



33 Years of

IGNITING THE FLAME

of Intellectual Curiosity

Governor's Scholars Program
2015 Academic Report

“This has driven me to give back and serve Kentucky—not just after college but as soon as I get the chance.”

— Hased Payocong,
Seneca High School





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from the EXECUTIVE DIRECTOR

Dear supporters and friends of the Governor's Scholars Program,

If you ask our alumni to describe their GSP experience, they will often tell you about a spark. It may have come during a class, a campus-wide event, a guest speaker, or even a conversation over breakfast; though the origins may differ, our alumni can all point to moments of their GSP summer when their minds were set ablaze by new ideas.

The Program's tradition of igniting the mind began in 1983, when a group of Kentucky leaders became concerned that too many of the Commonwealth's high-achieving students were leaving home for educational and career opportunities outside of Kentucky. The founders sought to create an "educational utopia"—a place where diverse minds could unite around a shared enthusiasm for learning. They hoped to fuel a love of intellectual exploration within scholars and kindle a commitment to their community.

This summer, 1,113 students representing all corners of our Commonwealth ventured to three Kentucky campuses to find their spark. Many found it in unexpected places: on the GSP-Bellarmine campus, a group of musicians learned how to apply their talents to provide music therapy for Alzheimer's patients; at GSP-Morehead, a class launched a weather balloon filled with experiments and video cameras to study and see the stratosphere; a group of GSP-Murray scholars acted as attorneys, witnesses, and jurors in a mock trial that took place in a federal courtroom. As you read through the coming pages, you will certainly see the ways our faculty and staff use innovation and intellect to stoke the fires of

our scholars' imaginations in surprising ways.

Though the Program stretches just five weeks, the impact of the scholar experience follows our alumni long after they depart their GSP campuses. After graduating high school, they spread their love of learning to their college communities—and 76% of our 2013 scholars found that college community right here in Kentucky. What's more, over 80% of our alumni still call Kentucky home. These numbers tell us that the Program's mission to enhance Kentucky's next generation of civic and economic leaders continues to be fulfilled each year. The flame stays brightly lit.

A bright flame is hard to hide. Its glow can be seen from far away, its warmth felt by those nearby. Its brilliant presence draws people in. Its lasting power ensures a bright future for our Commonwealth.

When GSP lights a flame within a scholar's mind, we know it will burn brightly as they go on to become leaders in their communities, lighting a path for others to see and follow. Through the support of legislators, elected officials, private donors, board members, high schools, parents, and almost 28,000 alumni, the GSP is able to illuminate the minds not only of our scholars but of all the individuals and communities touched by their brightness. **Thank you for helping us keep the torch lit.**




Aris Cedeño
Executive Director &
Academic Dean



2015

SCHOLARS BY COUNTY

Counties with 1–3 Governor’s Scholars in 2015

Adair	Carlisle	Fulton	Lee	Mason	Nicholas	Rockcastle
Anderson	Carroll	Gallatin	Leslie	McCreary	Ohio	Todd
Ballard	Casey	Garrard	Letcher	McLean	Owen	Trigg
Bath	Clay	Green	Livingston	Menifee	Owsley	Union
Bell	Clinton	Hart	Lyon	Metcalfe	Pendleton	Wayne
Bracken	Crittenden	Jackson	Magoffin	Monroe	Powell	Webster
Breathitt	Edmonson	Lawrence	Martin	Morgan	Robertson	Wolfe

1-3 Selected*

Elliott
Estill
Simpson
*Did not attend

Counties with 4–6 Governor’s Scholars

Allen	Cumberland	Harrison	Lewis	Spencer
Bourbon	Fleming	Henry	Logan	Trimble
Breckinridge	Floyd	Hickman	Marion	Washington
Butler	Grayson	LaRue	Perry	Woodford
Caldwell	Hancock	Laurel	Russell	
Carter	Harlan			

7–9 Scholars

Clark	Jessamine	Lincoln
Grant	Johnson	Marshall
Graves	Knott	Mercer
Henderson	Knox	Rowan
Hopkins		

10–14 Scholars

Barren	Meade
Boyd	Montgomery
Boyle	Muhlenberg
Bullitt	Scott
Calloway	Taylor
Christian	Whitley
Greenup	

15–25

Daviess
Franklin
Madison
McCracken
Nelson
Oldham
Pike
Pulaski
Shelby

26–50

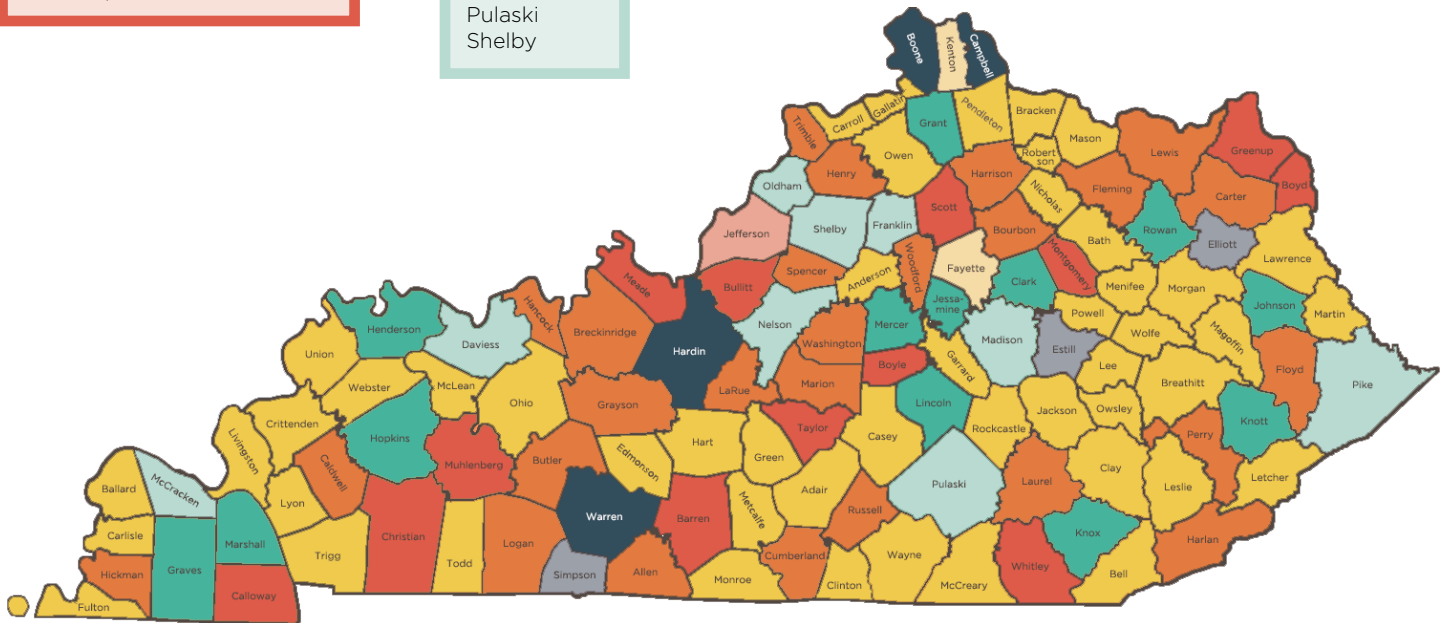
Boone
Campbell
Hardin
Warren

51–100

Fayette
Kenton

175+

Jefferson



COMMUNITY LIFE

Bellarmino University

The GSP-Bellarmino campus encouraged scholars to “Come to the Edge.” Christopher Logue’s poem, which extols the virtues of challenging oneself and taking intellectual risks, provided a theme for the community this summer.

Scholars showcased their talents on stage and in the art studio during Community Arts Day; learned a new skill or concept from a staff person or peer during “Getcha Feet Wet,” a program of one-hour speciality classes; listened to tales of struggle, triumph, and discovery during segments of “This GSP Life,” a weekly event where faculty and staff shared short personal stories; and visited locations of Kentucky’s cultural and natural heritage on UnCommonWealth Day. Staff from local service organizations also visited campus throughout the summer to explain their organizations’ clients and services, which inspired classes to plan service projects to address those needs on Civic Engagement Day.

Through these diverse community offerings, GSP-Bellarmino scholars tested the boundaries of their intellectual comfort zones, finding that inspiration often lies just beyond the edge.

GSP-Bellarmino scholars create a mural encompassing the idea of “community” in Kentucky, featuring Christopher Logue’s poem “Come To the Edge” and facts about all 120 Kentucky counties.



Morehead State University

Collaboration was the keyword in the GSP-Morehead community this summer.

The “4th on the 3rd” was a united effort between the GSP-Morehead community and the communities of Morehead and Rowan County, which included The Al Baldwin 5K Run-Walk, a parade, downtown festivities, and fireworks. Thanks to a partnership with Student Voices of the Pritchard Community and the KYA, the GSP-Morehead campus later hosted “A Place at the Table.” The event was designed to foster student voices in Kentucky; during presentations and focus groups, scholars discussed opportunities and strategies for involving themselves in social dialogues that affect them.

GSP-Morehead also partnered with the University of Kentucky College of Medicine for the event “To Your Good Health,” where Dr. Anthony Weaver gave



a presentation on health issues facing Kentucky and the roles that scholars can play in ensuring a healthier Kentucky. After the presentation, scholars went to the Center for Health, Education, and Research to explore opportunities in the medical field. Excitingly, several of the sessions were led by former scholars.

Scholars in the Cultural Anthropology Focus Area at GSP-Morehead carry a handmade flag during the “4th on the 3rd” parade.

Murray State University

After flooding destroyed homes in Johnson County in July, the GSP-Murray community undertook several fundraisers for the victims, including a community quilt that was raffled off and an “Amazing Race” during which scholars completed physical and intellectual challenges; all told, the scholars raised nearly \$2,000 for local flood relief.

The community also hosted “Next Steps,” an event series designed to help satisfy the scholars’ curiosity about college and their intellectual futures. Faculty members presented on college search tips, ACT preparation, and application essay writing, and Executive Director Aris Cedeño helped scholars develop better interview skills.

The community welcomed a number of convocation speakers during the summer, including human rights attorney and former scholar Gretchen Hunt, Pulitzer

Prize-winning cartoonist Joel Pett, and singer-songwriter and former scholar Jeri Katherine Howell. Scholars also feasted at the “Intellectual Buffet,” teaching other scholars how to build web pages, how to think about the arts, and how to learn about Japan, among other options.

GSP-Murray scholars compete during an “Amazing Race” to raise money for Johnson County flood relief.



FOCUS AREAS



Focus Area courses allow a student to pursue a topic in-depth as a member of a small group, stressing the development of ideas within the particular discipline, identification of significant themes, and the interrelatedness of the discipline to other content areas. The courses are meant to provide broad, interdisciplinary, intellectual exposure and enrichment rather than narrow, disciplinary training. Students are encouraged to try a Focus Area

course in which they have little prior experience.

During the application process, students indicate their top three class choices from among a variety of interest areas. GSP staff then assigns students to one of their three choices. Focus Areas meet weekly for a minimum of 12 hours per week.

The following are descriptions of each of the 61 Focus Area classes offered on the three GSP campuses in 2015.

Architectural Design

Bellarmino University

In **Bryan Orthel's** Focus Area, scholars explored the meaning and construction of the built environment—specifically, how historic buildings are relevant in the contemporary world and what future buildings should become to support our evolving society. The class visited local buildings to discuss how the form and experience of space was related to the meaning and use of a building.

For this summer's hands-on challenge,

the class was tasked with constructing a space to replace the regular classroom using only paper plates and staples. The project taught scholars about a designer's creative process in solving complex problems, along with methods for dealing with an idea's uncertainty and potential failure. Ultimately, the scholars developed a broader understanding of how our built environment is created and how it can be improved to enhance our lives.

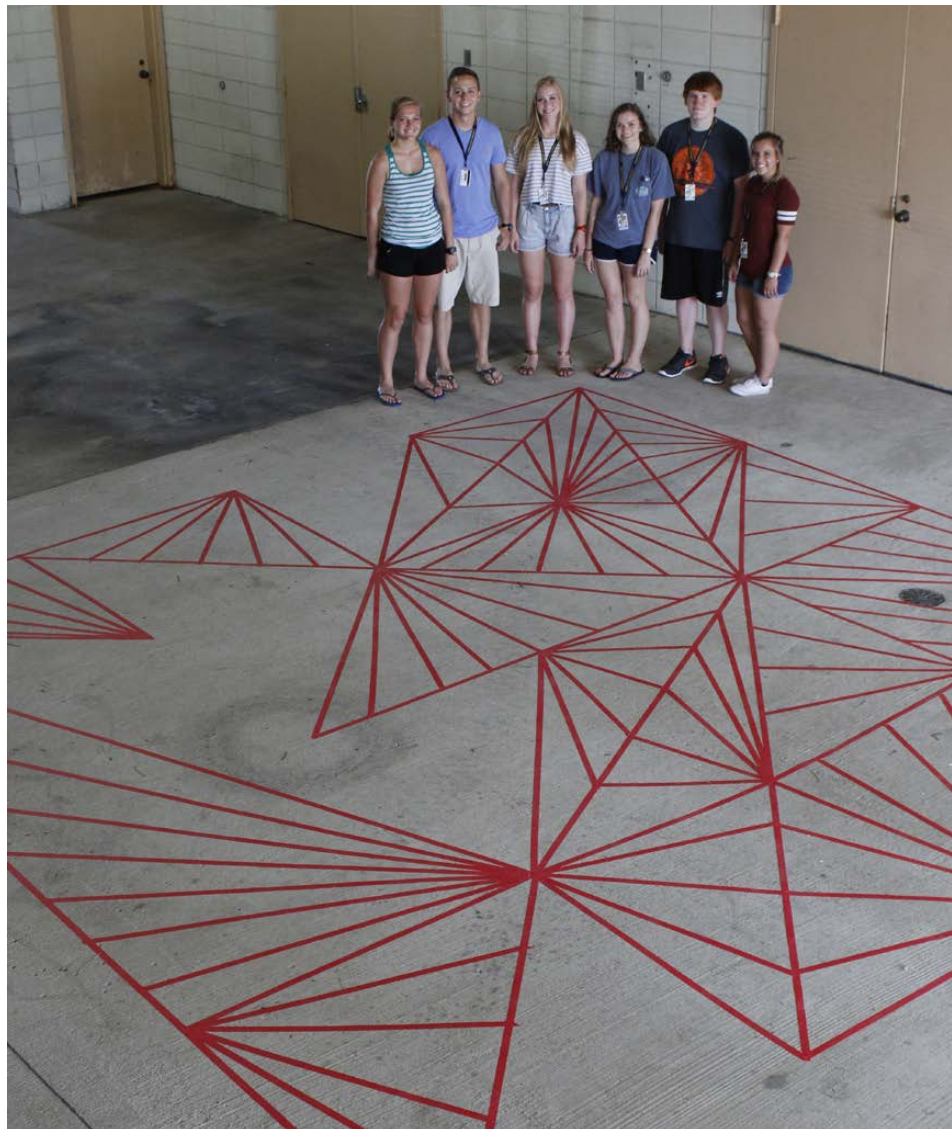
Scholars at GSP-Murray draw patterns with tape using a step-by-step process that mimics city growth over time.

Murray State University

Using Jane Jacobs's classic text *The Death and Life of Great American Cities*, scholars in **Bill Randall's** class considered the city as a whole. They discovered a vision of the city as a vital, changing organism built through the creativity of its citizens. They considered how this vision of the city, particular to New York City at midcentury, compares to our own rural, urban, and suburban lives in Kentucky.

In between, they planned small parts of their own city. They designed houses in the Modernist style and used the methods of the Conditional Design Workshop to map the nodes and networks of the city on paper and concrete. Then they created models of temporary architecture from simple materials: PVC pipe, cardboard, and plastic wrapping.

Throughout the class, scholars considered their work in light of the economic, social, and cultural conditions that create architecture as much as architects do. The class ended with a panel of visiting critics commenting on the work, and with an exhortation to find opportunities for fresh design in each scholar's daily life.



Astronomy

Bellarmino University

“Why do we think it is true?”

That is the question **Rico Tyler’s** scholars concentrated on throughout their summer. They began by building their own telescopes to photograph the Moon and planets, using visual evidence to confirm or reconsider long-held beliefs about the solar system. Next, they used these images to reconstruct the past history of different planets. With this information

base, scholars turned their attention to meteorites and learned to “read” them to discover how the solar system has changed over time.

After her summer studying the skies, scholar Taylor Childress of Louisville Male High School reflected, “Astronomy has taught me that there is more beyond the horizon and that nothing is proven until you understand the facts.”

Morehead State University

The United Nations named 2015 the International Year of Light, inspiring **Daniel King** to center his class on the many aspects of light. Scholars studied light-related phenomena such as atmospheric, rainbows, refraction, and reflection, culminating in the design and construction of their own refraction devices: telescopes.

In addition to studying light, scholars learned more than 10 constellations and deep-sky objects that they found with their naked eyes and telescopes. The class also spoke with Bob Summerfield, founder and director of Astronomy To Go, who brought large telescopes that scholars used during a community star party hosted for the entire GSP-Morehead campus.

In **Michael Feedback’s** Astronomy class, scholars investigated ways to send explorers to Mars. Teams studied detailed maps of the red planet to find potential landing sites for future exploration; using Morehead State University’s Star Theater and software simulations, scholars zoomed in on these areas to judge their suitability. Next, they designed spacecraft that would allow astronauts to live and work in transit to Mars as well as on the surface of the planet. These plans were presented to



GSP-Morehead scholars work together to interpret the geological history of Mars using actual data from NASA.

other scholars who served as judges in a simulated “bid submission” process.

Both Morehead classes were able to study various space objects up close with the help of Morehead State University’s Space Center, which gave scholars clues about the solar system’s early formation. Classes also visited the satellite production facility, where they studied how small satellites are designed and launched.

“It’s incredible what we saw in the skies; we just had to learn to look.”

— Sam Hacker,
Covington Catholic
High School

Biological & Environmental Issues

Bellarmine University

Greg Smith's scholars asked themselves an essential question: what is really needed to survive in the world?

The class defined life from a biological perspective and explored what can be done to increase the chances of surviving challenges. They camped primitively;

toured a bomb shelter to see how needs and wants differ among societies; debated the effects of obesity, which results from a need's transition to a want; and studied how the "need" to communicate has become a "want" to text and drive.

Ultimately, scholars learned that our daily choices—the habits we have deemed as essential to our lives and our survival—can have long-lasting effects.

“After this class, I have a deeper understanding about the overall value of nature and my role in it.”

— Jessica Pafford,
McCracken County
High School

Morehead State University

Using Robert Sapolsky's book *Why Zebras Don't Get Ulcers* as a guide, faculty member **Jamie Hester's** class explored the biological issues surrounding stress, including its emotional and physiological components.

Guest speaker Brent White (professor emeritus at Centre College) helped scholars test and compare their cortisol levels to better understand their own stress responses. The class also learned relaxation strategies such as Buddhist meditation, massage, and yoga.

With a scientific understanding of stress management skills, scholars equipped themselves with the tools to better handle the anxiety of balancing school and work, community activities, sports, and college and scholarship applications.

Murray State University

Josh Woodward's scholars tackled the biology of place, investigating how nature, economy, and community all connect. The class traveled to Eminence, Kentucky, with Creative Writing & Literary Studies scholars to join author Wendell Berry in a conversation about the value of place. Mr. Berry's lessons were then used to explore the communities of Cairo, Illinois, and Paducah, Kentucky. Scholars sought to understand why cities with such similar physical locations have resulted in such different levels of vitality. They studied the influences of the Mississippi and Ohio Rivers, transportation, race relations from the Civil War through desegregation, and changes in state support for communities.



GSP-Murray scholars meet Kentucky author Wendell Berry.

The same approach helped scholars gauge the health of streams in the Land Between the Lakes National Recreation Area. By visiting streams and their watersheds and examining data from Murray State University's Hancock Biological Station, scholars peeled back the layers of influence that control what flourishes in the streams of Kentucky.

Business, Accounting, & Entrepreneurship

Bellarmino University

Thanks to the generous sponsorship and assistance from the Kentucky Society of CPAs, faculty member **Scott Takacs** introduced his scholars to the many aspects of business. The class discussed the importance of diversity in a modern workforce, how to maximize investment in a college education, and the “time value” of money. They also studied the franchise business model, performing a case study of Papa John’s to consider ways to more effectively manage a franchise.

To experience firsthand how businesses thrive, scholars traveled to R.J. Corman, Louisville’s FBI office, Brown-Forman, and accounting firm PwC. Guest speakers included visitors from Century Aluminum, BKD, Yum! Brands, Ernst & Young, MJM, Patterson & Co., Directec, and KCTCS.



During a tour of the rail yards at R.J. Corman in Nicholasville, GSP-Morehead scholars see up close some of the innovations of Kentucky entrepreneurs.

“ I thought the business world had only correct choices and incorrect choices. This class showed me that the same ‘destination’ can be reached by many different paths.”

— Reese Butler, *Paducah Tilghman High School*

Morehead State University

The **R.J. Corman Business, Accounting, & Entrepreneurship program**, led by **John Sircy**, studied the two dominant schools of Western economic thought in the 20th and 21st centuries: Keynesianism and the Austrian school. Scholars learned the impact of these theories on the economies of Western Europe and the U.S. and observed how the influence of each ebbed and peaked at different times.

The class then tested its knowledge in a business simulation. Six teams managed

their own computer manufacturing companies, each striving to be the top performer in certain key metrics. Each company developed a name, logo, mission, and strategic plan, and determined annual production, pricing, marketing, and balance-sheet management strategies to outperform the competition. Several “years” were simulated, with a newspaper published each “year” that included articles analyzing each company’s performance and future prospects.



FOCUS AREAS

Murray State University

Faculty member **Danny Blaser's** summer goal was to encourage his scholars to develop an appreciation for the power of innovation. With a focus on the creative nature of entrepreneurship, scholars collaborated to develop business ideas for everything from an improved version of the traditional mousetrap to a globally transformative enterprise. Teams designed their own pitches and presented them to a mock panel of potential investors.

Scholars also visited local businesses to learn how entrepreneurs develop the fabric of their community. The class toured New Life Christian Bookstore, Wild Mountain Bakery & Café, Matt B's Main Street Pizza, Zax Imprinted Sportswear, and Culver's Restaurant, interviewing the owners about the benefits and struggles of maintaining a small business.

GSP-Bellarmino scholars take a moment to pose with the FBI seal at Kentucky's FBI headquarters in Louisville.



Chinese Language & Culture

Bellarmino University

Scholars in **Kyle Anderson's** class took on the ambitious task of modern-language study along with an introduction to Chinese philosophy and 20th century history, music, and film. To encourage self-awareness and relaxation during periods of intensive study, scholars also learned to integrate a number of contemplative

practices, including qigong and yoga. "We not only increased our vocabulary," said scholar Alexandra Whitman of Meade County High School. "We were able to expand our knowledge of Chinese culture through music, movies, and meditation."

By the end of the summer, scholars mastered the basics of Modern Standard Mandarin while equipping themselves with the cultural knowledge to speak informatively about China and its place in the modern world.



Communication & Social Theory

Bellarmino University

Cher Reynolds asked her scholars to ponder the nonverbal elements of our communication systems. The class viewed a documentary on the development of gesture-driven language for the hearing impaired and visited the American Printing House for the Blind to learn about the technological advances that improved communication, and thus quality of life, for visually impaired individuals.

The class also took a “Day of Silence” during which they did not speak, allowing them to see their own reliance on nonverbal communication to convey or understand meaning. Later, Reyna Radcliffe, a health strategies associate with the American Heart Association, visited the class to discuss the importance of clear, effective social media campaigns for success in today’s public relations field.

To test their verbal communication skills, scholars participated in social experiments, such as the development of a new slang term. A handful of scholars outside the Communication & Social Theory Focus Area adopted “flush” to mean someone or something good, likable, or awe-inspiring—a term well suited for describing their own GSP experience.



GSP-Bellarmino scholars learn to use braille typewriters at the Museum for the American Printing House of the Blind.

Murray State University

Nick Gowen’s scholars investigated “otherness,” the tendency to manufacture ingroups and outgroups and then assign them umbrella characteristics. The class first looked at the role that geography plays in creating an “us vs. them” mentality. They read articles and watched news clips that reinforced unfair stereotypes of Appalachia, and then they studied the work of Kentucky authors Silas House and George Ella Lyon to gain a more nuanced understanding of our Commonwealth’s many voices.

Scholars also considered how visual cues are used to construct otherness. PBS’s series *Race: The Power of an Illusion* helped them see how skin color has been used to categorize and, ultimately, either suppress or grant privilege based on those fictional lines.

To experience a world without common visual cues that we rely on to group strangers, each scholar was blindfolded, matched with a scholar from an anonymous Focus Area, and asked to get to know their partner. Although they were blindfolded, scholars could still “see” something special: a world free of the common biases that continue to keep us divided.

“**Seeing the opportunities possible with great communication skills has left me confident that I can succeed with this as a career choice.**”

— Emily Chavez,
Henry Clay High School



Creative Writing & Literary Studies

Bellarmino University

Frank Ward focused his class on the development of self-expression through poetry and narrative, using, among others, the media of calligraphy and illumination. Through exercises in effective descriptive writing, development of narrative arc, and poetic imagery as sensory impression, scholars explored the creative experience in written form. At the core of this process

were peer reviews in a writers' group that met weekly during class time. Each scholar developed an illuminated manuscript of his or her work using introductory calligraphy methods and medieval manuscript models.

Later in the summer, the class teamed up with the Visual Arts scholars on a project combining creative works from both groups for a public exhibition. Scholars also met with published authors and toured Publishers Printing Company as part of their exposure to the realities of professional writing in the 21st century.

Morehead State University

Led by faculty member **Elisha Sircy**, scholars investigated the detective fiction genre. They looked at the history of detective stories, following through the amateur sleuths of the "golden age" (including Arthur Conan Doyle's Sherlock Holmes and Agatha Christie's Hercule Poirot), the hard-boiled detectives of Chandler and Hammett, and finally the police procedurals of Ed McBain. This inspired the scholars to wonder: how could we expand and innovate within the

detective conventions?

Jacqueline Kohl Hamilton, a lecturer at EKU, helped the scholars look at the type of thinking required of a detective as well as of a writer. The scholars then devised and scripted a detective serial with technical input from the Forensic Science class. They produced and performed a four-act murder mystery, each act performed during the showcase at the end of each week.

“This class reminded me of why I fell in love with writing in the first place.”

— Ally Douglas,
South Warren
High School

Murray State University

Inspired by a conversation with author Wendell Berry, **Ron Reed's** class searched for the stories within themselves that had to be told. They explored the depths of photographs, works of art at the National Quilt Museum in Paducah, and music from across genres. Once their stories were written, scholars presented an evening of prose and poetry with original music composed by the Music Theory & Performance class. This kind of collaboration reinforced how literature can influence music and how music can influence literature.

As a final project, the scholars sponsored a coffeehouse, titled Verse and Caffeine, to provide a forum for all writers on the GSP-Murray campus to share their own creations. For the scholars, finding many environments in which to explore thoughts and emotions helped them discover that stories exist everywhere.



Before practicing the art of calligraphy and illumination, a GSP-Bellarmino scholar sharpens her handmade quill.



Cultural Anthropology

Morehead State University

How do we learn our culture? Along with faculty member **Elizabeth Fairhead**, scholars discussed the interwoven elements of culture that work together to teach a person to be a fully responsible member of a society. By examining folktales and games from all over the world, scholars saw that seemingly childish activities play a non-trivial part in reinforcing cultural norms. Their attention settled on the way Eastern cultures and Confucian-based societies express their worldviews through

children's activities.

With this ethnographic background in mind, the class developed and compiled original research. By conducting participant observations and administering a written survey to the GSP-Morehead community, the scholars created a cross-cultural comparison between GSP culture and Eastern societies. They tested a hypothesis that placed each of the studied cultures on a spectrum of individualistic and collectivistic ideals.

To develop a more personal relationship with their food, scholars at GSP-Murray tour a local farm's tomato crop.

Murray State University

Carly Muetterties equipped her scholars with an anthropological lens for analyzing different cultural traditions, specifically food practices. They considered food and food rituals, both as a social experience where personal identities become observable and as a common mode of cultural reciprocity. Each scholar researched food practices of a cultural group of his or her choosing, with the opportunity to participate in a modified version of some of these rituals.

Scholars also assessed their personal relationship with food. This included a challenge to make a small but significant change to their eating habits to foster mindfulness in what and how they eat.

Two farms gave scholars another opportunity to understand their relationship with what they eat: Cundiff Farm, a large industrial farm that grows crops sold internationally; and Beans to Blossoms, a small organic farm. This contrast helped scholars understand the politicization of food production, as well as their social responsibility for addressing issues of local and global hunger.



Dramatic Expression

Bellarmino University

Through breathing, movement, vocals, and text-based work, **Meg Caudill's** scholars explored the range of their acting abilities. Scholars chose monologues and then worked with professional actors, producers, and casting directors, who walked them through a mock audition process and provided tips for improving their performances.

The class also toured the Central Park location of Kentucky Shakespeare's summer festival, enjoying professional performances of *Macbeth* and *The Taming of the Shrew*. Their exposure to the works of Shakespeare led them to create their final performance piece, working as an ensemble to stage scenes from *Macbeth* in which they also took responsibility for the performance's lighting, makeup, costume, and sound design.



For their culminating project, GSP-Murray scholars perform an original piece for the entire community.

“Dramatic Expression taught me to be my complete self and to think outside the box—not just in class but in everyday life.”

— Tori Hafner, *Oldham County High School*

Murray State University

Instead of being given a script for their summer theatre production, scholars in **Melanie Kidwell's** Focus Area were simply given an empty journal and the word “justice.” Their task was to explore the idea of justice through the art of drama. Scholars first went to different forms of media—newspapers, broadcasts, and magazines—to see what tied to the concept of justice. They found instances of racism, discrimination, religious intolerance, violence against women,

and unjust stereotypes. Individually, they settled on something they were passionate about and began the process of digging in.

They used passages from literature, images from paintings and sculpture, and personal experience as inspiration; worked collaboratively with each other and the Murray State University theatre department to develop their ideas; and implemented a variety of media and disciplines to present thought-provoking works to the GSP-Murray campus.



Bellarmino University

Sandy Adams asked her scholars to ponder what engineering is, how it differs from science, and how engineers execute their ideas. How do thoughts, principles, and processes turn into the many things that define our material world?

Using Henry Petroski's book *Invention by Design* as a resource, scholars learned how engineers get from thought to thing, specifically the aluminum beverage can. During each class, scholars were presented with design challenges and constraints that taught them the importance of the design process and teamwork.

Both Engineering classes at Bellarmino were immersed in real-world design challenges on several field trips across Kentucky, including visits to Toyota Motor Manufacturing, Taylorsville Lake and Dam, Eastern Kentucky Power Cooperative (EKPC), Lexmark International, Duke Energy, and the

University of Louisville's J.B. Speed School of Engineering. Scholars were tasked with solving a number of actual engineering problems: designing an access road and parking lot for a boat ramp at Taylorsville Lake, ensuring a windshield installation met the Toyota engineering team's expectations, and learning how a coal-fired plant generates and distributes electricity.

In **Hans Chapman's** class, scholars were then tasked with designing and building models to depict the engineering structures or products they studied on their field trips. Guest speakers during evening classes enhanced the scholars' design process with discussions of bridge building, highway construction, and solar cars. Overall, the combination of learning opportunities, contacts with engineering personnel, and hands-on projects created a rich understanding of the Engineering field and its many applications.



Left, scholars design a parking lot for Taylorsville Lake; **center**, observing a transformer station at the Dale Power Station in Winchester; **right**, viewing a 3D-printed model of a patient's heart at UofL's Speed School.



Film Studies

Bellarmino University

Scholars in **Ian Frank's** class explored the what, how, and why of filmmaking and its impact on society. They took an in-class tour of global cinema, watching films like *Run Lola Run*, *Playtime*, and *The Bicycle Thief* to see the world through the eyes of artists in other cultures. They extended their cinematic tour outside the classroom, visiting local theaters to see the film noir staples *Laura* and *Double Indemnity*. With a foundation of classic films laid, scholars set out to recreate iconic cinematic moments to practice working both behind and in front of the camera.

To prepare for their major project, scholars watched innovative Hollywood films to build a toolbox of technical elements. They employed those tools to then create an original film inspired by an idea or emotion important to them.



Murray State University

Reorienting his class's approach to the screen, faculty member **Dary Picken** asked his scholars to begin viewing films as moving paintings. The scholars watched *Amelie*, *The Great Escape*, and *On The Waterfront*, works celebrated for their careful, artistic composition. Another film, *Adaptation*, stirred conversation about what it takes to be original in Hollywood and the differences between movie tropes and movie formulas.

To better understand the artists who create works of film, the class participated

in "character speed dating." The scholars built original characters based on friends from their lives and observations of people on Murray State University's campus. Then, they came to class in character and were interviewed by the other half of class to practice improvisation.

Some of the characters inspired ideas for the class's final film projects, which ranged from short story adaptations, to a movie trailer for a larger work, to an original short film.

In the roles of both actors and directors, scholars at GSP-Murray shoot footage for a film based on fellow class members' scripts.

“**Film Studies forced me to look at cinema as an art (not just as entertainment), opened me up to new ideas, and showed me that it was possible to follow my dreams.**”

— Jared Thomas,
Harrison County High School



Forensic Science

Morehead State University

Diving immediately into a hands-on forensics challenge, **Will Garcia's** scholars recreated a body farm to study the biological decomposition of dead roosters from a local farm. Scholars researched the stages of decomposition and came up with a hypothesis of how their roosters would decompose. The class then placed the deceased roosters in different scenarios, including a shallow grave, sand, and concrete. Throughout the five weeks the scholars documented the decomposition process and were able to prove much of their initial research correct.

The class also explored non-violent crimes. A former member of the Secret Service under President Obama led a discussion about the emergence of cyber crime and how counterfeiting has shifted from dollar bills to identity theft. Scholars also discussed insurance fraud with a Kentucky Farm Bureau investigator.

After talking to forensics experts from several state agencies, scholars in **Tyler Morris's** Focus Area challenged the "CSI effect" of pop culture. They spoke to forensics analysts, law enforcement officers, fraud specialists, and college professors. They also visited the Forensics Science



In the forensics lab at Eastern Kentucky University, GSP-Morehead scholars test a shirt to see if there is any blood present.

Program at Eastern Kentucky University and worked with professors and students to examine physical evidence and learn about the process that forensic analysts must follow to get scientifically accurate evidence and then admit it into court.

The scholars also spent time working with "blood" splatter data (from a recently deceased watermelon), searched and evaluated fingerprints from their peers, and analyzed the use of forensics in several high-profile legal cases, such as the Unabomber, the Oklahoma City bombing, and the Kennedy assassination.

Murray State University

Madison Sewell's class also studied blood spatter evidence, investigating how height, quantity, and angle of impact can be used to recreate a crime scene. Scholars logged data and created datasets and graphs of their evidence. They also viewed *The Staircase*, a documentary in which blood spatter evidence played a critical role both in establishing the defendant's guilt and in eventually reversing the conviction.

Scholars then collaborated with the

Political & Legal Issues class to play the roles of forensic scientists and other witnesses in a mock trial presented in federal court before a federal judge. The case involved conflicting stories and witness accounts that could not be reconciled. Scholars found that even forensic science may produce conflicting accounts, leading them to question the reliability of forensic science and see the need for technically competent examiners.

“This class was extremely thought provoking, allowing me to use facts to make my own opinions. It was a refreshing classroom experience.”

— Abigail Abner,
Buckhorn School

Healthcare Industry

Morehead State University

Faculty member **Derek Moore** began his class with a sampling of healthcare-related fields available to scholars as they graduate and begin careers. The class spent a day volunteering at the Kentucky Veterans' Expo in Ashland, helping set up booths for organizations catering to veterans and talking with many of the veterans present. A physician assistant from the Huntington VA Medical Center also presented to the class regarding veteran health and her career path in the federal government. Field trips included a visit to the Rural Physician Leadership Program

in Morehead, the University of Kentucky College of Pharmacy, and the University of Louisville's Cardiovascular Innovation Institute.

Moore also helped his scholars practice discerning good and bad medical research, stressing the importance of study design and causality. The scholars read and discussed several historic medical research articles, with examples of reliable research and writing (including publications on the discovery of DNA) and misleading studies (including research linking autism to the MMR vaccine).

GSP-Murray scholars practice stitching on a rubber arm.

Murray State University

As an introduction to the medical field, **Cindy Brainard's** scholars dissected the Hippocratic Oath and debated each statement's purpose. Next, they branched into the academic, political, ethical, and global influences that contribute to the healthcare industry in our nation and world. Atul Gawande's book *Being Mortal* served as a resource for studying the rising geriatric population in our country, a change that increases the need for geriatric specialists. Scholars concluded that every human being has an intrinsic desire to be needed and useful, regardless of age.

To experience a day in the lives of healthcare workers, scholars practiced phlebotomy and stitching on rubber arms and faces. They also visited the University of Louisville School of Dentistry and the minimally invasive surgery center at the University of Kentucky.

Through their readings, discussions, and on-site visits, scholars saw that caring about the whole person—rather than just a disease or diagnosis—should be the real heartbeat of this industry.



Historical Analysis

Morehead State University

Steve Easley's class explored the lives of famous, infamous, and not-so-famous Kentuckians. They read the biography of civil rights activist Anne Braden, which sparked debate about civil rights in Kentucky today, including the controversy centered on the Capitol building's Jefferson Davis statue. Scholars visited Frankfort and debated these issues with the staff of the Kentucky Historical Society.

To explore the lives of two other Kentucky residents, scholars ventured to the Mary Todd Lincoln Home and the Ashland Estate, former home of Henry Clay. Scholars also visited Winchester to investigate the life of G.L. Wainscott, creator of Ale-8-One. Through their adventures into Kentucky's history, scholars came to appreciate the people who have made the Commonwealth what it is today.



GSP-Morehead scholars flex their biceps at Louisville's Muhammad Ali Center.

“This class has made me look at both the past and the present in a new way.”

—Tannon Pollard, *Knott County Central High School*

Murray State University

Faculty member **Kristen Harris** explored with her scholars the ideas of implicit bias, subjectivity, and hate in American history. The class read and discussed a social science text about the root of hate violence in America as well as the classic novel *Roll of Thunder, Hear My Cry* to meditate on the more difficult parts of our nation's history. The class also traveled to the Jefferson Davis State Historic Site in Fairview, Kentucky, and the town of Cairo, Illinois, to see how different communities have responded to local or national events

of racial violence.

Later in the summer, the Historical Analysis class teamed up with the Political & Legal Issues class to participate in jury selection for their mock trial. After selection, scholars discussed how bias could impact judicial processes and might help to explain current social issues. As a culminating project, and to expand beyond the American perspective, the scholars worked in small groups to construct timelines of prejudice and discrimination against groups throughout the world.



International Relations

Bellarmino University

Frank Russell's class began by establishing a theoretical framework for understanding international relations. The scholars read and discussed Mearsheimer's *The Tragedy of Great Power Politics*, which presented an argument for the theory of offensive realism. They contrasted this model to others and applied a number of perspectives to analyze the current

articulation of the U.S.'s National Security Strategy. The scholars then proceeded to discuss particular cases of hegemony (both political and economic), human rights, population growth, and globalization. To support their arguments, they drew on policy documents (for instance, the declassified Kissinger Report on Population Growth and the U.N. Charter and Declaration of Human Rights), academic articles, news media covering the Greek debt crisis, and propaganda ranging from American documentaries to a North Korean film.

Morehead State University

Led by faculty member **Vik Shymanskyy**, scholars developed their own vision of what the global community should look like and how it should evolve to meet the challenges of the 21st century. To better understand today's world, scholars first studied the historical context of international relations, including the Peloponnesian War, the Peace of Westphalia, the Congress of Vienna, and the founding of the United Nations.

With this historical foundation, these future politicians and diplomats applied their skills and talents toward resolving current and potential international issues. They organized mock international conferences and negotiations to debate topics such as the recent terrorist attacks in Tunisia, Turkey and the Middle East; the signing of a new nuclear deal with Iran; and re-opening the respective embassies in Cuba and the U.S.

“This class succeeded in widening my view of the world and everyone in it.”

— Halee Bergman,
Calloway County
High School



GSP-Bellarmino scholars dine on an international meal prepared by the class.

Murray State University

Scholars in **Peter Berres's** class spent much of their summer in collaboration with other Focus Areas to examine international issues in a more comprehensive way. After a conversation with Kentucky political cartoonist Joel Pett, the class teamed up with Spanish Language & Culture scholars to research the use and function of political posters and cartoons.

With the Psychology & Behavioral Studies class, scholars studied readings on both military and civilian causes, symptoms, and therapies of PTSD, examining the differences in presentation between the two groups.

A final collaboration drew together the Philosophy and International Relations classes to consider the just war theory. Scholars studied theology, philosophy, and modern reflections, including author Wendell Berry's personal and national understanding of criteria for determining the justness of, and reasons for, entering a war.



Journalism & Mass Media

Bellarmino University

Faculty member **James Kenney** knew that his scholars needed field experience to master the techniques of journalism. They were assigned to cover a Louisville Bats baseball game, and each scholar was able to photograph an inning of the game from the photographer's press box next to the dugout using a telephoto lens (assisted by Scott Utterback, a photographer at *The Courier-Journal*). In addition, scholars visited the Meade County Fair and the Kentucky Music Weekend folk music festival to take photographs. A trip to *The Courier-Journal* introduced scholars to the workings of a printing press, and WAVE-TV hosted the class for a live broadcast.

To bring their skills back to the GSP-Bellarmino campus, the class was assigned to cover GSP events and write profile stories on fellow scholars. All of this gave scholars the opportunity to apply their newfound skills outside the classroom.



A scholar at GSP-Bellarmino photographs a Louisville Bats baseball game from the stadium press area.

Morehead State University

Mel Coffee's class goal was to use critical thinking and employ practical skills to understand the complex, changing landscape of journalism and mass media. Scholars studied several aspects of mass media including social media, radio, broadcast, and print. They also focused on the business of producing news; ethics and diversity; and how social media challenges and changes standard newsgathering,

production, and delivery on all platforms.

For field experience, scholars produced a newscast and wrote public service announcements that aired on Morehead's NPR station. Scholars also conducted interviews at the Kentucky Veterans' Expo in Ashland, which were produced into a 20-minute documentary that is now a permanent part of the exhibition at the Morehead Veterans History Museum.



Murray State University

Scholars in **Bellarmino Ezumah's** class had a taste of what it means to be a “mo-jo” (mobile journalist) with all needed equipment in just one backpack as they traversed the GSP-Murray campus, covering and editing showcase presentations, convocations, drama productions, and music performances.

To exercise all they learned, scholars produced showcase DVDs and a thirty-six-page yearbook that captured the highlights of the GSP-Murray campus. They collaborated with the Business, Accounting, & Entrepreneurship class to raise funds to defray the cost of the yearbook.

Modes of Mathematical Thinking

Bellarmino University

Jason Dooley's class focused on probability and the role it plays in strategy and decision making. Scholars applied theories of probability to strategies in various games and in real-world scenarios, such as the stock market or life insurance. They explored various games—from professional football to chess to traditional card and board games—and tried to devise their own variants and strategies for each, with an eye to the underlying mathematical principles involved.

“This class allowed me to see math as a way of thinking, as an art, and as a language all on its own.”

— Peyton Paulson,
Connor High School

Morehead State University

Faculty member **Duk Lee** undertook the challenge of broadening his scholars' perception of math, helping them see it as a universal language of scientific communication, as a logical way of processing human thoughts, and as a tool to help all other disciplines.

To achieve this, the class spent hours with challenging math problems. No formula existed or was given; scholars had to devise their own ways of untangling a complex situation, finding beauty in the intermediate steps that led to an end. The class also studied origami in depth and its connections to math. As a service project, the class organized a math contest and an Origami Day for the GSP-Morehead campus, displaying their origami works for the general public.

Murray State University

Jeremy White's scholars examined the role of math in secret communication, officially known as cryptography. They explored the history of cryptography through readings, discussions, and group activities. Modeling the ongoing historical battle between codemakers and codebreakers, scholars learned various techniques for encrypting messages and attempted to uncover the meanings hidden in cryptographic messages created by their fellow scholars.

Scholars also investigated basic concepts of abstract algebra. In particular, they examined the topics forming the foundation of the computer-based encryption algorithms widely used today. The final part of the course was spent discussing the ongoing debate over cryptographic public policy.



Music Theory & Performance

Bellarmino University

Scholars in **Ryan Knight's** class explored music as a narrative. In the first week, scholars studied musical nationalism, researched American composers, and spoke with musicologist Dr. Jenny Campbell about music during wartime conflict. To understand the importance and power of music in a film's narrative, the scholars

traveled to see *Star Trek: Live in Concert* at the Cincinnati Pops Orchestra.

During their final two weeks, scholars learned about music therapy and its use in modern medicine. They spoke with music therapist Kelsey Lownds about the use of music with patients touched by dementia and Alzheimer's. The class organized a service-learning opportunity at the Nazareth Home in Louisville and prepared many performances for the residents.



GSP-Bellarmino scholars test their music knowledge during "Treble Clef Twister."

Morehead State University

Andrew Winner asked his scholars: what makes music memorable? Is it melody, chord progressions, rhythms, or lyrics?

To begin answering this question, the class experimented with different methods used by composers and songwriters: improvisation, creative thinking, cooperative effort, and self-directed goal setting. Each week, scholars selected multiple pieces of music on which to collaborate. The class then staged performances of these collaborations for the GSP-Morehead campus, giving each class member the chance to exercise his or her skill to create unique group performances.

To see in person how other artists make their music memorable, scholars visited Cincinnati's Music Hall for an opera performance of Donizetti's *Don Pasquale* and to The Kentucky Center for Traditional Music at Morehead State University for a performance reflecting Kentucky's cultural heritage.

“

I've strengthened my bond with music and learned what is no longer offered at my school. GSP opens up possibilities for those with none.”

— Daniel Abul-Khoudoud, *Russell High School*

Murray State University

Tana Field's class contemplated the challenge of storytelling through music, joining the Creative Writing & Literary Studies class to create original collaborative works. In addition to providing their ideas for texts and storylines, the class composed new music and performed it live for the GSP-Murray campus.

The class also explored the connections between music and other disciplines. With the help of a studio artist, scholars painted visual representations of contrasting musical works. They also examined the relationship between music and mathematics, looking at topics such as Pythagorean intervals and the golden ratio. Finally, the class teamed up with the Spanish Language & Culture class to consider the development of guitar literature and the role of music and dance in Spanish-speaking countries.



Philosophy

Bellarmino University

Faculty member **Lisa Hicks** led her scholars in an exploration of the many sub-disciplines of philosophy, with particular emphasis on ethics, logic, and metaphysics. Scholars read classic and contemporary texts (including Plato's *Crito* and Edward Craig's *Philosophy: A Very Short Introduction*), screened and discussed films (including *Run Lola Run* and *The History Boys*), deciphered logic puzzles, and engaged in independent research on philosophers and philosophical movements—from philosophy's Western and Eastern roots to the present. They also discussed topics ranging from forms of government to educational systems to the roots of spiritual beliefs.



To better understand a philosophical concept, a GSP-Murray scholar creates a chart on the board for the rest of the class.

Morehead State University

Socrates stands as the archetype of free intellectual inquiry throughout history, and **Patrick Nnoromole's** class focused on two of his dialogues, *Republic* and *Euthyphro*. Through these books, the class—like Socrates—dared to explore the notions of justice, piety, and virtue. They also considered each concept's applications to our individual lives and society in general. According to scholar Nick Widriy of Dixie Heights High School, "This class has led me to new ideas that I would have never come across without this experience."

Murray State University

Using the Socratic method, **John Wilcox's** scholars examined questions of justice and virtue with regard to three main areas of the world today: the natural environment, industrial farming, and the just war theory.

Regarding the environment, the class raised questions about how to balance the human need to use the environment

against the damage this use does to the environment and to the people most directly affected by it. With regard to farming, the class asked: how are we to produce enough food to feed the world without losing a sense of connection to the land itself, and to the people and communities that produce the food? In their discussions about just war, the class collaborated with the International Relations Focus Area to debate whether world peace is possible and whether war can ever be humane.

“ I had no idea what to expect from a philosophy class. I feared it. Thank you, GSP, for allowing me to experience what I feared.”

— Ryan Richardson,
Williamsburg School



Physical Science

Bellarmino University

Terri Tinnell introduced her scholars to scientific inquiry through a botanical experiment: how do their decisions about soil, nutrients, scientific communication, and care impact a plant's end result? Along the way they studied chemical and physical change reactions, chromatography, creations of varying structural models, and electrical circuits.

However, the class's biggest summer challenge was introduced to them by Alex, a five-year-old born without a portion of his left arm. Scholars became biomedical engineers and orthopedic doctors as they evaluated the mobility of the human hand and arm to recreate it as a prosthetic for Alex. Finding success in their design work, scholars visited the Cardiovascular Innovation Institute in Louisville and discovered ways that top surgeons and innovators are working to enhance human life through scientific discovery.

Morehead State University

Greg Jacobelli's class explored the physical forces that have shaped our world and limited our exploration capabilities. Scholars traveled to Natural Bridge State Park to look at and discuss some of the mechanical and chemical forces that continue to shape our surroundings.

After their field trip, scholars explored the physics of travel and its inherent limitations. After discussing the limitations in the current automotive industry and the physics of the internal combustion engine, they visited Toyota Motor Manufacturing in Georgetown to tour one of the most efficient automotive plants in the world.

Scholars then moved to the physics of the final frontier: space. The class surveyed the history of NASA and some of its current projects, including the New Horizons probe designed to study Pluto. Dr. Ben Malphrus, head of Morehead State University's Department of Earth and Space Sciences, spoke to the class about getting involved in the aerospace industry. Inspired by their discussions, scholars designed and flew their own rockets.

The study of plastics and polymers was at the



GSP-Morehead scholars visit the 21-meter space antenna system at Morehead State University.

center of **Jennifer Smith's** class. As scholars examined the world around them, they saw that both natural and synthetic polymers are ubiquitous. They studied the history of polymers, including the accidental discovery of vulcanized rubber by Charles Goodyear. As the properties of rubber were investigated, the class designed a bungee jump for a doll. Scholars continued their study of polymers by formulating their own recipe for the "bounciest" ball.

After watching the documentary *Plastic Paradise: The Great Pacific Garbage Patch*, the scholars saw a clear need for the development of environmentally-friendly plastics. They then synthesized their own bioplastic and compared its properties to synthetic plastics.



Political & Legal Issues

Bellarmine University

John Powell's scholars focused on developing a better understanding of ethnicity, race, and racism in the U.S., and on identifying actions and attitudes that would improve race relations. Their search involved a careful evaluation of current news stories, discussions with elected political figures and educators, and a mock trial in Louisville's Circuit Court chambers.

At the practical level of promoting racial and ethnic diversity, scholars worked with Kentucky Refugee Ministries in Louisville to assist refugees weekly as they began new lives in Kentucky.

Scholars at GSP-Morehead decipher FBI files from a real case.



In this class, I was reminded of what purposeful learning is like.”

— Alex Quillen, *Greenup County High School*

Morehead State University

Scholars in **Jim Seaver's** class strove to emulate the work of the American intelligence community and compare their experience to the community's portrayal in movies. They established and staffed their own secret organization, the GSP Intelligence Agency, which gathered information and conducted a series of low-stakes covert operations. From the very start, scholars encountered the benefits and challenges of maintaining a culture of secrecy. They gained experience conducting open-source intelligence analysis, recruiting agents, and doing counterintelligence. Guest speakers

included a Secret Service agent, a First Amendment attorney, a political action organizer, a cybersecurity expert, and a CIA operations officer who served in Moscow during the Cold War.

Above all, scholars developed an appreciation for the ethical dilemmas that the U.S. intelligence community faces daily. They studied Edward Snowden and debated the efficacy and morality of enhanced interrogation techniques used against suspected terrorists. By the end of the summer, scholars realized that the real-life practice of espionage rarely resembles what they have seen in the movies.



Murray State University

Data surveillance and equality were the focus of **Jason Wheeler's** class. Scholars explored why governments use surveillance programs, whether they are ethical, and how citizens currently view equality. With the help of Glen Greenwald's *Nowhere to Hide*, scholars identified current NSA surveillance programs, discussed how they are currently impacting people at home and abroad, and considered how to balance security and civil liberties.

Next, scholars turned their attention to the justice system. They were given

access to released court documents and asked to develop charges, create a defense, and try a case in front of a federal judge. Unlike traditional high school mock trials, scholars had to create a witness list, attend a pre-trial hearing, conduct a voir dire, and try a case in front of a jury of their peers. The mock trial was completed in collaboration with the Forensic Science class, who served as witnesses, scientific experts, and the jury. This project provided valuable insight into the skills needed to conduct a full trial.

Psychology & Behavioral Studies

After studying brain development during childhood, GSP-Morehead scholars organize a "play fair" to model activities that affect a child's disposition and worldview.



“ [This class] has been an experience I will never forget.”

— Dane Pike,
Nelson County
High School

Bellarmino University

Dispelling exaggerated perceptions in television crime shows, scholars in **Irene Bozio's** class studied criminal justice and forensic psychology. A forensic psychologist and nurse at the Kentucky Correctional Psychiatric Center helped scholars gain an understanding of the assessment process used to determine criminal responsibility at the time of the crime and an individual's competency to stand trial. Through various speakers from the police department, scholars learned about their training process and how psychology is used to defuse conflict situations on the streets, interview suspects, and make life-or-death decisions.

A visit to the Dismas Charities Substance Abuse Treatment facility gave scholars access to personal testimony of how addictions are formed, the negative consequences of addiction, and the challenge of treatment and reentry into society. In one of the most fascinating experiences of the summer, scholars were able to hold a human brain during their visit to the University of Louisville School of Medicine, identifying as a class the functions of each part.



Morehead State University

Jay Crocker's class focused on the idea of perspective. Each week the class considered a new topic and examined it through perspectives of a different societal group. The scholars also read *The Man Who Mistook His Wife for a Hat and Other Clinical Tales* by Oliver Sacks, which explores the way people with neurological disorders perceive the world. With a better understanding of the perspectives of people with mental illnesses, the class visited Eastern State Hospital in Lexington. There, scholars spoke with

a psychiatrist, a neurologist, and a man recovering from addiction issues.

Later, the class studied the perspective of childhood and innocence and the development of the brain as people age. Scholars were particularly interested in the concepts of childhood and adulthood play and how they affect quality of life and dispositions. These perspectives allowed scholars to leave the program with better connections to different groups of people and a stronger sense of empathy for the people they encounter.

Murray State University

Scholars in **Jessie Arnold's** class asked themselves: how is social media affecting our minds? The class read Susan Greenfield's *Mind Change* and several journal articles on social media, discussing each resource's strengths and limitations before creating their own research methodology.

During a visit to Western Kentucky University, scholars toured the Cognitive Aging Laboratory and the Cognitive and Behavioral Neuroscience Laboratory, where a scholar tried on a net with 128 electrodes to learn about EEG (electroencephalopathy) research. This trip allowed scholars to learn about the diverse studies that take place in psychology and to discuss ideas and questions with the department's faculty members.

As a culminating project, scholars completed individual research projects and created poster presentations for display at a mock research conference for the entire GSP-Murray campus.

Adriane Hardin-Davis asked her class to consider what trauma is exactly, how Kentuckians are impacted by it, and how we heal trauma's wounds. Using Dr. Judith Herman's *Trauma and Recovery*, the class examined domestic violence and PTSD. In an effort to better understand the impact



To better understand the sections and functions of each part of the brain, GSP-Murray scholars create "brain hats."

of PTSD, scholars collaborated with the International Relations class to complete research on the impact, prevalence, and treatment of PTSD in the U.S.

Scholars then set out to learn about the lived experiences of domestic violence victims. They spoke with domestic violence advocates at the Merryman House Domestic Crisis Center in Paducah and toured the Western Kentucky Correctional Complex to learn about the various programs available to inmates who have suffered from trauma.



Spanish Language & Culture

Morehead State University

Clint Hendrix encouraged his scholars to broaden their understanding of Hispanic communities, both abroad and within the U.S. Concentrating on how media casts different immigrant communities, scholars first analyzed the depictions of Mexican- and Colombian-Americans through the lens of mainstream television programs. The class then turned to documentaries such as *Which Way Home*, a film depicting the treacherous path toward the “American

Dream,” and the reasons behind Central American and Mexican citizens’ attempts to enter the U.S.

To better understand Hispanic culture, scholars created a linguistic and cultural exchange with Costa Ricans who were on Morehead’s campus to study English. After scholars and Costa Ricans took turns teaching traditional dances from their countries, together they prepared several Southern dishes and “gallo pinto,” a traditional beans and rice dish from Costa Rica. Their final multimedia project, *I, Too, Am GSP*, put what scholars had learned during the summer into action by helping the entire community dispel stereotypes about a variety of minority groups.

Murray State University

Scholars in **Jeff O’Field’s** class explored the culture, history, and language of the Spanish-speaking world. In the classroom, they used interactive online resources and group activities to improve their levels of fluency. While studying the Caribbean region, scholars mastered introductory steps for salsa dancing. They taught this newfound skill to their peers weekly, and they eventually hosted an afternoon salsa dancing lesson for the entire campus. In creating visual posters on immigration and current events in the Dominican Republic and in the U.S., scholars learned to incorporate the insights of classmates, guest presenters, and scholarly research into their work.

Outside the classroom, they partnered with local organizations each week to meet Spanish-speaking residents in the Murray area. The class volunteered at Murray’s Central Park to assist with weekly programming for families, many of whom speak Spanish. They also traveled to Paducah to partner with the Western Kentucky Migrant Education Program in their summer classes for Spanish-speaking children and teenagers.



GSP-Morehead scholars view depictions of Hispanic culture in Paducah’s flood wall murals.



Visual Arts

A GSP-Bellarmino scholar adds some finishing touches to his self portrait.



Bellarmino University

The majority of the projects in **Matt Curless's** class focused on value—the contrasts of lights and darks and the ranges of grays in between. “If there’s one aspect of high school artwork that is consistently flawed, it would have to be the lack of seeing true darks and lights in their work,” Curless explained. “Their values in the projects are not pushed as far as they are really capable of doing.”

To combat this, the class created black-and-white self-portraits using a medium gray paper. This forced scholars to go in both directions of value, not just simply adding black to a white paper. The class also learned how to etch scratchboards, focusing on a memorable place on campus as the subject matter. As a culmination of their efforts, the class’s work was exhibited to the GSP-Bellarmino campus in an art gallery during the program’s final week.

“The relationships I formed in this class couldn’t be formed just anywhere. Everyone gave opinions or suggestions to creative pieces. Art doesn’t get that kind of appreciation back home.”

— Karson Grizzard, *Marshall County High School*

Morehead State University


Deeno Golding's scholars discussed the characteristics of time and the task of visually representing time. They asked themselves: is time a result of human perception, therefore an interpretation of a sequence of events, or does the relationship between the events exist independent of our senses?

The philosophy of art became a topic of conversation again when scholars discussed how the creation of images under different

conditions contributes to the attainment of knowledge about the images created. The class worked with a number of techniques and materials (both traditional and contemporary), developed their studio skills, and created a variety of pieces with these ideas in mind. A highlight of the summer came during a field trip to the Cincinnati Art Museum, where scholars had the opportunity to view and analyze various types of art.



GENERAL STUDIES



General Studies classes emphasize creative thinking, problem solving, service learning, and civic engagement. Scholars are assigned to a General Studies class that takes a counter approach to learning than their Focus Area. This policy is based on the philosophy that to be true scholars, scientists should appreciate the humanities and humanists should understand the importance of science and technology in our world.

Each General Studies class is developed independently by a faculty member, who will often venture outside of his or her own area of expertise when choosing the course topic. As a result, the instructors learn together with the students, creating an educational environment that is both innovative and exciting.

The following is a small sample of the 61 General Studies classes offered on the three GSP campuses in 2015.

Thinkering

Morehead State University

On the first day of class, **Will Garcia's** scholars were told they were going to space—and it was up to them to figure out how to get there.

After deciding on a weather balloon launch to reach their destination, scholars divided themselves into groups to focus on different aspects of the mission: design, launch, weather, and tracking. Morehead State University's Space Science Center donated equipment to use for the balloon launch. The class's balloon carried five homemade capsules containing student experiments, four video cameras, and various instruments.

After a successful launch and retrieval, scholars were able to collect video footage of the earth from 60,000 feet, nearly twice the height of a normal jet airplane. "Thinkering" allowed students to explore engineering, math, and physics through student-designed, project-based learning that took them quite literally out of this world.

After weeks of preparation, GSP-Morehead scholars load their weather balloon with cameras and experiment capsules to document and study its high-altitude ascent.



Pursuit of Blue

Murray State University

Carly Muetterties challenged her scholars to reconsider their definitions of happiness and the means through which they approach its pursuit. To develop their definitions, scholars were introduced to the "blue flower" of German romanticism, which addresses the issue of yearning and longing for something that is ultimately elusive.

Scholars later analyzed the political implications of the right to "the pursuit of happiness" as written in the Declaration of Independence, examining different

interpretations from Jefferson and other Founding Fathers and their implications for the scholars as citizens. This helped the class move beyond individual experience in order to consider contextual factors and the role of civic responsibility in creating a more collective happiness. Scholars used this foundation to assess the ability (or inability) to quantify such an abstract concept using various formulas, including those from the World Happiness Report and the OECD Better Life Index.



Uncharted: Our World's Small Countries

Murray State University

Contrary to the cliché that technology has turned our world into a global village and that the world is getting smaller, **Bellarmino Ezumah's** scholars were amazed at the many countries they didn't know existed—both island and land-locked nations. They explored the small countries of the world, comparing well-known small countries such as European micro-nations of Malta, Monaco, Liechtenstein, and the Vatican, to less-known countries such as Tuvalu, Timor-les, Lesotho, the Gambia, Nauru, and the 48-person Pitcairn Island.

Scholars examined life in these countries in terms of their culture, government, economics, military might, education system, language, and the countries' role (or lack thereof) in world globalization efforts. Additionally, scholars reviewed U.N. documents on current challenges faced by small independent nations of the world. After familiarizing themselves with over 20 small independent countries scattered across the globe, each scholar wrote a narrative on his or her country of choice and recorded it at WKMS, Murray State University's NPR station.

Remixology

Bellarmino University

Ian Frank's scholars contemplated the idea that there is no such thing as "original." By tracing the roots of ideas, music, movies, food, and games, they tested the hypothesis that everything is a remix. Scholars created "intellectual family trees" to visualize where their beliefs come from, inspiring them to learn more about their passions. Using the model of "copy, transform, combine," scholars also created

their own remixed versions of board games and fantastical clay creatures. They wrestled with the question "Is anyone actually a genius?" and dug into issues surrounding intellectual property. Ultimately, scholars learned to look at the world around them not as a jumble of intimidating genius but rather as the product of a comprehensible evolution of ideas, thoughts, and hard work.

Thanks for the Memories

Morehead State University

This summer, scholars in **Steve Easley's** class came to understand the importance and fragility of the human memory.

They began their quest to learn about memory by considering the unreliable nature of eyewitness testimony and how our memories can be altered by those around us. To test this, scholars designed experiments for their peers to examine how subtle hints can drastically change the way people remember certain events. Scholars also discussed how memory plays

a role in history and how history itself can be changed due to the memories of others.

To gain hands-on experience in the field of memory, specifically memory loss, scholars planned activities in preparation for a day working with individuals with Alzheimer's at Morning Pointe of Lexington. Through this experience, scholars gained a better appreciation for what people with Alzheimer's experience and learned never to take their memories for granted.



It's About Time

Bellarmino University

Faculty members **Frank Ward** and **Rico Tyler** teamed up to explore with their scholars the concept of time from both scientific and artistic points of view. Scholars discussed Einstein's general and special theories of relativity and used the motions of the moon and stars, time-lapse and stop-motion photography, and sundials to understand the many ways that time is perceived.

The class also attended an operatic performance as a starting point to discuss the "timelessness" of great works of art and read a variety of short fiction speculating on time travel as a reflection of universal expressions of human longings and regrets. Finally, scholars experienced the Kentucky Vietnam Veterans Memorial in Frankfort as an example of scientific and artistic perspectives on time merging in a creative expression unique to our state.



GSP-Bellarmino scholars tour the Kentucky Vietnam Veterans Memorial in Frankfort.

The Superhero Life

Murray State University

What does it mean to live courageously? Scholars in **Tana Field's** class explored different types of courage and how one might define a courageous person. Through hands-on participation, scholars sampled activities requiring physical daring such as taekwondo and dance. Similarly, through visiting Fort Campbell and participating in simulations, scholars explored the role of the military in preparing soldiers to engage in national defense.

Scholars also discussed the role of courage in daily life, from peer pressure and technology use to overcoming addiction and living fully as oneself. They examined issues of gender and sexual orientation, focusing on issues faced by the transgender community. International students at Murray State University and American students who have studied abroad helped scholars ponder the role of courage in living in another country. Finally, scholars engaged with entrepreneurs, considering the financial and personal risks in creating new businesses.

The Giving Tree

Morehead State University

Derek Moore's scholars considered how death, dying, and illness are perceived in society today. They learned about a family's role in the dying process of a loved one, and a visit to a community hospice in Ashland introduced scholars to the careers involved in making patients and their families comfortable at the end of life. Scholars read *And the Band Played On*, an account of the early history of the AIDS epidemic in America and the initial fear and shunning of those with an HIV/AIDS diagnosis. In addition, the class studied inspirational people and how they reflect on their lives after overcoming adversity.

Scholars ultimately realized how essential it is to balance serious topics with lightness and happiness; to enjoy the life journey; and to understand that death, dying, and illness are all parts of the living process.



2015 scholar EXPERIENCE SURVEY

Each summer, before leaving their respective campuses, all Governor's Scholars are asked to complete a Scholar Experience Survey consisting of approximately thirty questions pertaining to all aspects of life at GSP. Program staff use the survey results to help gauge the success of the summer's activities, to assist in the evaluation of faculty and staff performance, and to better understand the Program's impact on the scholars

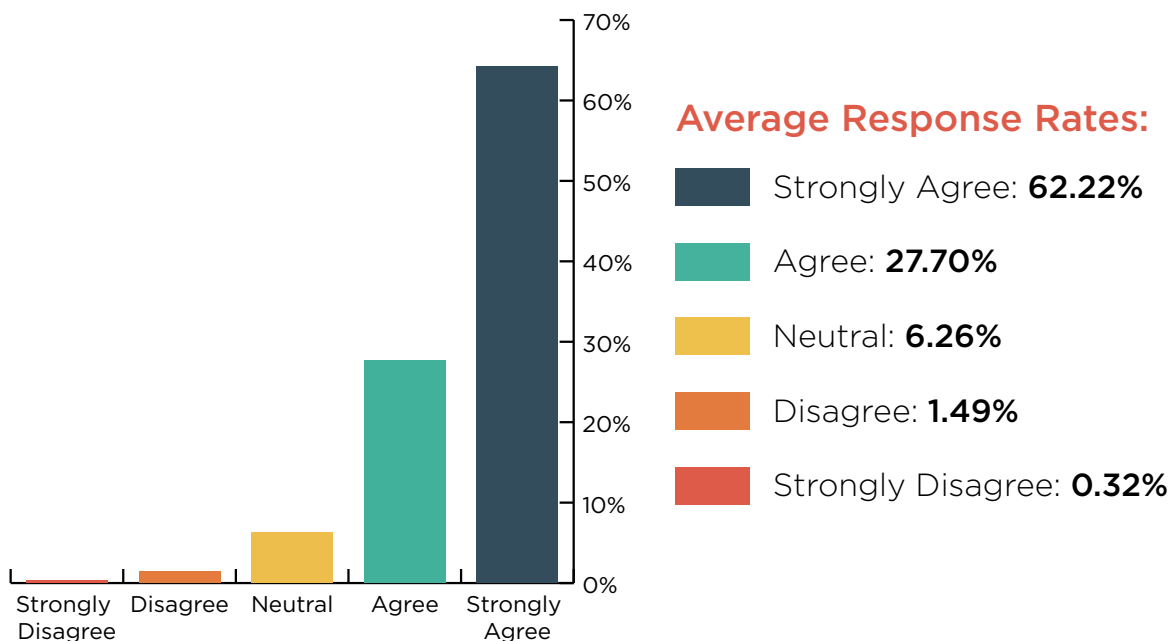
themselves. Most importantly, the survey functions as a tool that better equips Program and campus administrators as they plan for the upcoming summer.

The following is a representative sample of results from the 2015 Scholar Experience Survey, organized by areas of emphasis within the Program. For a complete list of the survey questions and detailed results, please see the GSP website at www.gsp.ky.gov.

Overall Results

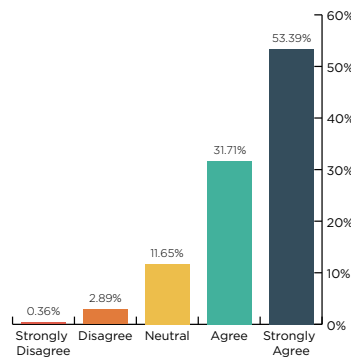
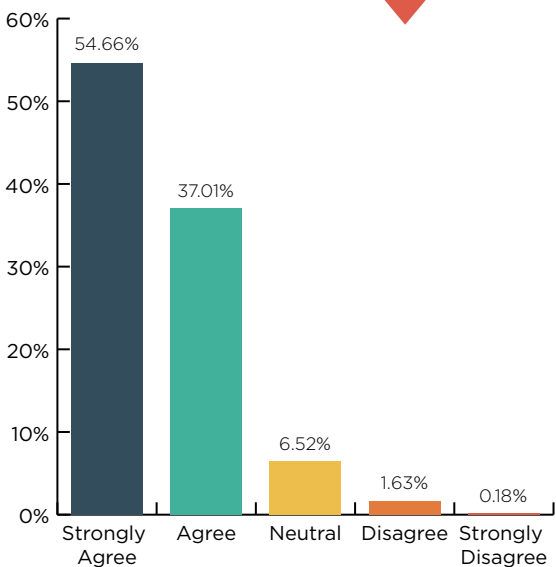
Considering the results of the survey as a whole, the scholars overwhelmingly rated their experience as positive. In fact, on average, participants selected either "strongly agree" or "agree" 89.92% of the time. In comparison, "neutral" responses

made up 6.26% of the total. Scholars very rarely reacted negatively to the survey prompts, choosing "disagree" only 1.49% of the time and "strongly disagree" in only 0.32% of responses. No question received a negative response rate above 5.9%.



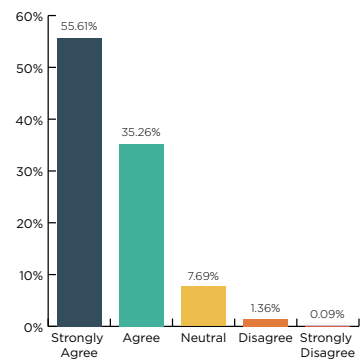
Leadership & Personal Growth

“As a result of my participation in the Governor’s Scholars Program, I am more willing to assume leadership roles in my school and my community.”



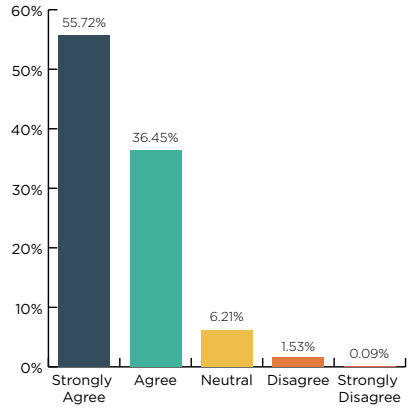
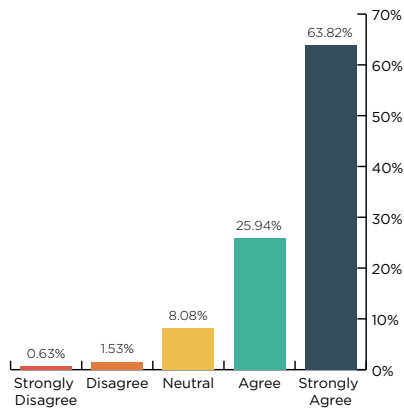
“I have increased confidence and self-esteem.”

“I am better prepared to tackle challenges and seek solutions.”



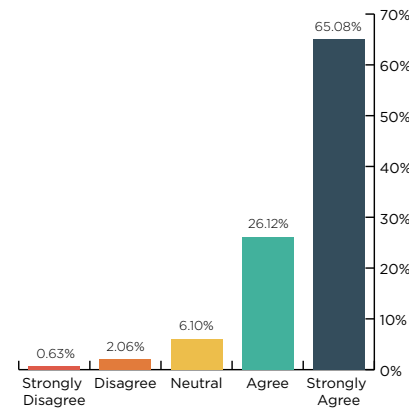
Academics

“My Focus Area was a positive learning experience.”

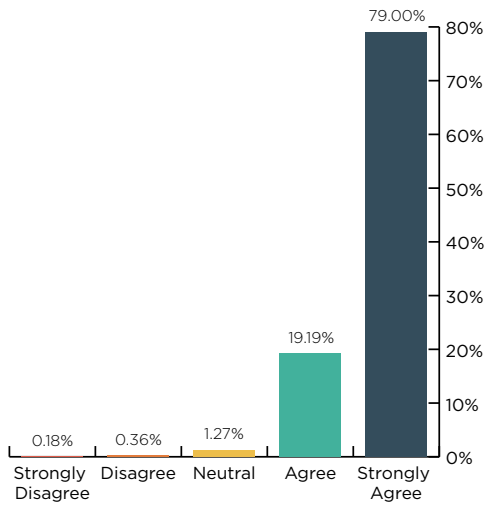


“GSP provided me with meaningful classroom experiences.”

“My General Studies was a positive learning experience.”

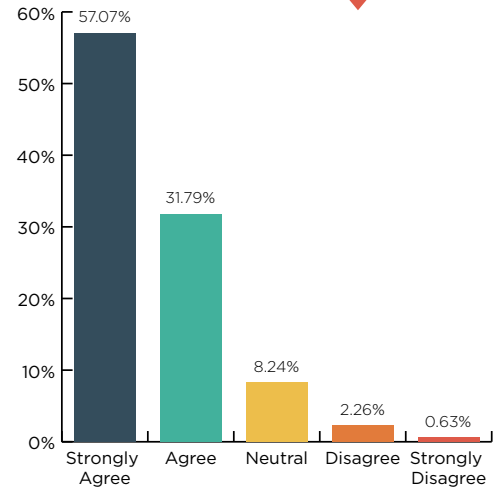


Kentucky Connections

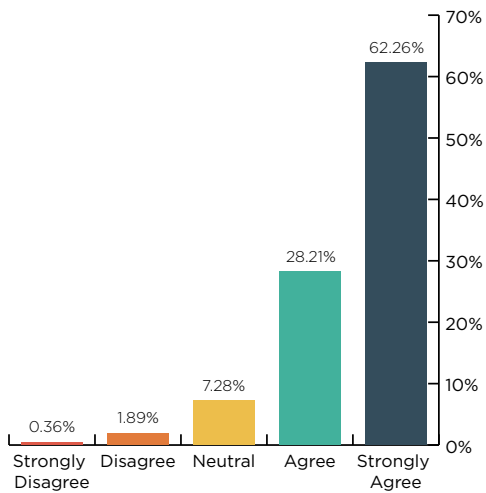


“I now have a network of relationships with scholars from across Kentucky.”

“I now understand the importance of the goal to keep gifted students in Kentucky.”

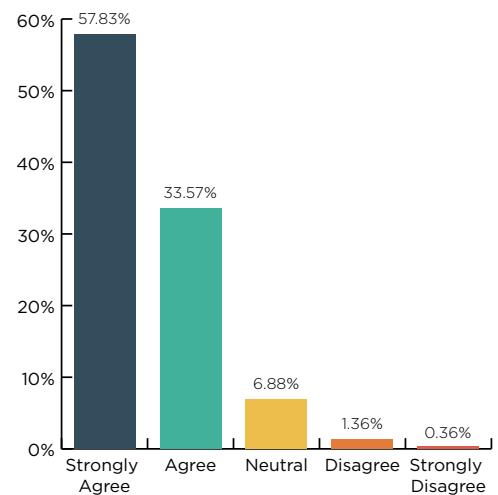


Community & Cultural Awareness

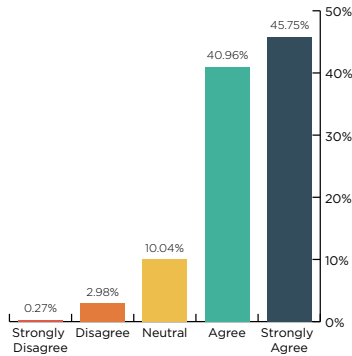


“GSP exposed me to diverse cultures within Kentucky and to diverse cultures within the world.”

“I now have a better appreciation of cultural differences.”

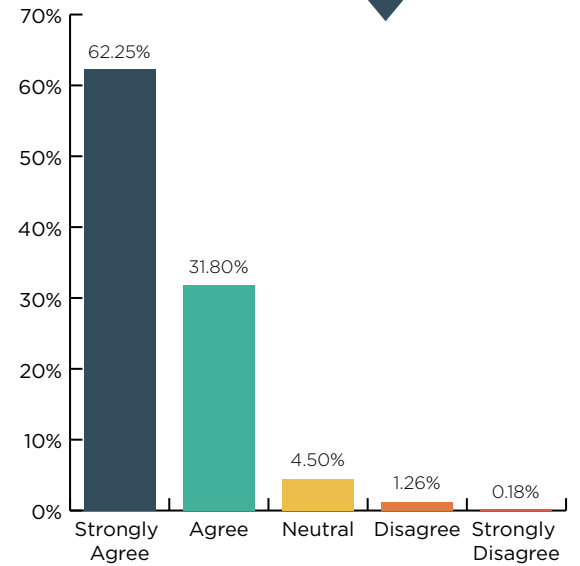


College & Career Readiness

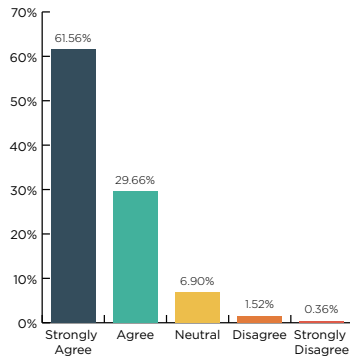


“I now have a better idea of how to make decisions about my career and/or academic path.”

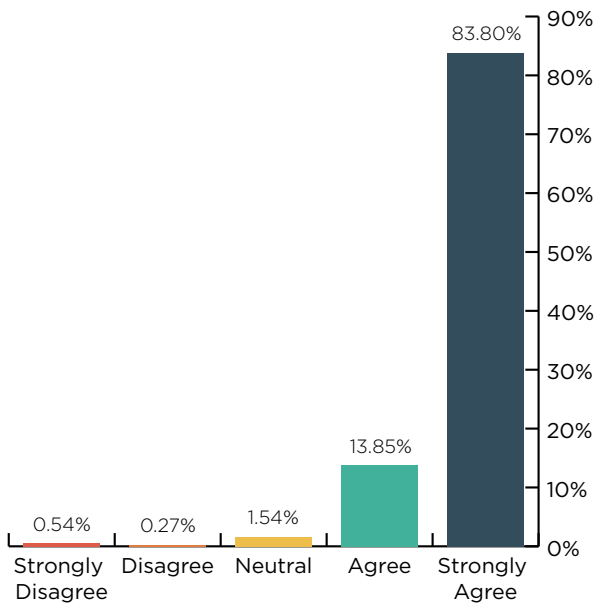
“GSP challenged me to **think in new ways and to do new things**, both inside and outside of the classroom.”



“I had the opportunity to receive important information from the college information activities: the College Fair, the KHEAA presentation, the Interview Preparation Session, the ‘Inter-networking’ Session, and/or the ACT classes.”



Program Recommendation



“As a result of my participation in the Governor’s Scholars Program, **I will encourage other students from my school and/or district to apply to participate in the Program.**”

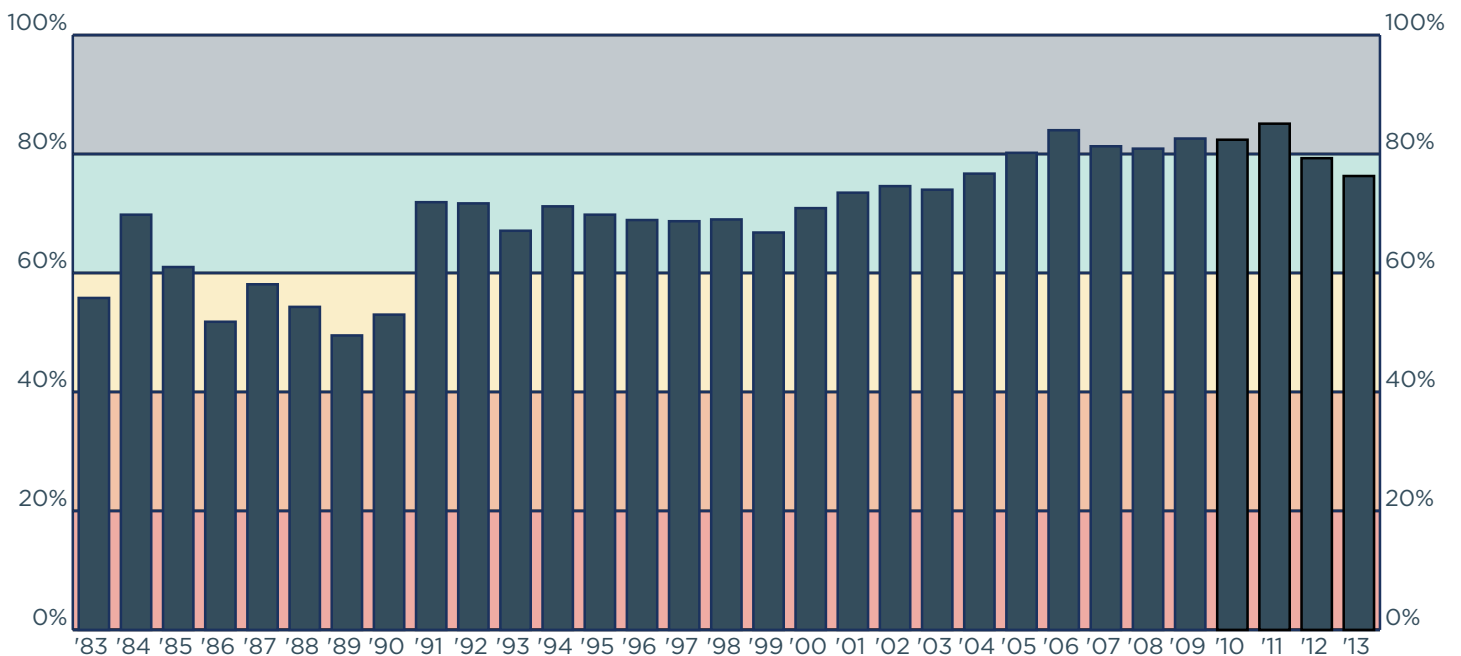


SCHOLAR IN-STATE DATA

College Enrollment

With the help of the Council on Postsecondary Education, the Governor's Scholars Program tracks the number of scholars who pursue higher education at a Kentucky college or university. The following graph shows the percentage of scholars, by Program year, who enrolled at an in-state college or university after completing high school.

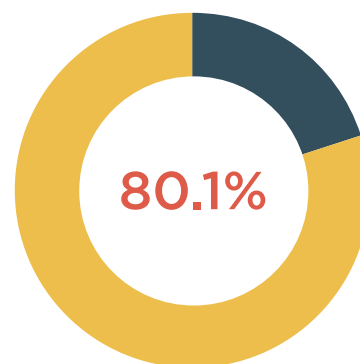
Of the 2013 scholars, the most recent year for which data is available, 76.3% enrolled at a Kentucky college or university in the fall of 2014.



Permanent Residence

As of September 2015, 27,562 students have completed the Governor's Scholars Program. The Program currently has valid contact information on file for 23,483 living alumni.

Of those, 18,799, or 80.1%, have a permanent address within the Commonwealth of Kentucky.



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The GSP Foundation

The Governor's Scholars Program Foundation, Inc., is a 501(c)(3) non-profit, tax-exempt organization that exists solely to support the Governor's Scholars Program, Inc. The GSP Foundation supplements public funding to finance the GSP's daily operations and special initiatives.

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By partnering with the GSP Foundation, Kentucky businesses and organizations are able to provide not only the funding, but also the extraordinary hands-on opportunities that make the Governor's Scholars Program an unparalleled intellectual experience.



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