Comparative Analysis of GME Funding Programs for Children's Hospitals and General Acute Care Teaching Hospitals

Final Report – updated March 1, 2019

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Submitted to:
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Submitted by:
Dobson | DaVanzo

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Executive Summary

CHGME Program Overview

The Children's Hospitals Graduate Medical Education (CHGME) Payment Program provides eligible children's teaching hospitals[1] with federal funding to support the training of medical residents who become pediatricians and pediatric specialists.

The CHGME program was created by Congress in 1999 because eligible children's hospitals, as a result of treating virtually no Medicare patients, receive almost no Direct Graduate Medical Education (DGME) or Indirect Graduate Medical Education (IME) funding from Medicare, the primary source of federal support for training the healthcare workforce.[2] Currently, 58 children's hospitals receive CHGME. These

[1] Eligible children's hospitals are officially noted as 'freestanding' by HRSA, but today include a range of organizational models.

[2] The combination of Medicare DGME and IME payments are referred to as Medicare GME funding throughout this report.

hospitals represent approximately 1 percent of all hospitals but combine to train approximately half of all pediatricians, including 57 percent of pediatric specialists.[3]

Medical Education Funding Overview

While the Medicare GME and CHGME programs are similar in many ways, significant differences exist. Medicare GME is funded through mandatory add-on payments to hospital Medicare payments, while CHGME is funded through the annual congressional discretionary appropriation process. Additionally, unlike Medicare GME payments which grow as overall Medicare spending increases, total available CHGME funding is capped annually. CHGME funding for FY 2019, at the time of this updated report's release was the last year for which Congress has made final funding decisions, is set at $325 million.

As a result of these structural differences, the degree of support each program provides to recipient hospitals differs greatly. This analysis conducted by Dobson | DaVanzo & Associates, LLC shows a significant and growing shortfall in the level of federal support for pediatric training in children's teaching hospitals as compared to the support provided by Medicare to general acute care teaching hospitals.

Study Overview

Dobson | DaVanzo & Associates, LLC was commissioned by the Children's Hospital Association (CHA) to update a previous analysis of payments to children's hospitals under CHGME. These CHGME payments were then compared to Medicare IME and DGME payments received by general acute care teaching hospitals on a per-resident basis to be able to compare payment levels. The primary data sources used were the most recent years of available Medicare cost reports (2008 through 2016) from the Centers for Medicare and Medicaid Services (CMS) and information on CHGME payments for each children's hospital from the Health Resources and Services Administration (HRSA).

Key Findings

This report confirms that a significant funding shortfall persists between the per-resident support provided under CHGME and the support provided under Medicare GME. At the FY 2019 funding level of $325 million, the average CHGME payment per full-time equivalent (FTE) resident is $70,052. By comparison, an analysis of average per-resident support provided under Medicare GME shows a per-resident

[3] ***Source: AMA Graduate Medical Education Database 2000-2015***

payment of $137,437. On a per-resident basis, current CHGME funding represents approximately 51 percent of Medicare GME support for training in general acute care teaching hospitals.

Going forward, the gap between Medicare GME and CHGME will continue to widen, unless additional funding is added to the CHGME program. If funding levels remain unchanged, CHGME will only provide approximately 43 percent of the support that Medicare provides on a per-resident level by 2023.

Study Overview & Summary Results

Study Overview

The Children's Hospital Graduate Medical Education (CHGME) Payment Program provides funding to eligible children's teaching hospitals[4] to support the training of medical residents. CHGME payments to hospitals are based on a given hospital's full time equivalent (FTE) residency position count in addition to other characteristics of the hospital (e.g., case-mix index, patient volume, wage index, etc.).

General acute care teaching hospitals receive Medicare GME funding to support their residency programs through direct and indirect medical education payments. Medicare Direct Graduate Medical Education (DGME) supports Medicare's share of the direct cost of residents and is based on each hospital's FTE residency count (up to a limit), a per-resident cost amount, and its Medicare utilization (i.e., Medicare inpatient days as a percent of total inpatient days). General teaching hospitals also receive Medicare support to cover the indirect cost of medical education (IME) that is paid as an add-on to the Medicare payment amount for each Medicare inpatient discharge and is based on a hospital's resident-to-bed ratio. IME payments are intended to provide additional funding for the higher hospital costs associated with teaching programs and their missions.[5]

Dobson | DaVanzo & Associates, LLC was commissioned by the Children's Hospital Association (CHA) to update a previous analysis of payments to children's hospitals under CHGME. These CHGME payments were then compared to Medicare GME

[4] Eligible children's hospitals are officially noted as 'freestanding' by HRSA, but today include a range of organizational models.

[5] The combination of Medicare DGME and IME payments are referred to as Medicare GME funding throughout the remainder of this report.

payments received by general acute care teaching hospitals on a per-resident basis to be able to compare payment levels.

The primary data sources used for this analysis were the most recent years of available Medicare cost reports (2008 through 2016) from the Centers for Medicare and Medicaid Services (CMS) and information on CHGME payments for each children's hospital from the Health Resources and Services Administration (HRSA).

Summary Results

Under the Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 and Continuing Appropriations Act, 2019 (H.R. 6157), CHGME funding to children's hospitals was increased to $325 million for 2019. Historically, according to HRSA information, the amount of total funding that is ultimately paid out annually to hospitals in the CHGME program is equal to the amount appropriated by Congress minus approximately $15.6 million for program administrative costs (e.g., in FY 2018, while Congress appropriated $315 million for CHGME, HRSA data show that total payments to recipient hospitals were $299.4 million).

Congressional appropriations are determined annually. Funding levels for individual programs can fluctuate in any given year. Moreover, it is possible that funding for a program could be eliminated entirely in a given year. However, for the purposes of this report and making comparisons between CHGME and Medicare payments for graduate medical education, we have assumed a consistent level of funding for the CHGME program going forward through FY 2023. If FY 2019's level of funding of $325 million were maintained through 2023, we estimate that qualifying children's hospitals would continue to receive approximately $309.4 million annually in total payments. Under this scenario, in total for the 2019 through 2023 period, CHGME recipient hospitals would receive approximately $1,546.9 million in total CHGME payments, which, on an annual per-FTE-resident basis, amounts to $70,052.

For comparative purposes, we computed a composite payment amount per resident consistent with the methodology used by the Medicare program. The IME portion of payments are determined based on the *unweighted* number of FTE residents up to the hospital's cap, and the DGME portion is based the *weighted* number of FTE residents up to the hospital's cap. Therefore, per-resident payment amount is computed as follows for this report:

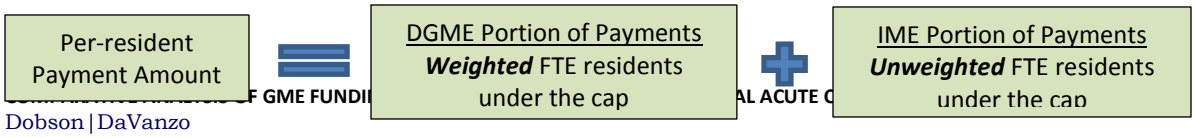


Exhibit 1: Actual and Projected CHGME Payments Compared to Medicare GME Payments in Total and per Resident Assuming $325 Million CHGME Funding Through 2023

	General Teaching Hospitals			Children's Teaching Hospitals			
Federal Fiscal Year	Number of Hospitals	Total Medicare GME Payments (millions)	Medicare GME Payments per Resident[1]	Number of Hospitals	Total CHGME Payments (millions)	CHGME Payments per Resident[1]	CHGME as Percent of Medicare GME per Resident
2008	1,070	$9,221.1	$110,681	57	$288.2	$69,866	63%
2009	1,058	$9,652.4	$114,728	56	$296.7	$70,584	62%
2010	1,057	$9,963.8	$115,711	56	$301.5	$71,296	62%
2011	1,060	$10,250.2	$116,980	55	$252.9	$59,907	51%
2012	1,057	$10,673.8	$119,828	55	$250.1	$58,677	49%
2013	1,058	$10,930.1	$121,858	54	$236.3	$55,532	46%
2014	1,084	$11,271.3	$122,299	54	$249.7	$58,368	48%
2015	1,116	$11,947.3	$127,472	57	$250.0	$56,974	45%
2016	1,141	$12,570.7	$130,930	58	$280.6	$63,542	49%
2017 [2]	1,141	$12,687.5	$130,952	58	$282.8	$64,038	49%
2018 [2]	1,141	$12,946.5	$133,302	58	$299.4	$67,787	51%
Projected							
2019	1,141	$13,371.4	$137,437	58	$309.4	$70,052	51%
2020	1,141	$13,905.7	$142,784	58	$309.4	$70,052	49%
2021	1,141	$14,505.7	$148,817	58	$309.4	$70,052	47%
2022	1,141	$15,107.7	$154,874	58	$309.4	$70,052	45%
2023	1,141	$15,774.6	$161,569	58	$309.4	$70,052	43%
Total (2019-2023)[3]		**$72,665.2**			**$1,546.9**		

1/ For this analysis we computed a single composite Medicare IME and DGME (referred to as Medicare GME) payment per resident and a composite CHGME payment per resident that is described in the Methodology section of this report.
2/ Medicare DGME and IME payments and resident counts for general teaching hospitals for 2017-2023 are projections. Actual total CHGME payments for 2008-2018 are obtained from HRSA and total CHGME payments for 2019-2023 are projected. CHGME payment per resident for 2018 uses actual CHGME payments and projected resident counts.
3/ Totals may not add due to rounding.
Source: Dobson | DaVanzo analysis of Medicare Hospital Cost Reports for 2008-2016, CHGME payments per hospital for 2008-2018, and projections through 2023 using CBO assumptions.

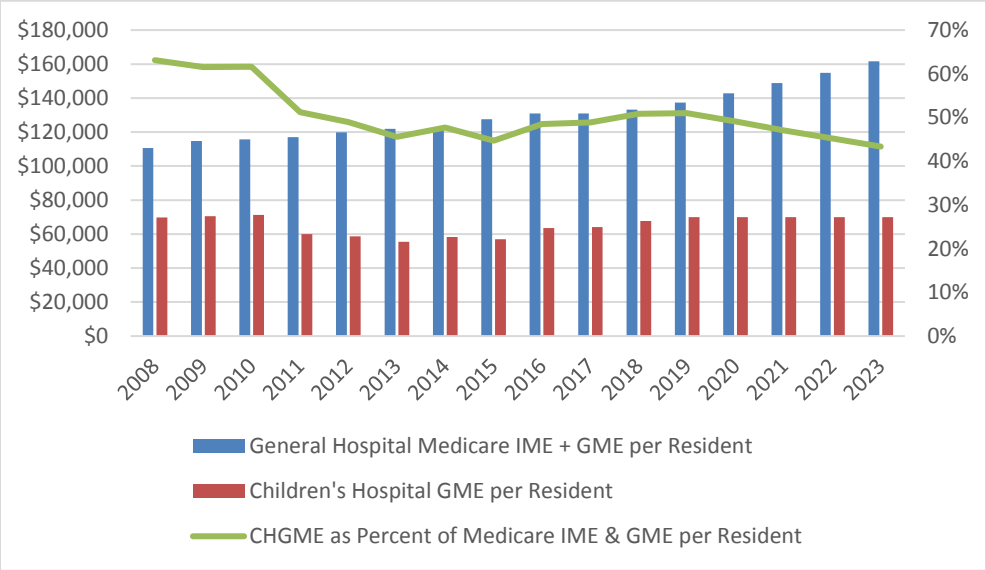
Total HRSA CHGME payments to children's hospitals increased from $288.2 million in 2008 to $301.5 million in 2010 (***Exhibit 1***). The CHGME payment level, on an FTE-resident basis, was consistently about 62 percent of Medicare GME

payments to general acute care teaching hospitals payments per resident. CHGME payments were reduced to $252.9 million in 2011 and $250.1 in 2012 due to CHGME appropriation cuts. This reduction substantially decreased the payments per resident received by children's hospitals relative to general acute care teaching hospitals to 51 and 49 percent respectively.

Due to sequestration, CHGME payments to hospitals were further reduced to $236.3 million in 2013, which represented 46 percent of Medicare GME payments to general acute care teaching hospitals on a per-resident basis. CHGME payments have increased to $299.4 million in 2018, where they are currently 51 percent of Medicare GME payments to general acute care teaching hospitals on a per-resident basis.

Future Congresses will make decisions on program funding going forward. However, for purposes of this study, we have assumed a continuation of 2019 funding levels rather than try to speculate on how future Congresses may act. Regardless of what happens with CHGME funding, Medicare GME payments to general acute care teaching hospitals will increase due to annual updates to the Medicare per-resident DGME amount and Medicare inpatient volume growth, which will affect Medicare IME payments. Thus, assuming no changes to CHGME funding, we estimate that CHGME per-resident payments relative to Medicare GME per-resident payments will decline from 51 percent in 2018 to 43 percent in 2023 as shown in ***Exhibit 2***.

Exhibit 2: Actual and Projected CHGME Payments Compared to Medicare GME Payments per Resident



Source: Dobson | DaVanzo analysis of Medicare Hospital Cost Reports for 2008-2016, CHGME payments per hospital, and projections through 2023 using CBO assumptions.

We estimate that total CHGME payments to children's hospitals over the five-year period from 2019 to 2023 will be $1.546.9 million if 2019 appropriation levels are continued (***Exhibit 3***). We estimate that eliminating the shortfall that exists between support on a per-resident basis under CHGME and under Medicare GME would require CHGME payments of $3,319.9 million over the same period (exclusive of HRSA administrative costs). This would require additional $1,773 million in payments assuming the current CHGME appropriation level of $325 million annually.

Exhibit 3: Projected CHGME Payments Assuming Parity with Medicare GME Payments per Resident (in millions)

Federal Fiscal Year	2019 CHGME Funding Levels Continued Through 2023	Estimated CHGME Payments at Parity with Medicare	Additional Funding Required for Medicare Parity
2019	$309.4	$611.0	$301.6
2020	$309.4	$635.3	$325.9
2021	$309.4	$662.7	$353.3
2022	$309.4	$690.2	$380.9
2023	$309.4	$720.7	$411.3
Total (2019-2023)[1]	**$1,546.9**	**$3,319.9**	**$1,773.0**

1/ Totals may not add due to rounding.
Source: Dobson | DaVanzo analysis of Medicare Hospital Cost Reports for 2008-2016, CHGME payments per hospital, and projections through 2023 using CBO assumptions.

CHGME Funding Shortfall Analysis

This section provides cost estimates under alternative CHGME funding scenarios. Under each scenario, we estimate the CHGME payments that would be required to wholly or partially eliminate funding shortfalls between CHGME payments to children's hospitals and Medicare GME payments projected to be made to general acute care teaching hospitals on a per-resident basis.

In FY 2018, we found that CHGME payments are 51 percent of Medicare payments to general acute care teaching hospitals on a per-resident basis (***shown above in Exhibit 1***). To maintain that same level of funding relative to Medicare on a per-resident basis through 2023 would require CHGME payments of $1,678.9 million over the 2019-2023 period ***(Exhibit 4***). Compared to the current level of CHGME payments, which would result in $1,546.9 million in payments to hospitals, this payment scenario would require an additional $132.0 million ($1,678.9 million - $1,546.9 million) over the five-year period.

Exhibit 4: Projected CHGME Payments under Various Funding Levels Relative to Medicare GME Payments per Resident (in millions)

	CHGME Payments to Hospitals by Fiscal Year (in millions)					
CHGME Funding Scenario	**2019**	**2020**	**2021**	**2022**	**2023**	**Total 2019-2023**
51% of Medicare	$309.4	$321.6	$335.2	$348.8	$363.9	**$1,678.9**
55% of Medicare	$333.8	$346.8	$361.5	$376.2	$392.5	**$1,810.8**
60% of Medicare	$364.2	$378.4	$394.3	$410.4	$428.1	**$1,975.4**
65% of Medicare	$394.5	$409.9	$427.2	$444.6	$463.8	**$2,140.1**
70% of Medicare	$424.9	$441.4	$460.1	$478.8	$499.5	**$2,304.7**
75% of Medicare	$455.2	$473.0	$492.9	$513.0	$535.2	**$2,469.3**

Source: Dobson | DaVanzo analysis of Medicare Hospital Cost Reports for 2008-2016, CHGME payments per hospital, and projections through 2023 using CBO assumptions. Excludes amounts withheld by HRSA to cover cost of administering the CHGME program.

CHGME Funding Shortfall

If CHGME payments were increased to represent 55 percent of Medicare GME payments per resident, then total CHGME payments would be $1,810.8 million over five years, which would require an additional $263.9 million ($1,810.8 million - $1,546.9 million). Assuming CHGME payments were increased to represent 75 percent of Medicare GME payments per resident, then total CHGME payments would be $2,469.3 million over five years, which would require an additional $922.4 million ($2,469.3 million - $1,546.9 million).

Data & Methodology

This section describes the data and methodology used to determine the number of weighted and unweighted FTE residents and Medicare IME and DGME payments for general acute care teaching hospitals as well as to calculate the payments per resident.[6] This section describes the assumptions used to project the number of residents and Medicare payments through 2023. Finally, we describe the data and methods used to calculate the number of weighted and unweighted FTE residents and CHGME payments per resident as well as our assumptions for developing projections through 2023.

Calculating Medicare IME and DGME Payments per Resident for General Acute Care Hospitals

The primary data sources used to calculate Medicare IME and DGME payments per resident were the Medicare Hospital Cost Reports for 2008 through 2016, which was the last year of complete cost report data. To collect this information, we used Medicare Hospital Cost Report data, specifically the December 2017 release which was downloaded from CMS in January 2018.

Using the Medicare Cost Report data, we extracted the reported number of FTE residents (actual unweighted FTEs, actual weighted FTEs, unweighted FTEs under the cap, and weighted FTEs under the cap), total Medicare IME payments, and total Medicare Part A and B DGME payments. The majority of the data was extracted from Worksheet E-4, which is the worksheet used to calculate the number of FTE residents under the hospital's resident cap and DGME costs apportioned to the Medicare program. Total Medicare IME payments for both regular Medicare and amounts for Medicare Advantage plans paid directly to hospitals were extracted from Worksheet E, Part A.

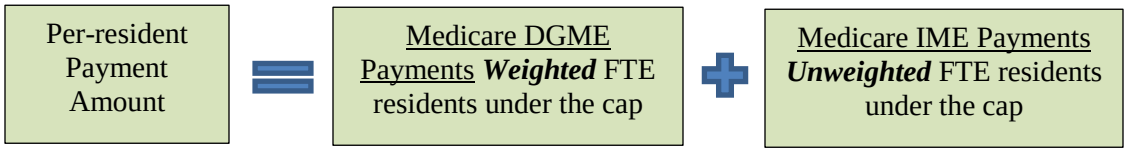
[6] If the resident is in an initial residency period (IRP), the weighting factor is one. If the resident is not in an initial residency period then the weighting factor is 0.50.

For this analysis, we used only general acute care teaching hospitals for comparison to children's hospitals, since general hospitals receive both IME and DGME payments from Medicare. ***Exhibit 5*** shows the number of hospitals, FTE resident counts, Medicare DGME payments and Medicare IME payments for all general acute care teaching hospitals from 2008 through 2016, which provided our recent historical period for Medicare IME and DGME payments per resident to these hospitals. Because hospitals have different cost reporting periods, usually based on the hospital's fiscal year, we adjusted Medicare IME and DGME payments for each hospital to the mid-point of the federal fiscal year using CPI-U for all urban consumers from the Bureau of Labor Statistics to adjust DGME payments. We used Medicare IPPS payment updates to adjust Medicare IME payments.

Medicare IME payments are made as an add-on to Medicare DRG payments and are paid for each Medicare discharge. IME payments are determined by the following formula that uses the unweighted number of FTE residents up to the hospital's capped amount and the number of hospital beds:

$$1.35 \times (1 + \text{FTE residents/number of beds})^{0.405} - 1$$

Medicare DGME payments are determined using the weighted number of FTE residents up to a hospital's capped amount multiplied by the hospital's allowed Per-resident Amount.[7] The share of the cost that Medicare pays is based on the hospital's Medicare inpatient days (including managed care days) as a percent of total hospital inpatient days. Therefore, for this analysis we computed a single composite Medicare IME and DGME payment per resident using the following formula:



[7] The Per-resident Amount (PRA) was computed as the hospital's GME costs divided by its number of residents during the base period (FY1984 for most hospitals). The PRA for new hospitals is calculated as the weighted average amount in the region. The PRA is updated annually for inflation using the consumer price index for all urban consumers (CPI-U).

Exhibit 5: General Acute Care Teaching Hospital Medicare IME and DGME Payments and FTE Resident Counts 2008-2018 (bold numbers indicate projections)

Federal Fiscal Year	Number of Teaching Hospitals (1)	Unweighted Count of FTE Residents – Actual (2)	Unweighted FTE Residents Under Cap (3)	Weighted Count of FTE Residents – Actual (4)	Weighted FTE Residents Under Cap (5)	Total Medicare DGME Payments (6)	Total Medicare IME Payments (7)	Total Medicare DGME + IME Payments (8)=(6)+(7)	Medicare DGME Payment Per Weighted FTE Resident Under Cap (9)=(6)/(5)	Medicare IME Payments Per Unweighted FTE Resident Under Cap (10)=(7)/(3)	Medicare IME + DGME Payment Per FTE Resident (11)=(9)+(10)
2008	1,070	94,446	86,231	84,356	77,818	$2,988,551,459	$6,232,508,892	$9,221,060,351	$38,404	$72,277	$110,681
2009	1,058	95,785	87,382	84,925	77,709	$2,994,521,876	$6,657,865,059	$9,652,386,934	$38,535	$76,193	$114,728
2010	1,057	98,065	89,627	86,785	79,191	$3,088,709,207	$6,875,109,232	$9,963,818,439	$39,003	$76,708	$115,711
2011	1,060	99,835	91,176	88,668	80,797	$3,235,194,832	$7,015,017,849	$10,250,212,681	$40,041	$76,939	$116,980
2012	1,057	101,617	92,920	89,636	81,652	$3,338,317,912	$7,335,439,051	$10,673,756,963	$40,885	$78,944	$119,828
2013	1,058	103,040	93,989	89,557	81,587	$3,442,118,653	$7,488,002,279	$10,930,120,932	$42,190	$79,669	$121,858
2014	1,084	105,798	96,675	91,801	83,499	$3,498,190,213	$7,773,069,973	$11,271,260,186	$41,895	$80,404	$122,299
2015	1,116	107,714	98,326	92,722	84,514	$3,588,203,343	$8,359,106,652	$11,947,309,995	$42,457	$85,015	$127,472
2016	1,141	110,237	100,869	94,388	86,119	$3,713,904,644	$8,856,790,075	$12,570,694,719	$43,125	$87,805	$130,930
Projected											
2017	***1,141***	***111,497***	***102,050***	***94,966***	***86,526***	***$3,768,745,703***	***$8,918,787,605***	***$12,687,533,309***	***$43,556***	***$87,396***	***$130,952***
2018	***1,141***	***112,772***	***102,169***	***95,548***	***86,934***	***$3,839,542,693***	***$9,106,974,024***	***$12,946,516,717***	***$44,166***	***$89,136***	***$133,302***
2019	***1,141***	***114,061***	***102,169***	***96,133***	***87,344***	***$3,950,246,249***	***$9,421,164,628***	***$13,371,410,876***	***$45,226***	***$92,211***	***$137,437***
2020	***1,141***	***115,365***	***102,169***	***96,722***	***87,419***	***$4,044,571,235***	***$9,861,133,016***	***$13,905,704,250***	***$46,266***	***$96,518***	***$142,784***
2021	***1,141***	***116,684***	***102,169***	***97,314***	***87,419***	***$4,141,640,944***	***$10,364,050,800***	***$14,505,691,744***	***$47,377***	***$101,440***	***$148,817***
2022	***1,141***	***118,018***	***102,169***	***97,910***	***87,419***	***$4,241,040,327***	***$10,866,707,263***	***$15,107,747,590***	***$48,514***	***$106,360***	***$154,874***
2023	***1,141***	***119,367***	***102,169***	***98,510***	***87,419***	***$4,342,825,295***	***$11,431,776,041***	***$15,774,601,336***	***$49,678***	***$111,891***	***$161,569***

1/ Number of hospitals reporting Medicare IME or DGME payments in the year.
2/ Actual number of unweighted FTE residents reported on Worksheet E-4, Line 6 plus dental and podiatry residents line 10.
3/ Number of unweighted FTE residents under the cap as reported on Worksheet E-4, Line 7, plus allowable additional FTE residents (42 Sec. 413.79(c)(4) reported in Line 22, plus adjustments for residents in initial years of new programs and displaced by program closures in lines 15 and 16, plus dental and podiatry residents line 10.
4/ Actual number of weighted FTE residents reported on Worksheet E-4, Line 8 plus dental and podiatry residents line 10.
5/ Number of weighted FTE residents under the cap as reported on Worksheet E-4, Line 17, Columns 1 and 2 plus allowable additional FTE residents (42 Sec. 413.79(c)(4) reported in Line 22
6/ Total Medicare Part A and B DGME payments reported on Worksheet E-4, Lines 49 and 50
7/ Total Medicare IME payments (including Medicare Advantage) reported on Worksheet E, Part A, Line 29
9&10/ Per-resident amounts may not total due to rounding of values in items 3, 5, 6, and 7.
11/ Per-resident spending = Medicare DGME payments/weighted FTE residents under the cap + Medicare IME payments/unweighted residents under the cap
Source: Dobson | DaVanzo analysis of Medicare Hospital Cost Reports for 2008-2016 and projections through 2023 using CBO assumptions.

Projecting Medicare IME and GME Payments for General Acute Care Hospitals

For this analysis, we projected the number of residents, total Medicare IME payments, and Medicare DGME payments per resident from our last year of actual data (2016) through 2023. This section describes the assumptions used to produce these projections.

The actual number of weighted and unweighted FTE residents was inflated from 2016 through 2023 based on the historical trend observed in the data from 2008 through 2016 for all general acute care teaching hospitals. From 2008 to 2016 for all teaching hospitals, there was an average annual increase in the unweighted count of FTE residents of 1.1 percent and an increase in the weighted count of FTE residents of 0.6 percent. We inflated the 2016 count of residents to future years using these annual growth factors.

Similarly, the number of unweighted and weighted FTE residents under the hospital's cap was inflated from 2016 through 2023 based on the historical trend observed in the data from 2008 through 2016, which was 1.1 and 0.5 percent respectively. However, the projected number of residents cannot exceed the hospital's capped amount. For most teaching hospitals, the actual number of residents was greater than its capped amount. However, using the 2016 Medicare Cost Report data, we determined there were 1,300 residency slots for hospitals with actual number of residents less than their capped amount. Therefore, we inflated the 2016 count of residents to future years using these annual growth factors described above, but limited the projected number of residents so that it did not exceed the 2016 count plus 1,300 residents.

Medicare DGME payments per resident were inflated from 2016 through 2023 using the projected change in the CPI-U (***Exhibit 6***). Total Medicare IME payments were inflated from 2016 through 2023 using CBO's projection of the annual increase in total IME payments over this period. We inflated total Medicare IME payments instead of the per-resident amount because IME payments are an add-on to DRG per-discharge payments and will increase with the Medicare inpatient volume and case-mix regardless of the number of allowed residents under the Medicare cap.

Exhibit 6: Inflation Factors for Medicare DGME and IME Payments

Federal Fiscal Year	Change in CPI-U	Change in Total Medicare IME Payments
2017	1.0%	0.7%
2018	1.4%	2.1%
2019	2.4%	3.5%
2020	2.3%	4.7%
2021	2.4%	5.1%
2022	2.4%	4.9%
2023	2.4%	5.2%

Source: CBO Medicare Baseline 2017.

Calculating CHGME Payments per Resident for Children's Hospitals

The primary data sources used to calculate CHGME payments per resident were CHGME applications submitted by the hospitals, Medicare Hospital Cost Reports for 2008 through 2016, and CHGME payment summaries by hospital from HRSA.

The Medicare Hospital Cost Reports contained the resident counts for most children's hospitals. Using the Medicare Cost Report data, we extracted the reported number of FTE residents (actual unweighted FTEs, actual weighted FTEs, unweighted FTEs under the cap, and weighted FTEs under the cap) for each children's hospital that completed Worksheet E-4 that is used to calculate the number of FTE residents under the hospital's resident cap. Some children's hospitals did not file complete Medicare Cost Reports because they have an exemption due to having no Medicare patient volume or low Medicare patient volume.

CHA provided data from CHGME applications for actual unweighted FTEs, actual weighted FTEs, unweighted FTEs under the cap, and weighted FTEs under the cap for 2012 through 2014 for all but six hospitals that received CHGME payments. We used these data to supplement the cost report data on resident counts. We found that the data from the applications matched the data from the cost reports for hospitals with a completed cost report. Since these two data sources were consistent, we used resident counts from the applications for hospitals without cost report data.

For children's hospitals that did not complete a full Medicare Cost Report but received CHGME payments, we had previously solicited the hospitals to provide their actual number of residents and capped number of residents for the years with missing cost

report data. For hospitals that we could not obtain the data directly, we used a prior year's cost report, data from the AHA annual survey, or other data available through CHA.[8] ***Exhibit 7*** shows the number of residents at children's hospitals from 2008 through 2016.

The actual number of weighted and unweighted FTE residents was inflated from 2016 through 2023 based on the historical trend observed in the data from the most recent three years, which was 1.1 percent. For projection purposes, the capped number of residents was held constant throughout the 2017 to 2023 projection period.

Total CHGME payments for 2008 through 2018 were provided to us by HRSA through CHA. We summarized CHGME payments across all hospitals and separated into two categories: a DGME portion (based on 1/3 of total CHGME payments) and an IME portion (based on 2/3 of total CHGME payments). To be consistent with the methodology used to compute payments per resident for general acute care hospitals, we computed a single composite CHGME payment per resident using the following formula:

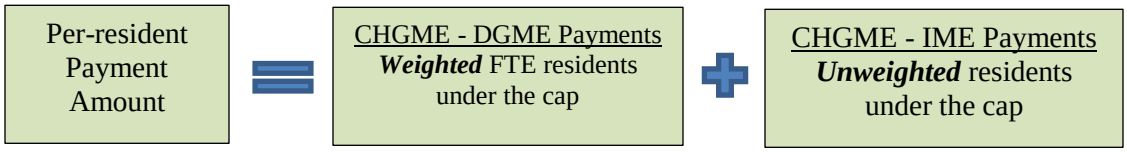


Exhibit 5 presents each of these per-resident amounts for each year from 2008 through 2018, for which actual CHGME payment data exists. appropriated funding for CHGME in 2019 is $325 million and we assume this same annual level of funding through 2023. The cost for HRSA to administer the CHGME program was $15.6 million in 2018 and we assume this same level of administrative costs will continue through 2023. This leaves about $309.4 million in CHGME payments to the hospitals.

[8] We were unable to obtain resident counts for several small programs: Temple University – 2008, East Tennessee – 2008-2011, and Emma Pendleton Bradley for 2015 and 2016.

Exhibit 7: Children's Hospitals CHGME Payments and FTE-Resident Counts 2008-2023 (bold numbers indicates projections)

Federal Fiscal Year	Number of Children's Hospitals Receiving CHGME (1)	Unweighted Count of FTE Residents – Actual (2)	Unweighted FTE Residents Under Cap (3)	Weighted Count of FTE Residents – Actual (4)	Weighted FTE Residents Under Cap (5)	CHGME -D GME Payments (6)	CHGME - IME Payments (7)	Total CHGME Payments (8)	CHGME GME Payments Per Weighted FTE Resident Under Cap (9)=(6)/(5)	CHGME IME Payments Per Unweighted FTE Resident Under Cap (10)=(7)/(3)	Total CHGME Payment Per FTE Resident (11)=(9)+(10)
2008	57	5,781	4,370	4,867	3,709	$96,063,800	$192,127,600	$288,191,399	$25,897	$43,968	$69,866
2009	56	5,915	4,454	4,959	3,778	$98,893,210	$197,786,421	$296,679,631	$26,177	$44,407	$70,584
2010	56	6,033	4,483	5,059	3,797	$100,485,847	$200,971,695	$301,457,542	$26,463	$44,833	$71,296
2011	55	6,156	4,470	5,163	3,800	$84,306,642	$168,613,284	$252,919,926	$22,184	$37,724	$59,907
2012	55	6,306	4,523	5,264	3,822	$83,367,283	$166,734,565	$250,101,848	$21,814	$36,862	$58,677
2013	54	6,452	4,522	5,359	3,808	$78,779,478	$157,558,956	$236,338,434	$20,688	$34,844	$55,532
2014	54	6,619	4,538	5,538	3,840	$83,247,290	$166,494,581	$249,741,871	$21,682	$36,686	$58,368
2015	57	6,994	4,647	5,848	3,948	$83,328,027	$166,656,054	$249,984,081	$21,107	$35,867	$56,974
2016	58	7,156	4,677	5,974	3,974	$93,543,854	$187,087,709	$280,631,563	$23,542	$40,000	$63,542
Projected											
2017*	***58***	***7,233***	***4,677***	***6,048***	***3,974***	***$94,274,509***	***$188,549,017***	***$282,823,526***	***$23,726***	***$40,312***	***$64,038***
2018*	***58***	***7,311***	***4,677***	***6,124***	***3,974***	***$99,793,951***	***$199,587,901***	***$299,381,852***	***$25,115***	***$42,673***	***$67,787***
2019*	***58***	***7,390***	***4,677***	***6,200***	***3,974***	***$103,127,284***	***$206,254,568***	***$309,381,852***	***$25,954***	***$44,098***	***$70,052***
2020	***58***	***7,470***	***4,677***	***6,278***	***3,974***	***$103,127,284***	***$206,254,568***	***$309,381,852***	***$25,954***	***$44,098***	***$70,052***
2021	***58***	***7,551***	***4,677***	***6,356***	***3,974***	***$103,127,284***	***$206,254,568***	***$309,381,852***	***$25,954***	***$44,098***	***$70,052***
2022	***58***	***7,632***	***4,677***	***6,436***	***3,974***	***$103,127,284***	***$206,254,568***	***$309,381,852***	***$25,954***	***$44,098***	***$70,052***
2023	***58***	***7,714***	***4,677***	***6,516***	***3,974***	***$103,127,284***	***$206,254,568***	***$309,381,852***	***$25,954***	***$44,098***	***$70,052***

1/ Number of hospitals receiving CHGME payments, source: HRSA

2/ Actual number of unweighted FTE residents reported on Worksheet E-4, Line 6 plus dental and podiatry residents line 10 (supplemented by CHA for partial or non-filers)

3/ Number of unweighted FTE residents under the cap as reported on Worksheet E-4, Line 7, plus allowable additional FTE residents (42 Sec. 413.79(c)(4) reported in Line 22, plus adjustments for residents in initial years of new programs and displaced by program closures in lines 15 and 16, plus dental and podiatry residents line 10 (supplemented by CHA for partial or non-filers)

4/ Actual number of weighted FTE residents reported on Worksheet E-4, Line 8 plus dental and podiatry residents line 10 (supplemented by CHA for partial or non-filers)

5/ Number of weighted FTE residents under the cap as reported on Worksheet E-4, Line 17, Columns 1 and 2 plus allowable additional FTE residents (42 Sec. 413.79(c)(4) reported in Line 22 (supplemented by CHA for partial or non-filers)

6/ Assumes 1/3 of total CHGME payments are for DGME.

7/ Assumes 2/3 of total CHGME payments are for IME.
8/ Total CHGME payments provided by HRSA
9&10/ Per-resident amounts may not total due to rounding of values in items 3, 5, 6, and 7.
11/ Payment per resident using the Medicare method of IME portion/unweighted residents under the cap plus DGME portion/weighted residents under the cap.
Note: * actual CHGME payments for 2008-2018 were obtained from HRSA while 2019-2023 represent projections. Actual data for resident counts were available for 2008-2016 and projections were made for 2017-2023.
Source: Dobson | DaVanzo analysis of Medicare Hospital Cost Reports for 2008-2016 and projections through 2023 using CBO assumptions.