

**And when STEM fields thrive, the country thrives.**

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# How can Maine maximize STEM?

- **Change the conversation—there are a wide-range of STEM jobs available in Maine today regardless of level of education**
- **STEM can drive Maine’s job market and economy in the future**
- **Take the lead—prioritize STEM in education, workforce, economic development and policy**



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Thank you

**Rachel Kerestes**

Executive Director, Science is US

[rkerestes@aaas.org](mailto:rkerestes@aaas.org)



**@Science\_Is\_US**



# Alfond Leaders

STEM Workforce Series

November 12, 2020

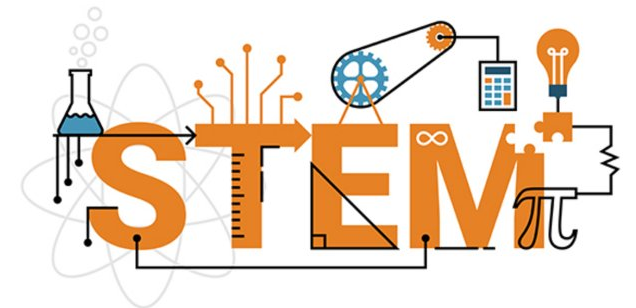
Presented by:

**Maria MacDougal** College Access Counselor

- Maine's economy is **shifting**
  - Economic profile primarily traditional manufacturing and natural resources...**but**
  - **1 in 7 jobs** over the next decade will be in Science, Technology, Engineering and Math (**STEM**) related fields
- Student **debt** levels
  - Maine graduates bachelor degree holders with the **sixth highest** level of student loan debt in the nation



- Provide student loan debt **reduction payments** to:
  - Competitively-selected group of Maine workers
  - Working in **occupations or capacities** involving **STEM** skills, background, education, disciplines or other STEM capabilities or requirements
  - Program participants known as “Alfond Leaders”



- The Alford Leaders Program will be open to individuals who:
  - Are either **residents of Maine** or will become residents upon being hired by a Maine-based employer;
  - Are or will be **employed by a Maine-based employer in a STEM occupation**;
  - Have a **higher education degree or certification**;
  - Have student **indebtedness incurred in connection** with obtaining such higher education degree or certification;
  - Expanded this year to include **“soon-to-be-graduates”**

“Maine-based employer” is an employer that operates a place of business located within the State of Maine that is required to withhold Maine income tax with respect to its employees.

- Alford Leaders will receive **debt reduction payments** made on their behalf, paid in **two disbursements**:
  - First disbursement made after **three years** of living in Maine and working in a STEM field for a Maine-based employer. Second disbursement made after **year six** of living in Maine and working in a STEM field for a Maine-based employer.
- Aggregate debt reduction of up to the lower of 50% of the outstanding student loan debt **or \$60,000 per recipient**



## Advisory Committee

- Provides **programmatic leadership** by advising the Harold Alfond Foundation & FAME in its administration of the Alfond Leaders Program.
- Assists in the **selection** and makes a **recommendation** of a slate of candidates to become Alfond Leaders.
- The Advisory Committee is comprised of Maine **business and education leaders** – Melissa Smith, CEO of WEX is the Chair

- Individuals recruited from across the **nation** and **internationally**.
  
- Advisory Committee determines recruitment focus for selection of recipients based on:
  - **Transformative** nature of the industry in which they work,
  - Positions which are in **high demand** and/or **difficult to fill**
  - Needs of **economically depressed** areas of the state.



- **Two application cycles** per year while funds from the Foundation remain available.
- Application Cycle for this fall: September 15 – November 15.
- Application requirements include:
  - Program application, including **written essay & resume**;
  - A statement of intent to live and work in Maine for **six years**;
  - An **employment certification** by a Maine employer; and,
  - Disclosure of the amount, source and **terms of the student indebtedness**;
  - Participation in an interview, if requested by Advisory Committee.

- Advisory Committee **recommends** qualified pool of candidates.
- In addition to application materials and interview performance (if applicable), selection will also focus on:
  - Record of scholastic, academic, extra-curricular, technical or other personal achievement, **STEM professional qualifications**, and transformative nature of the industry in which they work.
  - Alford Leaders will be deemed by the Advisory Committee and FAME to be of **high-quality, both personally and professionally**, and to have **STEM careers of importance** to the Maine economy.



## Alfond Leaders By the Numbers

### To-Date

- **155** participants awarded since 2017
- Total awards of **\$4.8 million**
- Average individual award at approximately **\$31,000**

<https://www.famemaine.com/education/topics/managing-student-loans/alfond-leaders/alfond-leaders-faq/>

The screenshot shows the FAME Finance Authority of Maine website. At the top left is the FAME logo with a checkmark. To the right are links for 'MANAGE MY LOAN: LOGIN | ENROLL', a search bar with 'Search the Site...' and a 'GO' button, and social media icons for Facebook and YouTube. A navigation bar below the header includes 'BUSINESS', 'EDUCATION' (highlighted in green), 'ABOUT', 'PROGRAMS', 'PUBLICATIONS', 'NEWS', 'EVENTS', and 'CONTACT'. The main content area features a large image of a woman in a lab coat using binoculars, with a green brushstroke graphic and the text 'EDUCATION TOPICS'. Below this, the 'Alfond Leaders' section is visible, including a sub-section for 'EDUCATION: TOPICS' with a link for 'COVID-19: Impact on Students, Borrowers, and More »' and another link for 'Debt Management »'. A 'MAINE PROFESSIONALS' section is partially visible on the right, featuring an image of a man in a hard hat.

- [https://www.famemaine.com/wp-content/uploads/2017/03/AlfondLeadersHandout\\_wDisclaimer.pdf](https://www.famemaine.com/wp-content/uploads/2017/03/AlfondLeadersHandout_wDisclaimer.pdf)

## Resources for Maine employers -

### **Maine employers can use this program to retain or recruit employees**

Get the word out about Alfond Leaders to your current employees and be sure to send them to [AlfondLeaders.org](http://AlfondLeaders.org) for more information and/or to apply for the program. Additionally, encourage your talent recruitment staff to become familiar with the Alfond Leaders program as they look to bring in STEM workers from out-of-state who may be eligible to apply to be an Alfond Leader. [Click here](#) for an information sheet about Alfond Leaders that you can share with existing and potential employees.

- Student loan relief/assistance programs are **attractive** to potential employees

- Inform potential employees of available state programs:

- Alfond Leaders

- Education Opportunity Tax Credit (EOTC, better known as **Opportunity Maine**)- Visit:

<https://liveandworkinmaine.com/opportunity-maine/>



- Offer student loan repayment; CARES act legislation allowed for up to \$5,250 in student loan repayments made by employers on behalf of employees to be **tax-free** to the employee for 2020 – there is pending legislation to make this a permanent threshold going forward



Thank you for joining us today! Find more FREE resources and information at [FAMEmaine.com/education](https://FAMEmaine.com/education).

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