

Report from the Council of Emergency Medicine Residency Directors Subcommittee on Graduate Medical Education Funding: Effects of Decreased Medicare Support

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Abstract. **Introduction:** Recent changes by the Health Care Financing Administration (HCFA) have resulted in decreased Medicare support for emergency medicine (EM) residencies. **Objective:** To determine the effects of reduced graduate medical education (GME) funding support on residency size, resident rotations, and support for a fourth postgraduate year (PGY) of training and for residents with previous training. **Methods:** A 36-question survey was developed by the Council of Emergency Medicine Residency Directors (CORD) committee on GME funding and sent to all 122 EM program directors (PDs). Responses were collected by the Society for Academic Emergency Medicine (SAEM) office and blinded with respect to the institution. **Results:** Of 122 programs, 109 (89%) responded, of which 78 were PGY 1–3 programs, 19 were PGY 2–4, and 12 were PGY 1–4. The PDs were asked specifically whether there were changes in program size due to changes in Medicare reimbursement. Although few programs (12%) decreased their size or planned to decrease their size, 39% had discussions regarding decreasing their size. Thirty percent of the PDs responded that

other programs at their institution had already decreased their size; 26% of the PDs had problems with financing outside rotations; and 24% had a decrease in off-service residents in their emergency departments (EDs). Only seven (6%) of programs paid residents from practice plan dollars, while most (82%) were fully supported by federal GME funding. Nearly all four-year programs (97%) received full resident salary support from their institutions and 77% of programs accept residents with previous training. **Conclusions:** Nearly all EM programs are fully supported by their institutions, including the fourth postgraduate year. Most programs take residents with previous training. Although few programs have reduced their size, many are discussing this. Many programs have had difficulty with funding off-service rotations and many have had decreased numbers of off-service residents in their EDs. Recent GME funding changes have had adverse effects on EM residency programs. **Key words:** graduate medical education (GME); Balanced Budget Act; Medicare reimbursement. ACADEMIC EMERGENCY MEDICINE 2001; 8:809–814

CHANGES in the federal funding of graduate medical education (GME) in the last five

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years were in response to a perceived oversupply of specialists.¹ Due to the Balanced Budget Act (BBA) of 1997, numerous changes were imposed upon specialty training programs, including emergency medicine (EM).^{1–6} Indirect GME payments were to be reduced over five years by approximately 30% from their 1997 baseline. Medicare-funded residency positions in all institutions were “capped” at their 1996 size, making it very difficult to open new programs or to increase the size of existing ones. As of 1993, EM was classified as a “non-primary care” specialty, and was not granted the exemptions that were provided to primary care training (e.g., inflation updates). This occurred despite the shortage of EM board-certified emergency physicians.^{7–9} Because EM is one of the youngest of all specialties, EM educators wondered about the potential impact on the scope and composition of EM training.^{10,11} Questions included whether EM programs would be reduced in size or closed, and whether the growth in the number of residency programs would continue.

TABLE 1. Provisions of the Balanced Budget Act Affecting Graduate Medical Education

1. Caps the total number of Medicare-funded resident positions
2. Reduces the indirect Medicare adjustment factor
3. Caps the intern-to-bed ratio
4. Allows Medicare graduate medical education payments to non-hospital entities
5. Allows hospitals to collect Medicare indirect medical education dollars for training at non-hospital ambulatory sites
6. Allows affiliated hospitals to establish an "aggregate cap" for resident positions
7. Establishes program for voluntary reduction of resident positions
8. Calls for creation of rules allowing for educational consortia to receive Medicare GME dollars
9. Calls for study of the variation of per-resident amounts
10. Allows Medicare + Choice direct and indirect medical education payments to hospitals
11. Establishes three-year rolling average for calculating resident positions for direct and indirect Medicare payments

In addition, as a result of the BBA of 1997, Medicare direct GME funding would continue only for the first three years of EM training that follow graduation from medical school. Any additional years would be funded at 50% of baseline. It became unclear how that would impact EM applicants with prior training and EM programs where the duration of training exceeded three years. Would they be forced to close, or to reduce the duration of training programs? Would programs stop accepting applicants with prior training? Or, would programs or institutions assume the cost of additional years that would be incompletely funded by Medicare?

In July 1997, Kozak et al. reported that the majority of decision-makers (deans, GME committee chairs, and hospital executive officers) did not consider residency training in EM a top choice among programs to be reduced or eliminated.¹⁰ In the face of such conflicting reports and concerns, the Council of EM Residency Directors (CORD) established a GME subcommittee to assess and identify the impact of these changes.

METHODS

Study Design. A six-page 36-question survey was designed by the CORD subcommittee on GME funding. The survey was revised and approved by the CORD board of directors. Because of its voluntary participation, this study was considered exempt from informed consent.

Study Population. The survey was sent to the EM program directors (PDs) of all 122 EM programs in December 1998. The PDs were asked to complete the survey and obtain consultation from

other administrative personnel in their institutions when appropriate.

Survey Content and Administration. The survey questions covered a variety of issues, including: 1) changes in EM and non-EM program sizes since December 1996, 2) effects on number of emergency department (ED) rotators from other departments, 3) effects on funding of four-year programs, 4) effects on consideration of resident applicants with previous training, 5) effects on specific outside rotations and their funding, 6) the average direct and indirect Medicare reimbursement payment amounts per program, and 7) the level of support by each training site for the residency program. Most questions listed two to four possible answer outcomes such as "yes/no/don't know" or "increase/decrease/no change."

Surveys were distributed by the Society for Academic Emergency Medicine (SAEM) staff and coded to blind the investigators to specific program PD identities. Programs that did not return their surveys were contacted and sent another survey.

Data Analysis. Results were tabulated and percentages for each question were calculated.

RESULTS

The survey was sent to the PDs of all 122 EM programs in December 1998, and 109 of 122 programs responded. Of the total number of programs, 78 of the 87 postgraduate year (PGY) 1–3 programs responded and 31 of the 35 PGY 1–4 or PGY 2–4 programs responded. Of the programs that responded, 72% were PGY 1–3 programs and 28% were PGY 1–4 or PGY 2–4 programs.

Four questions dealt with changes in program size as a result of the 1997 BBA. Only 15 (14%) EM programs had changed their size since December 1996, with nine decreasing their size and four increasing their size. The average change in size was two residents per training year. Another 18 programs (17%) said they planned to change their program size during the upcoming year, with 14 planning an increase and four a decrease in size. Forty-three programs (39%) said they had discussed changing their program size due to changes in Medicare reimbursement, while 66 (61%) had not had any such discussions. Thirty-two programs (30%) responded that other non-EM programs had decreased their size due to the BBA, with most of these specialties represented by internal medicine (15), pediatrics (7), and surgery or anesthesia (6).

Twenty-six PDs (24%) responded that they had noted a decrease in non-EM residents rotating in their EDs due to the BBA, while 78 (72%) noted no such change had occurred. The effects of decreased

non-EM rotators varied from “no effect” ($n = 12$), to increased attending coverage ($n = 9$), to increased physician extender coverage ($n = 10$).

Nearly all the PDs from four-year programs, 30 of 31 (97%), responded that their institutions still paid for 100% of salary and benefits for the fourth year of training. Only one program responded that their institution paid at a rate of 50%.

Most programs, 82 (77%), continued to take residents with previous training without restrictions, and 97% of these programs received full support for resident salary and benefits from their institutions. Fourteen accepted residents with previous training but placed limits on that training of between one ($n = 9$) and three ($n = 2$) years. Other programs responded that they were “encouraged” not to take residents with previous training ($n = 4$), and some said they had to limit the number of applicants they interviewed with previous training ($n = 3$).

The majority of the programs (81%) responded that they used multiple hospitals for training. Twenty-two percent responded that their institutions used an aggregate cap, while 28% of the PDs did not know the answer to this question. While only 13% of the programs noted decreased support for their outside resident rotations, 26% of the programs answered either “yes” or “anticipate problems” when asked whether there was difficulty moving rotations between outside sites due to funding changes. Among programs reporting a decreased contribution from outside hospitals, 40% noted that their “core” institutions increased their level of support. Another 20% of the programs reported that increased level of support came from their own practice plans.

Of those programs that responded ($n = 100$), 43 said that they received no money for their outside rotations, while 53 received a level of support equal to ($n = 43$) or greater than ($n = 10$) the resident’s level of salary and benefits. The average amount of salary support from outside sites was just over 100% of that paid by the base institutions, with a range of 33% to 150%.

The PDs responded “yes” that most outside and nonclinical rotations were still permitted by their institutions, including overseas (yes = 74%), out of network (yes = 85%), research (yes = 92%), administration (yes = 93%), and emergency medical services (yes = 96%). Less than 8% of the programs said they had eliminated any of these rotations since the BBA.

The PDs were asked regarding their knowledge of the precise dollar amount of their institution’s direct graduate medical education (DME) dollars per resident as well as their institution’s indirect graduate medical education (IME) dollars per resident. The PDs were specifically asked for their in-

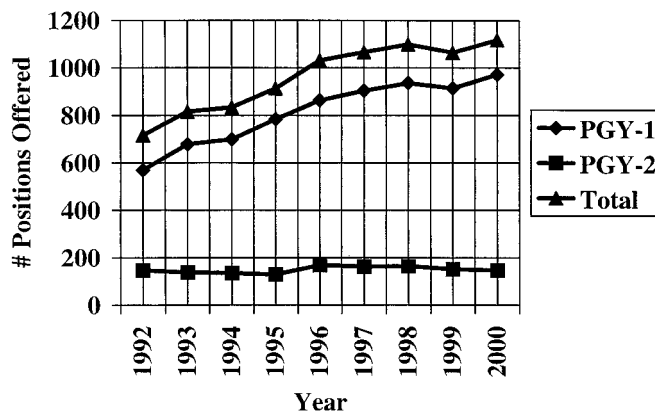


Figure 1. Allopathic emergency medicine resident positions offered in the match.^{12,13} PGY = postgraduate year.

stitution’s “average IME and DME reimbursement per resident estimated to within 10% of the actual value.” The mean amount of DME per resident per institution was \$48,694, with a standard deviation of \$37,416 and a range of \$5,500 to \$180,000. The mean amount of IME per resident per institution was \$60,740, with a standard deviation of \$36,420 and a range of \$19,000 to \$180,000.

Most PDs (82%) responded that resident salaries and benefits were paid fully by their institutions. Only seven programs (6%) mentioned that their practice plans paid for part of resident salaries and benefits, with a range of 5% to 22% of the total cost of resident salary and benefits, and a mean of 13%. Other sources of GME funding reported by a small number of programs included military, other institutions, state funding, foundations, dean’s fund, and private groups.

DISCUSSION

The BBA of 1997 contained multiple provisions affecting GME (Table 1), in addition to numerous other changes in health care reimbursement.¹⁻⁶ The two provisions that probably produced the greatest concern were those affecting Medicare’s IME reimbursement and the setting of a “cap” number for the number of resident positions per program.

The survey demonstrated that a large amount of discussion is occurring about resident numbers, with ~40% of programs considering a change in resident complement. Interestingly, it appears that more programs are considering increasing their size rather than shrinking the number of positions. The numbers of positions that have been offered in the National Resident Match Program (Fig. 1) confirm this trend.^{12,13} In the year 2000, EM witnessed an 11% one-year increase in the number of U.S. graduates matching in the specialty.¹⁴ During the

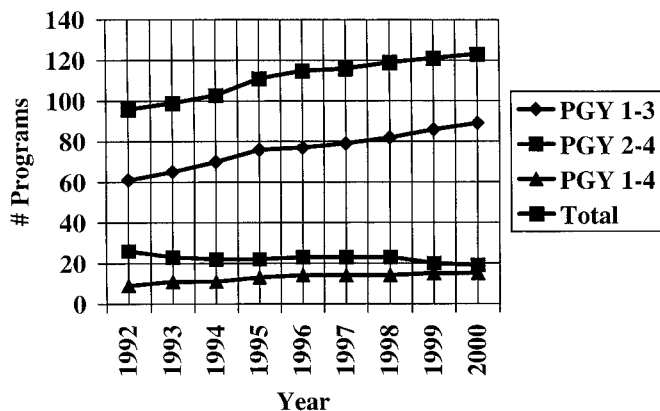


Figure 2. Allopathic emergency medicine residency programs. PGY = postgraduate year. Data adapted with permission from: American Board of Emergency Medicine. Report of the Task Force on Residency Training Information (1999–2000). *Ann Emerg Med.* 2000; 35:481–9.

same period, all primary care specialties reported a loss of resident positions, ranging between 4% and 10%. This occurred despite clearly stated Health Care Financing Administration (HCFA) objectives to have students switch to primary care training through the 1997 BBA.¹ The survey did not address specific reasons for program expansions.

A significant minority of respondents noted that non-EM residencies (led by internal medicine and pediatrics) have decreased their size and that the number of outside “rotators” in the ED has decreased. The Council on Graduate Medical Education (COGME) recently examined the effect of the BBA on GME.¹⁵ The COGME noted a decrease in both internal medicine and pediatric residencies from 1997 to 1998 (internal medicine 415 to 410, pediatrics 216 to 209). The number of internal medicine residents declined (21,714 to 21,130), while the number of pediatric residents increased (7,613 to 7,728) over the same period. The COGME did not believe that there was yet evidence to show that these changes were due to the BBA. Family practice residencies were thought to be especially at risk due to the BBA. The impact on other specialties, including EM, was not considered in the COGME report.

Changes in the funding of the final year of training for four-year residencies have not affected institutional support, with 97% of the responding programs reporting institutional payment of 100% of salary and benefits. However, 23% of the residencies do not accept residents with prior training and nearly 20% of those programs accepting these residents noted restrictions. A review of data from the American Board of Emergency Medicine shows a decline in the number of PGY 2–4 programs (23 in 1997 to 19 in 2000) and a minimal increase in PGY 1–4 residencies (14 in 1997 to 15 in 2000)

(Fig. 2).¹⁶ The number of PGY 1–3 programs has continued to increase (79 in 1997 to 89 in 2000). However, the absolute growth in number of EM residency programs appears to be slowing (Fig. 3). The full impact of limits on duration of funding for resident training and for new residency programs remains to be seen.

The effects of the cap on resident position numbers extend beyond limiting the expansion of existing residencies or creation of new programs. Eighty-one percent of the programs use multiple hospitals and nearly 40% of the reporting residencies noted a decrease in support for outside (non-primary site) rotations or anticipated problems in moving rotations between outside training sites. The BBA allows for the use of an “aggregate cap” [affiliated hospitals may combine their resident full-time equivalents (FTEs)], which may allow residencies to move residents between facilities without losing funding. However, only 22% of residencies are in institutions using an aggregate cap, and 28% of the PDs were unaware of the use of an aggregate cap by their institutions.

Financial support for residents comes primarily from the sponsoring institution, with 82% of the PDs reporting 100% of resident salaries and benefits paid by the institution. Other funding sources included faculty practice plans, military support, and grants. The PDs reported Medicare DME dollars to be nearly \$49,000 per resident and IME dollars of about \$61,000 per resident. This compares with the per-resident amount estimated by HCFA to be \$68,487 in 1997 for DME.¹⁷ Medicare’s DME payment is a function of the percentage of hospital days of Medicare recipients to total hospital days. It is likely that the proposed changes in the calculation of Medicare’s DME and IME payments will significantly impact an institution’s ability to bear the cost of GME.

LIMITATIONS AND FUTURE QUESTIONS

The obvious major limitation of this study is its reliance on voluntary reporting by the EM PDs, and its lack of independent verification of their responses. However, the relatively high response rate (89% of programs) to this survey does tend to limit the potential for skewing of the data from response bias.

Another potential source of bias is the possibility of confounding variables that may have contributed to the changes or discussion that were reported to us by PDs. We relied on PDs to relay to us independently the impact of the 1997 BBA changes on their training programs, and asked specifically about their experiences that were due to “recent changes in Medicare reimbursement”

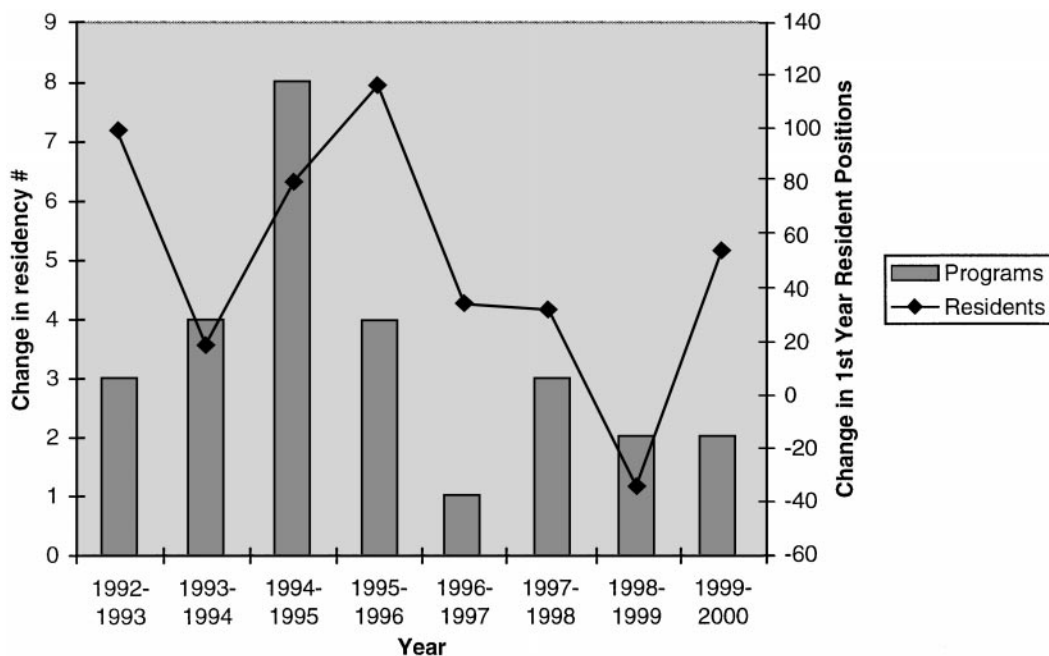


Figure 3. Year-to-year change in absolute numbers of emergency medicine resident positions offered in the match and number of accredited allopathic emergency medicine residencies.^{12,13} Data adapted with permission from: American Board of Emergency Medicine. Report of the Task Force on Residency Training Information (1999–2000). *Ann Emerg Med.* 2000; 35:481–9.

and “recent HCFA guidelines.” We did not investigate other possible reasons for program downsizing during this period. We believe that an open-ended survey would have resulted in a more significant limitation by having a smaller response rate and a larger response bias.

By the year 2000, cuts imposed by the 1997 BBA are often described as having gone “deeper than intended.” Compounded by flat Medicare spending, strapped hospitals received a \$17 billion refund in 1999, via the “Balanced Budget Refinement Act.”^{18–20} By August 2000, faced by a budget surplus and a continuing hospital outcry, proposed legislation was being introduced to relieve the damage that was attributed to the 1997 BBA.^{21–25} Proposals for a “1997 BBA relief package” report amounts close to \$80 billion.²⁴ Newly introduced bills include HR 5005 and HR 5089, which would increase Medicare direct GME payments for strapped teaching hospitals.²⁵

In early August 2000, HCFA issued an interim final ruling to implement changes resulting from the Balanced Budget Refinement Act of 1999.²⁶ The ruling included changes and clarifications regarding payments for indirect and direct GME. It detailed the computation of the FTE cap for direct GME payments and the IME adjustment. It also provided additional payment to a number of financially disadvantaged teaching hospitals.

The CORD GME committee believes that this type of survey should be repeated one to two years following each major revision of HCFA and federal

budget regulations. The committee hopes its current findings will be useful to PDs in identifying various aspects of their training programs that will be impacted by future HCFA regulations. Our findings could help PDs predict trends in the response of deans and hospitals. In addition, sharing information on novel methods for GME funding could be used by some programs to adapt to new regulations and to resolve any ongoing issues related to the funding of their programs.

CONCLUSIONS

The effects on EM residencies of the BBA of 1997 include: 10% of the programs did, or planned to, decrease their size; 30% of the institutions have decreased the size of other residencies; 24% of the programs have had decreased numbers of off-service ED rotators, but a high percentage of programs still accept resident candidates with prior training and a high percentage of institutions support the salaries of these residents and allow them to do “outside” rotations. Emergency medicine should remain proactive and continue to monitor the effects of current and future revisions and refinements of the BBA on EM residency training.

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