Office of Internal Audit

UTSouthwestern Medical Center

The University of Texas Southwestern Medical Center Graduate Medical Education Audit Internal Audit Report 16:15

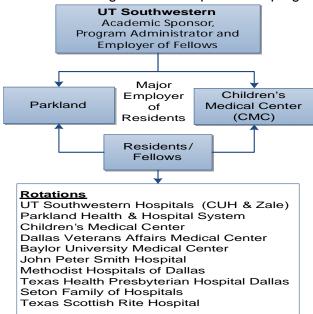
June 28, 2016

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Background

The University of Texas Southwestern Medical Center (UT Southwestern) Graduate Medical Education (GME) program is responsible for overseeing 162 residency and fellowship programs. The program directors and individual departments recruit, train, evaluate, and manage the programs. Of the 162 residency and fellowship programs, 96 must meet and maintain all the standards set by the Accreditation Council for Graduate Medical Education (ACGME). The remaining 66 programs must be approved by the Texas Medical Board and may also be accredited by other clinical and professional organizations. With the faculty and residents providing care to hospitalized patients and the outpatient clinics, the Graduate Medical Education office is responsible for oversight of all GME programs, establishing institutional GME policies and procedures, and ensuring compliance with applicable accreditation guidelines. The clinical departments have designated GME Program Directors and Program Coordinators who are responsible for the day to day management of the GME programs including scheduling, billing and other administrative duties for the GME program.

Appendix B (1 through 4) provides the flow of GME funds and a summary of residents and fellows by program, by employer, and year. The majority of the residents are employed by Parkland Hospital and fellows are generally employed by UT Southwestern. Residents are medical school graduates undergoing on the job training and fellows are residency graduates undergoing continued specialty training. UT Southwestern and affiliated institutions have contracts in place regarding rotations and payroll reimbursement. The illustration below demonstrates the locations in which the residents are doing rotations as part of the programs.



Objectives and Scope

This audit was risk-based and scheduled as a part of our Fiscal Year 2016 Audit Plan. The audit focused primarily on the management of the GME program as a whole, including the functions of the GME office and the departments' processes and controls for scheduling, duty hours reporting, billing for physician trainees and the MedHub system. The audit scope period was February 2015 through March 2016. Audit procedures included: interviews with the GME office team members, UT Southwestern Hospital Administration, individual program Directors and Coordinators, walkthroughs, review of policies and procedures and other documentation; analysis and testing of monthly billing and invoices; institutional duty hours and moonlighting records.

The primary objectives of the audit were to assess the adequacy and effectiveness of controls over the Graduate Medical Education processes, including MedHub system controls. Specifically, to assess and provide reasonable assurance that the following objectives are in place:

- Management of departmental resources are in place to carry out GME program functions
- Supervision and training of departmental GME program staff
- Financial management including budgeting, managing and monitoring of funding including external funding
- Accurate and complete external rotation billing
- Management and monitoring of physician trainee schedules, reporting of duty hours
- GME resident data maintenance and reporting
- MedHub system controls including user access, application controls, work flows and reporting

We conducted our examination according to guidelines set forth by the Institute of Internal Auditors' International Standards for the Professional Practice of Internal Auditing.

Conclusion

Overall, the GME program is well-managed and complies with ACGME regulations as well as UT Southwestern policies and procedures. However, there are opportunities to strengthen controls and increase efficiencies in the process to reduce the risk of errors. Specifically, the current process of employment by non-UTSW entities and accreditation monitoring by UTSW results in a complex reimbursement process with manual recordkeeping and multiple handoffs which increases the time spent and overall risk of errors. A single employer model has been introduced and should be considered to significantly reduce risk in this area.

In addition, the MedHub application, which is used to track trainee schedules, evaluations and duty hours, should be designated as the primary source of information related to the GME program and ancillary applications used by some departments should be eliminated or interfaces should be developed to ensure timely and accurate information is loaded into MedHub. This action will reduce the time spent

rekeying information from ancillary systems into MedHub as well as reduce the risk of errors. These observations and recommendations are detailed in the next section of the report.

Specific strengths identified during the audit include:

- GME office leadership holds quarterly Program Director meetings to communicate updates and educate Program Directors regarding compliance and other relevant processes. These meetings are the primary method of sharing information across the 162 residency and fellowship programs.
- GME office employees manage the Medhub system for the entire GME program including access for UTSW and affiliated partners. These employees provide MedHub system training and support through online tutorials or in person to assist the Program Directors and Program Coordinators in completing their day to day responsibilities in an efficient manner.

The table below summarizes the observations and the respective disposition of these observations within the UT Southwestern internal audit risk definition and classification process. See Appendix A for Risk Rating Classifications and Definitions.

Priority (0)	High (3)	Medium (3)	Low (3)	Total (9)

There were no priority issues identified in the audit. Key improvement opportunities risk-ranked as high and medium are summarized below.

- Increase Oversight and Training for Program Directors and Coordinators Oversight and monitoring of the activities of the Program Directors and Coordinators can be enhanced. Roles and responsibilities are not defined in job descriptions and measurements.
- Improve the Trainee Payroll Reimbursement Reconciliation Process and Associated Controls The monthly billing process relies heavily on manual data verification to identify the sites and days trainees worked at a specific rotation and location.
- Strengthen Controls for System Access Formal monitoring controls are not established to ensure all users have appropriate access to the GME MedHub system.
- Strengthen the Duty Hours Reporting and Compliance Requirements Physician trainees do not consistently report duty hours as
 required by ACGME. Within the reported duty hours, individual trainees were not in compliance with the requirements.
- Establish oversight of visiting trainees from external facilities Procedures are not clearly documented to ensure visiting trainees' are registered with the Texas Medical Board and have an executed Letter of Agreement to document the rotations performed.

Evaluate the Risk/Benefit of Interfaces to MedHub – The use of other applications that do not integrate into MedHub increases the risk of inaccurate data to be used for billing purposes as well as for external reporting.

Management has implemented or is in the process of implementing corrective action plans. Management responses are presented in the Detailed Observations and Action Plans Matrix section of this report.

We would like to thank the Graduate Medical Education Office, UT Southwestern Hospital Administration, the individual GME programs, and Contracts Management for their assistance and cooperation during this review.

Sincerely,

The Z. Wilson

Valla F. Wilson, Assistant Vice President for Internal Audit

Audit Team:

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Cc: Kirk Kirksey, Vice President and Chief Information Officer Brad Marple, Associate Dean for Graduate Medical Education Curt Pullman, Director Credentialing Dipti Ranganathan, Associate VP Academic and Administrative Systems Cameron Slocum, Vice President and Chief Operating Officer for Academic Affairs Beth Ward, CFO, University Hospitals John Warner, M.D., Vice President and Chief Executive Officer for Health System Affairs David Weigle, Assistant Dean for Graduate Medical Education

Observation	Recommendation	Management Response
 Risk Rating: HIGH Increase Oversight and Training for Program Directors and Coordinators Oversight and monitoring of the activities of the Program Directors and Coordinators can be enhanced. The following opportunities for increasing effectiveness were identified: Roles and responsibilities are not clearly defined in job descriptions, rather the ACGME requirements manual is used as a guide, which results in some areas not closely monitored. This is discussed in greater detail in #4. Performance measurements are not established with the Program Directors and Coordinators to ensure required duties are effectively performed and managed centrally for GME program compliance. Attendance at recent quarterly Program Director meetings was less than fifty percent. Without defined roles and responsibilities regarding compliance with ACGME requirements and administrative requirements, inconsistencies occur across the programs and accountability is not established. 	 Develop job responsibilities for Program Directors and Program Coordinators to include compliance and administrative components for GME activities. Establish program accountability through definition of key measurements, development of a dashboard and monitoring procedures to ensure performance metrics are being met. Examples of these key metrics, include: timely schedule updates, timely completion of evaluations, tracking of duty hours and approval for duty hours violations. Reinforce the role of the Program Directors Advisory Council (PDAC) and Program Coordinator Advisory Council (PCAC) to communicate common concerns and issues across the programs such as trends of ACGME site reviews, compliance with ACGME requirements, and best practice operational processes. 	 Management Action Plans: In addition to the ACGME Program Director and Program Coordinator requirements which are in use, we will develop additional UTSW specific responsibilities for both positions to ensure Director and Coordinator activities are consistent across the Program. We will develop a GME Program dashboard utilizing feedback from the PDAC and PCAC committees to track key metrics across the Program. We will update the standing agenda items to further highlight the sharing of best practices across the Programs and encourage the sharing of tools to aid in implementation. Action Plan Owners: August 31, 2016 September 30, 2016 July 31, 2016

Observation	Recommendation	Management Response
 Risk Rating: High Improve the Trainee Payroll Reimbursement Process and Associated Controls The current trainee payroll reimbursement billing process and controls are not effective for ensuring accurate billing. The process requires manual data verification to identify the sites and days trainees worked at a specific rotation and location. Written procedures of the current billing process do not exist as each Program utilizes its own method to review and approve payments. The GME office, in coordination with the departments and University Hospitals, is working to revamp the overall process and require all documentation to be updated within the MedHub application. Specifically we noted: Reconciliation of the billing is completed at the program level and the hospital level but is not reconciled at the institutional level. This increases the risk of possible duplicate billing or inaccuracies of portions of FTE paid by the different funding sources. Funding sources are not defined to ensure each source pays for the appropriate portions. Specifically, sample testing of residents during a four month period indicated University Hospitals paid for non-hospital based clinics, undefined special electives, and non-stated activities totaling approximately \$22,864. 	 Designate MedHub as the primary source of data related to Program tracking to ensure efficient and effective data integrity regarding current schedules and updates. In addition, define timeliness standard for recording schedule updates as they occur. Continue to develop a reconciliation process at the institutional level to ensure payroll reimbursement is accurate based on the different sources of funding. Enhance the MedHub definitions to describe the funding sources and trainee locations. Notate reimbursement guidelines for the various types of rotations including research, non-hospital based clinics, special electives, international rotations, and any additional types of rotations as needed. Continue to evaluate the feasibility of moving to a single employer to simplify the payroll reimbursement process. Develop written procedures for the billing reimbursement process including timelines, site location definitions, program responsibilities, and reconciliation to provide guidance and uniformity across the programs. 	 Management Action Plans: We are working with Program Directors to describe the benefits of moving to MedHub to track all schedule updates and will work with the GMEC to designate MedHub as the single source of truth. GMEC will also define the timeliness standard for recording schedule updates. University Hospitals Credentialing Director and team will finalize reconciliation process. GME System Administrator will update descriptions and reimbursement criteria within MedHub to aid in the reconciliation. Associate Dean for Graduate Medical Education will work with UTSW leaders as well as GME partners to evaluate the feasibility of moving to a single employer. University Hospitals Credentialing Director and team will document the reconciliation procedures once finalized.

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Observation	Recommendation	Management Response
Rotation site data in MedHub is not		Action Plan Owners:
consistently updated to minimize errors during the billing process. Specifically, we identified: a. Department payroll rotation matched		Brad Marple, Associate Dean for Graduate Medical Education
the MedHub Site Activity, but not the Bill Source Funding report.		David Weigle, Assistant Dean for Graduate Medical Education
 b. Department payroll days worked per site did not match the MedHub Site 		Daniel Casillas, GME System Administrator
Activity day worked and Bill Source		Curtis Pullman, Credentialing Director
Funding Activity days worked. c. Schedule days worked at rotation site		Target Completion Dates:
did not match the stated days on the		1. November 30, 2016
billing/invoice for that site.		2. July 31, 2016
		2a. July 2016 and ongoing
		2b. December 31, 2016
		3. August 31, 2016

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Observation	Recommendation	Management Response
 Risk Rating: High Strengthen Controls for System Access Formal monitoring controls are not established to review UTSW MedHub GME user access to ensure appropriate employee access. This monitoring reduces the risk of inappropriate or unauthorized transactions and inaccurate data. An analysis of the current GME user base revealed: Terminated employees with active user ID's:13 terminated Faculty; and 1 terminated GME IR support user. GME users with inappropriate access/permission: o The Senior VP of MedHub has an active user ID. Vendor senior management should not have access to UTSW GME data. o Four Faculty with EVALUATION_VIEWING permission granting them the ability to view their own evaluations, which is prohibited by ACGME policy. o 11 Academic Program Administrators with read/write permission to multiple departments, but no supporting management approval documentation was on file with the MedHub System Administrator 	Recommendation 1. Deactivate Accounts of Terminated employees. 2. Coordinate with the UTSW Information Resources (IR) System Access Management (SAM) group to obtain the HCM daily Termination Report for timely update of MedHub user terminations. 3. Review the MedHub user base and ensure that all users (Faculty, Residents, Fellows, GME, Persons of Interest (POIs), etc.) have only a Southwestern User ID (SWID) credential for MedHub authentication. 4. Establish a periodic user access review process for all GME users requiring user management to certify the access granted their employees and sponsored contractors is appropriate. This review should be documented at least once annually and documentation retained. 5. Deactivate the MedHub Sr VP user ID. 6. Reset the EVALUATION_VIEWING permission from "Y" to "N" for the four Faculty identified. 7. For each of the 11 Academic Program Administrators, obtain written approval	 Management Response Management Action Plans: All Terminated Users' accounts will be deactivated. The HCM Daily Termination Report will be obtained to regularly update the MedHub user base. All MedHub users will be restricted to only a Southwestern User ID for MedHub access. At least once annually, all MedHub Program Directors, or their designate, will perform a documented user access review of their Program area. The MedHub access permissions of all users, POI's, contractors, etc. will be certified as correct. A copy of the documentation from each program will be signed by the Program Director and forwarded to the GME Department System Administrator. The MedHub Sr VP user ID will be deactivated. In conformance with ACGME policy, the EVALUATION_VIEWING permission will be reset to "N" for the four faculty identified.

Observation	Recommendation	Management Response
Observation	Recommendation Obtain written approval from the Program Director in advance of any additional Academic Program Administrator's request for access. 8. Revise the user permissions of all Academic Program Administrators to prevent them from inadvertent or malicious deletion of evaluations.	Management Response 7. We will obtain written approval from the Program Director(s), or designee, for the Program Administrators' access to the respective programs. Approval will be obtained from the Program Director, or designate, in advance of any new Academic Program Administrator's user access. 8. The user permissions to delete evaluations will be restricted to the Primary/Primary Back-up Program Administrators. Action Plan Owners: Daniel Casillas, GME System Administrator Target Completion Dates: 1. June 30, 2016 2. Completed 3. July 31, 2016 4. August 31, 2016 5. Completed 6. Completed
		7. July 31, 2016
		8. July 31, 2016

Observation	Recommendation	Management Response
 Risk Rating: Medium Strengthen the Duty Hours Reporting and Compliance Requirements Physician trainees do not consistently report duty hours as required by ACGME. Based on a review of a sample of program reports for reported hours, the residents documented the reason for each of the violations, however approvals were not documented in MedHub. Program Directors indicated they review violations closely, but do not always submit comments in MedHub. The Duty Hours policy requires each instance of violation to be documented, however, the policy does not indicate the requirement of submission of notes for each violation in MedHub. Noncompliance with ACGME duty hour requirements could result in program accreditation penalties. 	 Reinforce the policy and educate Physician trainees about the importance of duty hours ACGME requirements. Monitor and document duty hours comments in MedHub for each violation. Ensure Duty hours policy and practices are the same. Ensure the Duty Hours Committee reviews and communicates solutions across the programs to increase overall reporting of Duty Hours and reduce overall duty hours violations. 	 Management Action Plans: PDAC and Duty Hours Committee agendas will be updated to include reminders to Program Directors to reinforce the importance of reporting duty hours and documenting approval for violations within MedHub. This will be monitored regularly by the Duty Hours subcommittee of the GMEC, including verification that comments related to violations are recorded within MedHub. Review of the documentation of violations within MedHub will be a standing agenda item for the Duty Hours Committee. In addition, the GME Dashboard will monitor and publish Duty Hours data in accordance with preselected criteria established by the GME Office. Action Plan Owners: September 30, 2016 October 31, 2016 October 31, 2016

Observation	Recommendation	Management Response
 Risk Rating: Medium Establish oversight of visiting trainees from external facilities. Visiting trainees' institutions and UT Southwestern must be registered with the Texas Medical Board and have a Letter of Agreement to document the rotations performed. In reviewing the list of visiting trainees, we noted 30 out of 79 visiting trainees are not registered with the Texas Medical Board. During discussion with one program, we have visiting trainees from an external institution that complete rotations at UT Southwestern. However, the Letter of Agreement was from 2008 and was not fully executed. The residents are licensed with the Texas Medical Board as required. Not having Letter of agreements as required by ACGME and non-registered visiting trainees with the Texas Medical Board could create concerns with program accreditations. 	Establish a process to identify visiting trainees and ensure all the appropriate requirements are met for the trainees to complete rotations at UT Southwestern including registering with the Texas Medical Board and a fully executed letter of agreement with the external facility.	Management Action Plans:The GME Office will establish a process to ensure visiting trainees are identified and have completed the proper requirements before providing patient care.Action Plan Owners:David Weigle, Assistant Dean for Graduate Medical Education Institutional CoordinatorTarget Completion Dates: August 31, 2016

Observation	Recommendation	Management Response
The use of interface and ancillary systems external to MedHub by more than 10 Academic Programs can result in an increase of data errors resulting in billing error and over/under payments (see Appendix C); inefficient use of resources for duplication of work resulting in increased costs.		<u>Target Completion Dates:</u> 1. September 30, 2016 2a. July 31, 2016 2b. August 31, 2016
Risk Rating: Low ●		Management Action Plans:
7. Establish monthly Financial Statements Review for the GME Office	Establish monthly financial review of the GME office subledgers or discuss the possibility of using Shared Services to perform critical	The GME office will work with the Provost's Office and Finance team to establish a
Regular and recurring reconciliation of financial activity as required by UTS 142.1 has yet to be	accounting functions.	monthly financial review process.
successfully attained by the GME Office despite numerous efforts. The GME office maintains a log		Action Plan Owners:
of purchases, however, charges applied to the office's sub ledgers are not reviewed.		David Weigle, Assistant Dean for Graduate Medical Education
Not performing monthly financial reconciliations increases the risk for inaccurate financial transactions and errors being undetected.		Melissa Perry, Graduate Medical Education Manager
		Target Completion Dates:
		August 31, 2016

Observation	Recommendation	Management Response
 Risk Rating: Low Improve Management of Third-Party GME Data Processing Risk The following are opportunities to improve the risk posed by third-party processing of GME data with the MedHub system: UTSW GME data is hosted and processed on servers at a third-party service organization in Ann Arbor, Michigan, OnLINE TECH, LLC. It is prudent for UTSW GME management to periodically review the suitability of design and operating effectiveness of OnLINE TECH's controls to safeguard GME data. UTSW GME management has not obtained or reviewed a SOC report for this vendor. Without such review, there is risk of lost and/or inaccurate GME data, and possible denial of service. A review of the GME MedHub contract shows the absence of a "Right to Audit" clause. Such a 	 Establish an annual review process where a SOC2 Report is obtained for OnLINE TECH with documented GME Management review. Negotiate an addendum to our MedHub contract allowing UTSW a "Right to Audit" their facilities' security and their general computer controls. 	 Management Action Plans: We will implement an annual review process with MedHub and OnLINE TECH to obtain and review a SOC Type2 Report for evaluation of their respective general computer controls and data security. We will work with UTSW's Contracts department and MedHub to add a "Right to Audit" addendum to our contract. Action Plan Owners: David Weigle, Assistant Dean for Graduate Medical Education Daniel Casillas, GME System Administrator
clause proactively helps prevent privacy breaches and security events. Having a "Right to Audit" is a motivating incentive to MedHub/OnLINE Tech to ensure their information security and privacy controls are as effective as possible. Our current relationship with MedHub is positive, but business relationships can quickly change with new management or - in case of acquisition – with a new owner. A "Right to Audit" is prudent management of our risk and should be contractually negotiated with MedHub.		 August 31, 2016 August 31, 2016

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Observation	Recommendation	Management Response
 Risk Rating: Low 9. Establish a Monthly Review of the System Administrator's Service Requests with GME Management GME System Administrator Service Requests are being completed by the vendor without GME management review or approval. During the last 18 months, the GME System Administrator submitted 274 Service Requests to the vendor, MedHub (an average of 15/month). An analysis of a random sample of 25 Service Requests revealed none of these requests were reviewed for approval by GME management. The risk is unauthorized changes without management awareness or approval. Support Ticket History typically includes requests involving Reporting, Demographics, Resident applications, Billing, Login/Security, Portal, Procedures, etc. 	 Establish a regular monthly review session of the GME System Administrator's Service Requests with Management in which the previous month's Support Ticket History is explained and justified. Management should document and date each month's review. Create and maintain a GME IT Policies and Procedures document which contains guidelines such as requirements for GME management approval of Service Requests, IT components of System Administrator, Program Administrator, and Program Director job descriptions, and annual IT calendar milestones. 	 Management Action Plans: The Dept. System Administrator will provide a monthly summary of MedHub Service Requests to the GME Manager. We agree that UTSW GME has matured and now warrants more formally documented Policies and Procedures. We will create a GME Policies and Procedures document containing job descriptions, annual IT calendar milestones, GME user access permissions, etc. Action Plan Owners: David Weigle, Assistant Dean for Graduate Medical Education Daniel Casillas, GME System Administrator Melissa Perry, Graduate Medical Education Manager Target Completion Dates: July 31, 2016 November 30, 2016

Appendix A – Risk Classifications and Definitions

As you review each observation within the Detailed Observations and Action Plans Matrix of this report, please note that we have included a colorcoded depiction as to the perceived degree of risk represented by each of the observations identified during our review. The following chart is intended to provide information with respect to the applicable definitions and terms utilized as part of our risk ranking process:

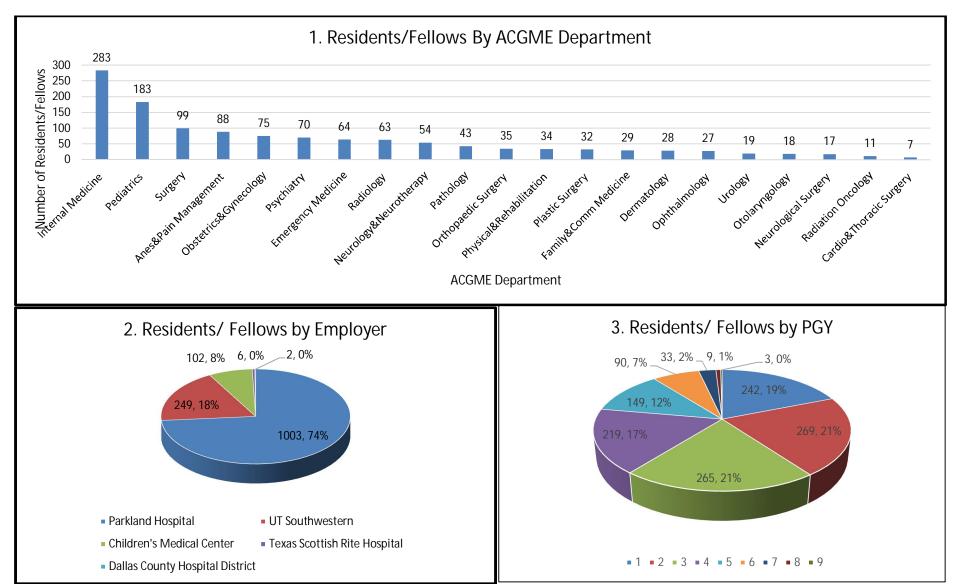
		Degree of Risk and Priority of Action
	Priority	An issue identified by internal audit that, if not addressed immediately, has a high probability to directly impact achievement of a strategic or important operational objective of a UT institution or the UT System as a whole.
<u>Risk Definition</u> - The degree of risk that exists based upon the identified deficiency combined with the subsequent priority of action to be undertaken by	High	A finding identified by internal audit that is considered to have a high probability of adverse effects to the UT institution either as a whole or to a significant college/school/unit level. As such, immediate action is required by management in order to address the noted concern and reduce risks to the organization.
management.	Medium	A finding identified by internal audit that is considered to have a medium probability of adverse effects to the UT institution either as a whole or to a college/ school/unit level. As such, action is needed by management in order to address the noted concern and reduce risk to a more desirable level.
	Low	A finding identified by internal audit that is considered to have minimal probability of adverse effects to the UT institution either as a whole or to a college/ school/unit level. As such, action should be taken by management to address the noted concern and reduce risks to the organization.

It is important to note that considerable professional judgment is required in determining the overall ratings presented on the preceding pages of this report. Accordingly, others could evaluate the results differently and draw different conclusions.

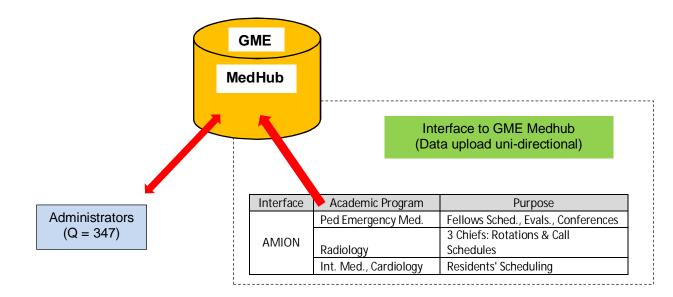
It is also important to note that this report provides management with information about the condition of risks and internal controls at one point in time. Future changes in environmental factors and actions by personnel may significantly and adversely impact these risks and controls in ways that this report did not and cannot anticipate.

Appendix B: Key Statistics

The following charts and illustrations provide summaries of residents and fellows data by department, employer and year:



Appendix C: GME MedHub Data Interfaces



	Software	Academic Program	Purpose
	AMION	Pediatric Perinatal Med	. Scheduling
		Emergency Medicine	Scheduling
		Physical Medicine	Faculty & Residents' Scheduling
		Pediatrics Training	Resident Scheduling
No Interface to	Software	Academic Program	Purpose
GME Qgenda	Ogondo	Internal Medicine	Faculty + 3 Chiefs Scheduling
	Family & Comm. Med	FY17 for Faculty Scheduling	
	Software	Academic Program	Purpose
	Shift Admin	Emergency Medicine	Faculty & Resident Scheduling
	Software	Academic Program	Purpose
	Open Tempo	Anesthesiology	Scheduling, rotations, call schedules, ACG simulation days