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Workers' share of GDP

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Everyone likely to read these words knows that GDP stands for "gross domestic product," the value of goods and services produced and sold in the marketplace in the United States in a given period of time. It’s reported quarterly by the U.S. Bureau of Economic Analysis, with monthly updates. Politicians have plans to make it grow faster (as if it were a favorite garden flower).

Most students of economics learn that GDP has three familiar components: consumer spending (C), business investment (I), and government spending (G). Those who are paying good attention learn that exports minus imports (E-X) are also part of GDP. But there is another side to GDP, the distribution of those dollars in the economy.

In this article, we examine the three components of that other side: employee compensation, taxes less subsidies and gross operating surplus. We define these components, look at their changes over time and explore how they differ by state —with specific reference to Indiana.

Definitions

Simply put:

- Employee compensation is what workers and executives get paid.
- Taxes less subsidies are the net of what business pays to government for services rendered to the firm or society in general (social overhead, if you will), less whatever subsidies the firm gets as an incentive for, presumably, advancing economic welfare.
- Gross operating surplus represents what is left after employees, suppliers and net taxes are paid. This pre-income tax sum includes depreciation and is available to those who own the firm or hold its debt.

More formal definitions are provided in the accompanying box.

Compensation of employees = Wages and salaries, plus employer-paid benefits (pensions and insurance) and government social insurance (Social Security and Medicare). This includes bonuses to employees but not payments to consultants or contract workers who are not employees of the firm.

Taxes on production and imports less subsidies = "Federal excise taxes and customs duties, state and local sales taxes, property taxes, motor vehicle licenses, severance taxes, and special assessments, less subsidies by governments to private businesses or government enterprises." All these are taxes levied directly on business. Corporate income taxes are not included.

Gross operating surplus = "Value derived as a residual for most industries after subtracting total intermediate inputs, compensation of employees, and taxes on production and imports less subsidies from total industry output. Gross operating surplus includes consumption of fixed capital (CFC), proprietors' income, corporate profits, and business current transfer payments (net). Prior to 2003, it was referred to as other value added or property-type income." This is the firm's income before corporate taxes, interest on debt obligations, or dividends to shareholders.

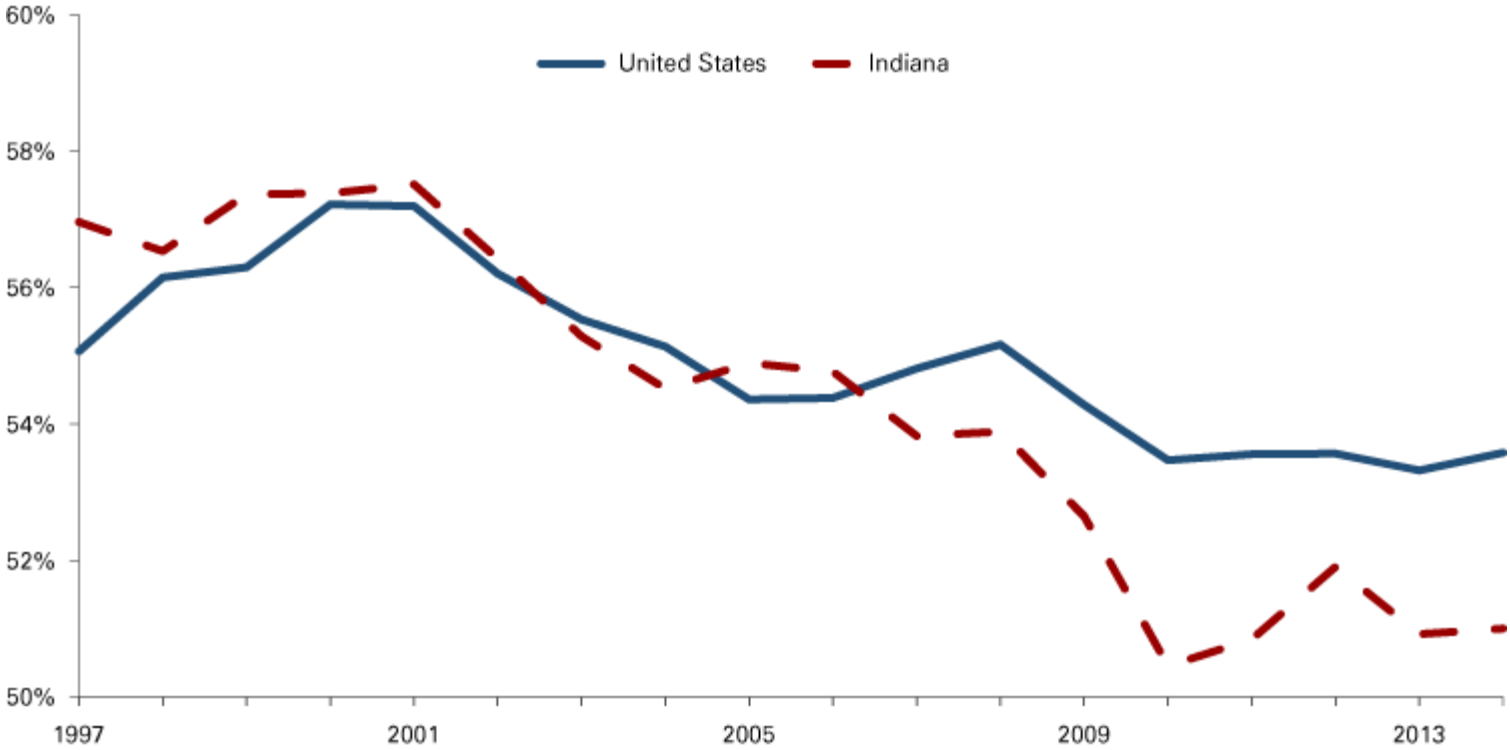
Source: Definitions were derived or quoted from https://bea.gov/glossary.

Changes over time

Full details of GDP for 2015 were released after the computations and text for this article were well-advanced, but we still have a good historical record from 1997 to 2014, and little expectation that the latest data would change the picture.[1]

Figure 1 depicts compensation of employees as a share of GDP for Indiana and the United States in 1997 and in 2014. In both cases, the share of GDP going to employee compensation declined. For the U.S., it was a drop from 55.1 percent to 53.6 percent, or 1.5 percentage points. However, Indiana saw a greater decline from 57.0 percent to 51.0 percent, or 6 full percentage points— four times the decline experienced by the nation. Employees in no other state lost as much ground as did those in Indiana.

Figure 1: Compensation of employees as a percent of GDP

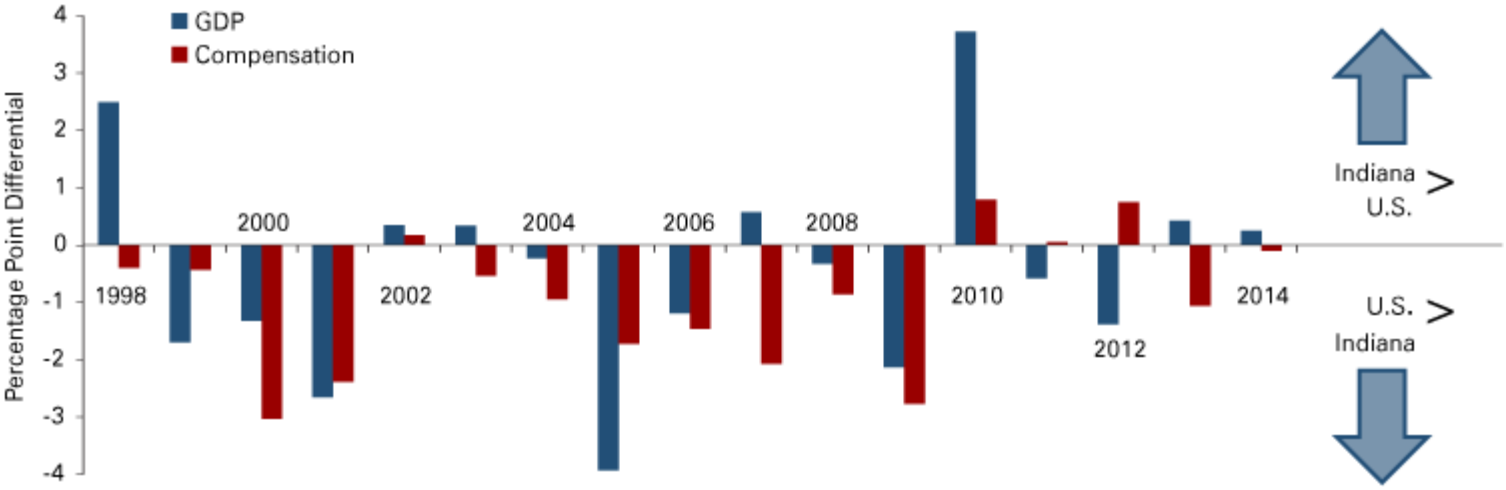


Source: U.S. Bureau of Economic Analysis

Moreover, Hoosier employees went from enjoying a greater share of state GDP to a lower share than U.S. workers in general. In 1997, Hoosiers had a 1.9 percentage point lead on U.S. workers, an advantage that fell to a 2.6 point deficit by 2014.

Behind these results are the differential growth rates of GDP and compensation for the U.S. and Indiana. These are shown in **Figure 2**, where, for example, in 2010 Indiana's GDP grew 3.7 percentage points faster than the nation's; meanwhile, the state's compensation growth was only 0.8 percentage points better than the U.S.

Figure 2: Growth rate differentials: Indiana minus the United States

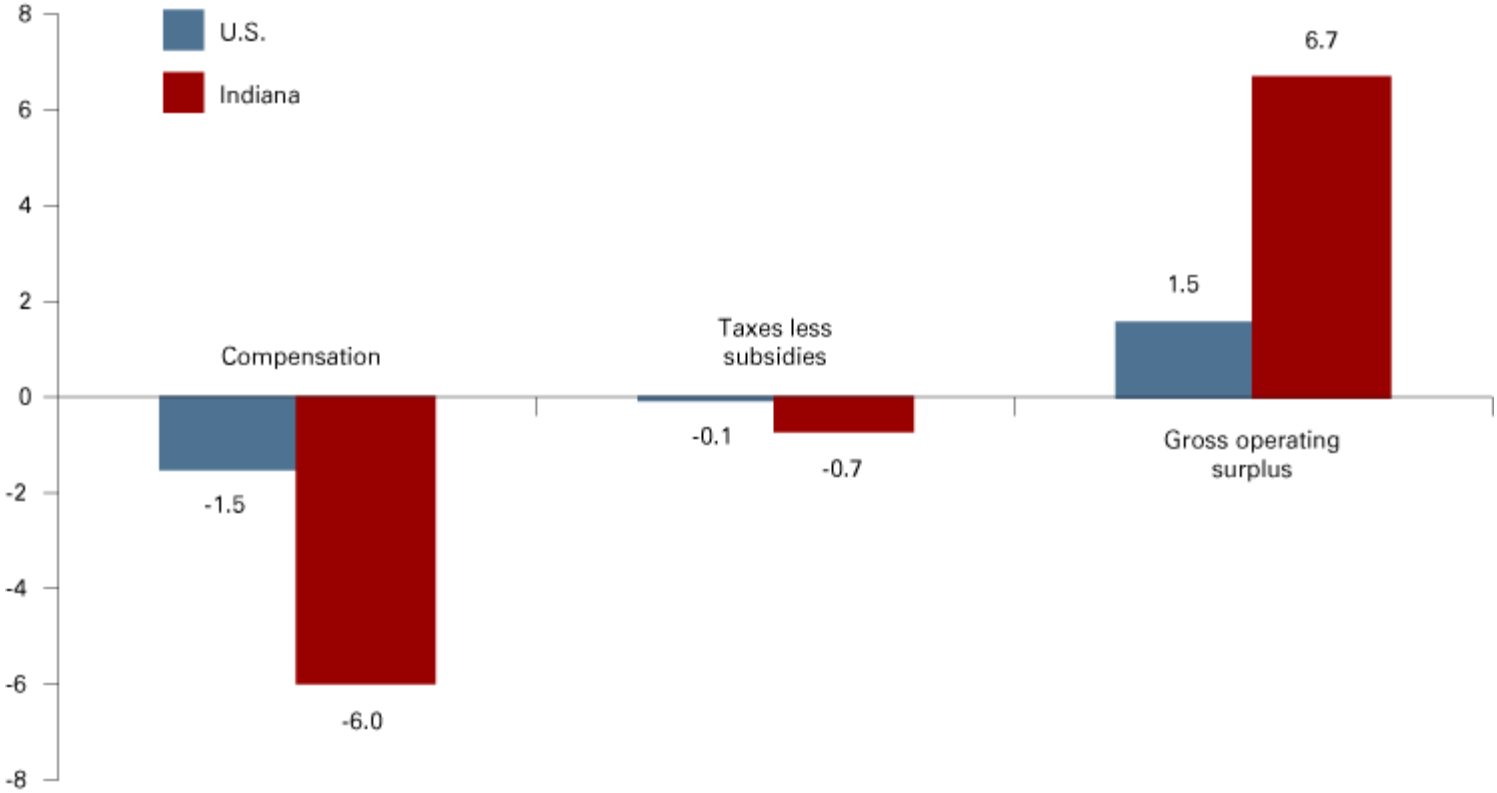


Source: U.S. Bureau of Economic Analysis

Only twice during the 1998 to 2014 period did Indiana's growth of GDP exceed that of the U.S. by 1 percent or more. Yet seven times in those 17 years, Indiana's GDP growth was at least 1 percent behind the nation's. In addition, 13 of those 17 years showed Indiana's growth in compensation lagged the U.S.

A similar pattern is found with taxes less subsidies. In both the U.S. and Indiana, taxes less subsidies declined as a percent of GDP over the same period (see **Figure 3**). The decline in share in the Hoosier state exceeds that in the nation.

Figure 3: Changes in share of GDP, 1998 to 2014



Source: U.S. Bureau of Economic Analysis

Without excessive calculation, it is evident that gross operating surpluses gained shares of GDP. This fact also appears in **Figure 3** where Indiana businesses gained 5 percentage points on their U.S counterparts. Only North Dakota saw a greater growth in this factor (8.1 percentage points) than did Indiana (6.7 points).

In summary, from 1998 to 2014, employees and governments were losing ground to the claimants on the gross operating surpluses of the nation's companies—mainly shareholders and the holders of debt.

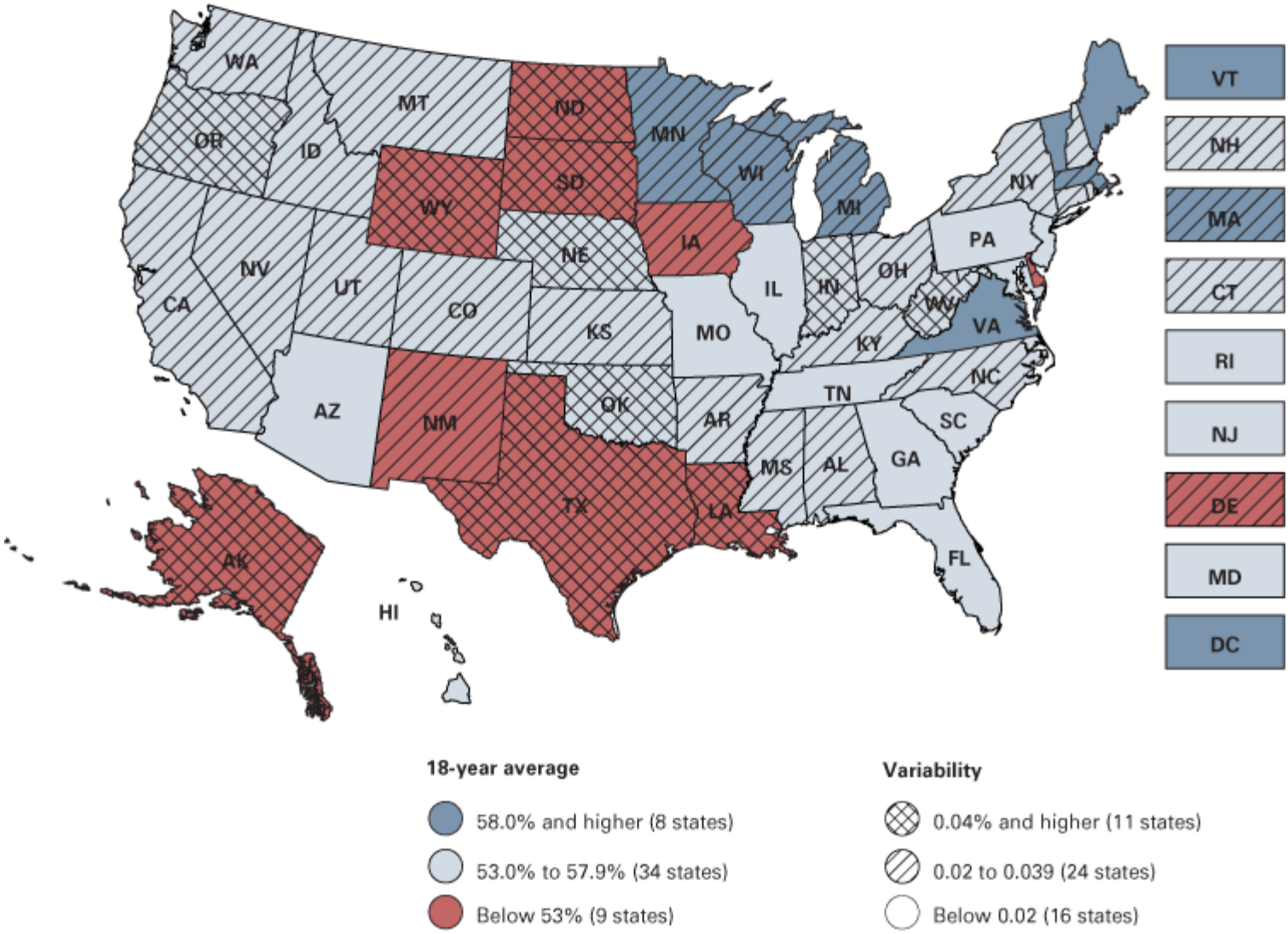
These are substantial shifts when one recalls the trillions of dollars represented by GDP. A slight shift of one-tenth of 1 percent in GDP in 2014 was $17 billion.

State differences

A state-by-state depiction of the average compensation of employees per dollar of GDP over the study period is shown in **Figure 4**. The United States averaged 52.0 percent; in Indiana, it was 54.3 percent—33rd in the nation. At the same

time, the entire country showed a coefficient of variation (a measure of volatility)[2] of 0.024, while Indiana was nearly twice as high at 0.045 (the ninth highest among the states, including the District of Columbia).

Figure 4: Compensation of employees per dollar of GDP, 1997 to 2014 average



Source: U.S. Bureau of Economic Analysis

We can suggest that a high level of compensation per dollar of GDP is a favorable condition. But that may be very wrong, and it does not mean high wages are to be found in such a state. If the value of GDP per employee is low, it could indicate a weak economy, one not employing technology to boost worker productivity, or producing goods not much in demand. To have a large share of a small pie may not please every palate.

The volatility (or variability to be less dramatic) of compensation per dollar of GDP is another metric worth considering. Variability is not necessarily unfavorable, if the average level of compensation is high. Alaska and Wyoming, however, demonstrate low shares of compensation with high levels of variability. Both states are heavily engaged in capital-intensive, extractive industries subject to volatile market pricing.

Vermont, in contrast, is a state where compensation has a high share of GDP and low variability. Again, without further research, it would be premature to pass judgment on the desirability of this condition.

Final note

Each of these changes is a complex mix of industry considerations. The adaptation of technology and improved managerial practices influence the distribution of GDP to these three factors of production. Location decisions may be of importance. Some firms consolidate closer to their headquarters. In other cases, headquarters themselves move from one state to another. Where firms choose to locate may be a matter of changes in selected state and local taxes, but location decisions are more likely made as channels of distribution change and the prices of inputs rise or fall. These latter matters extend far beyond the purview of this article and state legislatures.

Notes

1. Gross Domestic Product (GDP) estimates for the nation and the states are generated quarterly by the U.S. Bureau of Economic Analysis (BEA); Metropolitan area estimates are available annually.
2. The coefficient of variation equals the standard deviation of a series divided by the mean of that series. Higher numbers indicate greater variability.

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Indiana’s Long-Term Care Insurance Program

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Given current national discussions of the American Health Care Act, this article examines the relationship between Indiana’s long-term care insurance partnership program and Medicaid, as well as the effectiveness of tax incentives in inducing purchase of insurance policies.

The Indiana Long-Term Care Insurance Program (ILTCIP), also known as the “Partnership,” was created to help elderly taxpayers afford long-term care, including

- In-home care
- Adult day care
- Assisted living
- Nursing home care
- Case management services

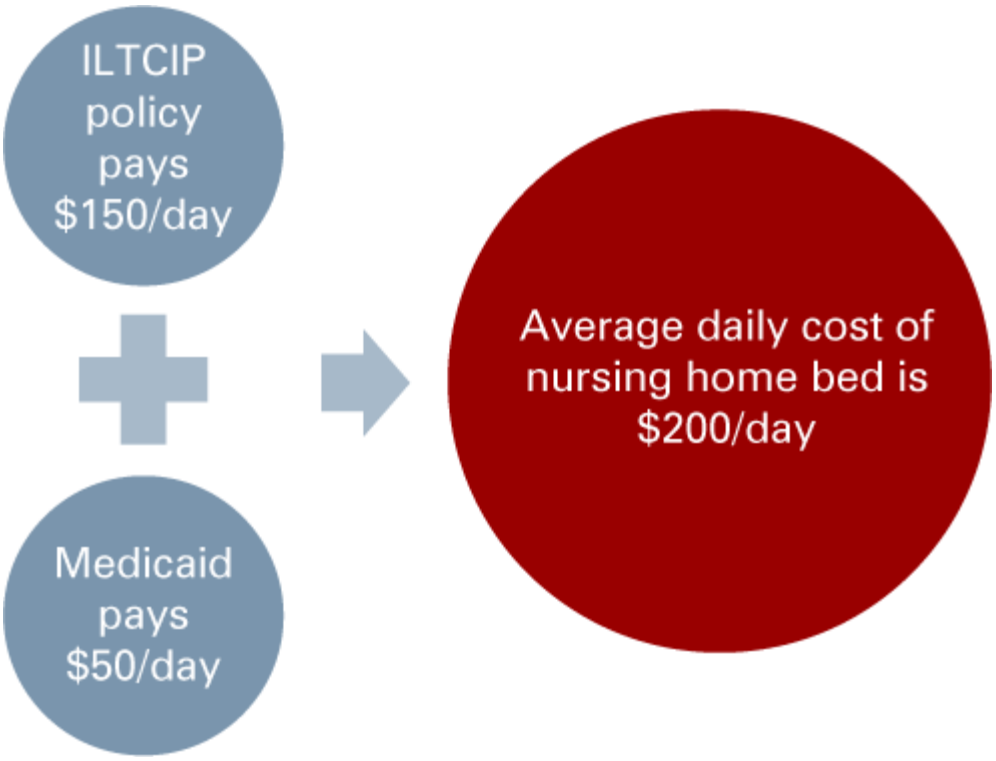
Long-term care can cost between $30,000 to $65,000 per year, and many people lack sufficient assets to fund that care.[1] Therefore, they generally rely on Medicaid, the second-largest program in most states’ budgets after elementary and secondary education.

From the consumer’s perspective, long-term care insurance may be beneficial for helping avoid high out-of-pocket expenses for long-term care (about 21 percent of long-term care financing is out of pocket),[2] poor quality of service and/or asset depletion. Strict criteria must be met for elderly citizens to qualify for payment of long-term care services under Medicare, which typically provides limited coverage for about three months, or Medicaid, whose providers are sometimes purported to offer lesser quality care than that financed through private pay and long-term care insurance.

The ILTCIP is a partnership between the state of Indiana and private insurance programs. A majority of states have reciprocity policies, allowing them to honor these partnership long-term care insurance policies from other states and making it more convenient for policyholders to easily transfer their insurance policy benefits when/if they move.[3]

The ILTCIP policies differ from traditional long-term care policies in that they provide additional protection for those who decide to apply to Medicaid upon exhaustion of their policy benefits. This means that Medicaid behaves as a secondary payer, whereby once an individual becomes Medicaid-eligible, the ILTCIP policy pays some benefits first and Medicaid pays the remainder (see **Figure 1**).

Figure 1: Example of ILTCIP/Medicaid share of nursing home bed costs

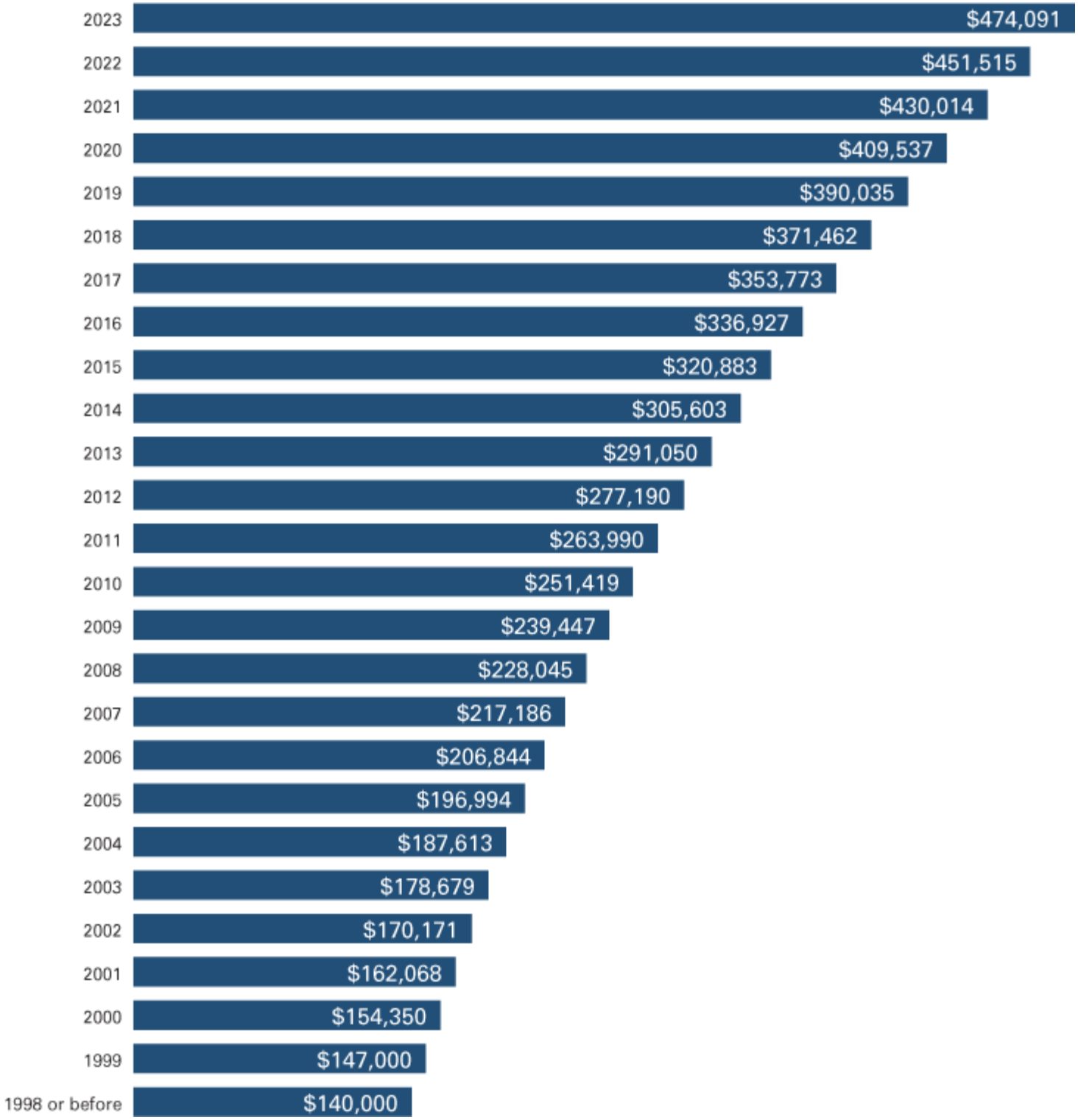


Source: Indiana Department of Insurance

The ILTCIP also lifts strict Medicaid “spend-down” guidelines, such that individuals seeking assistance must spend down their assets to $1,500 if they are single and $2,250 if they are married, through “Medicaid Asset Protection.” These partnership policies protect the assets of their policyholders and allow them financial flexibility in the final disposition of their assets.

Medicaid asset protection works in two ways: (1) if individuals purchase a partnership policy with less than the state-mandated dollar amount in benefits, each dollar of their assets is protected for each dollar of partnership policy benefits paid out and (2) if individuals purchase a partnership policy with at least the state-mandated dollar amount and a 5 percent compound inflation factor, their total assets are protected. The mandated amount for 2017 is approximately $354,000 (see **Figure 2**).

Figure 2: State-set dollar amounts for total asset protection



Source: Indiana Department of Insurance

Deduction for Partnership policy premiums

A premiums deduction aims to encourage individuals to purchase long-term care insurance and thereby reduce their future dependence on Medicaid, of which one-third is already allocated to long-term care expenditures. The deduction equals

the policy premiums paid during the taxable year by a taxpayer for a long-term care partnership program insurance policy for the taxpayer or the taxpayer’s spouse, or both.

Table 1 presents the deduction claim history since 2006. The number of claims generally rose over the period. The relatively high growth rate just preceding the recession gave way to a period of very low growth in 2008 and 2009. Since 2009, however, deduction claims have grown significantly by an annual average rate of almost 7 percent.

Table 1: Long-Term Care Partnership Program deduction claim history

Tax year	Number of claims	Percent change in claims	Claim amount	Percent c
2006	10,612	n/a	$25,947,594	
2007	11,588	9.2%	$28,885,466	
2008	11,799	1.8%	$30,012,658	
2009	11,794	0.0%	$31,417,120	
2010	12,378	5.0%	$34,191,140	
2011	13,488	9.0%	$36,783,234	
2012	14,341	6.3%	$39,909,704	
2013	14,900	3.9%	$42,144,709	
2014	15,234	2.2%	$44,167,496	
2015*	16,823	10.4%	$45,719,330	

*The 2015 filer counts and credit amounts are not full-year totals because of filing extensions and suspension of returns for audit.
Source: Indiana Legislative Services Agency

Table 2 presents the income distribution of the deduction for tax year 2014. The deduction claims are distributed over a broad range of incomes, with an average of 1,693 claims per income tier. The bulk of tax deductions claimed are attributable to taxpayers with incomes ranging from $50,000 to $150,000 (55 percent). About 15 percent of the deductions claimed are attributable to taxpayers with incomes of $150,000 or above. Surprisingly, however, about 30 percent of

the deductions claimed are attributable to low- and moderate-incomes of less than $50,000, in part because almost two-thirds of the ILTCIP policyholders are above the age of 65.

Table 2: Income distribution of long-term care deduction claims for tax year 2014

Federal AGI tier	Total number of tax returns	Number of deduction claims
Under $1	311,201	323
$1 under $25,000	1,149,791	1,800
$25,000 under $50,000	699,435	2,397
$50,000 under $75,000	406,557	2,802
$75,000 under $100,000	266,817	2,614
$100,000 under $150,000	234,197	2,986
$150,000 under $200,000	70,950	1,108
$200,000 under $500,000	62,805	1,035
$500,000 or more	53,350	169
Total	**3,255,103**	**15,234**

Source: Indiana Legislative Services Agency

Effectiveness of the tax deduction

While much of the evidence suggests the deduction does not encourage purchases of ILTCIP policies, some evidence suggests otherwise. Generally, the following evidence points to a tenuous link between the deduction and ILTCIP policy purchases.

There tends to be weak demand for ILTCIP policies in the first place, and there are potentially three reasons for this.

- Insurance policies are still expensive regardless of inflation protection. Medicaid asset protection does not necessarily drive individuals to purchase long-term care insurance, as buyers typically possess modest levels of

financial wealth to begin with. If they do purchase insurance, some policyholders may not exhaust their insurance benefits, and easier access to Medicaid may not be an incentive.

- Potential substitutes for long-term care insurance may exist, such as financial support and/or home care provided by family members.
- Lower-income people, in particular, may prefer not to purchase insurance due to the alternative presence of Medicaid. Brown et al. (2007) find that Medicaid “crowds out” the demand for long-term care insurance for wealth groups below the 60th percentile, since those groups are more likely to meet the strict guidelines of Medicaid.[4]

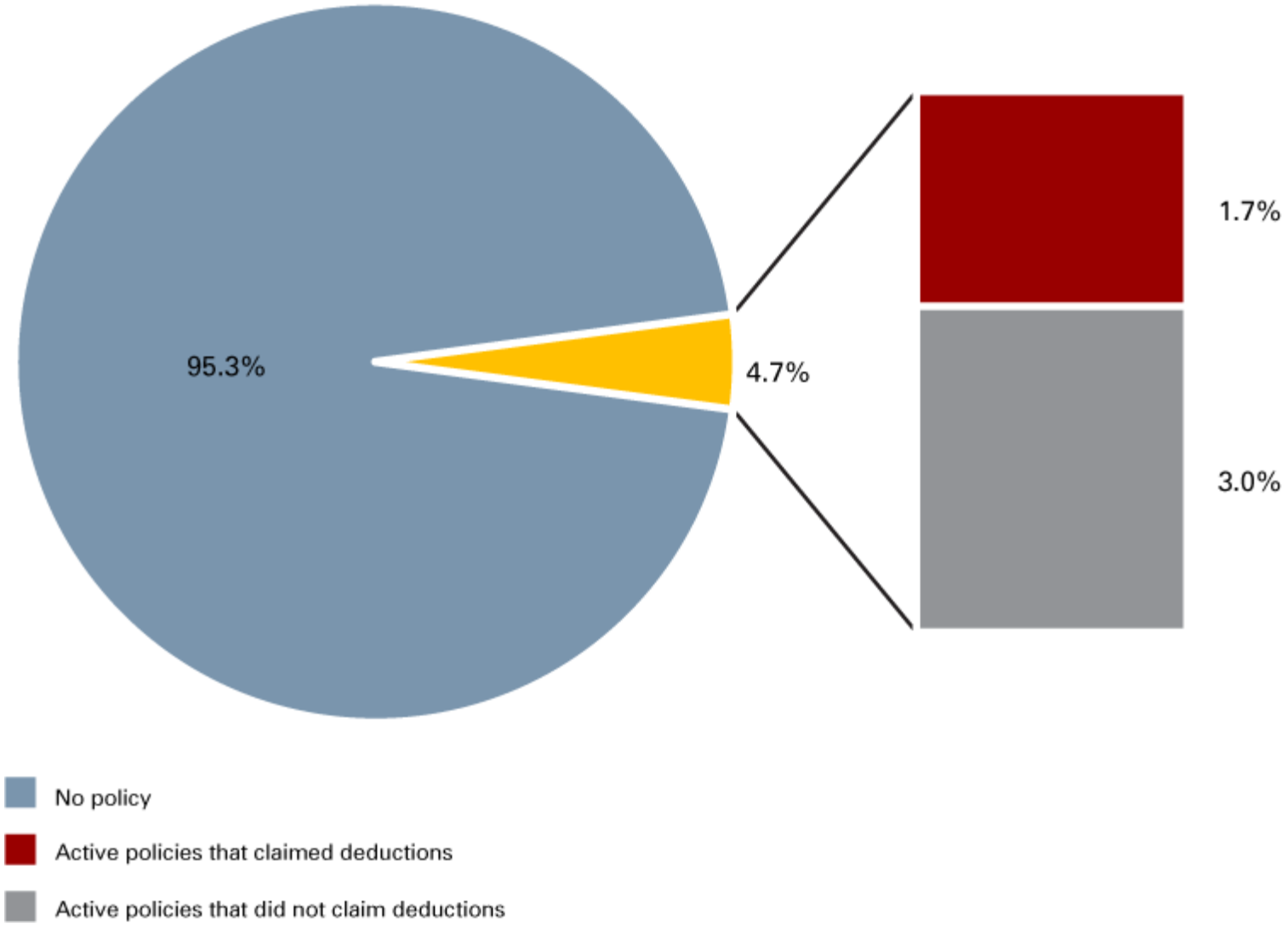
Wealth is certainly a factor in the decision to purchase long-term care insurance. Specifically, high-wealth individuals are more likely to purchase policies. A Connecticut study finds that almost 50 percent of all policy purchasers possessed assets over $350,000, while 17 percent possessed assets less than $100,000.

Gender is another factor, as the higher likelihood of women to need nursing home care makes them more prone to purchase policies. And women have greater willingness to pay for partnership policies as opposed to traditional policies at all wealth percentiles from 40-90 percent.[5]

It may be that people with larger assets find partnership policies more beneficial for protecting their assets from Medicaid’s spend-down policy. Regardless of wealth and gender, some individuals may be less risk averse than those who purchase insurance to cushion themselves against future uncertainties. The average time lag between policy purchase date and claim date is 9.65 years,[6] implying that some may be willing to risk uncertainties regarding their health rather than pay insurance premiums for more than nine years before reaping the benefits.

Now let’s take a closer look at the tax deduction to quantify its role in inducing demand for ILTCIP policies. Approximately 970,000 individuals age 65 and over currently live in Indiana. However, only 45,744 ILTCIP policies were active as of 2015. At first glance, partnership programs do not appear to significantly alleviate the burden on Medicaid, as only 4.7 percent of the elderly population has purchased policies. Of that group, only 36 percent claimed the deduction during 2015 (see **Figure 3**). While this is not an insignificant share, still 64 percent of the policyholders failed to claim the rather generous deduction, with an impact on state and local tax liability totaling $380 per taxpayer based on the average premium cost.

Figure 3: Policy purchases as a percentage of the population ages 65 and older, 2015



Source: Indiana Legislative Services Agency

So why the low claim rate? Courtemanche and He (2009)[7] find that tax incentives alone are unlikely to motivate consumer purchases of policies, of which senior citizens are only 3.3 percentage points more likely to own than others. Specifically, they find that individuals who itemize medical expenses prior to the tax deduction associated with long-term care insurance are only 0.5 percentage points more likely to purchase long-term care insurance, suggesting they barely respond to the tax incentive.

Generally speaking, the tax deduction reduces revenue to the government. However, the decline in Medicaid expenditures resulting from purchases of long-term care insurance presents savings to the government. Whether the total impact is positive depends on if the deduction encourages enough people to purchase and use long-term care insurance benefits rather than Medicaid.

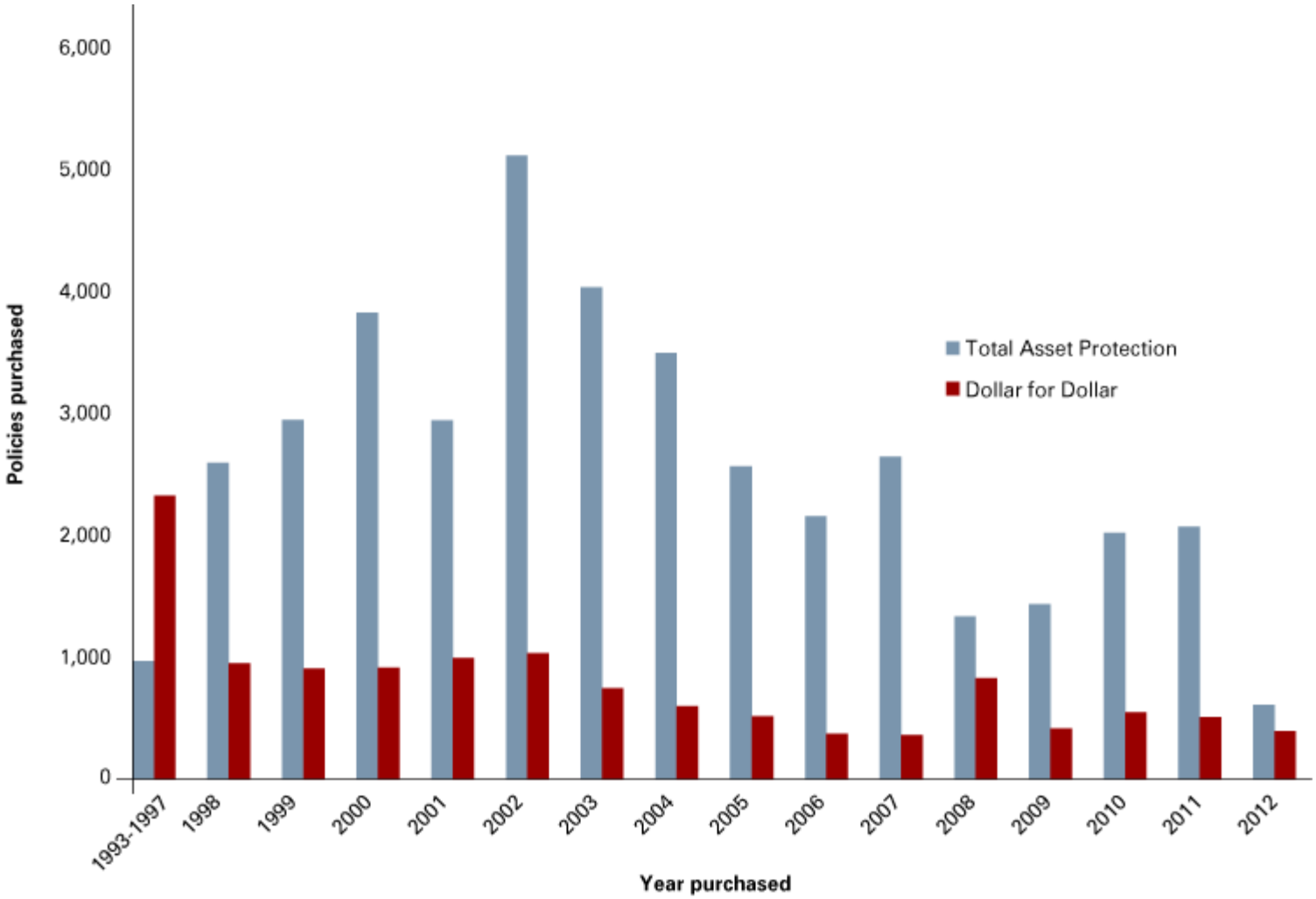
Let’s examine the revenue loss from the tax deduction first. The average deduction claim amount based on the 2015 data is $2,718, which indicates the amount that each individual pays in premiums annually. The state and local income tax savings to each taxpayer (and government revenue loss due to each taxpayer) is about $130. The revenue loss from the tax deduction amounts to approximately $1.48 million in state revenue and $686,000 in local income tax revenue (assuming the median local tax rate of 1.5 percent). This is a total state and local revenue loss of $2.2 million.

Now let’s examine Medicaid expenditures. Total Medicaid spending for long-term care in Indiana during fiscal year 2012 was $700 million (2012 data are used here since that is the most recent detailed ILTCIP data available).[8] Average annual Medicaid expenditures on nursing home care costs are over $42,000,[9] providing an idea of the amount of savings to the state and federal governments

every time an individual chooses long-term care insurance over Medicaid coverage. Recall that long-term care insurance does not necessarily cover all home care and nursing home expenditures (e.g., average daily nursing home benefits paid by partnership long-term care insurance during 2012 were $147, while the average daily nursing home cost ranged from $200-$235),[10] exposing individuals to the remaining cost burden. However, very few individuals have exhausted their insurance benefits and turned to Medicaid for the coverage of their remaining costs. Although 0.2 percent of Hoosiers have exhausted their benefits to date, only half of those have applied to Medicaid (and the other half have presumably shouldered those expenses through other income streams).

Figure 4 illustrates long-term care partnership policies by asset protection. Prior to 1998, dollar-for-dollar coverage was the only option available, yet the figure shows total asset protection coverage was also purchased prior to then. This is because SEA 101-1998 offered total asset protection under certain guidelines and also provided that policies purchased prior to 1998 that met those guidelines would be granted total asset protection coverage.

Figure 4: Long-Term Care Partnership policies by asset protection type



Note: 2012 is the most recent year for which detailed data are available.
Source: Indiana Department of Insurance

Since 1998, policyholders have preferred total asset protection, which means the total assets of most policyholders are protected and thereby unavailable for long-term care expenditures. While total asset protection provides financial flexibility to policyholders, it presents an opportunity cost to the government, which provides Medicaid to eligible individuals when they exhaust their policy benefits and lack the necessary funds to cover long-term care expenses.

Based on **Figure 4**, over 1,000 partnership policies were purchased during 2012 (the most recent detailed data available). While we don’t have the breakdown by asset protection type for more current years, we do know that the total number of partnership policies purchased increased to 2,737 in 2013 and then dropped to 1,158 in 2014 and 515 in 2015.

Since the tax deduction went into effect in 2000, one may initially expect the total number of policy purchases to rise as a result. It is certainly true that the total number of purchases to date has risen over time, but we are also aware of some factors that may have driven the overall increase.

One, the significant jump in policies purchased between 1993-1997 and 1998 is attributable to Indiana’s official introduction of total asset protection with SEA 101-1998, as explained above. **Figure 4** clearly shows that policy purchasers responded to SEA 101 by purchasing significantly more policies. Another is the general economic pattern of the 2000s. Total policy purchases increased drastically by 56 percent between 2001 and 2002, during a recession. We notice the same pattern following the Great Recession, when total policy purchases increased by 39 percent between 2009 and 2010.

While there is currently weak demand for ILTCIP policies, this could change as health care continues to be a hot topic in Washington, D.C. Specifically, the American Health Care Act’s proposal to eventually phase out the Medicaid expansion proposed by the Affordable Care Act could motivate more Americans, in general, and more Hoosiers, in particular, to consider long-term care insurance. Of course, insurance policies are still expensive, but the tax deduction could provide some relief, especially for low-income individuals (since wealthier individuals are more likely to purchase long-term care insurance regardless). Besides, the amount of money that the state annually foregoes in tax revenue for the deduction is a small drop in the bucket compared to its expenditures on Medicaid.

For more information about the Indiana Long-Term Care Insurance Program, visit www.in.gov/iltcp/.

Notes

1. “Retirement,” Insurance by Allied Brokers, www.alliedbrokers.com/retirement_planning.html.
2. Gopi Shah Goda, "The Impact of State Tax Subsidies for Private Long-Term Care Insurance on Coverage and Medicaid Expenditures," *Journal of Public Economics* 95, no. 7 (2011): 744-757.
3. “Long-Term Care Insurance Partnership Plans,” American Association for Long-Term Care Insurance, www.aaltci.org/long-term-care-insurance/learning-center/long-term-care-insurance-partnership-plans.php.
4. Jeffrey R. Brown, Norma B. Coe, and Amy Finkelstein, "Medicaid Crowd-Out of Private Long-Term Care Insurance Demand: Evidence from the Health and Retirement Survey," in *Tax Policy and the Economy, Volume 21*, ed. James M. Poterba (MIT Press, 2007), 1-34.
5. Wei Sun and Anthony Webb, “Can Incentives for Long-Term Care Insurance Reduce Medicaid Spending?” Center for Retirement Research Issue Brief No. 13-6, April 2013, http://crr.bc.edu/briefs/can-incentives-for-long-term-care-insurance-reduce-medicaid-spending/.
6. “Quarterly Statistics Report,” Indiana Long-Term Care Insurance Program, www.in.gov/iltcp/2335.htm.
7. Charles Courtemanche and Daifeng He, "Tax Incentives and the Decision to Purchase Long-Term Care Insurance," *Journal of Public Economics* 93, no. 1 (2009): 296-310.
8. Budget Committee Forecast Presentation, Indiana Family and Social Services Administration, Dec. 20, 2013.
9. Data from the Office of Medicaid Policy and Planning, Indiana Family and Social Services Administration.
10. Genworth Cost of Care Survey 2014, www.genworth.com/corporate/about-genworth/industry-expertise/cost-of-care.html.

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