Graduate medical education (GME) is the period of training following graduation from medical school when a physician refines the clinical skills necessary to practice in a specific medical field. GME or “residency” programs for allopathic and osteopathic physicians include internships, residency training and fellowships, and can range from three to six years or more in length of time. GME positions are funded primarily through the Medicare and Medicaid programs, but also through other government programs, such as the Department of Defense, U.S. Department of Veterans Affairs, and state programs, and private funding.

In order to track and analyze Florida's GME programs, and identify potential areas of investment of state funds to expand or create GME programs to train future physicians in specialties for which there is, or will be, a shortage of physicians, House Bill 7109 requires the Physician Workforce Advisory Council (Council), within the Department of Health, to annually survey the state’s medical schools and accredited GME institutions. The survey will include requests for data regarding medical school graduates, number of GME positions, funding sources, and any other data necessary to evaluate the physician workforce and develop strategies and policies to create and expand GME programs in the state.

The bill requires the Council to compile all responses to the survey and create the Statewide Graduate Medical Education Report, which will be made available to the public.

The bill has an indeterminate, but likely insignificant fiscal impact that can be absorbed within existing Department of Health resources.

The bill provides an effective date of July 1, 2014.
FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Background

Graduate Medical Education

Graduate medical education (GME) is the period of training following graduation from medical school when a physician refines the clinical skills necessary to practice in a specific medical field. GME or “residency” programs for allopathic and osteopathic physicians include internships, residency training and fellowships, and can range from three to six years or more in length of time. Allopathic GME programs are accredited by the Accreditation Council for Graduate Medical Education (ACGME) and osteopathic GME programs are accredited by the American Osteopathic Association (AOA). During academic year 2012-2013, there were 117,717 residents in GME programs across the country.

Funding

The chart below illustrates the sources of public funding for GME in the United States.

Public Funding Sources for GME, 2012 (billions)

Medicare is the single largest funding source for GME nationwide. There are two types of Medicare GME funding- direct GME and indirect GME. Direct GME payments support “overhead” aspects of residency programs, such as resident salaries and benefits, faculty salaries, and other administrative expenses. The payment amount is determined by a methodology that includes a hospital’s “per resident amount,” Medicare utilization rate, and number of full-time equivalent residents at the hospital.

Indirect GME, or IME, payments defray the higher costs of patient care associated with teaching hospitals, such as greater resources devoted to sicker and more medically-complex patients, the development and use of emerging technologies, and the decreased efficiencies realized by allowing residents to “learn by doing.” The payment amount is determined by a methodology that includes the


hospital’s teaching intensity, diagnosis related group payments, and IME adjustment factor for the current year.

The estimated annual funding for GME in Florida is approximately $540 million, primarily from Medicare and Medicaid. Other sources of funding for GME in Florida include the Community Health Education Program, U.S. Department of Veterans Affairs, the Department of Defense, and private funding sources.

The number of GME positions funded by Medicare has been stable since 1997, when it was capped by the federal Balanced Budget Act (BBA). The cap was implemented due to the prediction of an oversupply of physicians. The cap limited federal spending on health care and aligned the number of GME positions with the number of U.S. medical graduates at the time. Hospitals that had GME positions existing at the time the BBA was enacted are essentially “frozen,” for Medicare reimbursement purposes, at the number of positions that existed in 1997. Several Florida accredited GME institutions have self-funded additional GME positions since 1997.

Teaching hospitals that started residency programs after 1997 are also eligible for Medicare reimbursement for GME positions. These hospitals have a five-year window to establish the largest number of FTE residents in any residency program measured during the fifth program year. The window opens when the hospital begins training residents in its first residency program. The number of FTE residents determined by the methodology will be the hospital’s permanent cap on residents.

Medicaid GME Funding in Florida

In 2013, Senate Bill 1520 created the Statewide Medicaid Residency Program (Program) in the AHCA. Through the Program, Medicaid GME dollars are removed from regular hospital reimbursement payments and are subject to a formula-based redistribution. Each hospital participating in the Program receives an annual allocation determined by a calculation of its percentage of total residents statewide and its percentage of total Medicaid inpatient reimbursement among participating hospitals. The law defines the primary factors that are used in each hospital’s annual allocation as follows:

- A “resident” is defined as a medical intern, fellow, or resident enrolled in a program accredited by the ACGME, the American Association of Colleges of Osteopathic Medicine, or the AOA.
- “Full-time equivalent” (FTE) is defined as a resident who is in his or her initial residency period (IRP), not to exceed five years. A resident training beyond the IRP is counted as one-half of one FTE, unless his or her chosen specialty is in general surgery or primary care, in which case the resident is counted as one FTE.

For purposes of the Program, primary care specialties include:

- Family medicine;
- General internal medicine;
- General pediatrics;
- Preventive medicine;
- Geriatric medicine;
- Osteopathic general practice;

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4 Id. at page 12.
5 The Community Health Education Program (CHEP) was established in s. 381.0403, F.S., and was repealed in 2013 in s.1, ch. 2013-48, Laws of Fla. Some funding issued by the CHEP continues.
6 See supra, FN 3.
7 Pub. L. 105-33.
8 Association of American Medical Colleges, Becoming a New Teaching Hospital-A Guide to the Medicare Requirements, January 2013, page 10 (on file with Select Committee for Health Care Workforce Innovation staff).
9 Id.
10 Id.
11 S. 5, ch. 2013-48, Laws of Fla.; see also s. 409.909, F.S.
12 S. 409.909(2)(c), F.S.
- Obstetrics and gynecology; and
- Emergency medicine.\(^{13}\)

- "Medicaid payments" are defined as payments made to reimburse a hospital for direct inpatient services, as determined by the AHCA, during the fiscal year preceding the date on which calculations for the Program’s allocations take place for any fiscal year.\(^{14}\)

The AHCA, on or before September 15, calculates an allocation fraction for each hospital participating in the Program, using the following formula:\(^{15}\)

\[
\text{HAF} = [0.9 \times (\text{HFTE/TFTE})] + [0.1 \times (\text{HMP/TMP})]\]

Where:

- HAF = A hospital’s total allocation fraction.
- HFTE = A hospital’s total number of full-time equivalent residents.
- TFTE = The total full-time equivalent residents for all participating hospitals.
- HMP = A hospital’s Medicaid payments.
- TMP = The total Medicaid payments for all participating hospitals.\(^{17}\)

A hospital’s annual allocation equals the funds appropriated for the Program in the General Appropriations Act multiplied by its allocation fraction.\(^{18}\) If the annual allocation calculation exceeds $50,000 per FTE resident, the allocation will be reduced to equal $50,000 per FTE resident.\(^{19}\) The excess funds will be redistributed to participating hospitals whose annual allocation does not exceed $50,000 per FTE resident.\(^{20}\)

The AHCA is required to distribute to each participating hospital one-fourth of that hospital’s annual allocation on the final business day of each quarter of a state fiscal year.\(^{21}\) Total quarterly distribution under the methodology for FY 2013-2014 is $19,995,161, which has been distributed in two payments, on September 17, 2013, and December 11, 2013.\(^{22}\)

**OPPAGA Study on Florida’s GME System**

The Office of Program Policy Analysis and Government Accountability (OPPAGA) examined Florida’s GME system and produced a report on their findings to the Legislature, which was provided in February 2014. The following are pertinent findings of GME programs during the 2013-2014 academic year, except where otherwise indicated:

- There are 53 accredited GME institutions in Florida, of which 44 are administering 407 residency programs with a total of 5,157 positions.\(^{23}\)
- 21 GME programs are accredited by ACGME, 16 by AOA, and 7 programs are accredited by both.\(^{24}\)
- Approximately 89 percent of the residency positions were filled.\(^{25}\)

\(^{13}\) S. 409.909(2)(a), F.S.
\(^{14}\) S. 409.909(2)(b), F.S.
\(^{15}\) S. 409.909(2), F.S.
\(^{16}\) S. 409.909(3), F.S.
\(^{17}\) Id.
\(^{18}\) S. 409.909(4), F.S.
\(^{19}\) Id.
\(^{20}\) Id.
\(^{21}\) See supra, FN 15.
\(^{22}\) Agency for Health Care Administration, *Graduate Medical Education/Statewide Residency Program Overview, Reimbursement under Statewide Residency Program* (on file with Select Committee on Health Care Workforce Innovation staff).
\(^{23}\) See supra, FN 3 at page 5.
\(^{24}\) Id.
\(^{25}\) Id. at page 7.
Of the 407 residency programs, 24 percent are in primary care specialties, such as family medicine, internal medicine, and general surgery, 25 percent are non-primary care specialties, such as dermatology and neurology, and 51 percent are subspecialties, such as cardiology and nephrology.  

Over 73 percent of GME positions were filled by graduates of out-of-state medical schools.  

Overall, 94 percent of residents who started a GME position in 2006-07 completed the program by 2012-13.  

GME institutions reported a 100 percent completion rate for the following GME programs:
- Dermatology;
- Geriatric medicine;
- Neurology;
- Obstetrics and gynecology; and
- Psychiatry.

Four other specialties had completion rates greater than 90 percent:
- Pediatrics (99 percent)
- Emergency medicine (98 percent)
- Family medicine (93 percent)
- Internal medicine (91 percent)

From 2000 through 2013, 9,294 students graduated from Florida medical schools. 3,073 students, or 38 percent, matched to a Florida residency program and 5,094, or 62 percent, matched to an out-of-state residency program.  

From 2000 through 2013, 72 percent of Florida medical school graduates who matched with a Florida-based residency program went to a primary care specialty.

In order to maximize the state’s return on its investment in educating and training the next generation of physicians and to stem any shortage of competent physicians in the areas of critical need, such as primary care specialties, it is essential to keep the residents who trained in Florida in the state when their residency is complete. A study cited in the OPPAGA report estimated that 47 percent of physicians stayed or returned to the state where they completed their most recent GME and 66 percent of physicians who completed undergraduate education and GME in the same state remained in that state.

No systemic annual reporting or tracking of the data compiled by OPPAGA is currently in place. In its report, OPPAGA recommended collecting institution- and physician-level data, such as residency program type, size, and rotation sites; approved and filled residency positions; use of Medicare FTEs; and GME institution residency completion lengths and rates, to track and analyze GME programs and positions statewide. OPPAGA also suggested that the information be reported on an annual basis. The data, according to OPPAGA, could help assess GME priorities and challenges and inform decisions about programs and positions and funding opportunities.

**Physician Workforce Data**

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26 Id. at page 6.
27 See supra, FN 25.
28 Id. at page 8.
29 Id. at page 9.
30 Id. at page 10.
32 Id. at page 15.
33 Id.
34 Id.
The Association of American Medical Colleges Center for Workforce Studies estimates that, in 2015, the U.S. will face a physician shortage of 62,900 that will increase to 130,000 across all specialties by 2025.\textsuperscript{35}

In 2012, there were 260.5 physicians\textsuperscript{36} actively practicing per 100,000 population in the U.S., ranging from a high of 421.5 in Massachusetts to a low of 180.8 in Mississippi. The states with the highest number of physicians per 100,000 population are concentrated in the northeastern states.\textsuperscript{37} Regarding primary care physicians, there were 90.1 per 100,000 population.\textsuperscript{38}

The following chart illustrates the projected physician shortage, nationally, with and without full implementation of the Patient Protection and Affordable Care Act.

![National projected physician shortages chart](chart.jpg)

Florida had 252.9 actively practicing physicians per 100,000 population in 2012. Although Florida is the fourth most populous state in the nation,\textsuperscript{39} it ranks as having the 23rd highest physician to population ratio.\textsuperscript{40} In 2012, Florida had a ratio of 84.8 primary care physicians per 100,000 population, ranking Florida 30th compared to other states.\textsuperscript{41} In 2013, 13.2 percent of Florida’s physicians reported that they were planning to retire within the next five years, which will exacerbate Florida’s shortage of physicians.\textsuperscript{42}

As of November 2013, the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services designated approximately 5,800 locations in the U.S. as

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\textsuperscript{36} These totals include allopathic and osteopathic doctors.


\textsuperscript{38} Id. at pg. 5.


\textsuperscript{40} See supra, FN 37, at pg. 9.

\textsuperscript{41} See supra, FN 37, at pg. 13.

Primary care Health Professional Shortage Areas (HPSAs). Primary care HPSAs are based on a physician to population ratio of 1:3,500. In other words, when there are 3,500 or more people per primary care physician, an area is eligible to be designated as a primary care HPSA. Applying this formula, it would take approximately 7,500 additional primary care physicians to eliminate the current primary care HPSA designations, nationally.

As of November 2014, there were 327 primary care HPSAs in Florida. Those HPSAs would need at least 890 primary care physicians to remove the HPSA designation. In addition to Florida’s primary care HPSAs, the state has 275 dental HPSAs and 306 mental health care HPSAs, which would require 870 dentists and 155 psychiatrists, respectively, to remove the HPSA designation.

A different analysis measured current primary care utilization (office visits) and projected the impact of population increases, aging, and insured status changes. The study found that the total number of office visits to primary care physicians will increase from 462 million in 2008 to 565 million in 2025, and (because of aging) the average number of visits will increase from 1.60 to 1.66. The study concluded that the U.S. will require 51,880 additional primary care physicians by 2025. The table below illustrates the study’s findings.

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44 While the 1:3,500 ratio has been a long-standing ratio used to identify high need areas, it is important to note that there is no generally accepted ratio of physician to population ratio. Furthermore, primary care needs of an individual community will vary by a number of factors such as the age of the community’s population. Additionally, the formula used to designate primary care HPSAs does not take into account the availability of additional primary care services provided by Nurse Practitioners and Physician Assistants in an area. U.S. Department of Health and Human Services, Health Resources and Services Administration, “Shortage Designation: Health Professional Shortage Areas & Medically Underserved Areas/Populations,” available at: http://www.hrsa.gov/shortage/ (last visited on February 11, 2014).
One factor contributing to the shortage of primary care physicians is that medical students are choosing to go into specialty practice to pay off large student loans that they have accumulated.\textsuperscript{47} Physicians in 12 specialties, such as radiology, psychiatry and anesthesiology, may earn up to twice the income (from $191,000 to >$400,000 per year) of primary care physicians (from $183,000 to $201,000 per year).\textsuperscript{48} It is estimated that 86% of the medical school graduating class of 2013 will have education-related debt.\textsuperscript{49} With an average medical student debt of $169,901, debt plays a major role in medical students’ career decisions.\textsuperscript{50}

The type of residencies that are available to medical school graduates also has a role in those career decisions. Data on residencies funded by Medicare (1998-2008) indicates program growth is predominantly in subspecialty training and non-primary-care core specialties.\textsuperscript{51} For example, 133 internal medicine subspecialty programs opened in that time. Conversely, there was a net loss of 390 first-year family medicine resident positions. Similarly, 865 general internal medicine positions were lost, converted to preliminary year positions, or offset by opportunities to subspecialize. Primary care also lost 40 family medicine and 25 internal medicine programs during this time. The chart below indicates the change in the number of first-year residency programs by specialty in that time.\textsuperscript{52}

Several researchers have advocated the position that GME is a public good that should be supported by and held accountable to the public for the purpose of developing the number and specialty mix of physicians to meet public need.\textsuperscript{53}


\textsuperscript{50} Id.


\textsuperscript{52} Id.

\textsuperscript{53} Josiah Macy Jr. Foundation, Creating an Accountable Graduate Medical Education System-2011 Annual Report, page 8, available at http://macfoundation.org/docs/annual_reports/JMF_11_AnnualReport_WEBPDF.pdf (last viewed on March 8, 2014); see also
Physician Workforce Advisory Council

The Physician Workforce Advisory Council (Council) was created within the Department of Health (DOH) in 2010. The Council consists of 19 members, including the State Surgeon General, who serves as its chair. The remaining members are appointed by the State Surgeon General and include individuals from the medical community and the academic community. The Council is required to meet at least twice a year, and must:

- Advise the State Surgeon General and the DOH on matters concerning current and future physician workforce needs;
- Review survey materials and the compilation of survey information;
- Annually review the number, location, cost, and reimbursement of graduate medical education programs and positions;
- Provide recommendations to the DOH regarding the survey completed by physicians licensed under chapter 458 or chapter 459;
- Assist the DOH in preparing the annual report to the Legislature pursuant to ss. 458.3192 and 459.0082, F.S.;
- Assist the DOH in preparing an initial strategic plan, conduct ongoing strategic planning in accordance with this section, and provide ongoing advice on implementing the recommendations;
- Monitor and provide recommendations regarding the need for an increased number of primary care or other physician specialties to provide the necessary current and projected health and medical services; and
- Monitor and make recommendations regarding the status of the needs relating to graduate medical education.

Neither the Council nor the DOH collects or studies data on GME in Florida.

Effect of Proposed Changes

The bill requires the Council to conduct an annual survey of all state public and private allopathic and osteopathic medical schools, hospitals and other entities regarding GME programs in Florida. The collection of this information will allow GME programs, resident retention, and chosen practice areas to be tracked and analyzed statewide. Such analysis may include the performance of existing GME programs and identify the need for additional GME programs in certain specialties and subspecialties.

In developing the content and design of the survey, the bill requires the Council to consult with the Department of Economic Opportunity, the Board of Governors, and the Council of Florida Medical School Deans. The Council is also required to compile all of the survey responses to create the Statewide Graduate Medical Education Report and make it publicly available by July 1st each year.

The bill requires each medical school to report annually through the survey the following information for the preceding year:

54 S. 29, ch. 2010-161, Laws of Fla.
55 S. 381.4018(4)(c), F.S.
56 S. 381.4018(4)(a), F.S.
57 S. 381.4018(4)(e), F.S.
58 The report referenced in this subparagraph contains information gathered from the Physician Surveys concerning the number of physicians who are delivering children in the state, reading mammograms, and performing on-call emergency care for a hospital ER department, and other physician-specific data.
59 See supra, FN 58.
60 S. 381.4018(4)(f)1, through 8., F.S.
The number of students enrolled in the school who graduated from Florida-based programs;
the number of students enrolled in the school who graduated from out-of-state programs;
the number of students matched to a Florida residency program;
the location and setting of each Florida residency program with a graduate from the school and
number of graduates in each of those programs;
the number of students matched to an out-of-state residency program;
the location and setting of each out-of-state residency program with a graduate from the school
and the number of graduates in each of those programs; and
any other data necessary to evaluate the physician workforce and develop strategies to
increase the existing GME programs and create new GME programs in the state.

The bill requires each accredited GME institution to report annually through the survey the following
information for the preceding year for each hospital or entity that serves as a rotating site for the
ingstitution:

- The number of approved GME program positions and the number of filled positions by primary
care specialty, non-primary care specialty, and subspecialty;
- The number of Medicare FTE positions in the GME program;
- The location and setting of each GME program position;
- The cost of each GME program position;
- The amounts received and the sources of funding for the GME program, including, but not
  limited to, Medicare payments, Medicaid payments, Community Hospital Education Program
  funding, federal Health Resources and Services Administration funding, Department of Defense
  funding, and U.S. Department of Veterans Affairs funding;
- The GME program budget;
- Completion rates by program for primary care specialties, non-primary care specialties, and
  subspecialties;
- The licensing test and board certification examination results by specialty and subspecialty, if
  applicable, for each resident completing her or his residency;
- The location and setting of each medical practice of each new physician who completed her or
  his residency;
- Any other data necessary to evaluate the physician workforce and develop strategies to
  increase the existing GME programs and create new GME programs in the state.

Each school and accredited GME institution must report its survey responses to the Council each year
by January 1st.

The bill provides an effective date of July 1, 2014.

B. SECTION DIRECTORY:

Section 1: Amends s. 381.4018, F.S., relating to physician workforce assessment and development.
Section 2: Provides an effective date of July 1, 2014.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

   None.

2. Expenditures:
The DOH is required to create survey forms for all state public and private allopathic and osteopathic medical school and all accredited GME institutions, which will have an indeterminate, but likely insignificant fiscal impact on the DOH. Expenditures required to carry out the provisions of the bill can be absorbed by DOH by utilizing current department resources.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:
   None.

2. Expenditures:
   None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

Medical schools and accredited GME institutions may see an increase in administrative costs associated with gathering the necessary information to complete the survey, recording the information on the survey form, and submitting the survey to the DOH.
D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

   Not applicable. The bill does not appear to affect county or municipal governments.

2. Other:

   None.

B. RULE-MAKING AUTHORITY:

   The bill provides sufficient rule-making authority to the DOH to implement the provisions of the bill.

C. DRAFTING ISSUES OR OTHER COMMENTS:

   None.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES