



PROGRAM
REPORT
2016

**“GSE changed my life.
It provided me with
the tools to have a
successful future in
the business world. ”**

Student Entrepreneur, Class of 2016

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GSE student entrepreneurs meeting with their mentor.

MESSAGE FROM THE EXECUTIVE DIRECTOR

Dear GSE Friends and Supporters,

On behalf of all our 219 alumni and their families, I want to express sincere gratitude to Governor Bevin, the legislature who unanimously voted to make GSE an official state educational opportunity, Secretary Hal Heiner and his staff, and the many volunteer mentors, entrepreneurs and sponsors of GSE. As with all startups, GSE has gone through twists and turns, and along the way you have all helped to bring this valuable program to Kentucky's high school age youth.

Today's jobs require skills and knowledge that students do not typically learn in a high school classroom. Employers are not only looking for employable young people with very specific credentials and skill sets, but they are also looking for key functional strengths - critical thinking, communication, collaboration, self-direction and creative thinking. GSE helps students develop each and every one of these skills so they are better prepared for the transition from high school to college and career.

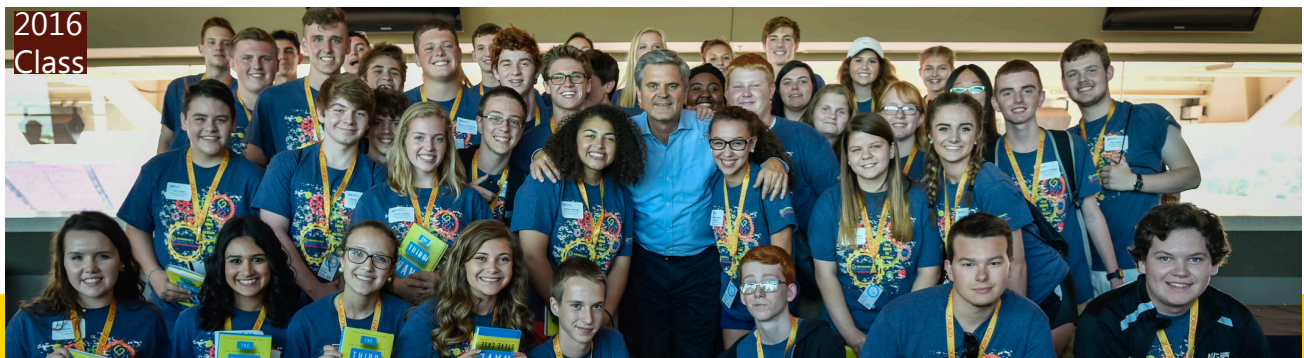
GSE is one of only a few programs nationally that offer high school students an extended deep dive into the startup experience. There is no doubt that immersing students in an intensive, problem-based environment where they are faced with making all the decisions about their product or service, revenue model, and business, opens their eyes and minds to the world in ways that stay with them for life. They learn to take initiative and be action oriented.

The pages of this report are filled with some of their success stories. There were too many to include them all. I am optimistic that our GSE alumni are Kentucky's best and brightest (or at least most prepared!) innovators and difference makers of their generation.

Thank you for your support,

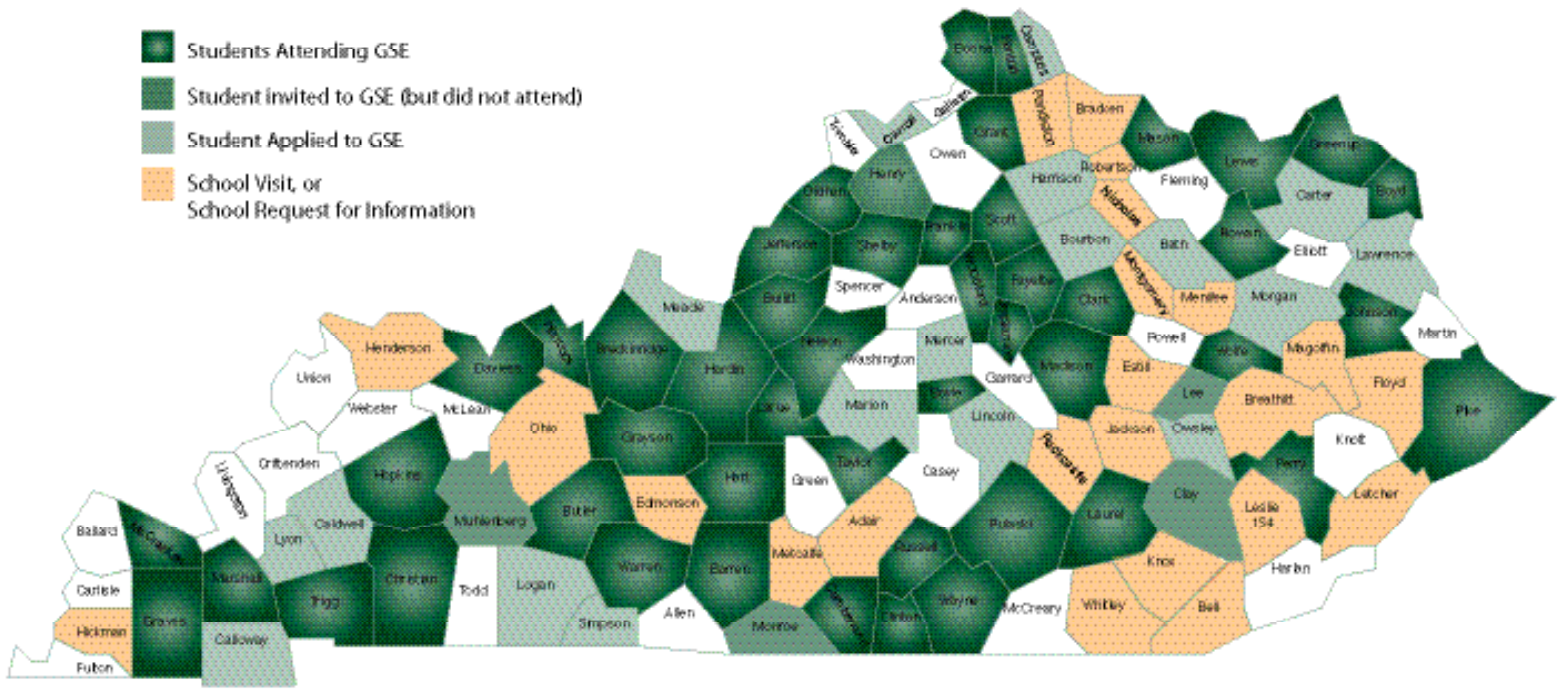
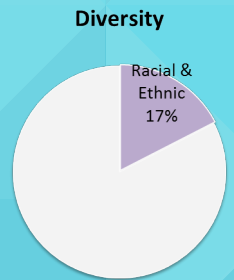
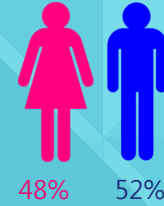


Laurie Curry Daugherty

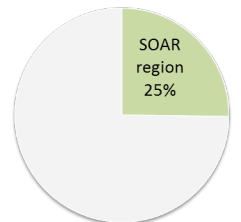


STATEWIDE IMPACT

In its first four years, the Governor’s School for Entrepreneurs has attracted students from every corner of Kentucky. GSE offers a diverse environment where open, inclusive learning takes place. Students’ perspectives are broadened as they share experiences with a new community of young entrepreneurs and together explore the social and global impact of their ideas.



2013	2014	2015	2016	SOAR - all years
Boone Boyd Christian Cumberland Daviess Fayette Hardin Hart Jefferson Larue Lewis Madison Pike Pulaski Rowan Scott Trigg Warren Woodford	Boone Clark Fayette Grant Greenup Hancock Hart Hardin Jefferson Jessamine Kenton Larue Laurel Madison Mason McCracken Oldham Pike Pulaski Scott Taylor Trigg Warren Wayne Woodford	Breckenridge Butler Clinton Daviess Fayette Grant Graves Greenup Hart Hardin Hopkins Jefferson Kenton Laurel Madison McCracken Nelson Pike Scott Shelby Trigg Warren Wolfe	Barren Boyle Fayette Franklin Graves Greenup Hardin Jefferson Johnson Kenton Madison Marshall Nelson Perry Pulaski Russell Scott Shelby Wayne Wolfe	Boyd Clark Clinton Cumberland Greenup Hart Johnson Laurel Lewis Madison Perry Pike Pulaski Rowan Russell Wayne Wolfe



GSE IS NEXTGEN LEARNING

NextGen Learning encompasses key functional strengths students need to possess in the digital age to be competitive for high wage jobs. These skills are often referred to as the "4 Cs." (Source: National Education Association, Preparing 21st Century Students for a Global Society, *An Educator's Guide to the "4 Cs."*)

At the Governor's School for Entrepreneurs, students practice the 4 Cs every day.

"GSE changed my way of thinking in everyday situations and how I face challenges with myself or with a group."

- student entrepreneur, Class of 2016

**CRITICAL-
THINKING**
(problem solving)



There are no right or wrong answers in entrepreneurship, so there are no tests at GSE. Students are pushed to seek new perspectives, to evaluate and manage risk and to gather and analyze data in order to make informed decisions.

COLLABORATION
(team work)



Students work in teams to produce a prototype and business pitch. They spend a day in team building activities on a ropes/challenge course. They participate in social activities that are whimsical and fun but which require team work - such as a robotics challenge, scavenger hunt or break-out game.

COMMUNICATION
(business pitch)



While at GSE teams work with a professional pitch coach to learn how to tell their story and communicate their ideas effectively. They also learn the important roles networking and building relationships have in creating a successful business.

CREATIVITY
(innovation)



Students are encouraged to express their ideas in all activities at GSE. They participate in design-thinking sessions and random creative thinking challenges. They learn that great ideas sometimes come from simple observations of people's problems.

GSE IS APPLIED STEM

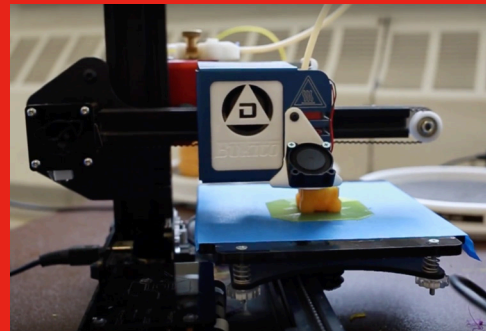
"The United States has developed as a global leader, in large part, through the genius and hard work of its scientists, engineers, and **innovators**. In a world that's becoming increasingly complex, where **success is driven** not only by what you know, but **by what you can do with what you know**, it's **more important than ever** for our youth to be equipped with the **knowledge and skills to solve tough problems**, gather and evaluate evidence, and make sense of information."

U.S. Dept. Education, www.ed.gov/stem

"It's good to know the impact that your product has on the environment and the community."

*- student entrepreneur,
Class of 2013*

PRODUCT DEVELOPMENT



Students use 3D printers, laser cutters, software programs and other equipment and labs to design and build a prototype of their product or service.



The web course "helped me appreciate coding even more, and its importance."

- student entrepreneur, Class of 2015

CODING SKILLS

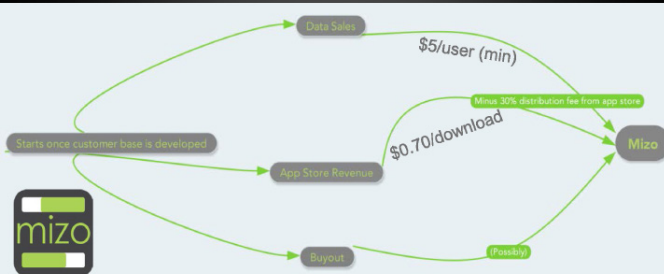


Students take a web development course and learn about iOS development.

BUSINESS FINANCE

Students work out pricing, revenue projections, margins and cash flow for their business model.

Revenue Streams



(2014 GSE Team Revenue Stream Model)

READY FOR COLLEGE AND CAREER

Students work hard at GSE, so GSE awards digital badges as an affirmation of the incredible work that they do. “Digital badges are an assessment and credentialing mechanism that is housed and managed online. Badges are designed to make visible and validate learning in both formal and informal settings, and hold the potential to help transform where and how learning is validated.” (from the MacArthur Foundation)

With the badges, GSE makes a connection between out-of-school learning and in-school credit. Students complete over 135 hours of project-based learning at GSE. Schools that have adopted a performance-based credit policy may award a class credit in Entrepreneurship which is a KDE career pathway class.

**443
badges
earned
to date**



Preparing students for a future in the digital age and the gig economy.

PERSONAL GROWTH

Our alumni tell us GSE gave them

- Confidence
- Appreciation for importance of networking
- Clarity of future college and/or career aspirations
- Independence and self-direction

**37 transcript
credits
awarded
to date**

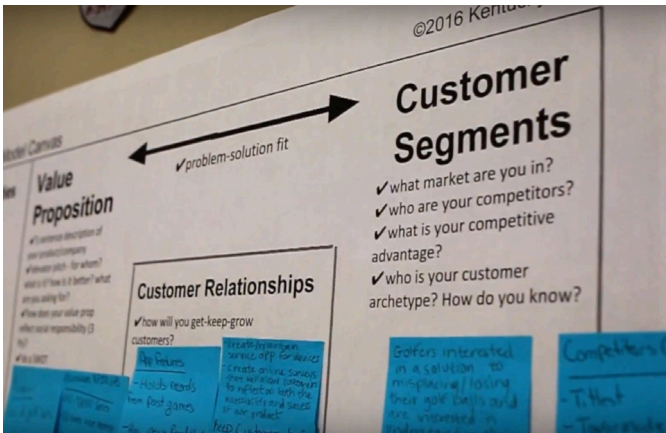
COLLEGE READY METRIC	RESULT
High school GPA at graduation	3.8
Average ACT composite score	25
Average Scholarship (over 4 years in college)	\$38,000
% alumni who would recommend GSE	98%

“[GSE] was the best 3 weeks of my life and others deserve to experience the same. It helped build my confidence as both a leader and business woman. Because of GSE I am now a Finance major and Marketing minor. It helped me discover my passions and pushed me to pursue them.”

- Caitlyn T., current student at Western Kentucky University

2016 PROGRAM HIGHLIGHTS

Immersive. Students are living and breathing their start-ups for three intense weeks.



Authentic. Students are really doing a potential startup. They are not working on case studies or mock companies.

There is nothing more inspiring than to witness the transformation that our young entrepreneurs go through from day 1 to day 21 of GSE. Every single one of them arrives on campus excited but nervous - every thing is brand new and strange to them - new instructors, new roommate, new teammates, new geography, new food and new subject matter. From day 1 they are presented with demanding learning experiences and challenges. They are put through the rigors of starting a company. GSE is an authentic experience where the students are encountering problems to solve and challenges to overcome just as any adult entrepreneur would in the "real world." They walk the walk and experience the ups and downs of entrepreneurship first hand. By the end of three intense weeks they emerge with polished business pitches and greater self-esteem, ready to take on the world.



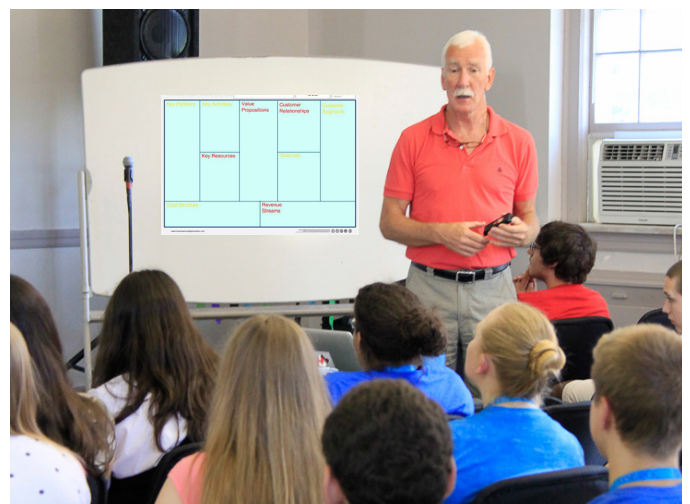
Students learn to plan a business within a framework that reflects ethics and a triple bottom line.

GSE uses the business model canvas as a tool for understanding the components of a business model. These nine components encompass the areas that startups must cover in their planning. The business model canvas allows for student entrepreneurs to test their hypothesis about an aspect of their business model and visually see how a change in one area (such as target customer group) ripples through to other areas of their business (such as delivery channels, costs and production activities). Students explore their ideas for products or services using lean startup methodology - in other words, keeping costs as low as possible and bootstrapping solutions until an income producing strategy is in place.

2016 class by the numbers:

Number of Students	43
Number of Counties represented	20
Number of High Schools	32
Number of Student Teams	11
Number of Guest Speakers	21
Number of Mentors	16
Percent Female	47%
Percent Male	53%
Percent SOAR region	32%
Race/Ethnic Diversity	14%
Percent 12th grade	26%
Percent 11th grade	60%
Percent 10th grade	14%

Instructional Coach Tom Welch leads a discussion on the day's component



2016 PROGRAM HIGHLIGHTS

LEARNING COMMUNITY

Instructional Coach Jeff Varrone and students discussing the day's business model session



Above and below: Students sharing and learning from each other



MENTORS & SPEAKERS

Over 37 guest entrepreneurs and business leaders from around the state spent time with GSE students. They shared their own startup stories, struggles and successes. Guest speakers led sessions on:

- work styles & building a strong team
- legal considerations of organization, IP and employment practices
- managing a project to keep it on time and on budget
- global business considerations
- art & design - how logos and brands use color, style and inspiration from art and the environment to influence and communicate



Every student business team works with a mentor who is a professional in the industry the team's product or service fits into. Many GSE mentors are mechanical, industrial and software engineers. Mentors guide the teams through decisions about product design and development and competitive advantage. Additional mentors with expertise in other areas such as marketing, finance, design and supply chain management are also available to the teams.

2016 PROGRAM HIGHLIGHTS

RESIDENTIAL COMMUNITY



By living on a college campus for three weeks students experience independent living in a social setting. They meet other entrepreneurial-minded students from communities very different from their own and make lasting friendships.



FIELD TRIPS

TOYOTA



Students took a group field trip to Toyota Motor Manufacturing in Georgetown, KY for a facility tour. Afterwards, a Toyota representative came to campus and talked with students about Toyota’s business model, environmental practices and approach to innovation.

Student teams spent a day one-on-one with innovative companies -- Fooji, Awesome Inc. and Clark Material Handling in Lexington, Cintrifuse and 84.51° in Covington, and Forest Giant in Louisville.



Students visiting Clark Material Handling

Students mingled and networked at the GLI professional event featuring Steve Case



Responding to a last minute invitation, student entrepreneurs attended Louisville’s “State of Entrepreneurship” event hosted by Greater Louisville Inc. The evening featured speaker Steve Case, founder of AOL and author of “The Third Wave.”

2016 PROGRAM HIGHLIGHTS

BUSINESS MODEL PRESENTATIONS



BarkoPolo team with Lt. Gov. Jenean Hampton

Members of Smart Wear

The GSE session culminates in a final day of business pitches and product demos to a panel of five outside judges. Teams presented their business models and responded to questions from the judges. Every team worked diligently for three weeks and pushed themselves to put their ideas to test. In an environment of friendly competition the teams put their best foot forward to see who would take home awards.



Members of Transit Tracking Solutions

TROPHY WINNERS and a chance to pitch at SPARK

1st Place

GuardBox - a black box for your home that protects your most important data.

2nd Place

Barko Polo - a toy for dogs with sensory disabilities.

3rd Place

Transit Tracking Solutions - a scheduling solution that makes transit systems more effective and on time.

SPECIAL MENTION AWARDS

Audience Choice

Go Deluxe

Design-Thinking - Best Physical Prototype Design

Barko Polo

Design-Thinking - Best Software/IT Design

Tegado - a platform for gift card exchange

Best Team Collaboration

MarGuard

Best Green Design - social responsibility

eViable

CERTIFICATE WINNERS and a chance to pitch at SPARK

4th Place

Go Deluxe - an attachment for the Go Pro camera that increases the quality of videos captured in the dark.

5th Place

MarGuard - protective covers for band instruments.

6th Place

eViable - a service company that collects and recycles electronic waste.

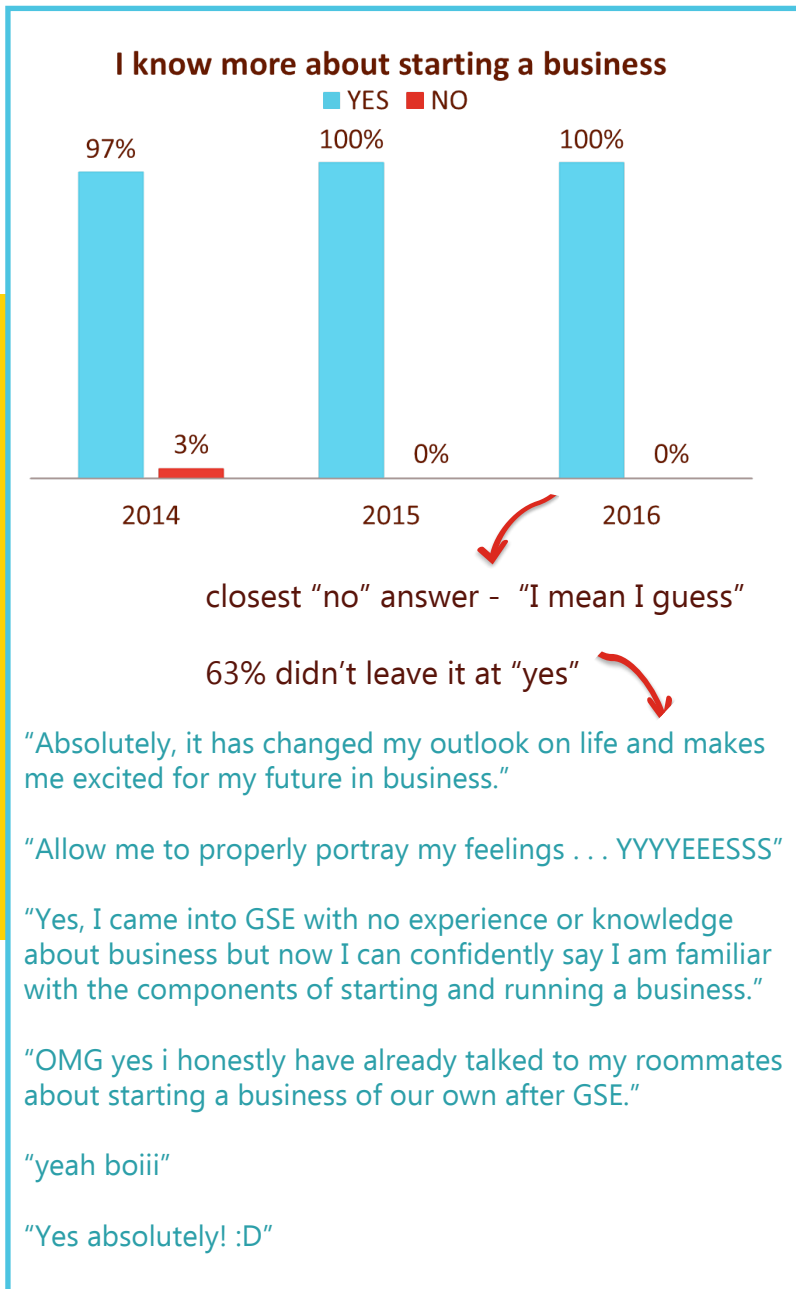
Teams received training from executive consultant, Madison Cork



2016 ENTREPRENEUR TAKEAWAYS

Take-a-way/ tākə,wā / a key fact, point or idea to be remembered, typically emerging from a discussion or meeting

From content instruction to guest lectures, to field trips, to mentor discussions, every day at GSE results in key takeaways for the young entrepreneurs. At the end of the program all 43 students shared their takeaways with us.



65%

took a 5-hour web development course

56%

used the makerspace lab tools & equipment

82%

earned digital badges

81%

said they would seek high school credit

Listen to the data

Fail fast & fail cheap

Don't be afraid to pivot

2016 ENTREPRENEUR TAKEAWAYS

"I learned I am more creative than I thought, and I am more capable than I thought. At GSE you are given a large amount of freedom, and **you aren't dependent on a teacher or an adult** to show you what needs done and how to do it."

"I learned how to actually begin a business and work well with others."

"How to change and move around to fit our customer."

"How to **communicate** with new people."

"**More confidence**, especially with public speaking."

"Starting a company is difficult, that is why you need endurance and encouragement."

"I learned that my age does not stop me from becoming successful."

"**I am capable of a lot more** than I originally thought. I found that I have a lot of skills in marketing and management that I had no clue about."

"GSE taught me to believe in and **be confident** in my abilities."

"I can be a leader when I need to be. "

"How to stay focused and be productive, and how to be **motivated by set backs**."

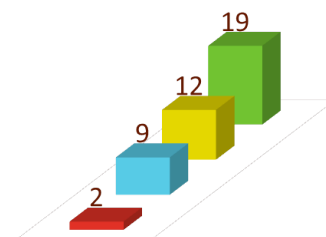
Responses to "What was your favorite thing about GSE?" can be summed up in 5 categories:

- #1
32% Doing a Startup (and being given resources)
- #1
32% Making new friends and connections
- #2
19% Working with adult staff and mentors
- #3
9% The fun/social activities
- #4
8% Experiencing independent living on a college campus



Plans After GSE

- Do other things
- I already have a company at home I plan to continue
- Continue working with my GSE team
- Start working on a new idea/product



THE JOURNEY CONTINUES AFTER GSE



The top five or six teams from GSE's pitch day are invited to present their ideas at the Lexington venture club's SPARK event where the audience selects two teams to take home cash awards.

SUPPORT. SUSTAIN. SUCCEED.



**to date,
6 teams
awarded
\$3,000 in
cash**



Two GSE teams were invited to appear on channel WBNA21 Shark Tank-style "Dream Funders" show in Louisville. Each team gave a pitch to a panel of Louisville investors and were awarded significant cash "investments."

**To date, 2 teams
awarded \$10,000
in cash &
in-kind services**



The GSE staff is ready to assist alumni in pursuing their ideas and continuing their dreams. After completing GSE, several of our alumni have pursued (or are pursuing) these opportunities and more:



**The future
is wide
open . . .**

OUTCOMES - STUDENT REFLECTION



Lydia Bredwood

Hometown:
Georgetown, KY

**Senior at Scott County
High School**

GSE Class of 2015

GSE Team: KicKlips

“The Governor’s School for Entrepreneurs was one of my best high school experiences. GSE was actually the deciding factor of my future career. Up until I attended GSE I wanted to become a journalist, but all of the hands-on experience I received at GSE opened my eyes and allowed me to see that I really want to go into the marketing and business field. For me, GSE was life changing because I was able to find myself and identify what I wanted my future to look like. I’m very grateful for having the opportunity to attend the program.”

“GSE impacted me in ways I could have never imagined. I was able to make life long friends that I still, two summers later, talk to almost weekly. The rigorous GSE curriculum definitely prepared me to tackle the intensity of the 5th ranked undergraduate business program in the country by US News, NYU Stern School of Business. From working tirelessly on my business model canvases to the amazing guest speakers, GSE definitely set the path for the career I am currently embarking on.”



Pranay Patel

Hometown:
Pikeville, KY

**Attending New York
University**

GSE Class of 2014

GSE Team: SubZero

OUTCOMES - STUDENT REFLECTION



Barton Christmas

Hometown:
Paducah, KY

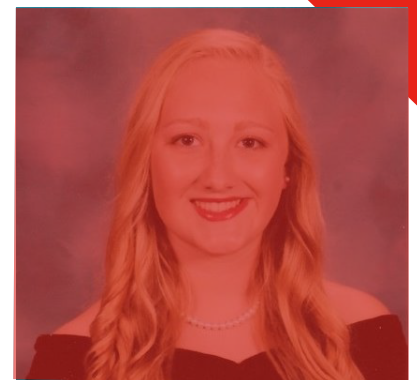
**Senior at McCracken
County High School**

GSE Class of 2014

GSE Team: MIZO

"The Governor's School for Entrepreneurs was not the longest educational experience I've had. Nor was it the most grandiose. But I can say with great certainty that it was the most formative, the summer that set the stage for the rest of my high school experiences. Without GSE, I would never have discovered the wonder of a college campus, the beauty of a statewide network of friends, or the utmost importance of giving my all and being my own individual. I can't thank GSE enough for the work it is doing in this Commonwealth, and I encourage anyone and everyone to look for the entrepreneur inside them and make their way to that spectacular summer."

"GSE was one of the most transformative experiences of my life. It was because of GSE that I chose to be a Computer Science major at the University of Kentucky. Not only did GSE help me find a path I'm passionate about, but also gave me friends to last a lifetime."



Ally Douglas

Hometown:
Bowling Green, KY

**Attending University of
Kentucky**

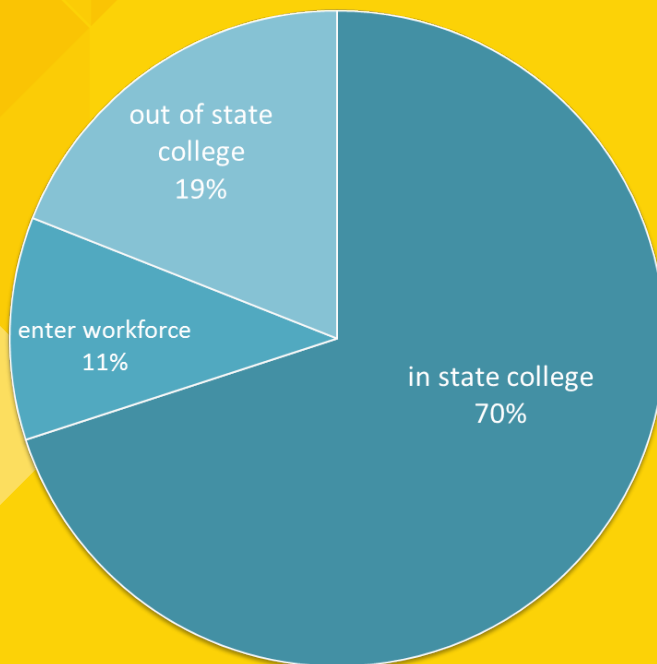
GSE Class of 2014

GSE Team: Fidem Aurem

OUTCOMES - SUCCESS IN COLLEGE

GSE is still a young program and our alumni are still in college, but they are already showing great promise for Kentucky. Many aspire to one day own their own company, providing jobs and economic growth to Kentucky's communities. We asked all of our GSE alumni who have graduated from high school to tell us about their pathways after high school.

Path after High School Graduation (76% response rate)



MAJORS

Business (Finance, Economics, Marketing, Accounting)

Computer Science/Engineering

Biology

Health Science/Nursing

Mechanical/Industrial Engineering

Foreign Language

Entrepreneurship

Communications

Political Science

87% of those
in college have a
GPA above **3.0**

"I attend the University of Alabama and am currently a Biology major, Computer-Based Honors minor (basically a computer science/research program) and am on the STEM-MBA path. The STEM-MBA is a unique program here at Bama that allows STEM majors (bio, engineering, pre-med, etc.) to do their undergrad in 4 years, followed by 1 year to get their MBA. As part of the program we have a 1.5 credit hour course every semester in which we learn about business and have to come up with science/technology-based products and set up viable business models around the ideas. I just started my first project with my small group, and **I can honestly say it's a lot like GSE** in what we have to do. At the end of every 4 weeks, we then present our business ideas and models to our class, and they ask us questions and provide us feedback. There's also means through the university to turn your STEM-MBA product into a business, through working with professors and faculty here. We also have internship opportunities as well as field trips to organizations such as NASA, and **this component of the program also reminds me of GSE.**" - Lauren H., GSE alumnus

Alumnus Spotlight



Asha McWilliams, Western Kentucky University
2016-17 Cherry Presidential Scholarship recipient,
the university's most prestigious academic award.

Thank you Summer 2016 sponsors!

Kentucky Cabinet for Economic
Development

Kentucky Council on
Postsecondary Education

Appalachian Regional
Commission

James Graham Brown Foundation

Toyota Motor Manufacturing,
Kentucky

Halliburton Foundation (corporate match)
James R. Boyd

Kentucky Highlands Investment Corp.
Kentucky Science & Technology Corp.

Hardscuffle, Inc.

Big Ass Solutions

Snowy Owl Foundation

Chrysalis Ventures

Commerce Lexington

Warren Nash

Dale and Ceci Boden

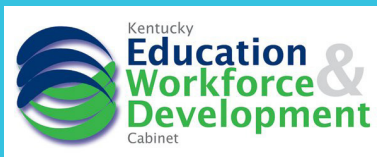
Peter LaRue

Kelly Vickery and Donna Roth

James Giurgevitch

Rodney Ellis

Sponsors for upcoming Summer 2017



Marksbury Family Foundation

Toyota Motor Manufacturing,
Kentucky

Appalachian Regional Commission

Halliburton Foundation (corporate match)
James R. Boyd

Enterprise Angels

Commerce Lexington

Chris and Josephine Young

Randall Stevens

Warren Nash

Peter LaRue

Alumni Families

(list current as of February 1, 2017)

The Governor's School for Entrepreneurs is a program under the **Kentucky Education and Workforce Development Cabinet** and is operated by the Kentucky Entrepreneurship Education Network, Inc. (KEENStart).



KEENStart is a 501(c)(3) tax exempt corporation founded in November 2015 and focused on entrepreneurship education. Our objective is to nurture and grow the entrepreneurial spirit in those who attend our programs.

Entrepreneurship is a journey full of twists and turns. KEENStart brings a framework to the process, and through our uniquely designed learning programs we help prepare Kentucky students for success in college and career. We purposefully challenge them to view the world through the lens of entrepreneurial thinking. KEENStart programs provide a safe environment for young people to take risks with their ideas in an effort to create something meaningful. Through the application of STEM skills, design skills and problem-solving skills, students improve their college and career readiness. KEENStart's learning experiences prepare students for the workforce and for business creation and ownership.

GSE Staff

Laurie Curry Daugherty
Executive Director & President

Mac Glidewell
Program Director

Become a GSE Sponsor

Ways to give:

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KEENStart.org.

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2. by check payable to
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Drive, Suite 303, Lexington,
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3. Gifts of securities and
other assets are welcome.
Contact us to discuss.



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