2018

Governor's Scholars Program

2018 Academic Report

2012

The Program celebrates 30 summers of building community by helping to build a Habitat for Humanity house in Louisville



2006



GSP expands to a third campus

All 120 Kentucky counties send at least one scholar to a GSP campus

2000

1994

1988



10,000th scholar completes the Program



Program expands to two campuses and 561 scholars

First session opens at Centre College with 245 scholars

1983

Letter from the Executive Director 2018 Scholars by County 2 **Focus Area Classes** 3 Agribusiness & Biotechnology 3 Architectural Design Astronomy 5 Biological & Environmental Issues 6 Business, Accounting, & Entrepreneurship 7 Communication & Social Theory 8 9 Creative Writing & Literary Studies Cultural Anthropology 10 11 **Dramatic Expression** 12 Engineering Film Studies 13 Forensic Science 13 Healthcare Industry 15 Historical Analysis 16 International Relations 17 Journalism & Mass Media 18 Modes of Mathematical Thinking 19 Music Theory & Performance 20

Philosophy

Visual Arts

Physical Science

Political & Legal Issues

Psychology & Behavioral Studies

Spanish Language & Culture

General Studies Classes

Scholar In-State Data

Additional Information

Scholar Experience Survey Results

21

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24

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25

26

32

33



"This class changed the course of my academic life."

"This class offered me an intellectual oasis."



"I have found my calling."



create wonderful things."



"In this class, all types of people came together to

1992

from the

EXECUTIVE DIRECTOR

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



This year marked the 36th summer of the Governor's Scholars Program. Although summer is when the GSP appears to be in fullest force, our Program works year-round to foster our mission of enhancing Kentucky's next generation of civic and economic

leaders. For example, in September and October, we host informational sessions across Kentucky to inform thousands of potential GSP candidates about our selection process; in February, alumni and friends of the GSP gather at the State Capitol in Frankfort to express their support for the program.

Importantly, these moments throughout the year engage individuals and groups outside our Frankfort office. During our fall informational sessions, we meet with guidance counselors, teachers, and legislators who are interested in the types of candidates that will thrive in our summer communities. When we gather at the State Capitol in February, we connect with our state legislators and ask them to demonstrate their strong commitment to our Commonwealth's future by funding the GSP. The success of the GSP is forever tied to the relationships with our constituencies. There are over 20 such relationships we rely on: with the Office of the Governor and legislators, colleges and universities, teachers and school counselors, parents, and so on.

One such relationship that we have strengthened in recent years is the bond with our more than 30,000 alumni. Two years ago, we founded Alumni Day on each of our three campuses as a hub for alumni and current scholars to gather every summer. On Alumni Day, current scholars join in conversation with GSP alumni to learn how these

graduates from our Program have dedicated their lives to enriching our Commonwealth; in turn, alumni hear the ways in which current scholars hope to do the same. Among its many benefits, Alumni Day connects generations of GSP supporters who intimately understand the unique gifts our Program offers to all Kentuckians well beyond the five weeks of our summer sessions.

If the GSP were an individual, at 36 it would be old enough to be elected by its constituencies and become president of the United States. That age comes with trust and responsibility. Our constituencies trust us to locate and invite diverse, deserving students from all 120 counties of Kentucky to one of our three campuses each summer. Our constituencies trust our faculty to offer scholars relevant and challenging opportunities for academic and personal growth. They trust our staff to listen for ways to improve the Program as we traverse the larger Kentucky community throughout the year.

In return, we trust that we can count on your continued relationship with the Program to accomplish our mission of enhancing Kentucky's next generation of civic and economic leaders. Thirty-six years ago, you helped us sow the seed from which the healthy roots of the GSP developed. Then, with your support, in 2001 the Program expanded above ground onto three campuses. You even nurtured

the GSP during recent adverse economic times. As we look to the next few decades and beyond, we are confident that our year-round partnerships with constituencies are the key to our nourishment, growth, and sustainability. Thank you for your ongoing support.



2018

Aris Cedeño
Executive Director &
Academic Dean

2018 SCHOLARS BY COUNTY

Counties with up to 3 Governor's Scholars in 2018

			•				
Adair	Caldwell	Estill	Harrison	Lewis	McLean	Pendleton	Webster
Ballard	Carlisle	Fleming	Hart	Livingston	Menifee	Perry	Wolfe
Bath	Carroll	Fulton	Jackson	Logan	Mercer	Powell	
Bourbon	Casey	Gallatin	LaRue	Lyon	Metcalfe	Robertson*	
Bracken	Clinton	Garrard	Lawrence	Magoffin	Monroe	Rockcastle	
Breathitt	Crittenden	Grayson	Lee	Martin	Morgan	Trigg	
Breckinridge	Cumberland	Green	Leslie	Mason	Nicholas	Trimble	
Butler	Elliott	Hancock	Letcher	McCreary	Owsley	Wayne	

4-6 Scholars

Allen Lincoln Anderson Marion Bell Ohio Boyd Owen Carter Rowan Clay Russell Edmonson Shelby Grant Simpson Harlan Spencer Henderson Todd Hickman Union Washington Johnson Knott

7-9 Scholars

Clark Hopkins Floyd Knox Greenup Laurel Henry Woodford

10-14 Scholars

Barren Marshall
Boyle Montgomery
Calloway Muhlenberg
Franklin Taylor
Graves Whitley

15-25 Scholars

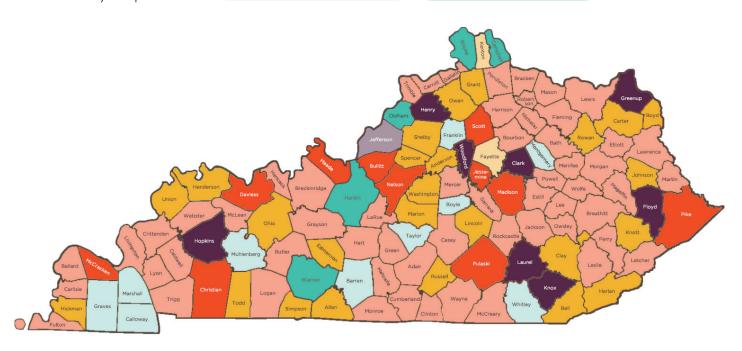
Bullitt Meade Christian Nelson Daviess Pike Jessamine Pulaski Madison Scott McCracken

26-50 Scholars

Boone Oldham Campbell Warren Hardin 51 - 100

Fayette Kenton

150+ Jefferson



^{*}Denotes county not represented

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 subject, identification of significant themes, and the interrelatedness of the subject to other content areas. The courses are meant to provide broad, interdisciplinary, intellectual exposure and enrichment rather than narrow, disciplinary training. Scholars are encouraged to try a Focus Area course in which they have little prior experience.

Agribusiness & Biotechnology





Top: GSP-Murray scholars tour a local greenhouse to learn about cultivating plants in a highly regulated environment; **bottom**: GSP-Murray scholars learn about growing sweet potatoes using various soil amendments.

Murray State University

Faculty member **Iin Handayani's** scholars examined various aspects of agriculture, especially those related to agribusiness and biotechnology in crop and animal sciences. Among other trips, the class visited Cassidy's Cause Therapeutic Riding Academy in Paducah, a cattle operation at United Livestock Commodities (ULC) in Mayfield, and Commonwealth Agri-Energy Plant in Hopkinsville. Biotechnology issues were covered during a visit to Breathitt Veterinary Center in Hopkinsville, where scholars learned about clinical pathology, toxicology, and molecular diagnostics. At Hancock Biological Station, they explored the seasonal dynamics of cyanobacteria and algae, fish biodiversity, and water quality around Kentucky Lake.

Scholars also engaged with guest speakers on topics including "smart farming," sustainable agriculture, food security, urban farming, marketing, animal science, crop biotechnology, horticulture, agricultural education, and agronomy. For a hands-on agricultural education, scholars measured soil compaction using a penetrometer, collected soil samples using a soil probe, and learned about research crop plots at Pullen Farm. Through these activities, the class explored what drives agricultural production to shape food systems locally and globally.

Dalton Ryan RifePhelps High School

"This class has revolutionized my view on agribusiness in Kentucky."

Architectural Design

Murray State University

Bill Randall's scholars investigated the lineage of design education, both in pedagogy and structures. Beginning with the Beaux-Arts Academy, scholars researched the foundations of architectural education in Europe. They traced this line through the Bauhaus, the key European design school, whose founder, Walter Gropius, emigrated to lead the Harvard Graduate School of Design. Using films, library research, and study models, scholars reconstructed key designs and analyzed the meanings behind their construction.

Shifting their attention to alternative institutions like Black Mountain College and the Highlander Folk School, scholars began to consider the possibilities of alternative forms of pedagogical organization. Working in groups, scholars designed new educational institutions from the ground up. One group suggested a school in the form of a networked web, with different disciplines connected as in a neural net. Another posited a design school on a Mississippi River barge, traveling the river, building housing for low-income communities. A visiting panel of experts critiqued each group's work at the end of the design process.

Kaitlyn Parker

Owen County High School

"I was exposed to new places and worlds that I now have a desire to visit. I hope to use my new knowledge to make better decisions in my life and community."

Northern Kentucky University

Bryan Orthel's scholars explored how human comfort and wellbeing are supported by the design of buildings. Scholars spent part of the five weeks exploring passive heating and cooling approaches, structural issues, and cultural expectations of buildings. A visit to the Duke Energy Envision Center highlighted emerging technology being used to create and manage energy-efficient cities. A trip to downtown Cincinnati required that scholars "read" the landscape as they walked to expose how the urban form has changed over 150 years and how twentieth-century architecture changed in response to cultural ideas.

The class then developed building designs to protect a "client"—a carton of ice cream—from the harsh environment of a summer parking lot. Scholars iterated through four versions of their designs, each with a real-life test of the buildings' effectiveness in protecting the "client." The challenge required detailed understanding of thermal transfer properties, as well as application of these properties in built form. Along the way, scholars learned about construction techniques, why some designs failed, and why others succeeded.



GSP-NKU scholars explore a labyrinth during a tour of downtown Cincinnati focused on unique ways that architecture can be built into human environments.

Astronomy



Morehead State University

In John Clark's class, scholars explored what truly makes the universe tick. Scholars discussed the formation of the universe and its components through hands-on observation of artifacts such as moon rocks, meteorites, and even material from early Earth formation. They also researched the nature of planet formation and the likelihood of finding life elsewhere in the universe. As a final project, scholars constructed a theoretical planet that could support life by considering factors such as atmosphere, planetary formation substances, and overall resources. Finally, scholars discussed the impact that astronomy has on society and mankind's future through discussion of film, literature, and scholarly research.

Above: GSP-Murray scholars pose with hand-built telescopes used to host a "star party" for the entire GSP-Murray community.

Murray State University

Rico Tyler's class combined nighttime observing with daytime activities, modeling how astronomers find answers and make discoveries. Scholars practiced telescope skills and experimented with astrophotography, which they used later in the summer to host a "star party" for the GSP-Murray community. Tyler and his class also explored how time is related to astronomy. Inquiry activities allowed scholars to discover the astronomical alignments of cathedrals and the mathematics behind Easter. Scholars used astronomical images to reconstruct a planet's history.

In the final week of the summer, the class studied the science of rockets and space travel. Scholars participated in a video question and answer session with GSP-2011 Astronomy scholar Cadence Payne, a Space Science graduate from Morehead State University and current MIT graduate student.

Biological & Environmental Issues

Morehead State University

Greg Jacobelli's class surveyed the diverse topic of health. Scholars discussed how human health, habitat health, planetary health, and universal health are all interconnected and reliant on one another. First, the class considered factors that affect human health, including dietary choices, agricultural practices, and the ways that society affects our choices and decisions. Scholars then traveled to the Morgan County Tree Nursery and, with the help of Scott Freidhof from the Kentucky Department of Fish & Wildlife, participated in cross breeding the American Chestnut in an attempt to bring it back from North American extinction. Scholars continued to explore environmental health during hikes to Natural Bridge, Cave Run Dam, Minor E. Clark Fish Hatchery, and Berea College's Ecovillage. At each stop, scholars looked at the geologic processes on display in Kentucky, explored some of the ways we attempt to control nature, and identified how we are also repairing some of the damage we have done to the environment.

Northern Kentucky University

Greg Smith asked his scholars to pick an environmental problem that they wanted to explore. The scholars then had to research their topic, either as an individual or in a small group, using the scientific database of Northern Kentucky University's library. They then presented their findings to the class for peer review and questions. Topics included sustainable agriculture, plastic ocean pollution, space junk, health concerns of marijuana, bioethics, and super bugs.

Because scholars had never lived on a college campus, Chief John Gaffin from Northern Kentucky University's police department came and talked to the scholars about safety protocols on campus. He gave them tips on how to pick a college with a safe environment using information from the Clery Act, a federal statute that requires most colleges and universities to disclose crime information on campus.



Boyle County High School



GSP-Morehead scholars visit Cave Run Dam to study how we utilize nature to foster societal health and also how these choices affect habitat and planetary health.

"This class changed the course of my academic life."

Business, Accounting, & Entrepreneurship

Morehead State University

Derrick Staton introduced the R. J. Corman Business, Accounting, and Entrepreneurship Focus Area to the ethical and moral obligations of an innovator and entrepreneur. Scholars began the course by focusing on the writings of Wendell Berry and applying his theories concerning different economies, communities, and values to business. The class then met and discussed at length the current economic climate with Mr. Berry.

From this, scholars began creating their own startup businesses and business plans focusing on economic development in their home communities. Through this experience, scholars discussed different classifications of businesses, marketing, pricing, ethics, etiquette, and customer service. They also met with various economic and political leaders from throughout the Commonwealth and discussed problems and solutions facing the local business community.

Murray State University

Led by Melony Shemberger, scholars concentrated on social entrepreneurship as an approach to applying innovative, profitable methods to eradicate or minimize societal issues or problems. The class participated in a culminating project that allowed them to work in entrepreneurial teams and create a business plan to tackle an identified need or problem. They designed their plans on posters that were presented to Murray State University administrators and community members.

Scholars also joined the Cultural Anthropology class on a visit to Logan County Aluminum Recycling, which is the largest employer in the county, and met with plant officials. They toured the plant and observed portions of the aluminum recycling process. In addition, the class traveled to downtown Murray for lessons on the resurgence of downtown districts and spoke with city officials on how local policies affect businesses.

Northern Kentucky University

Scott Takacs's class extensively discussed starting a small business, including new product development, product testing, and financing options. Scholars explored the stock market as an investment option and the relative merits of index funds compared to other investments. They also considered other investment opportunities, including real estate, precious metals, and cryptocurrency such as Bitcoin, along with the relative advantages of each method.

Throughout the summer, Takacs and his scholars explored the Commonwealth to tour local, successful businesses. Scholars visited the United States Playing Card Company, where they saw how playing cards are manufactured and engaged in interactive market research on new types of card games. They also visited Brown-Forman and spoke to a variety of employees there, from CFO Jane Morreau to a panel of interns.

GSP-Murray scholars meet with Murray Mayor Jack Rose to discuss how local policy can affect business development.



Communication & Social Theory

Morehead State University

How is a public health campaign essentially a marketing campaign? Scholars in Cher Reynolds's class chose to address common public health problems with public awareness campaigns utilizing posters, brochures, and public service announcements. Students researched their chosen health problems and created media utilizing graphic design and video editing software.

The class then examined a handful of crisis communication case studies to analyze the various ways that organizations attempt to repair their public image once it has been tarnished or damaged. Scholars broke into groups and created crises for other groups to respond to with press statements. Statements were delivered in front of a "press pool" composed of scholars who then asked difficult questions in pursuit of the truth. Continuing their exploration of the press and public communication, scholars toured the Louisville Public Media office, where three different public radio stations are housed. Several public radio professionals held a question and answer session to describe the challenges and rewards associated with their positions.



GSP-Morehead scholars use goggles that simulate visual impairments at the American Printing House for the Blind.

"This class offered me an intellectual oasis to share my opinions and listen to the opinions of others "

Gracie Avery Bethlehem High School

Northern Kentucky University

Tim Phelps's class focused on honing the core communication skills found in all effective civic and economic leaders. Scholars practiced debates and impromptu speeches, persuaded various audiences and argued points opposite their actual beliefs, and learned the difficulties of communicating through only nonverbal means during a day of silence. From these exercises, scholars learned how to discuss difficult issues with others using productive and civil methods.

Scholars then researched the positive aspects and potential dangers of our tendency to form social groups—how the echo chambers we inhabit often lead to a lack of challenges to our opinions, and how we might recognize social group pitfalls in ourselves to ensure we are constantly seeking diversity of thought.

Using ideas from Neil Postman's book *Amusing* Ourselves to Death as a framework, scholars spent the last part of GSP investigating the ways visual media, such as advertisements and political signage, attempt to manipulate us to agree with a message or buy a product. Scholars studied the impact of intentional design choices, such as colors, layouts, and fonts, to offer their audiences a "ticket" into a social group.

Creative Writing & Literary Studies

Morehead State University

In Jay Crocker's class, scholars examined the life cycle through its different stages: creation/birth, childhood, adolescence, adulthood, and death/destruction. During class, scholars explored texts and activities associated with the stage of the week and then created their own stories based loosely on that theme. Outside the classroom walls, scholars uncovered these themes in some unexpected places. During the week studying adolescence, for example, scholars attended a production of *The Crucible* where they studied perceptions of adolescence in literature. During the week on adulthood, scholars visited the American Printing House for the Blind in Louisville to study how books are created for people with visual impairments and the technology behind new publishing methods for all readers.

Finally, during the week on death and destruction, scholars studied endings, closure, and the concept of finality in literature. Scholars wrote pieces on these concepts as they experienced the emotions associated with the final days of classes and fellowship on campus.

GSP-NKU scholars participate in "blindfold" writing to focus on sounds and non-visual sensations.

Murray State University

Scholars in **Ron Reed's class** enjoyed the freedom to write about events they knew well and placed themselves as third-person characters within those settings. Using art as a background, they turned their visions into creative pieces. Visiting varied environments, the class read stories from Kentucky authors Gurney Norman and Bobbie Ann Mason as well as selected cantos from Dante's *Divine Comedy*. Reading excerpts from Emily Esfahani Smith's *The Power of Meaning: Crafting a Life that Matters*, they discussed with members of the Philosophy Focus Area the significance of belonging, purpose, storytelling, and transcendence.

Northern Kentucky University

Frank Ward's class explored two genres: poetry and narrative. Exercises to increase sensory awareness included "blindfold" writing, earliest memory image development, and prose-to-poetry editing approaches. The class also collaborated with members of the Visual Arts Focus Area to create illustrated poetry for campuswide readings at the Community Arts Program.

To practice narrative development, scholars created individual short stories for publication in an end-of-program anthology. The scholars participated in two field trips to enhance their narratives: one to the Cincinnati Art Museum to examine art works that would be suggestive of possible narrative components, including setting and plot construction; and a second to Fountain Square in Cincinnati to participate in a "people watching" activity to support their development of characterization.



Cultural Anthropology

Morehead State University

Ethan Morris challenged his scholars to reflect on how their own cultures shape their opinion of other cultures. Scholars examined their pasts, connecting their specific political, social, and religious beliefs to the influence of their families, hometowns, or personal experiences. They also sought to imagine what it might have been like to make decisions in the past. Scholars believed that given the chance to "re-live" the past, they could easily resolve the past's problems. They were soon proven wrong.

For their first activity, scholars pulled wagons over a section of the Appalachian Trail to simulate the difficulties experienced by the first settlers to cross the mountains into Kentucky. In a discussion that followed, scholars debated whether or not they earned the right to settle Kentucky or stole the land from the Shawnee inhabitants. After "settling" the state, scholars attempted to write a constitution but struggled to establish an executive leader that was not too weak or too powerful. By the last week, scholars admitted they had not solved any of the past's problems but had gained a more complex perspective of the past—a perspective that made them more humble, observant, and appreciative of other people, time periods, and cultures.

GSP-Morehead scholars pull wagons around Morehead's Eagle Lake in an attempt to recreate the difficulties experienced by Kentucky's first European settlers.





GSP-Murray scholars closely examine a water sample from Kentucky Lake to consider its cleanliness.

Murray State University

Irene Bozio's class considered what it means to be a global citizen and how to focus on living a sustainable life. First, scholars identified the three critical components to recycling: cost, convenience, and contamination. With their increased understanding of the hazards of plastic bottles, scholars launched a campus-wide collection of plastic bottles and cardboard. Feeling that recycling bottles was not enough, scholars embraced the concept of reuse and designed and promoted the sale of reusable bottles and coffee mugs.

Thanks to the efforts of the city of Murray's water treatment plant, scholars were surprised to learn that drinking water is often purer than what is found in a bottle. Scholars learned about career options and witnessed the application of chemistry and biology in transforming waste water into clear water before entering the river system. At Logan Aluminum in Russellville, scholars viewed the process of converting recycled aluminum cans into rolls of aluminum that will be used in making new cans. The class learned about the strides that the company takes to be green and not produce any waste.

Having gained greater understanding and new perspectives on sustainability throughout the summer, scholars developed a marketing plan for increasing awareness of recycling and reuse within their schools.

Dramatic Expression



Above: GSP-NKU scholars participate in their daily physical and vocal warm-up exercises on stage. **Below:** A GSP-Murray scholar performs a scenes from Agatha Christie's The Mousetrap.

Murray State University

Scholars in **Jacqueline Kohl-Hamilton's** class staged two productions for the GSP-Murray community: the world's longest-running stage play, *The Mousetrap* by Agatha Christie; and a 30-minute version of *Oliver Twist*. Scholar-directors cast the play and developed costumes and props. Vocal and movement coaching lessons emphasized "being," not "acting," and featured lessons on expressiveness, pacing, and timing. The *Oliver Twist* production was shared outside of the GSP-Murray community, including performances at the Murray Calloway County Senior Citizen Center and the Calloway County Public Library.

Scholars also heard from guest speakers who nurtured their creative impulses. They took a tour at Market Street Theatre in Paducah; attended a Shakespeare seminar with Dr. Barbara Cobb, creator of Shakespeare in the Schools in Western Kentucky; took part in a voice and body exercise seminar with speaker and coach Robert Valentine; and participated in a Q&A session about the life of Charles Edward Hall, the longest-running Broadway actor in one role.

Northern Kentucky University

Emily Tate Frank's scholars tackled a range of challenges: how to express themselves, how to bring text to life, and how to stretch the boundaries of their creative potential. With the help of Marina Calderone's *Actions: The Actors' Thesaurus*, the class learned the technique of "actioning" a text and practiced it with monologues. They also saw how this technique could



be used in their own writing and speeches to make them more dynamic and compelling. The scholars then worked in groups to craft original scripts inspired by a piece of music and collaborated with the Film Studies scholars to record the pieces. This activity kicked off discussions about different adaptations of text and stories and the process of collaboration.

Engineering

Northern Kentucky University

Denise Owens's and Jeremy White's scholars investigated the role of engineering in today's society, and the class took various field trips and participated in activities designed to help examine that role. They visited William Harsha Lake Dam, where they participated in a real-world engineering design project with civil engineers from the U.S. Army Corps of Engineers. On another trip they toured Toyota Motor Manufacturing Kentucky (TMMK) in Georgetown and visited Georgetown College. While at Georgetown College, scholars participated in an engineering problem-solving activity that was supervised by a team of engineers from TMMK. Other field trip sites included the Duke Energy Envision Center, the East Kentucky Power Cooperative, and Lexmark of Kentucky. Additionally, the scholars visited the University of Louisville J.B. Speed School of Engineering and the University of Kentucky College of Engineering.

Top right: GSP-NKU scholars tour the grounds of a power plant operated by the East Kentucky Power Cooperative; **bottom right**: GSP-NKU Scholars participate in an engineering activity with the U.S. Army Corps of Engineers.





"The knowledge and experience I have gained during the past five weeks in the Engineering Focus Area have impacted my future more than I could have ever imagined. I have found my calling."

John Hendricks Logan County High School

Film Studies

Morehead State University

In Jason Meenach's Focus Area, scholars learned about the basics of framing and composition and the art of storytelling through film. After learning how to use Adobe Premiere's editing software, scholars went into production on a variety of group projects: a music video, an original ten-minute film, and a 24-hour film festival. Along the way scholars encountered various challenges that prompted them to raise questions about how to optimize film graphics and sound quality and how to make special effects. A group of scholars even built and used their own green screen!



Northern Kentucky University

Scholars in Ian Frank's class explored the many facets of cinematic storytelling that are unique to film. They asked why a movie might be the best way to tell a particular story rather than a novel, play, or radio drama. Additionally, the class used Goethe's guidelines for critiquing art to expand and deepen their own response to movies they had seen. In class, scholars watched and discussed films such as Pleasantville and The Searchers to see how film technique can fundamentally strengthen thematic messages. Scholars also engaged with film's unique ability to transport audiences around the world by watching The Red Balloon from France, Yojimbo from Japan, and Run Lola Run from Germany.

All three movies informed scholars as they created their own film projects. In one project, scholars recreated shot-for-shot moments from iconic films such as Strangers on a Train, Grease, and The Shining; in another project, scholars pulled inspiration from the wordless film Samsara and adapted a live performance piece created by scholars in the Dramatic Expression class into a short film.

At the WLEX-18 Studio, GSP-Morehead scholars learn that delivering a weather forecast isn't as easy as the professionals make it look.

Forensic Science

Morehead State University

In Claire Polston's class, scholars examined what it means to be a forensic scientist. Discussions began around the popularity of "true-crime" television and the reasons behind the rising interest in forensic science. Scholars then learned how the world of forensic science is vastly different than what the media portrays.

The class visited Eastern Kentucky University's Forensic Science and Criminal Justice programs, where they saw the potential pathways to a career in the field. They were introduced to the process of fingerprint identification, a study they continued once back on Morehead State University's campus. Scholars also investigated other physical evidence, including human and animal hair samples and soil from their hometowns. This evidence led the scholars to conclusions about the differences in hair between themselves and their pets, as well as the creation of a soil profile for Kentucky.

"Life throws you challenges that you could never expect. Forensic Science has pushed me to problem solve in every aspect of my life."

> **Ainsley Gordon** Bullitt East High School

Forensic Science (continued)

Murray State University

Michael Starling's Focus Area experienced "hands-on" learning from the very first class day: They began their class by striking a pork shoulder with a blunt weapon to analyze the blood spatter projections created. Scholars continued their investigation by analyzing finger and lip prints of themselves and other scholars, and they practiced identifying unknown prints by identifying ridge characteristics and comparing them to a scholar-created database. Additionally, scholars went through the autopsy process using fetal pigs. In groups, scholars removed, measured, and weighed the organs of each pig and then sewed the organs back inside to prepare the body for a proper funeral and burial.

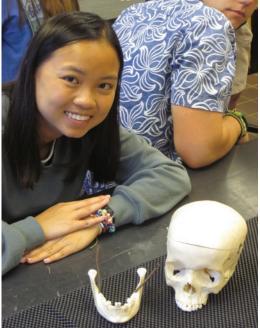
Roy Dunaway, former Nashville Murder Squad member and current captain of the Murray State Police Department, discussed with scholars how he collaborated with CSI members to solve crimes in Nashville. This talk set the stage for the collaboration between the Forensic Science and Political & Legal Issues class that resulted in the creation of a mock crime scene and a full mock trial.

Northern Kentucky University

Jim Seaver's class explored the shadowy underworld of art and archival theft, antiquities smuggling, jewel heists, counterfeit goods, and other high-value property crimes. In doing so, they rejected the popular depictions of this illegal activity, and the investigation of it, that commonly appear in movies and on television. Scholars embraced the challenge of thinking and working like law enforcement personnel and museum security staff by developing their theft prevention and crime scene investigation skills. They did so through hands-on activities and participation in two elaborate art heist simulations that spanned much of Northern Kentucky University's campus.

Field trips included visits to the Cincinnati Art Museum, the Kentucky State Police's Central Forensic Laboratory in Frankfort, and the Headley-Whitney Museum in Lexington. Scholars also had opportunities to speak with a number of professionals whose daily work intersected with their course themes, including a rare books librarian, a museum curator, a forensic anthropologist, a toxicologist, and an FBI agent.





GSP-NKU scholars visit Northern Kentucky University's anthropology lab to study forensic anthropology techniques. Using real human bones, they learn how to estimate a person's sex, age, and possible cause of death.

Healthcare Industry

Morehead State University

Even though we are living in an age of medical wonders—transplants, gene therapy, life-saving drugs, and preventive strategies—our healthcare system remains fantastically expensive, inefficient, bewildering, and inequitable. Scholars in **Jamie Hester's** Focus Area dove into issues surrounding the current system, considering the reasons that healthcare doesn't work well as an economic model.

The class also considered the topic of sleep and how sleep is connected to health. Society's apathy toward sleep has, in part, been caused by the historic failure of science to explain why we need it. Sleep remains one of the last great biological mysteries, so scholars explored the topics of caffeine, jet lag, melatonin, sleep disorders, and even death caused by sleep. The class then designed and carried out their own sleep study in which scholars stayed awake throughout the night and performed physical and mental tests at regular intervals to measure their decline in capabilities due to sleep deprivation.

Northern Kentucky University

Scholars in **Stephen Buchholz's** class started the summer exploring the human body by working in small groups to create "Bessie May," a 5'7" female skeleton made of papier-mâché. Scholars used this information to inform their tour of a local prosectorium, the room where autopsies are performed. These experiences contributed to the class's creation of a definition of what it means to be healthy and explored the rippling effects of a healthy society. Later, scholars played the roles of patient advocates on the transplant list and presented their cases to a mock transplant board.

Throughout the summer, scholars explored the role of different entities and career paths in healthcare through site visits to the Christ Hospital in Cincinnati, OH; Passport Health Plan in Louisville, KY; and St. Elizabeth Hospice in Edgewood, KY. Scholars then learned the basic clinical skills of suturing, laproscopy, and injection through a presentation and hands-on at North Central Area Health Education Center.



GSP-Murray scholars rotate through Vanderbilt Medical School's birthing simulation lab.

Murray State University

Cindy Brainard's scholars began the summer by looking back at the inception and progression of all aspects of our current U.S. healthcare system. Scholars studied and analyzed the history of hospitals, medical training and education, insurance company paradigm shifts, and the onset of technological and biological breakthroughs. Using the book *An American Sickness* by Elisabeth Rosenthal, scholars used historical and anecdotal summaries to engage in this study.

The healthcare class experienced hands-on exposure to the healthcare field at Vanderbilt University Medical School by rotating through the simulation labs for birthing, laparoscopy, and CPR resuscitation. The class also explored the limitations of human survival in extreme environments including accounts of arctic, jungle, and deep-sea exploration.

The class then visited Vanderbilt Medical School and spoke with admissions counselors about the program at the university. They spent an afternoon in the simulation lab performing several different medical procedures on dummy patients. The Murray Calloway County hospital also hosted the scholars for an afternoon in the areas of radiology, surgery, and emergency care.

Historical Analysis

Morehead State University

Sandra Carpenter's Focus Area class discussed historical and contemporary manifestos from U.S. social movements to glean an understanding of how individual or group actors change the course of history. Some questions discussed in class included: What are the rhetorical tools of a manifesto? What is the political role of the manifesto? How has the manifesto changed over time? What does a 21st century manifesto look like?

With this knowledge, scholars participated in the writing and curating of a collective manifesto reflecting their home communities. They also worked together to decide when and how the community manifesto was to be distributed and displayed.

Northern Kentucky University

Scholars in **Steve Easley's** Focus Area partnered with the Kentucky Historical Society to examine how history influences modern-day issues in Kentucky. Each group of scholars chose a significant contemporary challenge to our Commonwealth, researched the historical background of that topic, and wrote an action plan on how they would address that issue moving forward. Scholars became skilled in contacting community partners and managing the practical aspects of historical research. During the final week of the program, scholars presented their conclusions and plans to the staff of the Kentucky Historical Society on a wide range of topics, including political redistricting, education funding, state debt, and human trafficking.

In addition to their projects, scholars read excerpts from James W. Loewen's book *Lies My Teacher Told Me*. Throughout the five weeks, scholars discussed the debate over Confederate monuments; the various problems with American history textbooks and their use in the classroom; and historiography, the study of how history is written. To get a better appreciation for how history is presented, scholars toured the National Underground Railroad Freedom Center in Cincinnati. Through all of these endeavors, scholars gained a greater appreciation for why history is perpetually relevant and how it can be used to address the challenges Kentucky faces today.

GSP-Morehead scholars explore the Appalachian Collection of Morehead State University's library and browse regional archival documents.



"This class gave me so many opportunities to grow intellectually. It is an experience I feel everyone should have."

TJ Hensley Harlan High School

International Relations

Morehead State University

Frank Russell's class began by establishing a theoretical framework for understanding international relations. Scholars read and discussed Mearsheimer's The Tragedy of Great Power Politics, which presents an argument for the theory of offensive realism. They debated the merits of this model in comparison to others, and applied a number of perspectives to analyze both the current (2017) articulation of the U.S.'s National Security Strategy and China's ambitions in the South China Sea. These provided theoretical and programmatic contexts for an in-depth analysis of the U.S.'s policy with North Korea. Using the framework provided by the Council on Foreign Relations' Model Diplomacy exercise, the scholars assumed roles of members of the National Security Council to carefully research and develop a strategy for verifiable denuclearization of North Korea. From diplomacy, they turned to the role of religions in international relations, with particular attention to connections among the Abrahamic religions and with some exploration of Eastern religions, particularly Buddhism, which included a visit to Furnace Mountain Zen Center in Clay City.

Northern Kentucky University

In Ogechi Anyanwu's Focus Area, scholars examined the role of multinational corporations (MNCs) in international relations. Scholars read texts in class that helped them understand the origins, operations, and impact of MNCs in developed and developing countries.

The class also spent time in groups researching and identifying MNCs in different regions of the world and presenting their findings in class. The projects focused on the debate surrounding the positive or negative impact of selected MNCs operating outside the U.S. on their host countries and the role of selected MNCs in shaping or reshaping politics and policies in the U.S. These projects, coupled with the class readings, field trips, and documentaries, offered scholars a unique opportunity to understand the connections between MNCs and cultural changes and exchanges, socioeconomic and political development and uncertainties, environmental issues, and the problems and challenges facing our world.

Bottom left: GSP-Morehead scholars visit the Furnace Mountain Zen Center; bottom right: Scholars participate in a practice meditation session inside the temple.





Journalism & Mass Media

Murray State University

Bella Ezumah's scholars explored the convergent nature of journalism, a current trend that requires multiple skills and roles. First, they learned the basics of journalistic practice including how news stories are selected, gathered, produced, disseminated, and received by an audience. They visited the WPSD Local6 television station to meet producers, writers, directors, anchors and administrators.

Putting all the information into practice, scholars traversed Murray State University's campus to cover a mock crime scene investigation and court trial events led by the Forensic Science and Political & Legal Issues classes. To further put their journalism skills to practice, scholars produced a six-minute newscast on their mock crime investigation and a forty-page magazine that captured the highlights of the GSP-Murray community.

Northern Kentucky University

Through discussions, field trips, and hands-on training, **James Kenney's** scholars studied various storytelling methods in journalism and broadcasting. Scholars first learned to use their own DSLR cameras and practiced with cameras generously provided by Canon. They also learned how to write stories in journalism form.

Guest speaker Kareem Elgazzar, a *Cincinnati Enquirer* photographer, took scholars through a typical day of a journalist, which can include photography, writing, or videography. *Cincinnati Enquirer* journalists



Cara Owsley, Amy Wilson, Phil Didion, and Scott Wartman talked about their roles at the newspaper, and they presented their Pulitzer Prize-winning long-form multimedia project about the heroine epidemic in Ohio.

To gain practical experience, scholars wrote a profile story on a fellow scholar or a GSP-NKU staff/faculty member. In addition, scholars documented several major events, including a Florence Freedom baseball game; the Kenton County Fair; and the Kids, Cultures, Critters, and Crafts Festival at the Cincinnati Zoo.

Top right: GSP-NKU scholars photograph the greased pig contest at the Kenton County Fair. Bottom right: GSP-NKU scholars join meteorologist Sherry Hughes on the weather set in the studios of WCPO Channel 9 in Cincinnati.



Modes of Mathematical Thinking

Morehead State University

To understand the ways that people use math to make decisions, Austin Starks's scholars were tasked with becoming logicians. The class tackled multiple logic puzzles that allowed them to create pathways for discovery. As their logic skills improved, scholars partnered with the Forensic Science Focus Area to create two "breakout rooms" for the GSP-Morehead community to enjoy. Scholars had to create logistical plans with no logical flaws. Many groups were able to break out in the allotted thirty-minute time interval, while several groups were stumped.

Scholars also considered how we use numbers to influence our own decisions and those of others. After observing scholar movement across campus, the class decided to see if they could influence scholars' paths by providing false statistics. They encouraged others to take a route across campus that was "fifty-seven seconds faster." The class saw a 482% increase in the number of scholars taking the "fastest route." After presenting their findings to the community, scholars encouraged everyone to research and always question statistics in our information-laden world.



A GSP-Murray scholar takes a simulated walk on the Earth's moon at Adventure Science Center.

"This class used math in ways I have never thought about and changed my way of thinking for the future."

Murray State University

Jason Dooley's scholars practiced problem solving in a variety of settings ranging from traditional mathematical proofs and robotics to machine learning and games of skill and chance. The course focused on game theory and probability, and scholars learned how mathematicians and computer scientists use game theory to teach computers to play games such as chess and poker. Scholars applied the rules of probability to minimize variance in games of chance and worked to optimize strategies for various games using what they had learned.

Scholars also explored the history of mathematics, including Euclid's proof that there are infinite prime numbers and its implications for the modern field of cryptography. They considered some of the Millennium

Hunter Groves Eastern High School

Problems, including the p/np problem and the Reimann Hypothesis, to learn about some of the important open questions facing mathematicians today.

During a trip to the Adventure Science Museum in Nashville, scholars also designed and constructed scale models of roller coasters and programmed robots to perform simple tasks with object-based programming tools. The museum offered an interdisciplinary approach to science and math, and scholars heard presentations on physics and astronomy and explored simulations of an astronaut's walk on the moon, the human circulatory system, and a hydroelectric power plant.

Music Theory & Performance

Morehead State University

Chris Wheeler's scholars embraced the imperfections of living a musical life. They were assigned to be peer teachers to explore the difficulties of teaching to people with different experience levels and musical dialects. They also challenged themselves to arrange new and old music for a variety of instruments and voices. Scholars received a master class in vocal technique from a visiting performer from *The Stephen Foster Story* to help them discover their own voice and how to be comfortable with whatever comes out.

The class also took on new concepts in music theory: They wrote their own Gregorian chant in authentic notation and produced two folk songs about the culture of the GSP-Morehead community. A large portion of class time was spent in rehearsal and practice to learn a variety of musical styles that would be presented in a live performance for the local community. The entire set list was arranged by the class as a whole and is preserved on a CD, along with other ensemble numbers, as a way to experience the arduous recording process.



GSP-Murray scholars perform several patriotic numbers during the city of Murray's Fourth of July concert.

Murray State University

Tana Field's scholars explored their unique musical strengths and backgrounds while collaborating to explore the communicative and storytelling possibilities of music. They engaged with a professional storyteller to learn about performance techniques, using one's entire body as an instrument, and crafting a story. The class also toured a local theater, where they examined the logistics and challenges of live performance.

As their large-scale final project, scholars created their own musical from scratch, collaborating to select the theme, arrange the music, and write the script. They staged and performed the musical for the entire GSP community during the last days of the program.

Mia Pardieu

Thomas Nelson High School

"This class taught
me that music can
cross boundaries that
voices sometimes fail to.
I learned to own
my sound and
imperfections."

Philosophy

Murray State University

John Wilcox's scholars explored different philosophical answers to questions about the nature of reality, knowledge, and how to live a meaningful life. Beginning with the arguments of Rene Descartes, scholars came to understand the deeper meaning of the famous quote from Descartes, "I think, therefore I am," by which Descartes argues the mind is a substance separate from the body, and that the knowledge of self-identity derives from thinking. Scholars noted that Descartes rejects the common-sense belief that knowledge begins from our sense perceptions of physical objects and our varied encounters with other people. The class noted also that Descartes' concept of self-identity implies a strong sense of individualism in relationship to community or society.

Later in the summer, Wilcox and his scholars joined the Creative Writing & Literary Studies Focus Area to consider how the concept of self-identity relates to one's personal narrative. The collaboration between the two classes included a field trip to an abandoned and restored chapel in the Land Between the Lakes. In small groups the scholars discussed Emily Esfahani Smith's book *The Power of Meaning: Crafting a Life that* Matters and a short story by Kentucky author Bobbie Ann Mason, "Shiloh." These texts opened the class conversation to other philosophical issues, such as the existence of free will and the soul.

Northern Kentucky University

Scholars in Lisa Hicks's Focus Area concentrated on the theme of the open future. Each week focused on a different topic—metaphysics and epistemology, logic, aesthetics, ethics, and existentialism—and, in discussion at the end of each week, scholars contemplated the ways that thinkers on each topic viewed the future as either open or closed. Scholars read classic and modern texts, including excerpts from Nietzsche, Aristotle, Montaigne, Alexander Nehamas, and DK's The Philosophy Book: Big Ideas Simply Explained. They also considered a number of selections from a book of intuition-testing quizzes called Do You Think What You Think You Think?.

The class was heavily discussion based, and scholardirected conversations covered ideas from Greek philosophy through present-day topics. For their final project, the class designed a philosophically-oriented scavenger hunt to encourage fellow students to think about the open future.

"The diverse backgrounds and opinions of my fellow scholars provided fresh perspectives on age-old topics and allowed me the freedom to think deeply and form my own opinions."

Claire Harmon

Marshall County High School

Physical Science

Morehead State University

Will Garcia's scholars traveled through time from the beginning of human innovation to the quantum realm. Beginning in the Stone Age, scholars recreated ancient tools and simple machines. Scholars also made their own woven rope and tested its strength by successfully pulling a car loaded with GSP staff. Using their knowledge of friction, scholars then tried to create fire without matches.

As the class traveled forward in time, they created pottery and studied the physical and chemical reactions that take place during the firing process. Together they created their own kilns using sawdust and wood to fire their pottery without using modern technology. Next, using the same method that ancient Greek mathematician Eratosthenes used, scholars measured the circumference of the Earth by only using the shadow cast by the sun.

The class ended their journey through time by exploring time itself. Using the same thought experiments that led Einstein to special relativity, scholars developed a deeper understanding of modern physics and explored the quantum realm.



A GSP-Morehead scholar pulls a car with a handwoven rope to test the class's ability to create simple tools and overcome frictional forces.

"In this class, all different types of people came together to create wonderful things."

Murray State University

Harsh Upadhyay's class was designed around a central theme: make collaboration instinctive. During the five weeks of the program, scholars learned the essentials for good collaboration, such as efficient communication and appropriate use of available resources.

As a part of their legacy, last summer's Physical Science class left an original Rube Goldberg design for this year's scholars to execute; in an introduction to collaboration in the first week, this year's scholars had

Lyndsie Bartley Pikeville High School

to make the existing design work using the previous class's written plans. Those lessons led the scholars to collaborate on creating a GSP-themed Rube Goldberg invention on a larger scale. The process began with a planning committee that documented ideas on paper and assigned class members to sub-committees in charge of topics such as robotics and carpentry. After a few weeks of troubleshooting, scholars were able to execute their plan successfully.

Political & Legal Issues

Morehead State University

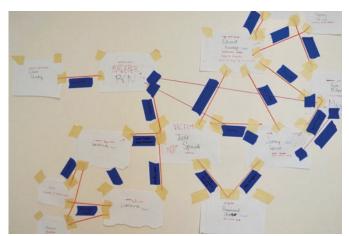
Kim Reeder's Focus Area explored the Bill of Rights in the U.S. Constitution and began to understand the practical implications of interpreting and applying those provisions. The class read portions of Bryan Stevenson's Just Mercy to develop an understanding of how constitutional protections may be impacted by factors such as race, age, and socioeconomic status. They also watched portions of a Franklin County trial conducted in May 2018 to identify how constitutional provisions affect the process of selecting a jury, introducing evidence during a trial, and sentencing. Scholars were able to further develop their understanding of constitutional protections by meeting with Franklin County Circuit Judges Phillip Shepherd and Thomas Wingate and touring the Rowan County Detention Center. Finally, by attending the Morehead Theatre Guild's production of *The Crucible*, the class was able to contrast the due process rights in the U.S. Constitution with a system where such rights did not exist.



Murray State University

Joey Budd's scholars learned rules of law pertaining to individual rights under the Constitution in the Bill of Rights, specifically learning legal definitions of search and seizure, self-incrimination, and procedural law. They embarked on a two-week, campus-wide investigation of a mock crime with the help of the Forensic Science Focus Area scholars, conducting interviews and interrogations of potential witnesses and suspects. The scholars were given roles to act out in a mock trial of the accused suspect on the last day of class, including the roles of prosecuting attorneys, defense attorneys, and detectives. The scholars used their knowledge to attempt to prove or defend beyond a reasonable doubt the guilt or innocence of the defendant.

Bottom left: A GSP-Murray scholar identifies and marks evidence at the mock crime scene; **bottom right**: scholars attempt to "connect" suspects and witnesses.



Northern Kentucky University

Ellen Mitchell's Focus Area rejected the single story of bipartisanship by developing a cooperative leadership approach to conflict resolution based on emotional intelligence. Scholars learned to identify underlying interests and address taboos using selected excerpts from Daniel Shapiro's Negotiating the Nonnegotiable: How to Resolve Your Most Emotionally Charged Conflicts. Through this work, scholars honed their skills in constructive discourse, diplomacy, self-awareness, finding common

ground, and identifying personal bias.

Throughout the summer, Mitchell's class met with several speakers, including Kentucky Attorney General Andy Beshear, District Court Judge Charles W. Hardin, and award-winning student activist Omar Salinas Chacón. Inspired by the Kentucky United Nations Assembly and the National Model United Nations, the class also planned, staged, and completed a student-led conflict resolution simulation as their capstone project.

Psychology & Behavioral Studies

Morehead State University

Jacki Day's scholars compared the concepts of morality, empathy, and compassion. Through a review of literature and media, the class established an accepted definition for each concept. They examined the stages of moral development and the impact of empathy on morality and compassion, then they identified the anatomical and neurochemical processes related to these three major concepts. With their newly acquired knowledge, scholars were challenged to propose strategies for increasing kindness and compassion in the world.

Later in the summer, scholars visited the Little Sandy Correctional Complex where they received a tour of the premises and participated in a question and answer session with representatives from the facility's major programs and departments. They were introduced to an evidence-based practice called Moral Reconation Therapy (MRT), which is used in prison-based therapeutic communities. The president and program administrator of MRT then joined the class to give scholars the opportunity to experience some of the components of an MRT session.

Murray State University

Raven Mineo's class focused on neuroplasticity, the idea that the brain is capable of great change and growth depending on factors such as environment, stimulation, and mental acuity exercises. Scholars participated in such exercises and recorded, interpreted, and displayed their findings. They also discussed case studies involving neurological disorders and neuroplasticity. These discussions led to an exploration of the ethical questions involved in clinical and experimental psychology, and scholars researched the history of the field and the advent of governing bodies and ethical committees.

Adriane Hardin-Davis challenged her scholars with the question, "How are Kentucky communities impacted by trauma?" The class used this question to guide their explorations of post-traumatic stress syndrome, domestic violence, and the foster care system. An examination of trauma-informed policy and trauma-informed care led the scholars to explore positive community engagement. The scholars designed and ran a Family Fun Fair for residents of Merryman House, a domestic violence shelter in Paducah. Scholars also traveled to Thistle Farms, a residential substance abuse treatment facility in Nashville where residents make body care products and work in an on-site cafe to fund the recovery facility.

"I never thought about the people I see in my community each day until I took this class. I want to know their stories. And I want to be a positive force for change in my community every day."

Kaleyn ThompsonBracken County High School

Northern Kentucky University

Jodi Treadway's class examined the concepts of influence, persuasion, and manipulation. Scholars first learned about the two types of influence, normative and informational. They then examined the cognitive processes of influence, including the central and peripheral routes to persuasion. Using advertising, news, social media, and personal anecdotes, scholars saw how the principles of persuasion affect us every day in hundreds of ways.

After learning the basics of persuasion, scholars then examined how social media can be manipulated for personal or political agendas, using the insider information contained in Ryan Holiday's book, *Trust Me, I'm Lying: Confessions of a Media Manipulator*. Using their new knowledge, scholars designed a viral marketing campaign to benefit the Governor's Scholars Program itself, leveraging the program's social media presence to increase donations and ensure its protection from future budget cuts. This included the use of such platforms as Snapchat, Patreon, You'Tube, Instagram and Twitter, as well as encouraging celebrity endorsements. Finally, scholars scripted an emotionally persuasive advertisement to dovetail with the viral campaign.

Spanish Language & Culture

Morehead State University

Scholars in Clint Hendrix's class began the summer reading "Tell Me How It Ends," Valeria Luiselli's essay tracing the plight of recent Central American child immigrants. Having learned the historical background of the migration trends of the 20th and early 21st centuries in the U.S., scholars chose the topic of detaining families and children crossing the U.S.-Mexico border as the focus of their Spanish conversation sessions. Additional topics of investigation included experiences of "Dreamers" and the ongoing debate about DACA.

Scholars further developed their conversational Spanish skills through grammar lessons and improved their cultural competency through the analysis of Hispanic-American street artists and muralists. After a visit to the Cincinnati Art Museum, scholars took a walking mural tour of downtown Lexington and were encouraged to contrast the more institutionalized Hispanic art of private spaces to public art's impact on the urban landscape during.

Murray State University

Jeff O'Field's scholars explored the deep connections, convergences, and divergences between Cuba and Puerto Rico—two islands that were imagined as "two wings of the same bird" by Lola Rodríguez de Tió in her 1893 poem, "A Cuba." To facilitate discussions on Cuban and Puerto Rican culture and identity, scholars read historical fiction, memoirs, and experimental theater pieces; listened to music; and watched film selections. These challenged scholars to approach cultural identities as multifaceted realities that eschew simple analyses. During trips throughout the local area and to Nashville, scholars met Spanish-speaking residents and community leaders who represented fields such as education, law, business, healthcare, social work, and architecture. Destinations such as Casa Azafrán Community Center, the Hispanic Family Foundation, the Frist Art Museum, and the historic Belcourt Theatre helped scholars experience the benefits of collaborative community efforts supported by leaders from diverse backgrounds.

Visual Arts

Morehead State University

Jacqueline Bryan's class strengthened their observation and design skills through the use of a variety of media and the study of several diverse subjects. Scholars began by expressing thoughts through simple sketches that their peers interpreted. Scholars then studied traditional methods of proportion and perspective to learn how to accurately represent space as well as manipulate the representation to apply meaning. The class's artwork reflected individual experiences: Each scholar began by creating a work reflective of their first impression of GSP-Morehead and culminated in a personal reflection of growth that inspired a self-portrait.

Northern Kentucky University

Matt Curless challenged his scholars to looking at artwork from a different perspective than they normally use. At the Cincinnati Art Museum, for example, scholars considered: Should a piece of art be able to stand alone without any additional information? Should art be left to interpretation, or is it important to include the artist's background and intent?



Scratchboard etchings force GSP-NKU scholars to work "subtractively," removing the black to create white.

In addition to class discussions, scholars created work independently, including self-portraits, etchings, paintings, and computer graphics work. The summer began with a very structured drawing using a grid technique and progressed into more creative, original work. The summer concluded with a public exhibition of the class's projects.

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 learning approach that is counter to their Focus Area class. 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 today.



The following is a small sample of the General Studies classes offered in 2018.

Coming to Our Senses

Northern Kentucky University

Using Leonardo da Vinci's quote "The five senses are the ministers of the soul" as a foundation, James Kenney's class considered the scientific and psychological aspects of the senses and how scholars might be taking theirs for granted. Annie Wells, a Deaf instructor at NKU, taught the scholars about Deaf culture and American Sign Language. Scholars then used ASL to sign a story they created. Gerry Slusher and Steve Ogletree, who are both blind, taught scholars basic braille language skills. Scholars then visited the Cincinnati Association of the Blind and participated in a blind/touch art experience at the Cincinnati Art Museum. The class also researched animal senses before visiting the Newport Aquarium, explored body language in police interrogation, learned Morse code and amateur radio skills, and learned to play wheelchair basketball with Jake Counts from Skool Aid, a local community center.



GSP-NKU scholars visit Skool Aid in Covington to play wheelchair basketball and perform a physical activity that engages their abilities and senses in a different way.

United We Stand, Divided We Fall?

Morehead State University

Derrick Staton introduced his class to the vexing idea of utopias. Scholars explored and questioned what characteristics of a society spur a segment of the population to feel the need to branch off from the rest of society in order to form a perfect world. The class debated the fundamental flaws and values of the United States to try and create a utopia out of what they most revered and most deplored.

Scholars also visited Shaker Village of Pleasant Hill and discussed the equality that this group produced and compared it with the inequalities faced in our society today. The class was forced to confront uncomfortable realities about the present-day United States and the future. Finally, in small groups, scholars created a futuristic utopia with their own rules, power structure, and technological innovations (or lack thereof).

The Placebo Affect

Northern Kentucky University

Why do some combinations of sounds give us an emotional reaction and some do not? How can music equally affect people who do and don't have an education in music? Are there any patterns to creating music that could "guarantee" a popular song?

Tim Phelps's scholars explored the effects of music and sound on the brain. The class investigated how music, which is only a sequence of vibrations in the air, can create an affective connection with our emotions. They combined research skills and creativity by analyzing the top 100 songs from the past ten years, distilling that data into musical formulas, and then used those formulas to create, perform, and produce three songs that represent current popular music.

Through an exploration of the history of musical genres, the study of the elements of music today, and the research of our brains on music, scholars learned about why music has such a lasting influence on our world.

Unnatural Disasters

Murray State University

Jeff O'Field's scholars analyzed natural disasters such as floods, earthquakes, and hurricanes with the goal of evaluating local, national, and international responses to them. Their central case revolved around responses to Hurricane Maria in Puerto Rico during the 2017 hurricane season. In particular, O'Field and his scholars studied the aftermath of several natural disasters to identify how the people and communities affected were able to thrive once again.

Scholars drew on several disciplines to assess how these devastating events have unfolded and what knowledge we need to deal with future natural disasters. Scholar-led discussions raised themes of crisis management, solidarity, and equity. This prepared scholars to visit Paducah, where they explored the downtown area while mapping prominent landmarks. While mapping landmarks, they assessed the availability and access to resources needed in emergency situations.

Autarchic

Morehead State University

Greg Jacobelli's class considered what it means today to be "autarchic," or self-reliant, and how they could broaden their self-sufficiency. With the help of the Kentucky Department of Fish and Wildlife, they helped with an annual goose catching and tagging program—a new skill for every scholar. The class also learned how to address simple problems using trial and error and then exercised their new skills. For example, scholars were given simple materials, including plywood and plastic barrels, and asked to design "something of use." The class split into two teams and design two boats that they

constructed and launched on Eagle Lake.

Instead of scrapping the boats when finished, scholars decided to cut the boats into pieces, design a small useful object, and each take a piece of their boat home with them. This creative use of materials proved one of the greatest lessons of self-sufficiency: looking at things through a sustainability lens.

Bottom left: GSP-Morehead scholars build boats using sample materials to practice self-reliance; **bottom right**: Scholars launch their boats on Lake Eagle.





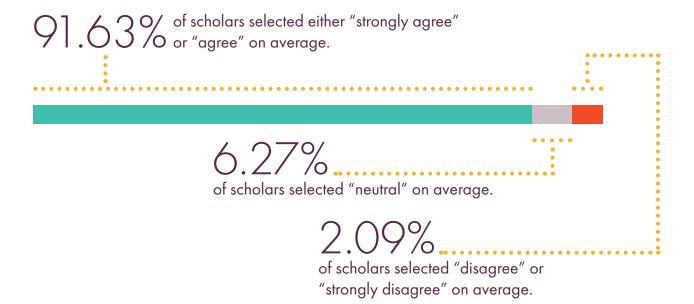
2018 SCHOLAR EXPERIENCE SURVEY

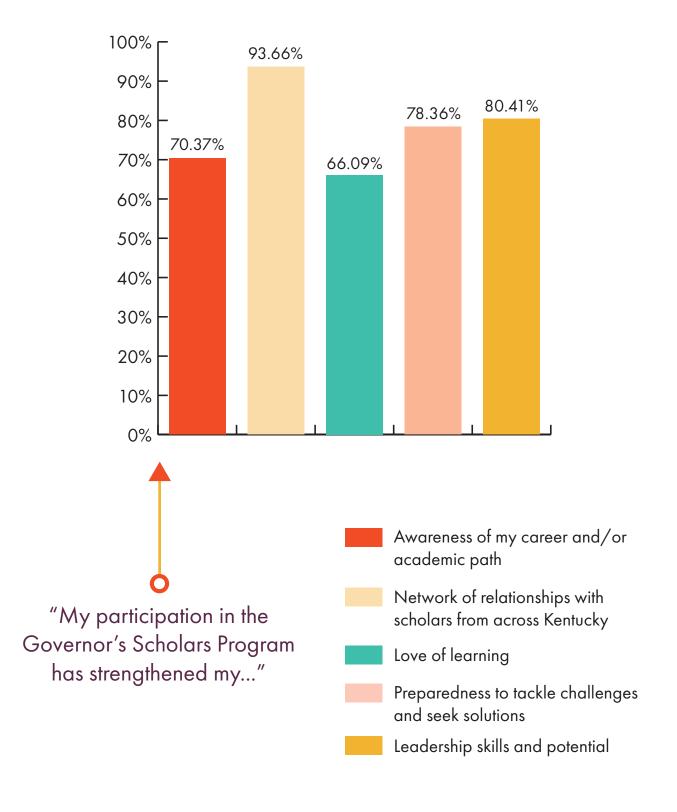
Each summer, before leaving their respective campuses, all Governor's Scholars are asked to complete a Scholar Experience Survey consisting of approximately thirty questions pertaining to all aspects of life at GSP. Program staff use the survey results to help gauge the success of the summer's activities,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

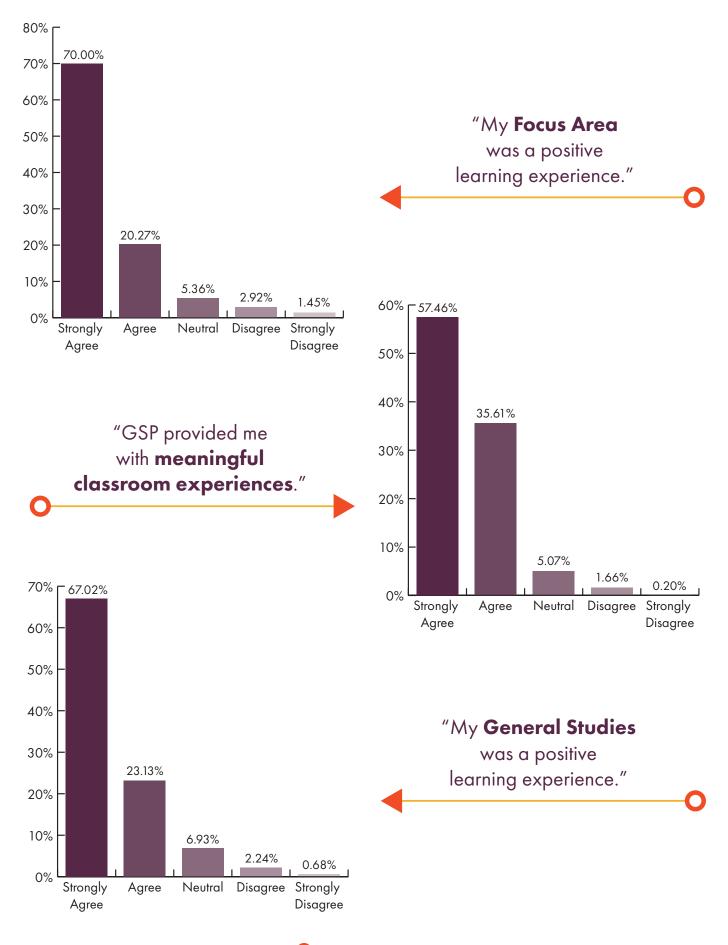
The following is a sample of results from the 2018 Scholar Experience Survey, organized by areas of emphasis within the Program. For a complete list of the survey questions and detailed results, please see the GSP website at www.gsp.ky.gov.

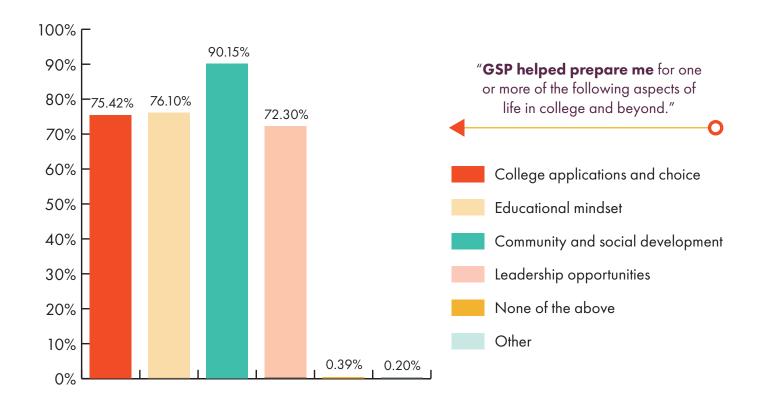
Overall Results

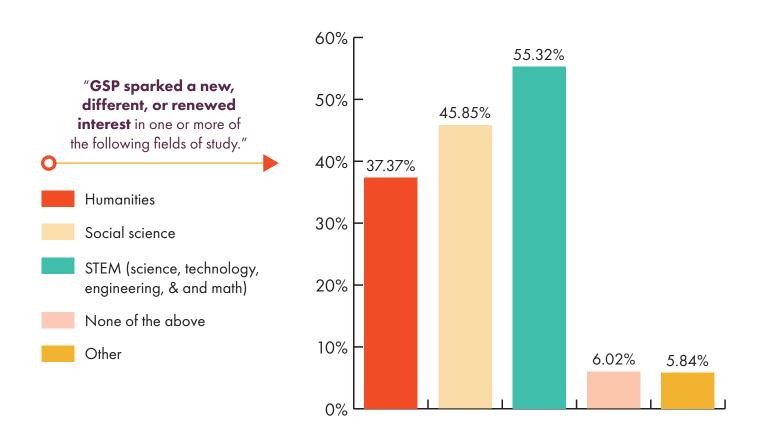
Scholars overwhelmingly rated their GSP experience as positive. On average, participants selected either "strongly agree" or "agree" 91.63% of the time. In comparison, "neutral" responses made up 6.27% of the total. Scholars very rarely reacted negatively to the survey prompts, choosing "disagree" only 1.63% of the time and "strongly disagree" in only 0.46% of responses. No question received a negative response rate above 4.88%.









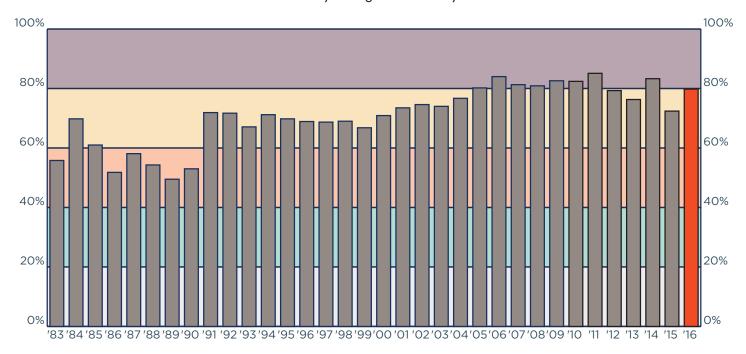


SCHOLAR IN-STATE DATA

College Enrollment

With the help of the Kentucky Higher Education Assistance Authority, 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 2016 scholars, the most recent year for which data is available, 79.8% enrolled at a Kentucky college or university in the fall of 2017.



Permanent Residence

As of September 2018, 30,726 students have completed the Governor's Scholars Program. The Program currently has valid contact information on file for 24,925 living alumni.

Of those, 20,397—81.83%—have a permanent address within the Commonwealth of Kentucky.

0 24,925

81.83%

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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.

For more information or to make a contribution, contact:

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



GSP Host Campuses					
Morehead State University, Murray State University, Northern Kentucky University	2018				
Bellarmine University, Morehead State University, Murray State University	2012				
Bellarmine University, Centre College, Murray State University					
Bellarmine University, Centre College, Morehead State University					
Bellarmine University, Centre College, Eastern Kentucky University ••••••					
Centre College, Eastern Kentucky University, Northern Kentucky University	0000				
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