

The Associate DIO serves as a first-level reviewer for academic due process, and maintains a hands-on role as part of any inquiry related to misconduct or a grievance. If a conflict of interest exists, another Associate DIO within the consortium provides cross-coverage. They also serve as a coach, advisor, and mentor to new and rising program leaders to ensure smooth transitions and succession planning. Other responsibilities include leadership in local chief resident meetings and GME town halls, communications, championing of resident and fellow efforts in hospital quality and safety initiatives, and participating in wellness initiatives.

### Outcomes to Date

Experience from the first full year employing the Associate DIO model within our consortium has been universally endorsed as a success. Each Local GMEC serves to further enhance opportunities for program director and resident involvement and engagement in the consortium. The Associate DIO model has allowed us to embrace the nuance and diversity within our consortium at the local hospital or entity level, while simultaneously maintaining a centralized GME governance structure reporting to the DIO and Consortium GMEC.

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NEW IDEAS

# Applying Time and Motion Methodology to Calculate Program Coordinator FTE

## Setting and Problem

The program coordinator (PC) is a valuable resource to the administration of graduate medical education (GME) programs. However, there is lack of consensus across the 28 Accreditation Council for Graduate Medical Education (ACGME) specialty-specific program requirements regarding the PC full-time equivalent (FTE) allocation needed to effectively administer ACGME-accredited residency and fellowship programs. Since the transition into the Next Accreditation System and the implementation of the Milestone Project and the Clinical Learning Environment Review, the administrative responsibility demanded of PCs and the time needed to complete associated activities have drastically increased. The Department of Laboratory Medicine and Pathology (DLMP) at Mayo Clinic has experienced significant growth in new subspecialty GME programs without corresponding PC FTE growth. While it was evident that incremental FTE was needed, requests for incremental staffing positions are heavily scrutinized in today's resource-strapped environment. Without an accepted productivity formula for staffing, DLMP lacked evidence to justify the hire of an additional PC.

## Intervention

Therefore, DLMP undertook an innovative approach for calculating productivity and determining the necessary PC FTE using principles adapted from traditional time and motion studies, a methodology commonly employed by industrial engineers and

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**TABLE**  
Calculated Timing for Program Coordinator Tasks

Category	Tasks	Hours/Week
Administration	<ul style="list-style-type: none"> <li>▪ Program management               <ul style="list-style-type: none"> <li>○ Continuous improvement action plans</li> <li>○ Evaluations</li> </ul> </li> <li>▪ Trainee management               <ul style="list-style-type: none"> <li>○ Schedules</li> <li>○ Trip</li> <li>○ Evaluations</li> <li>○ Reports</li> <li>○ In-training examinations</li> </ul> </li> <li>▪ Administrative tasks               <ul style="list-style-type: none"> <li>○ Reimbursement</li> <li>○ Communication</li> <li>○ Meetings</li> <li>○ Miscellaneous</li> </ul> </li> </ul>	217.04
Accreditation	<ul style="list-style-type: none"> <li>▪ Census monitoring (FREIDA)</li> <li>▪ Board certification tracking</li> <li>▪ Internal/external accreditation metrics and reports</li> </ul>	20.55
Recruitment	<ul style="list-style-type: none"> <li>▪ Promotion and marketing</li> <li>▪ Interview coordination</li> <li>▪ Application management</li> <li>▪ National Resident Matching Program reports</li> </ul>	16.66
Academic year	<ul style="list-style-type: none"> <li>▪ Orientation</li> <li>▪ Graduation</li> </ul>	3.26
External trainees <sup>a</sup>	<ul style="list-style-type: none"> <li>▪ Visiting residents and fellows</li> <li>▪ Medical students</li> </ul>	0.49
Program coordinator time away	<ul style="list-style-type: none"> <li>▪ Paid time off</li> <li>▪ Family medical leave act</li> <li>▪ Short-term disability</li> </ul>	35.71

<sup>a</sup> Refers to trainees outside of the specific program(s) managed by the program coordinator.

clinical laboratorians to determine productivity metrics. The process of performing a time and motion study is traditionally referred to as a workload recording analysis within clinical laboratories. To our knowledge, this approach has not been used within or outside of Mayo Clinic for determining PC FTE. The study captures the time required to perform process steps or tasks using direct observation, electronic recording methods, and self-reporting. Our analysis

began by identifying all necessary tasks and responsibilities performed by PCs using a brainstorming process. Once these tasks were identified, we used an affinity diagramming process to determine the central overarching task categories. Next, we determined the frequency of the tasks and responsibilities as daily, weekly, monthly, quarterly, semiannually, or yearly. A custom Microsoft Access program was created by an in-house expert and was employed by 6 DLMP PCs to track the time spent executing each defined task over a period of 6 weeks. We estimated the time needed to perform tasks that were not captured during this 6-week study period. Timing for each of the tasks were averaged from the data of 6 PCs. As a result of the timings, we were able to determine the FTE needed to support our 22 DLMP GME programs.

### Outcomes to Date

The workload recording analysis indicated that 258 work hours were required each week to support program administrative responsibilities for the 22 DLMP GME programs, including performance of identified major annual tasks (TABLE). Following Mayo Clinic staffing guidelines, the total number of hours required was adjusted to account for the number of paid time off and family and medical leave hours used, averaged over 3 years. The final analysis showed that 7.13 FTE was required to provide appropriate administrative support for the 22 programs—an increase of 1.13 FTE from the existing 6 PC FTE. Using these data, DLMP was able to successfully hire an additional full-time PC. This workload recording process has been instrumental for Mayo Clinic GME leadership for determining future PC FTE requirements and may serve as a potential model for other GME programs nationwide.

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