

Georgia Space Grant Consortium
Lead Institution: Georgia Institute of Technology
Director: Stephen M. Ruffin, Ph.D.
Telephone Number: (404) 894-8200
Consortium URL: <http://www.gasgc.org>
Grant Number: NNX10AR61H

PROGRAM DESCRIPTION

The National Space Grant College and Fellowship Program consists of 52 state-based, university-led Space Grant Consortia in each of the 50 states plus the District of Columbia and the Commonwealth of Puerto Rico. Annually, each consortium receives funds to develop and implement student fellowships and scholarships programs; interdisciplinary space-related research infrastructure, education, and public service programs; and cooperative initiatives with industry, research laboratories, and state, local, and other governments. Space Grant operates at the intersection of NASA's interest as implemented by alignment with the Mission Directorates and the state's interests. Although it is primarily a higher education program, Space Grant programs encompass the entire length of the education pipeline, including elementary/secondary and informal education. The Georgia Space Grant Consortium is a Designated Consortium funded at a level of \$585,000 for fiscal year 2013.

PROGRAM GOALS

Goals:

Fellowships and Scholarships

Goal 1: Deliver a competitive scholarship/fellowship program that promotes STEM excellence in students and faculty.

Objective 1.1

Ensure competitive distribution of scholarship/fellowship funds.

Action 1.1.1: Institute a centralized statewide application process to ensure equitable distribution of awards.

Action 1.1.2: Engage women and underrepresented populations (consistent with their higher education enrollment according to the National Center for Education Statistics for the State of Georgia) with scholarship/fellowships in STEM disciplines.

Action 1.1.3: Utilize the GSGC advisory board for oversight of awards to ensure equitable distribution.

Objective 1.2

Create partnerships among student fellowships awardees and mentors involved in NASA's missions and at NASA centers

Action 1.2.1: Increase number of students placed at NASA Academies and other NASA programs.

Action 1.2.2: Pair students with faculty mentors.

Research

Goal 2: Support customer-focused research activities that develop innovative technologies, knowledge and infrastructures to advance NASA's space and aeronautics objectives.

Objective 2.1

Integrate research efforts with those of NASA and other stakeholders, with emphasis on research with direct applications to the state of Georgia.

Action 2.1.1: Facilitate researcher ties with aerospace industry.

Action 2.1.2: Connect NASA personnel, technology and resources to state programs.

Action 2.1.3: Award travel grants to encourage faculty to interact with NASA researchers at NASA field centers or other Federal labs.

Action 2.1.4: Leverage and support Georgia's expertise in Earth sciences, agricultural sciences and remote sensing to support NASA's environmental goals.

Objective 2.2

Provide authentic experiences for students to identify current and potential uses of NASA technologies.

Action 2.2.1: Expand existing collaborations with NASA Centers and Space Academies, NASA C-9 Microgravity aircraft, High Altitude Student Platform (HASP), sounding rockets, and other opportunities

Objective 2.3

Emphasize support for Space Grant Fellows opportunities.

Action 2.3.1: Create new initiatives among consortium members to give Space Grant Fellows opportunities to work at GSGC member institutions.

Action 2.3.2: Provide seed money for young faculty members to write proposals and start-up money for small research projects, with priority to young faculty members who mentor dual degree students or who have been space grant fellows and are currently working in the State of Georgia.

Objective 2.4

Ensure competitive distribution of research funds.

Action 2.4.1: Release an annual statewide call for proposals to all affiliates.

Action 2.4.2: Utilize a selection process that places emphasis on collaboration at HBCUs.

Action 2.4.3: Target strong participation from underrepresented populations in research projects.

Objective 2.5

Disseminate research results to NASA, stakeholders, and national audience.

Strategy 2.5.1: Require research award recipients to submit research outcomes for publication in conference proceedings and referred journals.

Education

Goal 3: Provide opportunities for students and educators in STEM disciplines through a progression of programs that immerse them in authentic science and engineering experiences to support the NASA mission and its human capital goals.

Pre-College

Objective 3.1

Provide STEM professional development programs using NASA's content and resources to provide pre-service and in-service teachers with learning experiences that build critical instructional STEM skills to better prepare their students for STEM careers.

Action 3.1.1: Provide short-term and long-term professional development workshops for K-12 educators. For example, these may include providing speakers, NASA educational materials sources, rocket launch assistance, etc.

Action 3.1.2: Provide stipends, scholarships, internships for educators to participate in professional development opportunities.

Action 3.1.3: Use social network tools, real-time videoconferencing, Internet multimedia, handheld devices, and other dissemination infrastructures to immerse educators in NASA science and technology.

Action 3.1.4: Create a NASA Community of Learners in the state of Georgia for collaboration, networking and support that will establish an affinity among their students to pursue careers in STEM fields.

Objective 3.2

Support Georgia's informal STEM education organizations that use NASA content to promote STEM literacy and support the development of innovative programs that help promote NASA's exploration mission.

Action 3.2.1: Establish a collaborative with informal education providers to develop a cadre of qualified presenters with experience in NASA missions and related content.

Action 3.2.2: Establish a network with informal education providers for accessing NASA materials that will enhance participant's skills in STEM disciplines and inform them of STEM career opportunities.

Objective 3.3

Engage pre-college students in hands-on research and engineering experiences which lead to an increased knowledge of NASA science and technology disciplines, missions, and exploration programs.

Action 3.3.1: Link students to NASA mission opportunities through the Internet, NASA social networks, and other interactive technologies.

Action 3.3.2: Support middle and high school students engaged in NASA challenges and competitions and other research applications that inspire and motivate them to pursue studies in STEM disciplines. Sample programs include Student Launch Initiative (SLI), Team America Rocketry Challenge, Fundamental Aeronautics Challenge, Great Moonbuggy Race, and the Waste Limitation Management and Recycling Design Challenge.

Action 3.3.3: Connect students to mentors and interns through social networking technologies to promote collaboration.

Action 3.3.4: Identify and publicize on GSGC website NASA and aerospace industry internships and outreach activities.

Objective 3.4

Recruit students and educators in NASA's missions, research, and innovations by engaging a diverse audience including women, under-represented minorities, and persons with disabilities through every part of the state of Georgia.

Action 3.4.1: Support the participation of students and teachers from underrepresented and underserved communities in all GSGC Pre-College activities.

Higher Education including Post-Secondary Education.

Objective 3.5

Provide mentoring opportunities to increase the enrollment and retention of undergraduate STEM students and to increase the number of students in STEM graduate programs.

Action 3.5.1: Research existing mentoring programs and identify the most effective strategies for the GSGC. If one or more can be identified which matches the capabilities of the GSGC, implement at least one, including quantitative metrics.

Objective 3.6

Provide higher education and post-secondary education students with enriched STEM-related resources and activities.

Action 3.6.1: Find and evaluate available opportunities such as undergraduate summer research at universities and NASA centers, COOP programs, field trips, team activities such as the microgravity and balloon programs, the concrete canoe competition, etc.; and steer STEM students into these opportunities. Establish a central clearinghouse of opportunities at the GSGC level. Conduct follow-up interviews and/or surveys to better advise the next students in the pipeline. Continually seek and exploit new opportunities to place in the clearinghouse.

Action 3.6.2: Encourage undergraduate research by providing travel funds for students to present project results at conferences such as the Georgia Academy of Science and a competitive undergraduate research Request for Proposals program.

Objective 3.7

Maximize opportunities for underrepresented groups pursuing higher education.

Action 3.7.1: Collaborate with HBCUs to design programs to engage and recruit underrepresented populations in the STEM fields.

Action 3.7.2: Utilize facilities such as the NASA-funded Optics Lab at Morehouse College to support research conducted by students of underrepresented groups.

Action 3.7.3: Conduct GRE prep sessions at HBCUs for underrepresented students pursuing STEM disciplines.

Action 3.7.4: Sponsor student organizations supporting STEM disciplines.

Objective 3.8

Collaborate with private industry to maximize and integrate resources into GSGC higher education and post-secondary education efforts in order to address the STEM workforce needs of Georgia.

Action 3.8.1: Establish links with aerospace industry. For example, each affiliate may recommend a corporation to participate in an introductory meeting of affiliates and representatives from each corporation. Conduct follow-up meetings and publicize interactions to maintain and strengthen ties.

Objective 3.9

Recruit technical and community college members for the GSGC.

Action 3.9.1: Prepare a document outlining the advantages to a technical/community college to becoming a consortium member and the necessary steps to joining the consortium.

Action 3.9.2: Designate at least one current consortium member to recruit a technical-community college.

Informal Education

Goal 4: Increase the general public's and students' awareness and knowledge of NASA related technologies through collaborations with informal STEM education providers, NASA, private industry, and consortium members.

Objective 4.1

Provide unique opportunities to engage students, educators, families, and the general public, in inspiring authentic aerospace experiences that are derived from NASA's exploration plans.

Action 4.1.1: Offer programs for the public at consortium members' institutions on STEM-related topics that highlight NASA's activities and missions.

Objective 4.2

Implement public engagement activities by leveraging the infrastructure of the informal education community in the state.

Action 4.2.1: Coordinate informal education activities with museums and science centers in Georgia to more effectively reach and engage the public in NASA experiences.

Action 4.2.2: Designate a GSGC member near each informal education center, such as Fernbank, to establish a strategic partnership for collaboration and resource sharing.

Objective 4.3:

Promote public astronomical viewing sessions and planetarium programs that focus on NASA space science activities and missions such as Hubble Space Telescope findings.

Action 4.3.1: Provide viewing session/planetarium program providers with links to NASA resources and materials.

Action 4.3.2: Establish a mini-grant program for support of public viewing sessions and programs by the astronomy/physics departments of colleges, astronomy clubs, and planetaria around the state.

Action 4.3.4: Establish a blog for information sharing for the viewing session/planetarium program providers.

Consortium Management

Goal 5: Promote GSGC and manage its operations in a way which results in effective and collaborative programs that maximize the impact of each affiliate in achieving the GSGC mission.

Objective 5.1

Promote the accomplishments and capabilities of the GSGC within the state and nationally with public officials, NASA, industry, students and the general public.

Action 5.1.1: Develop and maintain a current, attractive, and effective GSGC website which promotes the vision, accomplishments, and capability of the consortium.

Action 5.2.3: Develop and maintain a contact list of GSGC stakeholders which includes the following: current and prior funded organizations and students, NASA and industry personnel who may support GSGC activities, public officials with influence in Space Grant, External Advisory Board members, and Affiliates.

Action 5.2.2: Produce a quarterly newsletter, post and disseminate to all GSGC stakeholders.

Action 5.2.3: Visit state and national public officials to communicate the accomplishments and capabilities of the GSGC.

Action 5.2.4: Promote presentations of student and faculty GSGC accomplishments at state and national meetings.

Objective 5.2

Ensure effective communication between the External Advisory Board, Affiliates and Directors office in regard to new funding opportunities, national initiatives, accomplishments and decision making activities.

Action 5.2.1: Hold semi-annual consortium meetings including External Advisory Board, Affiliates and the Directors Office to discuss GSGC operations, new opportunities, and to make recommendations and decisions. Produce and disseminate minutes of the meetings to all participants.

Action 5.2.2: Hold quarterly Advisory Board Meetings during the first 18 months and semi-annual meetings thereafter to review GSGC progress and policies.

Action 5.2.3: Acquire and disseminate feedback on GSGC operations from External Advisory board to all Affiliates

Action 5.2.4: Provide timely disseminate funding opportunity information to Affiliates and promote effective collaboration in new initiatives.

Objective 5.3

Implement, refine, and automate the proposal announcement, review and selection process

Action 5.3.1: Develop an efficient web-based proposal submission process for affiliates and others requesting funding

Action 5.3.3: Conduct systematic reviews and provide feedback on funding requests based on the following criteria: Relevance to Space Grant, Merit and Soundness of Proposal, Reasonableness of Budget and Reporting Success of Investigators.

Action 5.3.2: Develop an efficient web-based Fellowship and Scholarship application processes.

Action 5.3.3: Develop and implement a process for systematic review of Fellowship and Scholarship applications.

Objective 5.4

Ensure effective participation, fiscal accountability and data reporting responsibility by the GSGC Director's office and the GSGC Affiliates.

Action 5.4.1: Collect and disseminate progress reports which provide tracking data and status reports from each Affiliate and other funded organizations.

Progress reports will be required every 90 days for the first two years. For the subsequent years, progress reports will be required every 6 months.

Action 5.4.2: Develop and implement an efficient and accurate longitudinal tracking process for all GSGC students. Automate this system using either a GSGC based web server or through the services of the National Space Grant Foundation.

Action 5.4.3: Accurately and communicate spending and tracking data to GSGC Affiliates, Advisory Board and to NASA

Action 5.4.4: Ensure that prior data reporting accuracy is a significant factor in consideration of funding for all entities requesting funding.

PROGRAM/PROJECT BENEFIT TO OUTCOME (1,2, & 3)

Outcome 1

A Georgia Tech student who participated in a NASA Academy last year was requested to come back for a second year. This student was also accepted into 4 other NASA programs. The student is currently at NASA Langley, but has requested additional funding to start a research project at Georgia Tech that will involve other students and is based on the research he is conducting at Langley.

A student found an internship at Ad Astra, but due to funding it was cancelled. The student took the initiative to find out where similar research was being conducted at NASA and was able to craft an internship. The student wrote a proposal for funding to the GSGC and was awarded travel funds.

Outcome 2

No anecdotes

Outcome 3

The GSGC STEM Agenda continues to build its database of informal education providers. In 2014, more requests to join the STEM Agenda came as the result of increased social media presence, and word of mouth from educators who are members.

The program is becoming well recognized in Georgia for informal education providers to join for support, collaboration, and resources.

PROGRAM ACCOMPLISHMENTS

Refer directly to the consortium goals and SMART objectives in your 2010 base proposal when describing your accomplishments.

Outcome 1: *Contribute to the development of the STEM workforce in disciplines needed to achieve NASA's strategic goals:*

Fellowships – Applications are available online as listed in the 2010 SMART objectives and the GSGC awards are in direct proportion to the demographics of the State of Georgia and of students who are attending college in Georgia. Fellowships were given to nine of the 17 GSGC institutions.

Higher Education and Research Infrastructure – Annually, the GSCC provides funding for NASA internships and industry internships via industrial affiliate members, SpaceWorks Enterprises and Generation Orbit. Students research projects (Mars Desert Research, Microgravity teams, CanSat teams, USLI, AIAA competitions, Robotics Challenges, etc., are also a prime focus of the GSGC and are supported each semester. Student funding is also available for conference travel to present posters and papers. The GSGC conducted 10 higher education programs and 6 research programs for FY 2013 to accomplish objectives.

Outcome 2: *Attract and retain students in STEM disciplines through a progression of educational opportunities for students, teachers, and faculty:*

Orbit Education and the Museum of Aviation continue to train hundreds of teachers annually using NASA resources at the NASA ERC. Kennesaw State College continued their programs of linking STEM majors with Education majors to enhance teacher training. In addition, there are K-12 programs which directly work with students in programs like the annual Bridge Building Competition, robotics workshops, rocket building camps, and science writing workshops. These programs are quantified to show impact. The GSGC conducted 17, K-12 programs during FY 2013 to exceed objectives. Seven of the programs were exclusively in service programs for teachers. Five of the programs were for teachers and students, and the remaining five programs were for students.

Outcome 3: *Build strategic partnerships and linkages between STEM formal and informal education providers that promote STEM literacy and awareness of NASA's mission:*

The GSGC STEM agenda (proposed in a previous augmentation) continued to build its network of informal education providers. In 2013, eleven organizations were added to the directory. A new collaboration during 2013 included working with the Girl Scouts in their Aeronautics camp. The GSCC again funded STEM events for the SEM Link, and Futurescape which are both informal education organizations working with K-12 students. The GSGC conducted 13 informal education programs during FY 2013 to exceed objectives.

PROGRAM CONTRIBUTIONS TO NASA EDUCATION PERFORMANCE MEASURES

- **Student Data and Longitudinal Tracking:** Number of program student participants employed by NASA, aerospace contractors, universities, and other educational institutions; Number of undergraduate students who move on to advanced education in NASA-related disciplines; Number of underrepresented and underserved students participating.

Student Data and Longitudinal Tracking:

Total awards= 140

Fellowship/Scholarship = 45

Higher Education = 80

Research Infrastructure = 15

37.1% female

62.9% male

Fellowships – 40% underrepresented

With the exception of one female Hispanic students, all are still currently enrolled in programs. The Hispanic female was a Space Grant intern at NASA Goddard and has graduated and is now working in industry.

- **Minority-Serving Institution Collaborations:**

The following HBCUs are members of the GSGC

Spelman College – Support is provided for students at NASA Space Academies or Internships. This is collaboration with the lead Institution.

Savannah State University – Support is provided for scholarships and research experiences in labs on campus, industry, or NASA facilities, and travel for conferences to present papers or posters.

Clark Atlanta University – Support is provided for students engaging in a hands on High Altitude Research Platform (HARP) program.

Morehouse College – Support is provided for scholarships, the microgravity team, and a Space Weather Research project that engages undergraduate students and faculty in collaboration with the University of Texas, Austin.

Fort Valley State University – Funds are provided for the annual cooperative development energy program which is a 6 week, program for 9th graders designed to encourage them to pursue STEM. The program has various component including mentoring, field trips to college campuses, tutoring, labs, hands on projects, and daily math and science programs. This is a collaboration with Georgia Tech (lead institution).

Albany State University – support is provided for pre-college programs, higher education, and research. At the K-12 level, Albany hosts an annual bridge building competition, and robotics workshops for teachers in rural Georgia. For higher education, undergraduate students engage in research dealing with reverse

engineering and Research Experience in Scientific Payload Design and Launch. In the research category, ASU has a project dealing with new frontiers in manufacturing.

- **NASA Education Priorities:**

- Authentic, hands-on student experiences in science and engineering disciplines – the incorporation of active participation by students in hands-on learning or practice with experiences rooted in NASA-related, STEM-focused questions and issues; the incorporation of real-life problem-solving and needs as the context for activities.
Students are funded for internships at NASA, academic institutions, and industry to gain hands on experience. Students are also provided funding to participate in STEM competitions such as USLI, and the Mars Desert Research Program.
- Diversity of institutions, faculty, and student participants (gender, underrepresented, underserved).
The GSGC has 6 HBCUs and two female institutions as affiliate members.
- Engage middle school teachers in hands-on curriculum enhancement capabilities through exposure to NASA scientific and technical expertise. Capabilities for teachers to provide authentic, hands-on middle school student experiences in science and engineering disciplines (see above).
Orbit Education and the Museum of Aviation are dedicated to teacher training using curriculum and materials from the NASA Electronic Teacher Resource Center.
- Summer opportunities for secondary students on college campuses with the objective of increased enrollment in STEM disciplines or interest in STEM careers.
High School students are provided with internships in labs as well as opportunities to participate in aerospace camps at Georgia Tech, science writing challenges at the University of Georgia, robotics training at Armstrong Atlantic and Mercer, and bridge building at Albany State.
- Community Colleges – develop new relationships as well as sustain and strengthen existing institutional relationships with community colleges.
The GSGC has added the West Georgia Technical College, Atlanta Metropolitan State College, and Central Georgia Technical College as partners. After one year, they are eligible to become affiliates.
- Aeronautics research – research in traditional aeronautics disciplines; research in areas that are appropriate to NASA's unique capabilities; directly address the fundamental research needs of the Next Generation Air Transportation System (NextGen).
- Environmental Science and Global Climate Change – research and activities to better understand Earth's environments.
Morehouse College and the University of North Georgia are both engaged in Space Weather research programs. Both programs include undergraduate research components.

IMPROVEMENTS MADE IN THE PAST YEAR

Proposal submission

The GSGC was able to use a web based proposal submission process for affiliates which expedited submissions and greatly reduced the time it has taken in the past to evaluate the proposals. Changes are being made on the system based on feedback from the affiliates, but the improvements have proven beneficial thus far.

Tracking

Students who received significant funding from the consortium are being better tracked using social media and featuring them on websites in newsletters. Students are very anxious to be highlighted and the GSGC is taking full advantage of social media in that regard.

Publicity

GSGC programs are receiving more publicity and credit for their role in any collaborative projects. Any entity that receives funding must agree to include the GSCC name and logo. Also, affiliates have been encouraged to publicize events in local media.

PROGRAM PARTNERS AND ROLE OF PARTNERS IN PROJECT EXECUTION

Agnes Scott College

Dr. Chris Depree

All female institution in Decatur (suburban Atlanta). Agnes Scott College provides research and outreach activities in their astronomy program.

Albany State University

Dr. Atin Sinha

HBCU in Albany (Southwest Georgia). ASU hosts an annual bridge building competition for middle and high school students, and has ongoing research projects for STEM undergraduate students.

Armstrong Atlantic State University

Dr. Cameron Coates

The affiliate director is a former Space Grant Fellow.

Savannah (south coastal). AASU has several dynamic engineering programs for K-12 students. The K-12 programs utilize space grant fellows for instruction and mentoring. Undergraduate research is also a large component of the AASU program.

Clark Atlanta University

Dr. Marcus Shute

The affiliate director was a former Space Grant Fellow.

HBCU in Atlanta. CAU provides scholarships for students pursuing STEM degrees and interested in attending graduate school. CAU also works on collaborative programs with Georgia Tech and other affiliate institutions.

Columbus State University

Dr. Rosa Williams

Columbus Georgia (Southwest Georgia). CSU provide fellowships, research opportunities, and funding for travel to present papers for undergraduate students pursuing degrees in physics and astronomy.

Fort Valley State University

Dr. Isaac Crumbley

HBCU Fort Valley (rural south) utilizes its strengths as a land grant and space grant institution to provide innovative STEM programs which includes their nationally recognized K-12 program, Cooperative Development Energy Program (CDEP).

Generation Orbit, Inc.

Industry Affiliate in Atlanta metro area. GO has provided internships for students interested in deep space research.

Georgia Southern University

Dr. Clayton Heller

Statesboro, GA (Southeastern Georgia). Provides programming at the GSU observatory for K-12 and the general public.

Georgia State University

Dr. Doug Gies

Atlanta. GSU provides scholarships and travel funding for students pursuing Ph.Ds. in Astronomy.

Kennesaw State College

Dr. Army Lester

Kennesaw (suburban Atlanta) KSU is focused in the College of Science and Mathematics, Department of Biology and Physics. Kennesaw has STEM programs linking students in the School of Biology with students in the College of Education.

Mercer University

Dr. Anthony Choi

Macon (south central Georgia). Mercer provides scholarships for engineering students and has a robotics program with a research component for undergraduate and graduate students. Students working on the robotics projects have also participated in national competitions.

Morehouse College

Dr. Willie Rockward

The affiliate director is a former Space Grant Fellow

All male HBCU in metro Atlanta. Morehouse is in the dual degree program with Georgia Tech. Current project include sponsoring a micro gravity team and a space weather research collaborative with the University of Texas at Arlington.

Museum of Aviation

Ms. Clare Swinford

Nonprofit. Warner Robins, GA (south central Georgia). MOA is a NASA regional educator resource center and provides programming for teachers throughout the year

Orbit Education, Inc.

Mr. Tony Docal

A non-profit organization based in the metropolitan area, but has K-12 and informal education collaborations throughout the State. Orbit Education has provided pre-service and in-service teacher training and workshops.

Savannah State University

Dr. Jonathan Lambright

The director is a former Space Grant Fellow.

HBCU in Savannah. SSU has a scholarship program for students pursuing degrees in STEM and who are interested in pursuing graduate school. Funding is also provided for students to travel to conferences to present posters and papers.

Spelman College

Dr. Carmen Sidbury

The affiliate director is a former Space Grant Fellow.

This HBCU is 100% female and located in Atlanta. Spelman College provides workforce development opportunities and internships for students majoring in STEM.

SpaceWorks Enterprises, Inc.

Dr. John Olds

Industry Affiliate in metro Atlanta. SpaceWorks provides challenging internships for students using the latest technologies and innovations in Aerospace.

University of North Georgia

Dr. Mark Spraker

Dahlonega (North Georgia). UNG provide scholarships and hands on research opportunities for students working on radio telescope projects in the North Georgia observatory.

University Georgia

Dr. Gerald Arkin

Athens, Georgia (East Georgia). UGA has unique outreach programs that use non-traditional methods to engage students in STEM including a highly acclaimed annual “STEM writing competition.” UGA also engages teachers and students in interdisciplinary STEM activities.

University of West Georgia

Dr. Ben deMayo

Carrollton, Georgia (West Georgia). UWG provides large scale K-12 and informal STEM education. UWG reaches thousands of K-12 students hundreds of teachers, but also has a STEM research and scholarship component.

The National Space Grant Office requires two annual reports, the Annual Performance Data Report (APD) and the Office of Education Performance Measurement System (OEPM) report. The former is primarily narrative and the latter data intensive. Because the reporting timeline cycles are different, data in the two reports may not necessarily agree at the time of report submission. OEPM data are used for official reporting.