



# STARTUPS AT THE FRONTLINES OF CHANGE

PRESENTED BY

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Nancy Chan, Head of Strategic Partnerships, Catalyte

Tim Aldinger, Executive Director of Workforce Development,  
LaunchPath

Sabari Raja, Co-Founder & CEO, Nepris

Stephen Yadzinski, Managing Director, Acceleration, JFLabs

# AGENDA

Introduction, JFFLabs

Acceleration Partners:

- Catalyte
- LaunchPath
- Nepris

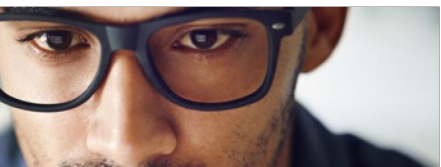
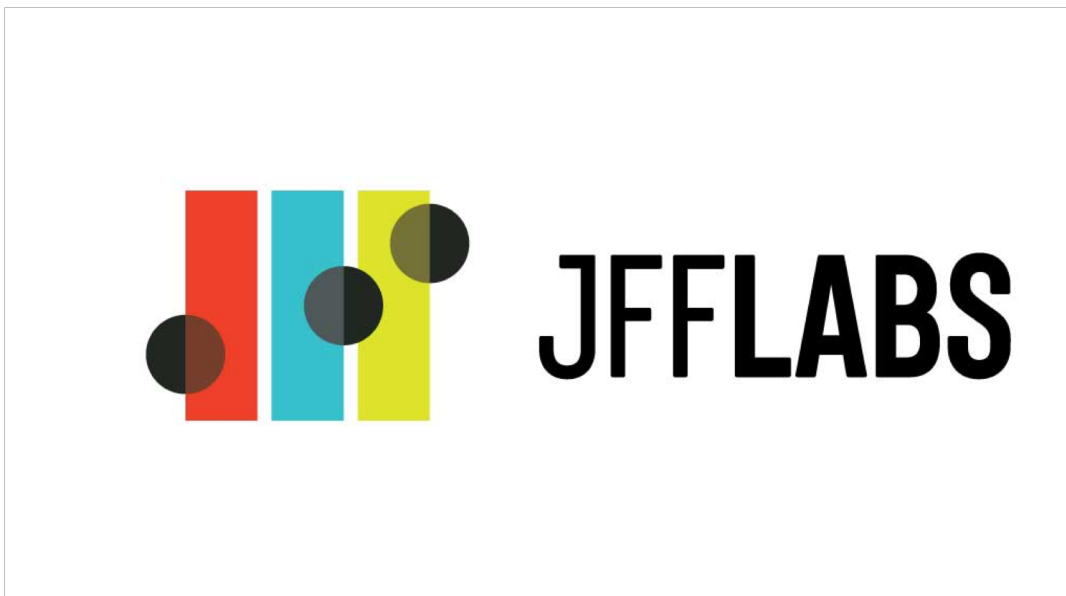
Activity: Exploring Technology-Enabled Solutions

Team Report Out

Q&A

Survey







- Acceleration
- Incubation
- Corporate Advising
- Investment



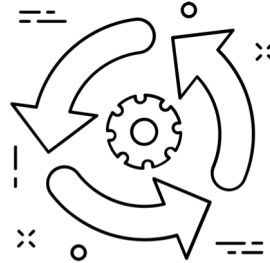


JFF Labs works with entrepreneurs and growth stage companies to accelerate and scale their technology-based solutions.



### **Identify and Select**

Great ideas, entrepreneurs, and companies who are stakeholder and mission aligned. Separating signal from noise in the market by vetting and organizing workforce and education technologies.



### **Acceleration**

Leveraging JFF and JFF Labs networks, acceleration partner companies receive bespoke development support and opportunities uncommon among other accelerator programs.



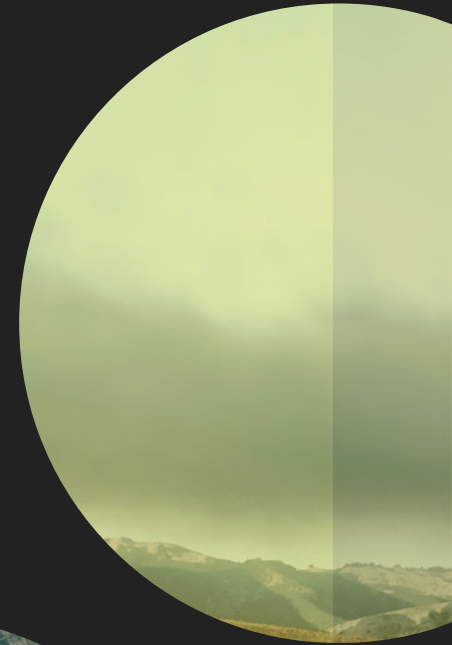
### **Market Engagement**

By engaging and catalyzing markets, we create value for companies, system stakeholders, and most importantly workers and employers.

# ACCELERATION PARTNERS

*Startups at the Frontlines of Change*

- Catalyte
- LaunchPath
- Nepris







## Overview

Catalyte is a software services company with a long history of successfully connecting nontraditional workers with software careers through our training and apprenticeship model

- Locations: Baltimore, MD; Portland OR; Chicago, IL; Denver, CO
- Trained and apprenticed 300+ individuals as entry-level developers and business analysts
- 44% of apprentices have no 4-year college degrees
- Our grads are aged 18 to 72, and come from a wide range of backgrounds (including retail, IT help desk, music, education, construction)
- Our software teams deliver stronger outcomes for our clients:
  - 77% increase in team productivity
  - 55% increase in code quality
  - 66% reduction in costs



## Program Model

Since 2019:

Use **predictive analytics to identify individuals with innate aptitude** for software development

- 2-hour online screen with multiple choice questions in math/reading comprehension/logic puzzles
- 10<sup>th</sup> grade level math + reading ability
- Minimum req's: 18+ years of age, HS diploma / GED, legal work authorization, no felonies
- 41% of people who complete the screen, pass

**Trained them as full-stack developers via our 5-month free**, full-time program

- 75% graduation rate
- Equivalent to two years of computer science education
- 1/3 of curriculum is soft skills training (client management, conflict resolution, teamwork, project management, communications, etc.)

**Apprenticed them for two years** to work on blended teams on Fortune 1000 client software projects

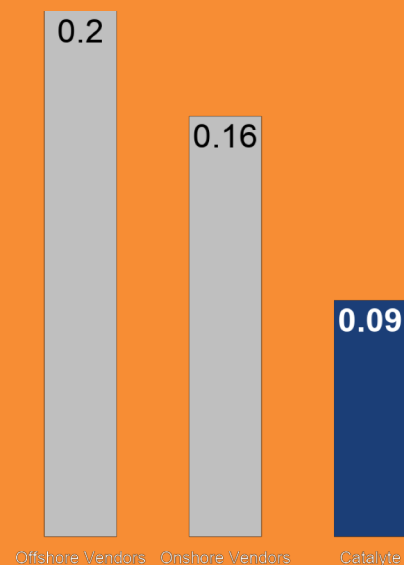
**96% retention rate**



# OUR CLIENTS SAY WE DELIVER BETTER OUTCOMES THAN OUR COMPETITORS\*

## CONSISTENTLY LOWER DEFECT RATES

PERCENT OF DEFECT RATES



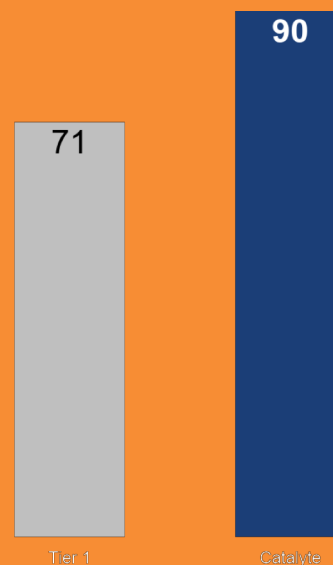
## MORE PRODUCTIVE ON PRICE PER STORY BASIS

DOLLARS PER AGILE STORY POINT



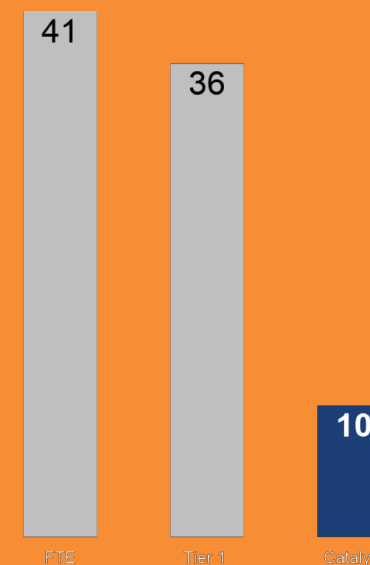
## STRONG TRACK RECORD OF DELIVERING ON COMMITMENTS

COMMITTED WORK DELIVERED & ACCEPTED



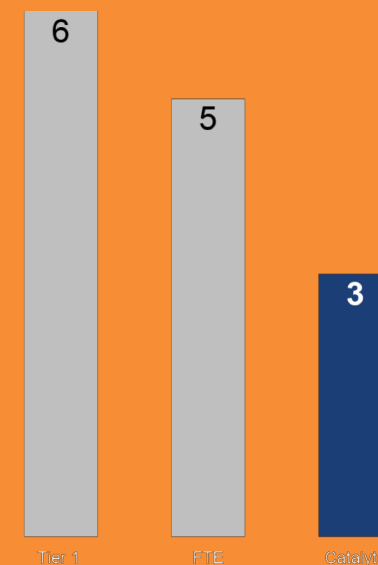
## SURPASS COMPETITION IN CONSISTENT PERFORMANCE

PERCENT IN VELOCITY VARIANCE



## FASTER TEAM RAMP-UP TO STEADY STATE PRODUCTIVITY

SPRINTS TO STEADY STATE



\*Data provided by Cambia Health Solutions, Starwood Hotels & Resorts & a Fortune 500 sports apparel company based in Beaverton, OR.



**Overview:** Individuals can potentially increase their income by >3x in 6 years after joining Catalyte

<b>PRELIMINARY SURVEY DATA – PLEASE DO NOT CIRCULATE</b>	<b>All Catalyte Alumni</b>	<b>Catalyte Alumni with Retail / Front-Line Background</b>
<b>Survey responses</b> (>50% response rate)	52	13 ( <b>very small sample</b> )
<b>% with no 4-year college degree</b>	48%	69%
<b>% with no IT work experience prior to Catalyte</b>	73%	92%
<b>Average salary prior to joining Catalyte</b>	\$30K	\$35K
<b>Average salary in first job after Catalyte</b>	\$86K	\$87K
<b>Average tenure at Catalyte</b>	2.9 years	2.7 years
<b>% who continued in IT careers after leaving Catalyte</b>	98%	100%
<b>Current average salary</b>	\$103K	\$109K
<b>Average years of IT experience AFTER leaving Catalyte</b>	2.8 years	3.1 years





# What if?

- A student's college experience was threaded with integrative learning that connected their classroom experience with work-based learning?
- Employers experienced a partnership with colleges so that their rapidly changing workforce needs were immediately seen in the learning of the students?







**North Star:** every learner has quality work-based learning as part of their educational experience

**What is LaunchPath?** An online work-based learning (WBL) management platform that streamlines placement, coordination, and accountability of WBL outcomes for:



Employer



Intermediary



School/  
Program



Learner/  
Seeker



District



Administrator

# WBL Activities in LaunchPath

## Career Awareness

Learning **ABOUT** Work

- Guest Speaker
- Worksite Tour

## Career Exploration

Learning **ABOUT** Work

- Informational Interview
- Job Shadow

## Career Preparation

Learning **THROUGH** Work

- Student Job
- Internship
- Project Feedback
- Mentoring

## Career Training

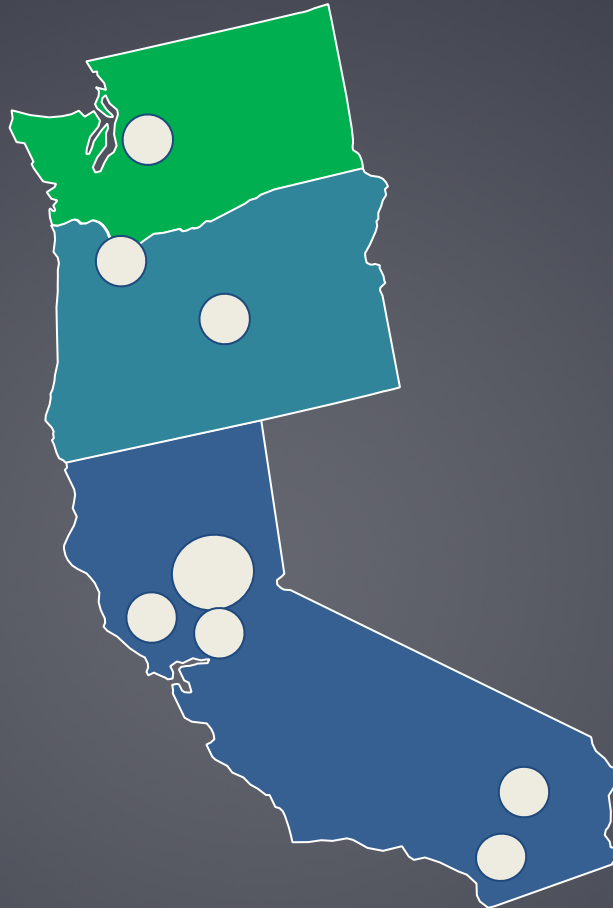
Learning **FOR** Work

- Internship
- Teacher Externship
- Job
- Apprenticeship



# LaunchPath In Use

6,419  
WBL Experiences



San Diego County

City of Sacramento

City of West Sacramento

Sonoma County

San Bernardino County

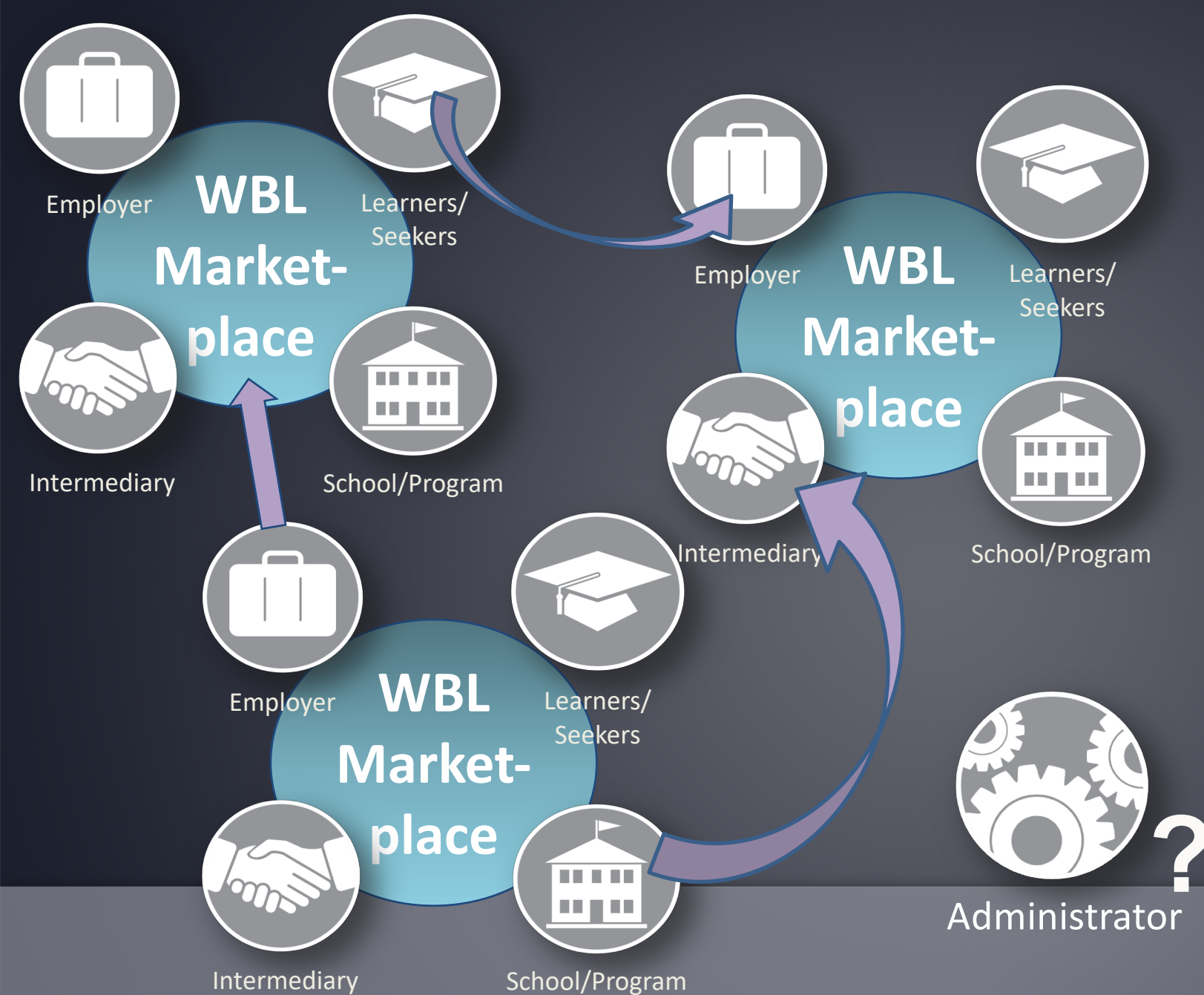
Solano County

California Community Colleges

WorkSystems, Portland

City of Seattle

Kansas City



# Market Failures from Fragmentation:

## Students:

- Increased reliance on the social capital of their teachers/school/program

## Educators and Employers:

- Increased confusion and inefficiency as to where or how to plug into marketplace

## Intermediaries:

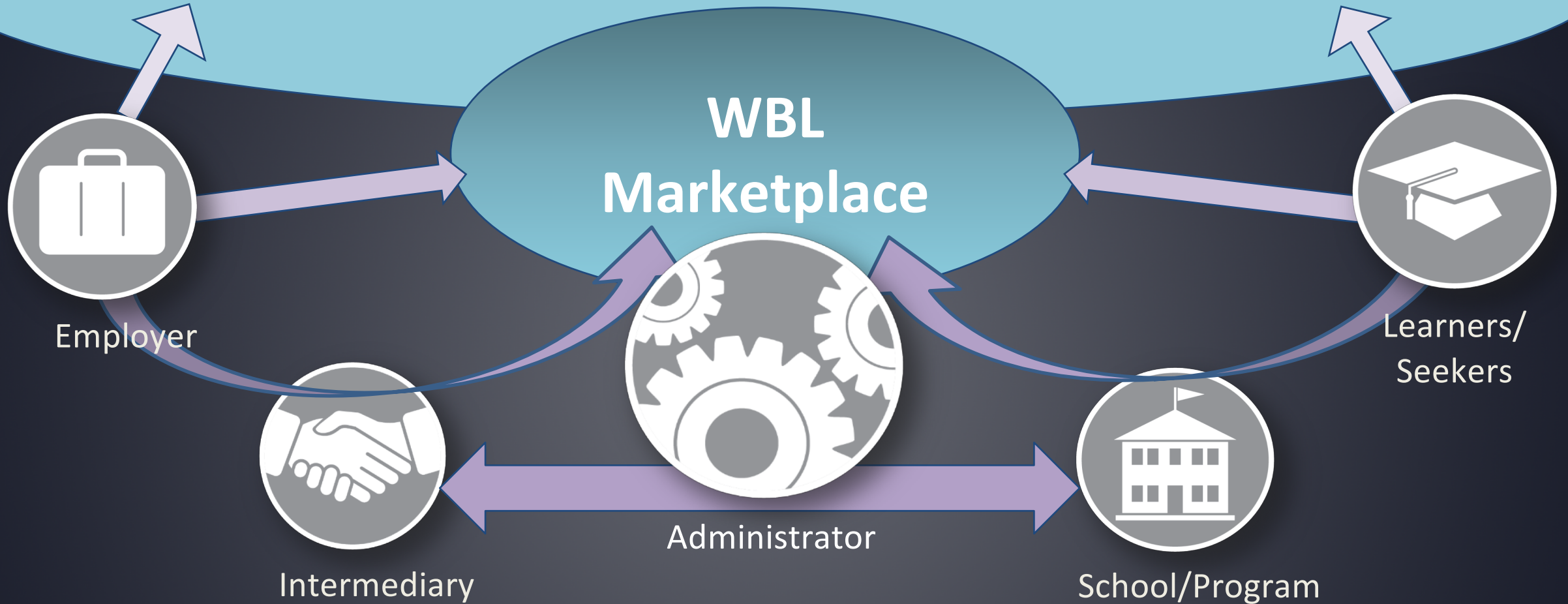
- Unproductive competition with other intermediaries for perceived scarce employer resource





# Labor Market

## WBL Marketplace



# 32 College Work-Based Learning Planning and Tools Pilot

## Four Core Objectives of the 18-month project

1. Establish a common understanding of WBL
2. Strengthen college and regional WBL systems
3. Refine technologies and services that support WBL at scale
4. Build the evidence base for long-term investment in WBL

## Key Learnings

1. Educator and Student buy-in were biggest challenges
2. WBL is very fragmented at the campus level, let alone regional
3. Colleges mostly focus on internships, despite many students having had little career exploration
4. Great interest in providing WBL, but uncertain about state-level policy direction or local college administrative priorities



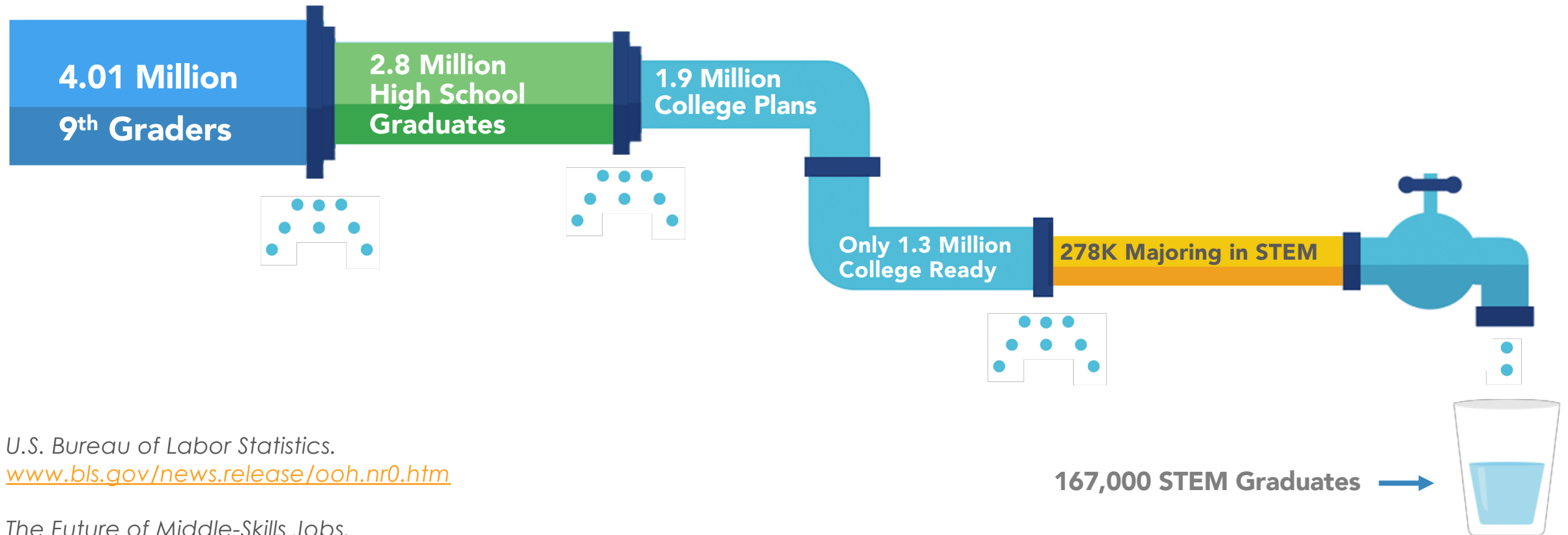


nepris

Preparing students for Future of work  
by connecting **industry + education**

# Issue / Challenge

## The future of the US Workforce



U.S. Bureau of Labor Statistics.

[www.bls.gov/news.release/ooh.nr0.htm](http://www.bls.gov/news.release/ooh.nr0.htm)

*The Future of Middle-Skills Jobs.*

*Getting Ahead — Staying Ahead: Helping America's Workforce Succeed in the 21st Century.*

*Business Roundtable*



# Lack of Relevance and Exposure

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47%

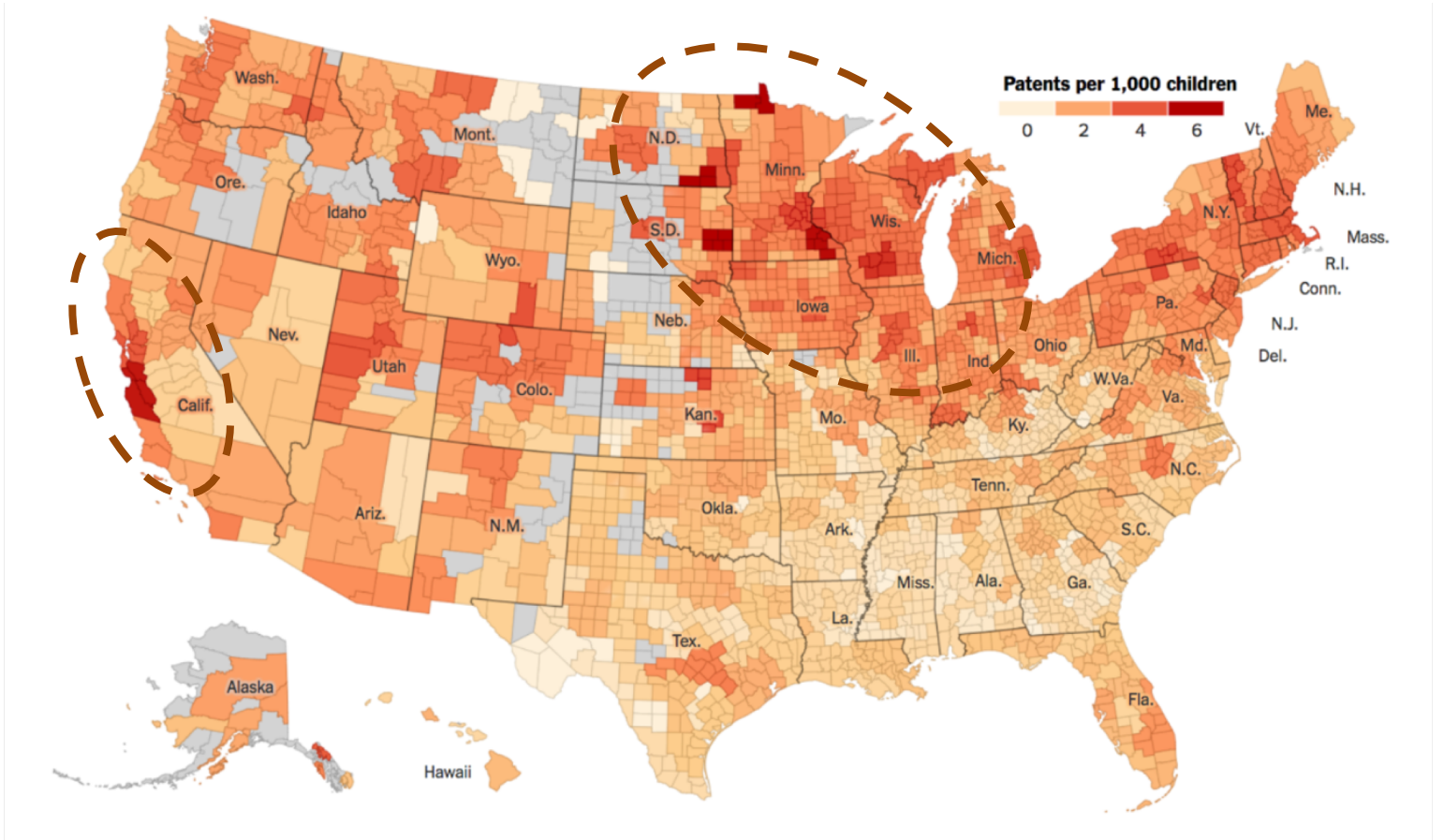
Kids who drop out do so because they don't see the relevance of school.

- Gates Foundation Study, 2013

# Lost Einsteins: The Innovations We're Missing

**"Opportunity gaps don't merely spring forth from gaps in achievement or attainment—they are based on exposure. They are also social and geographic in nature."**

Julia Fischer, Christensen Institute  
*Equality of Opportunity Project*



# Why Isn't Industry Engagement A Part of Every Classroom?

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Geographic barriers



Too time consuming



Can't match professionals skills to curriculum needs



Lack of access to diversity of career pathways



Lack of a universal platform that enables teachers and industry experts to collaborate effectively

# Nepris Solution

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**Educators &  
Learners**



**Find, Match, Connect,  
& Engage**



**Industry  
Professionals**

**GLOBAL  
PATHWAYS  
INSTITUTE**

***“The single biggest factor in enhancing career development of young people is engaging business and industry in the classroom.”***

*Bill Symonds – Global Pathways, Arizona State University*

# Engagement Models

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1

Live  
National  
Industry Chats



2

Live  
Personalized  
Sessions



3

Nepris  
Video  
Library



4

Career  
Explorer





# Nepris – Engagement Models

1

## Live National Industry Chats



### How to Turn Criticism into Useful Feedback

This session will help you take the sting out of criticism and teach you how to get important feedback you can use to become better at what you do. Do you have a hard time receiving feedback? How we deal with feedback impacts the way we move forward...

🕒 09/10/2018 12:00 PM Eastern Time  
👤 By Janis Underwood , Real Life Real Changes  
📌 Adult Education,High School,Out Of School Youth

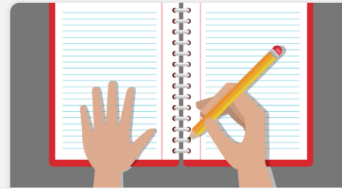


### Resume Writing

Recruiters are inundated with resumes, so how do you make yours stand out from the crowd? I'll give you tips on the most current trends in resume writing so you will be sure to get noticed.

🕒 10/03/2018 11:30 AM Eastern Time  
👤 By Kelley (marinaccio ) Dadah, PCC, CPRW , Kelley M. Dadah, CPC, CPRW  
📌 High School

✓ SIGN UP LEARN MORE



### INT'L LITERACY DAY: An Author's Story on Never Giving Up

Alton Carter is an award-winning author of several books, including The Boy Who Carried Bricks and Aging Out and his latest book, The Boy Who Dreamed Big. This can be preordered at [www.monoclepress.com](http://www.monoclepress.com) This fall, he'll also have a new...

🕒 09/11/2018 11:30 AM Eastern Time  
👤 By Alton Carter , First United Methodist Church



### ANIMATED FILM CREATION SERIES: Pre-Production

Creating animated feature films takes a small army to complete. There are three main parts to the creation of the film. Pre-Production, production and post-production. This is the first of a three-part series on the creation of animated feature films...

🕒 10/03/2018 12:00 PM Eastern Time  
👤 By sean brown  
📌 Teacher Professional Development,Grade 9,Grade 10,Grade 11,Grade 12,Post Secondary,Adult Education

✓ SIGN UP LEARN MORE



### What is Coding?

Kiwi Compute's CEO Julia Lamorelle didn't study Computer Science in college, but she launched a coding education company. She shares how anyone can learn to code, what coding really means and tip to get started. Students will have the...

🕒 09/12/2018 11:30 AM Eastern Time  
👤 By Julia Lamorelle , Kiwi Compute  
📌 Middle School

✓ SIGN UP LEARN MORE



### WORLD SPACE WEEK: "Make It, Don't Take It": Manufacturing in Space

Currently everything we use in space is launched from earth. This session will provide an overview of the in-space manufacturing project. Learn how NASA and the space industry are developing technologies that will reduce launch mass by...

🕒 10/08/2018 11:00 AM Eastern Time  
👤 By Tracie Prater , NASA  
📌 Middle School,High School

✓ SIGN UP LEARN MORE



# Nepris — Engagement Models

2  
Live  
Personalized  
Sessions



Search Results

Dashboard / Search Results

engineering

INDUSTRY EXPERTS

**Rajeev Thakur, P.E.**  
Regional Marketing Manager  
Osram Opto Semiconductors Inc.

[VIEW PROFILE](#)[REQUEST SESSION](#)

**Jordan Keller**  
Technical Service Engineer  
BASF Corporation

[VIEW PROFILE](#)[REQUEST SESSION](#)

**Hannah McCallum**  
Propulsion Engineer  
Virgin Orbit

[VIEW PROFILE](#)[REQUEST SESSION](#)

**Firoza**  
Assis  
University

[VIEW PROFILE](#)

VIDEOS

**Introduction to Engineering Careers**  
Sean Ciesielka  
Mondelez  
1

**Biomedical Engineering: Accidents can lead to positive outcomes**  
Connie Zurbuch  
St. Jude Medical  
0

**What is biomedical engineering?**  
Connie Zurbuch  
St. Jude Medical  
0

**Reverse Engineering**  
Perry Lomond  
Seeking New Opportunities  
1

**Intro Careers**  
Scott Gray  
Elevate System  
4

**Rajeev Thakur, P.E.**  
Love to Golf | Detroit Automotive Guy  
Regional Marketing Manager, Osram Opto Semiconductors Inc.

[Skills](#)[Product Management](#)[Product Development Strategy](#)[Startups for Automotive](#)[Engineering Management](#)[Public Speaking](#)[Sensors](#)[Professional Engineer](#)

Rajeev Thakur, P.E.  
Regional Marketing Manager, Infrared Business Unit  
OSRAM Opto Semiconductors

Rajeev Thakur is currently Product Marketing Manager at OSRAM Opto Semiconductors - responsible for infrared product management and business development in the NAFTA automotive market. His current focus is on LIDAR, driver monitoring, night vision, blind spot detection and other ADAS applications.

Thakur joined OSRAM Opto Semiconductor in 2014. He has prior experience in the Detroit automotive industry since 1990 – working for companies such as Bosch, Johnson Controls and Chrysler. He has concept-to-launch experience in occupant sensing, seating and power train sensors. He holds a masters degree in Manufacturing engineering from the University of Massachusetts, Amherst and a bachelors degree in Mechanical engineering from Guindy engineering college in Chennai, India. He is a licensed professional engineer and holds a number of patents on occupant sensing. He is also a member of the SAE Active Safety Standards development committee.

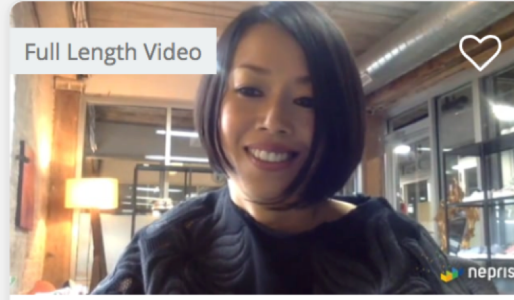
# Nepris — Engagement Models

3

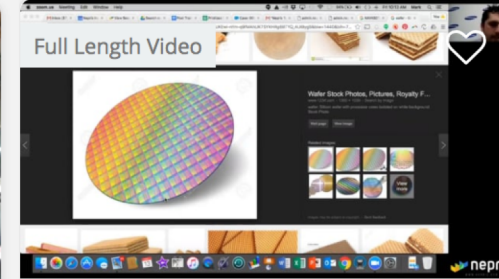
Nepris  
Video  
Library



**Sports Medicine**  
Christopher J. Ruiz -  
👁 4



**The Fashion Industry**  
Takako Piro - manna fusion nyc  
👁 5



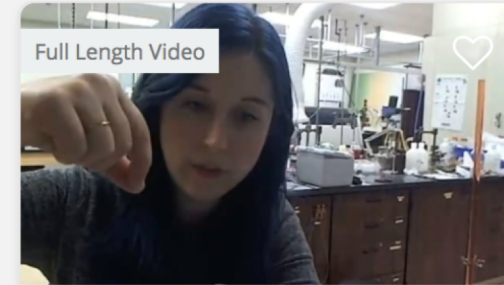
**Samsung Careers: Meet  
Charlie Industrial Engineer!**  
Charlie Hilliard - Samsung Austin  
Semiconductor  
👁 1



**Robotics**  
Terrence Southern - HarozTec  
👁 1



**Presenting your best self in  
job applications and resumes**  
Scott Gentz - AT&T  
👁 1

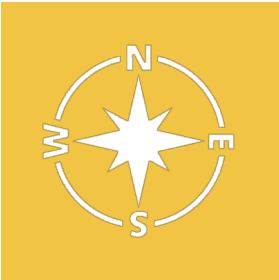


**Chemistry, Making Soap**  
Katy Hosbein -  
👁 1

# Nepris — Engagement Models

4

Career Explorer



## Software Developers, Systems Software

### ALTERNATIVE TITLES

Software Architect, Software Developer, Software Engineer, Systems Engineer

### WHAT THEY DO

Research, design, develop, and test operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computing applications. Set operational specifications and formulate and analyze software requirements. May design embedded systems software. Apply principles and techniques of computer science, engineering, and mathematical analysis.

### WHAT THEY NEED

- **Basic Skills**  
reading work related information, listening to others, not interrupting, and asking good questions
- **Problem Solving**  
noticing a problem and figuring out the best way to solve it,

### TASK

Modify existing software to correct errors, to adapt it to new hardware, or to upgrade interfaces and improve performance.

Develop or direct software system testing or validation procedures.

Direct software programming and development of documentation.

### PERSONALITY

**Investigative** : People interested in this work like activities that include ideas, thinking, and figuring things out.

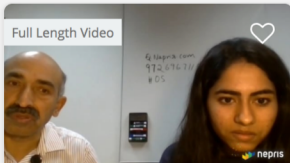
### WORK STYLE

- Attention to Detail
- Analytical Thinking
- Dependability
- Initiative
- Adaptability/Flexibility
- Innovation

### WHERE DO THEY WORK

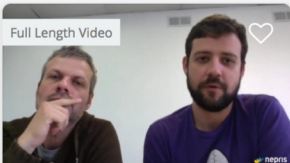
- Professional, Science, & Technical
- Manufacturing
- Media & Communication

### VIDEOS FEATURING THIS CAREER



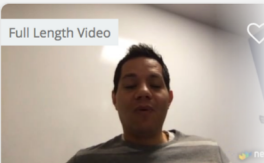
Full Length Video

HOC & CEd Week:



Full Length Video

Why you should consider a



Full Length Video

Informational Interview

### Bright Outlook

This career will grow rapidly in the next few years.

### Green Outlook

Green jobs will increase the demand for this type of work.

### MEDIAN YEARLY SALARY

\$107,600

### 90TH PERCENTILE YEARLY SALARY

\$164,150

### REQUIRED EDUCATION

bachelor's degree, master's degree



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Found 699 search results.

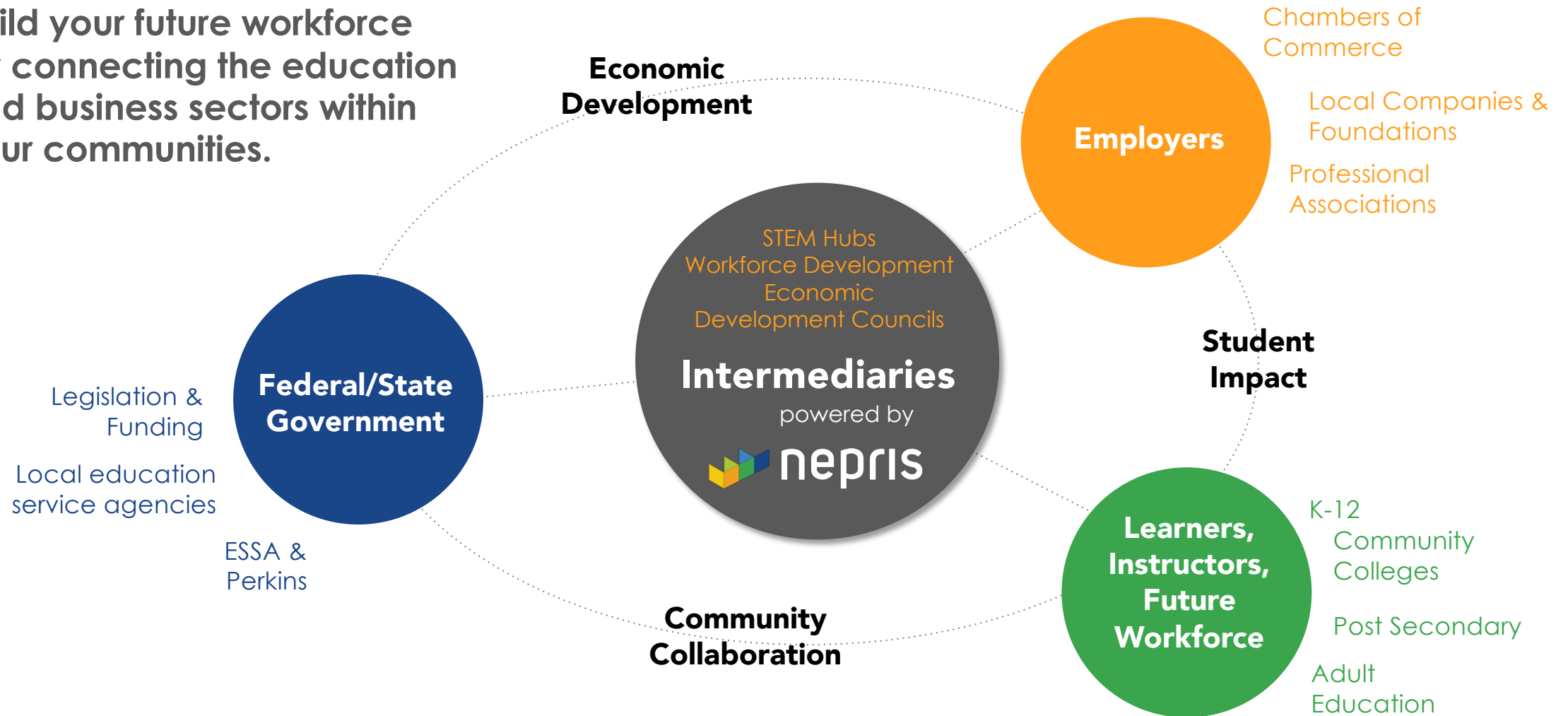
- 1 Software Developers, Systems Software
- 2 Software Developers, Applications
- 3 Software Quality Assurance Engineers & Testers
- 4 Computer Systems Engineers/Architects
- 5 Computer Network Architects
- 6 Computer Systems Analysts
- 7 Web Developers
- 8 Computer Programmers
- 9 Electromechanical Engineering Technologists
- 10 Electronics Engineers
- 11 Aerospace Engineers
- 12 Computer Hardware Engineers
- 13 Computer User Support Specialists
- 14 Electrical Engineers
- 15 Computer & Information Research Scientists
- 16 Mining & Geological Engineers, Including Mining Safety Engineers
- 17 Network & Computer Systems Administrators
- 18 Computer Network Support Specialists
- 19 Database Administrators
- 20 Bioinformatics Technicians
- 21 Radio Frequency Identification Device Specialists
- 22 Remote Sensing Technicians
- 23 Electronics Engineering Technicians
- 24 Computer Operators
- 25 Biomedical Engineers
- 26 Automotive Engineers
- 27 Nanosystems Engineers
- 28 Mechanical Engineers
- 29 Mathematicians
- 30 Architectural & Engineering Managers
- 31 Electrical Engineering Technicians
- 32 Operations Research Analysts
- 33 Biochemical Engineers
- 34 Electrical Engineering Technologists
- 35 Electronics Engineering Technologists
- 36 Telecommunications Engineering Specialists
- 37 Geospatial Information Scientists & Technologists
- 38 Financial Quantitative Analysts
- 39 Microsystems Engineers
- 40 Materials Engineers
- 41 Transportation Engineers
- 42 Solar Energy Systems Engineers
- 43 Mechanical Engineering Technicians



# Community Partners

Community  
Partners

Build your future workforce  
by connecting the education  
and business sectors within  
your communities.





# Roscoe, Texas



A rural community with a vision





“As a rural district it is not often possible to connect our classrooms with diverse industry professionals. Nepris has made it a reality.”

- Dr. Kim Alexander, Superintendent, Roscoe ISD



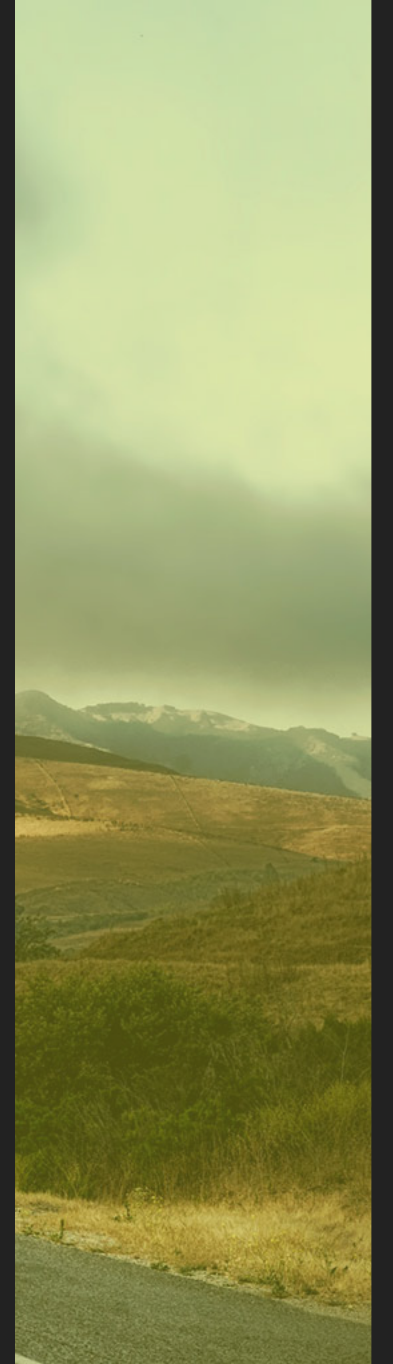
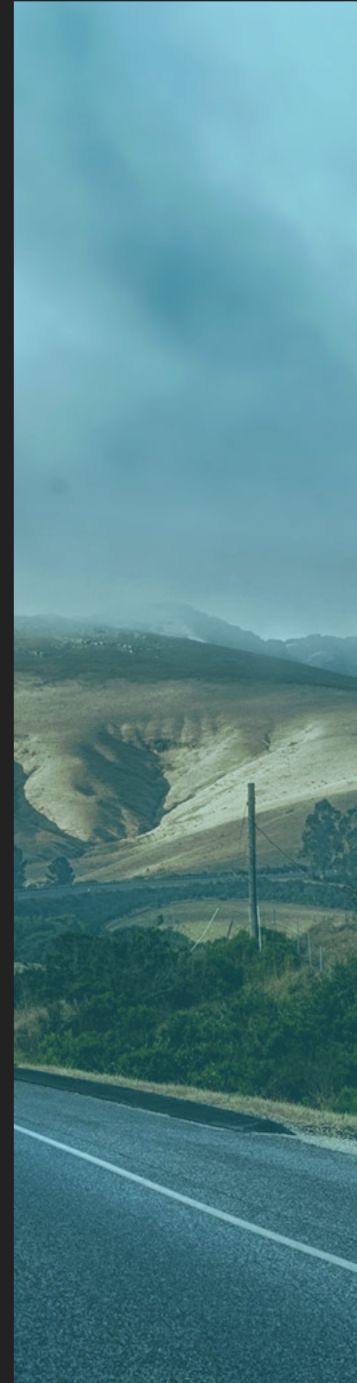
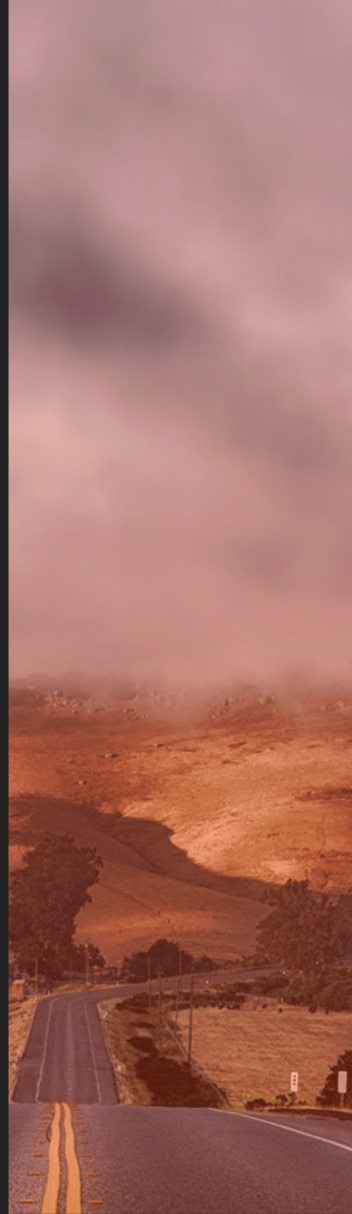


**"Before Nepris, I was focused on a military career but now I know that military is not my only option."**

Austin  
Sophomore,  
Roscoe Collegiate

# ACTIVITY

*Exploring Technology-Enabled  
Solutions*





15 MINUTES

## GROUP BRAINSTORMING

**Step 1:** Ask one person to read the provided persona.

**Step 2:** As a team, think through each of the three focus questions. Capture Ideas on post-it notes and organize per question.

10 MINUTES

## **TEAM REPORT OUT**

Each team shares a brief synopsis of their persona as well as a few interesting solutions / ideas that emerged.

PANEL DISCUSSION

# Questions and Discussion



**Building a  
Future  
That Works**

**THANK YOU**

**PLEASE TAKE OUR FEEDBACK SURVEY:  
[SURVEYMONKEY.COM/R/PSNFEEDBACKFORM](https://www.surveymonkey.com/r/PSNFEEDBACKFORM)**