The Negative Employment Impacts of the Medicare Cuts in the Budget Control Act of 2011

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TrippUmbach
Research • Strategy • Impact

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Executive Summary

In July 2012, Tripp Umbach conducted an analysis to measure the economic impact[1] of the Budget Control Act of 2011 (BCA), which mandated a 2% sequester of Medicare spending over the next nine years from 2013 until 2021 in order to help reduce the deficit. This report presents the employment impacts on health care providers and other related industries affected by the cuts to Medicare funding at national, state, and local levels.

Based on analysis of the Congressional Budget Office (CBO) Medicare baseline, the Medicare cuts that will occur from this sequester will grow from an estimated $10.7 billion in 2013 to $16.4 billion in 2021. It is important to note that this cut will not impact the benefits received by enrollees, but rather, will be accomplished by reducing payments for health care services.

Tripp Umbach designed a customized model based on the national economic impact models developed by MIG IMPLAN, as well as previous impact studies completed for the AHA by Tripp Umbach to measure the anticipated impacts of these cuts in Medicare payments on health care providers and other industries. The Tripp Umbach model for this project reflects how reductions in Medicare payment for health care services will affect each industry's employment for direct, indirect, and induced jobs.

This model estimates that, during the first year of this sequester, more than 496,000 jobs will be lost. This includes those workers directly employed by the health care sector, as well as other jobs supported by the purchases of health care organizations and their employees (the so-called "multiplier effect"). **This number will swell to 766,000 fewer jobs by 2021.** These job losses will affect many economic sectors beyond health care, and will be spread across every state with more than 78,000 jobs lost in California alone by 2021.

[1] For the purposes of this report, "economic impact" includes the direct, indirect, and induced business volume generated by an institution. Direct impact includes items such as institutional spending, employee spending, and spending by visitors. The indirect impact, also known as the multiplier effect, results from the re-spending of dollars generated directly by the institution. The induced impact is the impact of the household spending due to dollars generated both directly and indirectly.

Introduction

In July 2012, Tripp Umbach conducted an analysis to measure the economic impact[2] of the Budget Control Act of 2011 (BCA), which mandates a 2% sequester on Medicare spending over the next nine years from 2013 until 2021.[3] This report presents the results of the combined negative economic and employment impacts of these cuts on health care providers and the other industries impacted by the cuts to Medicare funding at national, state, and local levels.

In 2011, the BCA imposed caps on discretionary programs to reduce funding by more than $900 billion over 10 years (2012 to 2021). This law also established a Joint Select Committee on Deficit Reduction to propose legislation reducing deficits by another $1.2 trillion over this 10-year period. As an incentive for this committee to reach agreement, the law provided for a sequestration procedure that would impose automatic spending cuts from 2013 through 2021 should this committee fail to reach the target. The committee failed to reach a point of compromise; therefore, the automatic cuts will take effect early next year.[4]

These broad, automatic cuts will affect most defense and non-defense discretionary programs; on top of that, the Medicare program will face a 2% sequestration. While all of these cuts will ripple through the economy affecting economic activity and employment, this report focuses on the negative national and state impacts that will be realized because of the cuts to the Medicare program.

It is important to note that this cut will be accomplished by reducing payments for health care services and Medicare Advantage; it will not reduce benefits to Medicare beneficiaries. The budget estimates and dollar impact of the cuts are based on information from the Congressional Budget Office (CBO).

Methodology Employed in the Economic Impact Study

Tripp Umbach designed a customized model based on the national economic impact models developed by MIG IMPLAN, as well as previous impact studies completed for the AHA by Tripp Umbach. The Tripp Umbach model for this project reflects how reductions in federal payments will affect each industry's employment for direct, indirect, and induced jobs.

The model designed by Tripp Umbach for the national impact analysis was constructed by utilizing the basic IMPLAN national model and utilizing the baseline spending by sector affected

[2] For the purposes of this report, "economic impact" includes the direct, indirect, and induced business volume generated by an institution. Direct impact includes items such as institutional spending, employee spending, and spending by visitors. The indirect impact, also known as the multiplier effect, results from the re-spending of dollars generated directly by the institution. The induced impact is the impact of the household spending due to dollars generated both directly and indirectly.

[3] Note that the sequester will actually extend into January of 2022.

[4] Center on Budget and Policy Priorities "How the across-the-board cuts in the budget control act will work" Revised April 27, 2012.

by the Medicare payments[5]. The basic industries in the model were measured at two levels, prior to the cuts being made, then a model was constructed to demonstrate the impact after the sequester takes place. The difference in these two models is the negative impact of the cuts being made.

Tripp Umbach based its estimates of the magnitude of the Medicare cuts on analysis of the CBO's March 2012 baseline.[6]

[5] These sectors are: Hospital Inpatient and Outpatient Care, Skilled Nursing Facilities, Physician Offices, Home Health Agencies, Prescription Drugs, Insurance Administrative Component of Medicare Advantage, and Other Services which include hospice, durable medical equipment, ambulance, laboratory services, Part B prescription drugs and other services.

[6] For purposes of impact analysis, these cuts have been annualized for 2013.

Employment Impact Findings: Total Impact of 2% Cut to Medicare

How Medicare Cuts Flow through the Economy: The Direct, Indirect, and Induced Impacts

The total employment impact is made up of three components: direct, indirect, and induced impacts. **Direct impact** includes all direct effects the funded organizations have on the nation due to the organization operations from the direct Medicare funding. These items include direct employees, organization spending, employee spending, and spending by visitors to the organization. The **indirect impact** is the impact of local industries buying goods and services from other local industries, which also affects employment in other sectors. The cycle of spending works its way backward through the supply chain until all money leaks from the national economy, either through imports or by payments to value added[7]. The impacts are calculated by applying direct effects to the Type I Multipliers or effects only represented by the industry interactions. The **induced impacts** reflect the re-spending of income. IMPLAN's default multiplier recognizes that labor income (employee compensation and proprietor income) is not leakage to the economy. This money is re-circulated through household spending patterns causing further local economic activity, which also affects employment. The end result is a multiplied impact on employment that is a result of the Medicare funding and the recipient spending patterns (the so-called "multiplier effect").

When the businesses that were historically allotted the funds from Medicare face these cuts in payment, they must make cuts within their organizations. Many of these cuts come in the form of spending on products and services, payroll and benefits to existing employees, workforce reduction, etc. These cuts then ripple through the economy, as described above, causing job losses in many sectors beyond health care.

Medicare Payment Reductions

Tripp Umbach based its estimates of the magnitude of the Medicare cuts on analysis of the CBO's March 2012 baseline. The analysis assumed an across-the-board cut of 2% to all Medicare service types and Medicare Advantage, with the exception of Medicare subsidies paid to low-income beneficiaries for Part D prescription drug benefits, which were exempt from sequestration. Medicare Advantage cuts were assumed to be spread across service types in proportion to the amount those service types represent of Medicare fee-for-service payments after subtracting an allowance for administrative expenses and profit.

[7] Value added is the difference between an industry's or an establishment's total output and the cost of its intermediate inputs. It equals gross output (sales or receipts and other operating income, plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported). Value added consists of compensation of employees, taxes on production and imports less subsidies, and gross operating surplus.

Table 1
Annual Impacts of Federal Medicare Funding Cutbacks

Year	Amount of Funding Cuts
2013[8]	$10.7 B
2014	$11.2 B
2015	$11.6 B
2016	$12.5 B
2017	$12.9 B
2018	$13.5 B
2019	$14.5 B
2020	$15.5 B
2021	$16.4 B

Employment Impact

Tripp Umbach estimates that, within the first year of funding cuts, 2013, more than 496,000 jobs[9] will be lost. The employment models show that employment losses increase as the cuts do. By 2021, the loss of 2% in Medicare funding, $16.4 billion, will translate into more than 766,000 fewer jobs in the U.S. economy.

Even on a direct employment basis (i.e., only counting those jobs directly paid by the recipients of the funding dollars such as nurses, other caregivers, housekeepers, independent contractors, or residents receiving training), the funding cuts will be responsible for a substantial loss of employment nationally. During 2013, the **direct** negative employment impact is estimated to be 211,756 jobs; by 2021, this direct negative employment impact is estimated to be 330,127 jobs. What impact these cuts will have on quality and access to care is unknown.

While the negative direct employment impact is significant, the actual extent of employment impact on the nation stemming from this sequester is considerably larger. Table 2 shows the direct, induced, and indirect impacts of these cuts in annual increments.

[8] For purposes of impact analysis, these cuts have been annualized for 2013.

[9] The employment impacts in this report are reported in jobs. These are not full-time equivalents.

Table 2
Negative Employment Impacts Due to Sequestration (in jobs)

Year	Direct Effect	Indirect Effect	Induced Effect	Total Effect
2013	211,756	88,453	196,222	496,431
2014	224,529	93,394	206,745	524,667
2015	233,455	96,542	214,113	544,109
2016	248,228	102,751	228,183	579,162
2017	258,260	106,624	237,030	601,913
2018	271,916	111,545	248,241	631,702
2019	290,555	119,460	265,884	675,899
2020	308,560	126,670	282,274	717,505
2021	330,127	135,149	301,532	766,808

Negative Employment Impacts on Industries

While many of the top 10 sectors of the economy that are affected by the reduction in Medicare funding (see Tables 3 and 4) are health care-related, there are other industries that will be significantly affected.

Table 3
Top 10 Employment Segments Impacted by Medicare Funding Cuts in 2013 (in jobs)

IMPLAN Sector	Description	Negative Employment
397	Hospitals	92,984
394	Offices of physicians, dentists, and other health practitioners	40,220
398	Nursing and residential care facilities	38,115
396	Medical and diagnostic labs and outpatient and other ambulatory care services	38,350
395	Home healthcare services	25,547
360	Real estate establishments	22,705
413	Food services and drinking places	21,865
382	Employment services	15,356
319	Wholesale trade businesses	8,424
357	Insurance carriers	7,472

Table 4
Top 10 Employment Segments Impacted by Medicare Funding Cuts in 2021 (in jobs)

IMPLAN Sector	Description	Negative Employment
397	Hospitals	144,006
398	Nursing and residential care facilities	63,946
394	Offices of physicians, dentists, and other health practitioners	61,809
396	Medical and diagnostic labs and outpatient and other ambulatory care services	56,527
395	Home health care services	39,143
360	Real estate establishments	35,040
413	Food services and drinking places	33,612
382	Employment services	23,498
319	Wholesale trade businesses	12,965
325	Retail Stores – Health and personal care	11,444

Negative Employment Impacts on Individual States

To the average individual, these job-loss numbers are shocking. The numbers become even more striking when examined at the state level. The following data (see Table 5) shows the negative job impact on health care sector and other jobs on a state-by-state basis. Tripp Umbach estimates that within the first year of funding cuts, 2013, California alone will lose more than 50,000 jobs[10]. The employment models show that this number increases as the Medicare cuts increase. By 2021, the loss of 2% in Medicare funding to California will translate into more than 78,000 jobs lost in the state's economy.

Table 5
Negative Employment Impact by State in 2013 (in jobs)

Rank	State	Job Losses in 2013	Job Losses by 2021
20	Alabama	9,010	13,917
51	Alaska	691	1,067
18	Arizona	9,863	15,234
30	Arkansas	5,672	8,761
1	California	50,785	78,444
26	Colorado	6,671	10,305
29	Connecticut	6,033	9,319
45	Delaware	1,596	2,466
50	District of	833	1,287
2	Florida	35,827	55,340
11	Georgia	13,271	20,499
42	Hawaii	2,219	3,427
40	Idaho	2,456	3,794
7	Illinois	19,593	30,265
15	Indiana	10,718	16,556
31	Iowa	5,491	8,482

[10] These losses are based upon the statewide utilization and funding.

Rank	State	Job Losses in 2013	Job Losses by 2021
33	Kansas	4,605	7,113
24	Kentucky	8,113	12,531
25	Louisiana	7,319	11,306
39	Maine	2,821	4,358
21	Maryland	8,390	12,959
13	Massachusetts	11,284	17,429
8	Michigan	17,639	27,245
22	Minnesota	8,364	12,919
32	Mississippi	5,295	8,179
16	Missouri	10,667	16,477
44	Montana	1,812	2,799
38	Nebraska	2,963	4,577
35	Nevada	3,803	5,875
41	New Hampshire	2,337	3,610
10	New Jersey	14,126	21,820
36	New Mexico	3,349	5,173
4	New York	31,801	49,121
9	North Carolina	15,912	24,578
48	North Dakota	1,150	1,777
6	Ohio	20,175	31,163
28	Oklahoma	6,418	9,914
27	Oregon	6,610	10,210
5	Pennsylvania	24,201	37,382
43	Rhode Island	1,938	2,994
23	South Carolina	8,283	12,794
46	South Dakota	1,451	2,241
14	Tennessee	11,279	17,423
3	Texas	32,172	49,695
37	Utah	3,029	4,678
47	Vermont	1,192	1,841
12	Virginia	12,208	18,857
17	Washington	10,388	16,046
34	West Virginia	4,047	6,251
19	Wisconsin	9,703	14,988
49	Wyoming	856	1,322
	Total	**496,429**	**766,808**

Conclusion

The health care sector represents nearly 18% of the U.S. economy, and currently is one of the few bright spots in terms of job growth. As lawmakers look at ways to reduce the deficit and fund other priorities, cuts to Medicare are one option. However, it is important to have an accurate picture of what these cuts will mean to the larger economy and, specifically, the negative impact they will have on the unemployment rate. This report provides a view of what these cuts will mean over the next nine years, nearly 767,000 fewer jobs across many industry segments, not all health care-related, jobs that will be difficult to replace.

Appendix A: Definition of Study Terms

Study Period	This study examined annual impacts from 2013 through 2021.
Total Impact	The total impact of an organization is a compilation of the direct impact, the indirect impact, and the induced impact generated in the economy as a result of the organization.
Direct Impact	Direct impact includes all direct effects the organization has on the regional area due to the organization operations. These items include direct employees, organization spending, employee spending, and spending by visitors to the organization.
Indirect Impact	The impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money leaks from the local economy, either through imports or by payments to value added. The impacts are calculated by applying direct effects to the Type I Multipliers.
Induced Impact	The response by an economy to an initial change (direct effect) that occurs through re-spending of income received by a component of value added. IMPLAN's default multiplier recognizes that labor income (employee compensation and proprietor income components of value added) is not leakage to the regional economy. This money is re-circulated through the household spending patterns, causing further local economic activity.
Multiplier Effect	The multiplier effect is the additional economic impact created as a result of the organization's direct economic impact. Local companies that provide goods and services to an organization increase their purchasing by creating a multiplier.
Value Added	The difference between an industry's or an establishment's total output and the cost of its intermediate inputs. It equals gross output (sales or receipts and other operating income, plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported). Value added consists of compensation of employees, taxes on production and imports less subsidies, and gross operating surplus.

Appendix B: Tripp Umbach Qualifications

Tripp Umbach is the leading provider of economic impact analysis for hospitals and health systems, having completed national studies for the Association of American Medical Colleges since 1995, and statewide economic impact studies for all of the medical schools and their hospital affiliates in Pennsylvania, Virginia, Ohio, Wisconsin, and the Greater Boston area. Tripp Umbach has completed economic impact studies for more than 200 leading healthcare organizations and for several state governmental agencies, including the Mayo Clinic, UPMC Health System, the University of Pennsylvania, Jefferson Health System, and the Ohio State University. Tripp Umbach serves more than 50 of the nation's leading 100 healthcare organizations, as ranked in the 2010 hospital rankings in *U.S. News & World Report*.

For more information, please contact Tripp Umbach at www.trippumbach.com.

Appendix C: Methodology

In order to fully quantify the impact of the Medicare Sequester within the national and state economies, it was necessary for Tripp Umbach to establish a study methodology. It was critically important that the methodology used ensure a comprehensive, yet conservative, estimate of the operations' impact, based on information compiled using uniform and consistent techniques. In addition, the Study Team sought to develop a reproducible methodology assuring that subsequent studies could build upon the information and knowledge gained through this effort.

Tripp Umbach determined that the use of the IMPLAN Pro economic impact model software was most appropriate for this analysis. The IMPLAN econometric model operates by estimating the direct impact, indirect impacts, and induced impacts of specific economic activity. Direct economic impacts are those attributable to the initial economic activity; for example, an operation with 10 full-time employees creates 10 direct jobs. Indirect economic impacts are those economic activities undertaken by vendors and suppliers within the supply chain of the direct activity because of the initial economic activity. For example, suppliers of goods, materials, and services used in the direct activities produce indirect economic impacts. Induced economic impacts result from the spending of wages paid to employees in local industries involved in direct and indirect activities. Tripp Umbach selected the IMPLAN model due to its frequent use in economic impact, in addition to its development independent of local influences.

Tripp Umbach collected information concerning the budget sequesters and the specific areas where these cutbacks would be realized, and at what level through an analysis of the CBO's March 2012 Medicare baseline.

In this report, the impact was measured using IMPLAN datasets. The IMPLAN data files include information for 528 different industries (generally three- or four-digit SIC code breakdown) and 21 different economic variables. IMPLAN sources their employment data from ES202 employment security data supplemented by county business patterns and REIS data. Employment data utilized in the analysis includes full-time and part-time positions. Tripp Umbach identified seven IMPLAN industry codes which were used to represent the industries impacted by Medicare funding at both the baseline level and the through the sequestration funding. These codes are listed below:

397 Hospitals
398 Nursing and residential care facilities
394 Offices of physicians, dentists, and other health practitioners
395 Home healthcare services
396 Medical and diagnostic labs and outpatient and other ambulatory care services
325 Retail Stores – Health and personal care
357 Insurance carriers

It should be noted that, at the time of performing this assessment, the most recent IMPLAN data files for a national database were for 2010. While the data is not current, it is unlikely that the fundamental

structure of the U.S. economic fabric has changed to an extent that would invalidate the analysis. IMPLAN data and accounts closely follow the accounting conventions used in the "Input-Output Study of the U.S. Economy" by the U.S. Bureau of Economic Analysis and the rectangular format recommended by the United Nations.

By deriving the direct and actual employment numbers from IMPLAN for each year at a baseline, Tripp Umbach was then able to conduct input-output modeling to analyze the impact of the industry after the sequestration, and determine the gap or the negative impact which will occur due to the loss of funding.

For the individual state employment losses, Tripp Umbach based these figures on current utilization of the funding based upon The Kaiser Family Foundation's 2011 utilization data. Due to the fact that future utilization is not guaranteed, state-specific figures should only be viewed as rough estimates.

Appendix D: FAQs

What is economic impact?

This is a common analysis used by the Bureau of Economic Analysis, the Federal Reserve, state agencies, universities, and private sector firms. Economic impact begins when a company spends money. Economic impact studies measure the direct economic impact of a company's spending, plus additional indirect spending in the economy as a result of direct spending. Economic impact has nothing to do with dollars collected by companies, their profitability, or even their sustainability, since all operating organizations have a positive economic impact when they spend money and attract spending from outside sources.

Direct economic impact measures the dollars that are generated within the United States due to the presence of business operations. This includes not only spending on goods and services with a variety of vendors within the state, and the spending of its staff and visitors, but also the business volume generated by businesses within the United States that benefit from the business spending. It is important to remember that not all dollars spent by a company remain in its home state. Dollars that "leak" out of the state in the form of purchases from out-of-state vendors are not included in the company's economic impact on the state.

The total economic impact includes the "multiplier" of spending from companies that do business with those on the receiving end of Medicare Funds. Support businesses may include lodging establishments, restaurants, construction firms, vendors, temporary agencies, etc. Spending multipliers attempt to estimate the ripple effect in the state economy where the spending occurs. For example: Spending by a company with U.S. vendors provides these vendors with additional dollars that they re-spend in the national economy, causing a "multiplier effect."

What is the multiplier effect?

Multipliers are a numeric way of describing the secondary impacts stemming from the operations of a company. For example, an employment multiplier of 1.8 would suggest that for every 10 employees hired in a given industry, eight additional jobs would be created in other industries, such that 18 total jobs would be added to the given economic region. The multipliers used in this study are Type SAM. Type SAM (Social Accounting Matrix) multipliers are the direct, indirect (Type I), plus induced effects where the induced effect is based on information in the social account matrix. Theoretically, you could internalize any of the institutions (households, state and local government, Federal government, capital). When you internalize an institution, you build into the SAM multipliers the activities of that institution. It is assumed that every dollar collected by that institution will be re-spent for that institution's operations. Any inter-institution transfers are also internalized. The multipliers in this study are decidedly conservative and at the low end of the scale of what are typically observed in studies of this nature. The study includes only the spending which occurs within the United States, as well as employment within the United States. The compensation of employees only includes dollars that are available for spending; deferred compensation was not included.

The Multiplier Model is derived mathematically using the input-output model and Social Accounting formats. The Social Accounting System provides the framework for the predictive Multiplier Model used in economic impact studies. Purchases for final use drive the model. Industries that produce goods and services for consumer consumption must purchase products, raw materials, and services from other companies to create their product. These vendors must also procure goods and services. This cycle continues until all the money is leaked from the region's economy. There are three types of effects measured with a multiplier: the direct, the indirect, and the induced effects. The direct effect is the known or predicted change in the national economy that is to be studied. The indirect effect is the business-to-business transactions required to satisfy the direct effect. Finally, the induced effect is derived from national spending on goods and services by people working to satisfy the direct and indirect effects.

- Direct effects take place only in the industry immediately being studied.
- Indirect effects concern inter-industry transactions: because the directly examined organizations are in business, they have a demand for U.S.-produced materials needed to operate.
- Induced effects measure the effects of the changes in household income: employees of these organizations and suppliers purchase from U.S. retailers and restaurants.
- Total Economic Impacts measure the total changes to the original economy as a result of the organizational operations. i.e., Direct effects + Indirect effects + Induced effects = Total Economic Impact.

What methodology was used in this study?

IMPLAN (IMpact analysis for PLANning) data and software. Using classic input-output analysis, in combination with regional-specific Social Accounting Matrices and Multiplier Models, IMPLAN provides a highly accurate and adaptable model for its users. The IMPLAN database contains county, state, zip code, and federal economic statistics which are specialized by region, not estimated from national averages, and can be used to measure the effect on a national, regional, or local economy of a given change or event in the economy's activity.

What is employment impact?

Employment impact measures the direct employment plus additional employment created in the economy as a result of the organizational operations.

Indirect and induced employment impact refers to other employees throughout the region that exist because of the economic impact. In other words, jobs related to the population — city services (police, fire), employees at U.S. hotels and restaurants, clerks at retail establishments, residents employed by vendors used by the organizations which receive Medicare funding, etc.