



## Axene Health Partners, LLC

Health Actuaries & Consultants

[www.axenehp.com](http://www.axenehp.com)

### Affordability... A Crucial Focal Point in the Health Care Debate

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#### Overview

For more than two decades, the US health care system has attracted considerable attention, both by the media and by public policymakers, as health care costs continue to rise and the uninsured population continues to grow. Rapidly increasing costs and their adverse effect on premium rates and health plan profitability continue to fuel concerns about the future of the US health care system and our collective ability to pay for health care. This report takes a fresh look at the affordability of health care and offers several new insights.

#### AHP Health Care Affordability Index™ (HCAI™)

Much of today's health care focus centers on the rising costs of health care. Today's challenging economic situation since 9/11 and the heightened concerns about terrorism, the financial impact of the recent recession and the fallout from the decline of the "dot com" and telecom market booms, and the overall lack of confidence in the post-Enron economy has redirected much of the health care discussion to affordability, not simply health care costs.

Affordability can best be defined as a measure of someone's or something's ability to purchase a good or a service. It describes whether a person or organization, with limited resources, is able to make a purchase without unacceptable or unreasonable sacrifices. Similarly, health care affordability describes whether a person or organization has sufficient income to pay for or provide for health care costs.

The AHP HCAI measures the relative affordability of health care for individuals, organizations, and the government by comparing both health care costs and income. The ratio of cost to income provides a valuable metric of affordability. Once normalized to an average or standard affordability level (i.e., 1.00 or 100%), it is possible to compare one region with another, one sector to another, one stakeholder to another, etc.

To reflect all health care stakeholders, the AHP HCAI reflects a weighted average of health care affordability for each of the three key health care purchasers – employers, employees, and government entities. Each component of the HCAI can be reviewed individually to measure affordability for each stakeholder.

The definitions and formulas used to determine each of the individual affordability components are as follows:

- **Employer Affordability Index:** The employer index is based upon the ratio of employer cost to employer income. Cost is defined as the health insurance premiums paid by the employer. We have relied upon information obtained from the Agency for Healthcare Research and Quality, Center for Cost and Financing Studies: (<http://www.meps.ahrq.gov/MEPSDATA/ic/1999/Index299.htm> ). Definitions and descriptions of the methods used for this survey can be found in the Technical Appendix: <http://www.meps.ahrq.gov/MEPSDATA/ic/1999/technote.htm>). Summarized versions of this information can also be found on the Kaiser Family Foundation website, [www.statehealthfacts.kff.org](http://www.statehealthfacts.kff.org). Income is defined as corporate revenue per employee . We have used the Gross State Product (GSP), a measure of all economic productivity in each state, as a proxy for employer revenue. While pre-tax corporate income might also be a useful measure of income, a direct measure of pre-tax corporate income by state is problematic due to the presence of large, multi-state employers, which do not report pre-tax income by state on a consistent, accessible basis. Because GSP is not available at the MSA level, a formula of GSP divided by the number of employees would be the measure for income used for a given geographic region. The Kaiser Family Foundation website, [www.statehealthfacts.kff.org](http://www.statehealthfacts.kff.org), provides information on household employment status. The Census bureau, [www.bea.doc.gov](http://www.bea.doc.gov), provides data on Gross State Product.

The formula for the employer affordability factor is:

$$\text{Employer Affordability Factor} = \frac{\text{Employer health expenses}}{\text{Gross State Product for region}}$$

Our index is derived through a normalization method. We calculate the US average and then determine the ratio of each state to the US average.

Table 1 shows the Employer Affordability Factor and Index by State. 48 out of the 50 states are represented in our analysis. We were unable to locate enough information for North Dakota and South Dakota to include them.

Our analysis shows that the least affordable states for employers are in the Southeast portion of the United States. However, there are some states – West Virginia and Louisiana where industry in the state is significant and productive, and as a result, health care is more affordable for employers.

<b>Table 1: Employer Affordability Index</b>			
<b>State</b>	<b>Employer</b>	<b>State</b>	<b>Employer</b>
<b>U.S. Total</b>	<b>1.00</b>	<b>U.S. Total</b>	<b>1.00</b>
Alabama	1.04	Delaware	0.82
Alaska	0.90	New Mexico	0.82
Arizona	0.93	Massachusetts	0.86
Arkansas	1.12	Connecticut	0.87
California	0.88	New York	0.87
Colorado	0.94	California	0.88
Connecticut	0.87	Georgia	0.90
Delaware	0.82	Alaska	0.90
Florida	0.98	North Carolina	0.91
Georgia	0.90	Virginia	0.91
Hawaii	0.94	Arizona	0.93
Idaho	1.05	Oregon	0.93
Illinois	1.03	Colorado	0.94
Indiana	1.17	Hawaii	0.94
Iowa	1.06	Washington	0.95
Kansas	1.11	New Jersey	0.97
Kentucky	1.10	Texas	0.97
Louisiana	0.97	Louisiana	0.97
Maine	1.27	New Hampshire	0.98
Maryland	1.15	Florida	0.98
Massachusetts	0.86	Tennessee	0.99
Michigan	1.29	Illinois	1.03
Minnesota	1.07	Wyoming	1.04
Mississippi	1.25	Nebraska	1.04
Missouri	1.08	Nevada	1.04
Montana	1.42	Alabama	1.04
Nebraska	1.04	Idaho	1.05
Nevada	1.04	Utah	1.05
New Hampshire	0.98	West Virginia	1.05
New Jersey	0.97	Iowa	1.06
New Mexico	0.82	Rhode Island	1.06
New York	0.87	Minnesota	1.07
North Carolina	0.91	Missouri	1.08
Ohio	1.09	Ohio	1.09
Oklahoma	1.20	South Carolina	1.10
Oregon	0.93	Pennsylvania	1.10
Pennsylvania	1.10	Kentucky	1.10
Rhode Island	1.06	Kansas	1.11
South Carolina	1.10	Arkansas	1.12
Tennessee	0.99	Maryland	1.15
Texas	0.97	Indiana	1.17
Utah	1.05	Oklahoma	1.20
Vermont	1.36	Mississippi	1.25
Virginia	0.91	Maine	1.27
Washington	0.95	Michigan	1.29
West Virginia	1.05	Wisconsin	1.32
Wisconsin	1.32	Vermont	1.36
Wyoming	1.04	Montana	1.42

Employee Affordability Index: The employee index is similarly based upon a ratio of employee cost to employee income. The employee share of health cost has been defined as the employee share of health insurance premiums or health benefit contributions. Although accurate measures of these components are not available on a state-by-state basis, employees also bear the cost of two additional health care components:

- Employee responsibilities for deductibles, coinsurance, and copays
- Employee out-of-pocket purchases of non-covered health care costs

The primary source of employee paid health care costs is information from the Agency for Healthcare Research and Quality, Center for Cost and Finance Studies. Employee income is defined as the average household income in a given geographic region. The sources used to determine this include the U.S. Census Bureau and were accessed from the U.S. Statistical Abstract, [www.statehealthfacts.kff.org](http://www.statehealthfacts.kff.org), and a variety of other websites that provide a compilation of income data. The formula for the employee factor is:

$$\text{Employee Affordability Factor} = \frac{\text{Employee medical expenses}}{\text{Employee Income}}$$

The Employee Affordability Index is calculated from the Employee Affordability Factors using the same methodology as the Employer Index. Once again, we did not have enough information on North Dakota and South Dakota to include them in our analysis.

The results of our analysis are in Table 2. Our analysis shows that the least affordable states for employees are also in the Southeastern US. Lower personal income levels are the biggest contributor to the lack of affordability.

We did find occurrences where states showed relatively unaffordable healthcare for employers but affordable healthcare for employees. The state of Michigan is an example of this. We believe the strong labor union presence in the state with their ability to bargain collectively is the driving cause of this.

State	Employee	State	Employee
<b>U.S. Total</b>	<b>1.00</b>	<b>U.S. Total</b>	<b>1.00</b>
Alabama	1.35	Michigan	0.64
Alaska	0.79	Nevada	0.67
Arizona	1.04	Delaware	0.71

Arkansas	1.32	Hawaii	0.71
California	0.91	New Jersey	0.73
Colorado	0.80	Ohio	0.75
Connecticut	0.98	Maryland	0.77
Delaware	0.71	Pennsylvania	0.78
Florida	1.26	Rhode Island	0.78
Georgia	1.06	Alaska	0.79
Hawaii	0.71	Colorado	0.80
Idaho	1.08	Wyoming	0.83
Illinois	1.01	Minnesota	0.84
Indiana	0.87	Missouri	0.84
Iowa	0.89	Virginia	0.86
Kansas	1.01	Indiana	0.87
Kentucky	0.99	Iowa	0.89
Louisiana	1.70	California	0.91
Maine	1.16	Wisconsin	0.92
Maryland	0.77	Washington	0.92
Massachusetts	0.93	Oregon	0.92
Michigan	0.64	Massachusetts	0.93
Minnesota	0.84	New York	0.95
Mississippi	1.53	Connecticut	0.98
Missouri	0.84	Kentucky	0.99
Montana	1.25	Illinois	1.01
Nebraska	1.02	Kansas	1.01
Nevada	0.67	Nebraska	1.02
New Hampshire	1.10	Vermont	1.02
New Jersey	0.73	Arizona	1.04
New Mexico	1.31	Georgia	1.06
New York	0.95	Idaho	1.08
North Carolina	1.18	Utah	1.09
Ohio	0.75	New Hampshire	1.10
Oklahoma	1.24	Maine	1.16
Oregon	0.92	North Carolina	1.18
Pennsylvania	0.78	South Carolina	1.23
Rhode Island	0.78	Oklahoma	1.24
South Carolina	1.23	Tennessee	1.24
Tennessee	1.24	Montana	1.25
Texas	1.32	Florida	1.26
Utah	1.09	New Mexico	1.31
Vermont	1.02	Arkansas	1.32
Virginia	0.86	Texas	1.32
Washington	0.92	Alabama	1.35
West Virginia	1.70	Mississippi	1.53
Wisconsin	0.92	Louisiana	1.70
Wyoming	0.83	West Virginia	1.70

- Private Payer Affordability Index: In addition to the overall combined index, we calculated a private payer index which is a simple average of the employer and employee factors:

$$\text{Private Payer Affordability} = \frac{(\text{Employer} + \text{Employee})}{2}$$

The Private Payer Index is shown below in Table 3:

<b>Table 3: Private Payer Affordability Index</b>			
<b>State</b>	<b>Private Payer</b>	<b>State</b>	<b>Private Payer</b>
<b>U.S. Total</b>	<b>1.00</b>	<b>U.S. Total</b>	<b>1.00</b>
Alabama	1.19	Delaware	0.77
Alaska	0.85	Hawaii	0.83
Arizona	0.98	Alaska	0.85
Arkansas	1.22	New Jersey	0.85
California	0.90	Nevada	0.86
Colorado	0.87	Colorado	0.87
Connecticut	0.93	Virginia	0.89
Delaware	0.77	California	0.90
Florida	1.12	Massachusetts	0.90
Georgia	0.98	New York	0.91
Hawaii	0.83	Ohio	0.92
Idaho	1.06	Rhode Island	0.92
Illinois	1.02	Connecticut	0.93
Indiana	1.02	Oregon	0.93
Iowa	0.97	Wyoming	0.93
Kansas	1.06	Washington	0.94
Kentucky	1.04	Pennsylvania	0.94
Louisiana	1.34	Minnesota	0.95
Maine	1.22	Maryland	0.96
Maryland	0.96	Missouri	0.96
Massachusetts	0.90	Michigan	0.97
Michigan	0.97	Iowa	0.97
Minnesota	0.95	Georgia	0.98
Mississippi	1.39	Arizona	0.98
Missouri	0.96	Illinois	1.02
Montana	1.33	Indiana	1.02
Nebraska	1.03	Nebraska	1.03
Nevada	0.86	New Hampshire	1.04
New Hampshire	1.04	Kentucky	1.04
New Jersey	0.85	North Carolina	1.05
New Mexico	1.06	Kansas	1.06
New York	0.91	Idaho	1.06
North Carolina	1.05	New Mexico	1.06
Ohio	0.92	Utah	1.07
Oklahoma	1.22	Tennessee	1.12
Oregon	0.93	Wisconsin	1.12
Pennsylvania	0.94	Florida	1.12
Rhode Island	0.92	Texas	1.15
South Carolina	1.17	South Carolina	1.17
Tennessee	1.12	Vermont	1.19
Texas	1.15	Alabama	1.19
Utah	1.07	Arkansas	1.22
Vermont	1.19	Maine	1.22
Virginia	0.89	Oklahoma	1.22
Washington	0.94	Montana	1.33
West Virginia	1.37	Louisiana	1.34
Wisconsin	1.12	West Virginia	1.37
Wyoming	0.93	Mississippi	1.39

- **Government Affordability Index:** As with the other indices, we calculated the government index as the ratio of government cost to government income. Government cost is the total expense for various public health programs including:
  - Medicare expenditures – a Federal program
  - Medicaid expenditures – a Federal/State program
  - CHIP programs – State programs for “uninsurable” individuals

The primary source of information for Medicare and Medicaid expenditures and CHIP programs is the US Department of Health and Human Services. Additional information is available from [www.hcfa.gov](http://www.hcfa.gov), [www.medicare.gov](http://www.medicare.gov), and the Congressional Budget Office. Government income is the total of combined federal/state tax revenue plus premiums received from those enrolled under Medicare Part B. The primary source of information for federal/state tax revenue is the US Census Bureau and the US Internal Revenue Service. Quarterly Summary of State and Local Government Tax Revenue is available through the Bureau’s web site. The source for premium received for Medicare Part B is the Bureau of Economic Analysis or The Congressional Budget Office. The formula for the government factor is:

$$\text{Government Affordability Factor} = \frac{\text{Government Medical Expenditures}}{\text{Government Tax Revenues}}$$

The results of our analysis are in Table 4.

The government index is highly affected by the average tax revenues received in each state. As a result, the Southeastern states appear less affordable. In examining average tax revenue, it can be shown that these states are the lowest in terms of per capita revenue.

Our index does not currently allocate statewide government subsidies back to the states that provide the subsidy dollars. Those dollars show up in the state that receives the subsidy. This accounts for some of the wide variability in affordability in the government index.

<b>Table 4: Government Affordability Index</b>			
<b>State</b>	<b>Gov’t</b>	<b>State</b>	<b>Gov’t</b>
<b>U.S. Total</b>	<b>1.00</b>	<b>U.S. Total</b>	<b>1.00</b>
Alabama	1.67	Delaware	0.42
Alaska	0.95	Minnesota	0.60
Arizona	0.97	Colorado	0.60

Arkansas	1.07	Nevada	0.69
California	0.83	Georgia	0.70
Colorado	0.60	Washington	0.71
Connecticut	0.85	Illinois	0.71
Delaware	0.42	Utah	0.72
Florida	1.41	New Jersey	0.73
Georgia	0.70	Idaho	0.75
Hawaii	0.83	Virginia	0.77
Idaho	0.75	Wyoming	0.77
Illinois	0.71	California	0.83
Indiana	1.05	Michigan	0.83
Iowa	0.99	Hawaii	0.83
Kansas	0.88	Connecticut	0.85
Kentucky	1.60	Kansas	0.88
Louisiana	2.26	Wisconsin	0.89
Maine	1.57	Nebraska	0.90
Maryland	0.96	Texas	0.90
Massachusetts	0.94	Oklahoma	0.92
Michigan	0.83	Oregon	0.93
Minnesota	0.60	Massachusetts	0.94
Mississippi	1.90	Alaska	0.95
Missouri	1.05	Maryland	0.96
Montana	1.20	Arizona	0.97
Nebraska	0.90	Iowa	0.99
Nevada	0.69	Ohio	1.00
New Hampshire	1.05	Indiana	1.05
New Jersey	0.73	New Hampshire	1.05
New Mexico	1.22	Missouri	1.05
New York	1.37	Arkansas	1.07
North Carolina	1.18	Vermont	1.07
Ohio	1.00	North Carolina	1.18
Oklahoma	0.92	Montana	1.20
Oregon	0.93	New Mexico	1.22
Pennsylvania	1.33	Rhode Island	1.23
Rhode Island	1.23	Pennsylvania	1.33
South Carolina	1.57	Tennessee	1.33
Tennessee	1.33	New York	1.37
Texas	0.90	Florida	1.41
Utah	0.72	Maine	1.57
Vermont	1.07	South Carolina	1.57
Virginia	0.77	Kentucky	1.60
Washington	0.71	Alabama	1.67
West Virginia	2.32	Mississippi	1.90
Wisconsin	0.89	Louisiana	2.26
Wyoming	0.77	West Virginia	2.32

- **Combined Affordability Index:** After we calculated each of the above three affordability indices, we also developed a combined affordability index using a simple average of the three indices. The formula used is:

$$\text{Combined Affordability Index} = \frac{(\text{Employer} + \text{Employee} + \text{Government})}{3}$$

The results appear in Table 5.

<b>Table 5: HCAI Indices</b>	
<b>State</b>	<b>Combined</b>
<b>U.S. Total</b>	<b>1.00</b>
Delaware	0.65
Colorado	0.78
Nevada	0.80
New Jersey	0.81
Hawaii	0.83
Minnesota	0.83
Virginia	0.85
Washington	0.86
California	0.87
Alaska	0.88
Wyoming	0.88
Georgia	0.88
Connecticut	0.90
Massachusetts	0.91
Illinois	0.91
Michigan	0.92
Oregon	0.93
Ohio	0.95
Utah	0.95
Idaho	0.96
Maryland	0.96
Arizona	0.98
Iowa	0.98
Nebraska	0.98
Missouri	0.99
Kansas	1.00
Rhode Island	1.02
Indiana	1.03
New Hampshire	1.04
Wisconsin	1.04
Texas	1.06
New York	1.07
Pennsylvania	1.07
North Carolina	1.09
New Mexico	1.12
Oklahoma	1.12
Vermont	1.15
Arkansas	1.17
Tennessee	1.19
Florida	1.22
Kentucky	1.23
Montana	1.29
South Carolina	1.30
Maine	1.33
Alabama	1.35
Mississippi	1.56
Louisiana	1.64
West Virginia	1.69

*Note: North Dakota and South Dakota are not included in the table due to lack of data for the Employer and Employee indices.*

### **Affordability Results**

Only 48 states are shown since we were not able to gather adequate information on North and South Dakota. Each of the indices was normalized to a national average of 1.00 prior to combining. Each separate table was sorted by the affordability index for each state. The lower the affordability index, the more affordable health care is (i.e., low = good, high = bad).

Dispersion of results: Based upon the overall combined affordability index, 22 of the 48 states have less than average affordable health care, with 25 having more affordable care. One state, Kansas, matched the average affordability with an index of 1.00. Of the 25 more affordable states, 12 states have an HCAI below 90%.

<b>Table 6: Dispersion of Results</b>		
<b>Range</b>	<b>State Distribution</b>	<b>% Distribution</b>
< 0.80	2	4.1%
0.80 - 0.89	10	20.8%
0.90 - .99	13	27.1%
1.00	1	2.1%
1.01 - 1.10	8	16.7%
1.11 - 1.20	5	10.4%
1.210 - 1.30	4	8.3%
1.31 - 1.40	2	4.1%
1.41 - 1.50	0	0.0%
> 1.50	3	6.3%
<b>Total</b>	<b>48</b>	<b>100.0%</b>

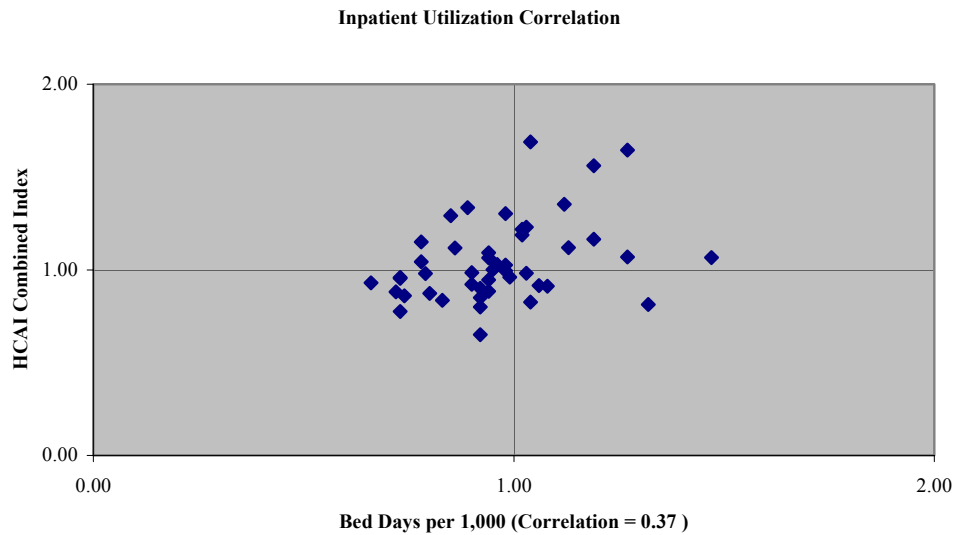
California, one of the states with some of the most expensive health care costs expressed on a per unit of service basis, is in the most affordable category demonstrating the difference between “expensive” and “affordable”.

### **Drivers of Healthcare Affordability**

In order to determine what drives healthcare affordability in a state, we developed a variety of metrics that we could compare to the health care affordability indices created earlier. We developed a correlation statistic to help us evaluate the potential impact of any one metric to affordability. The results of this analysis follows.

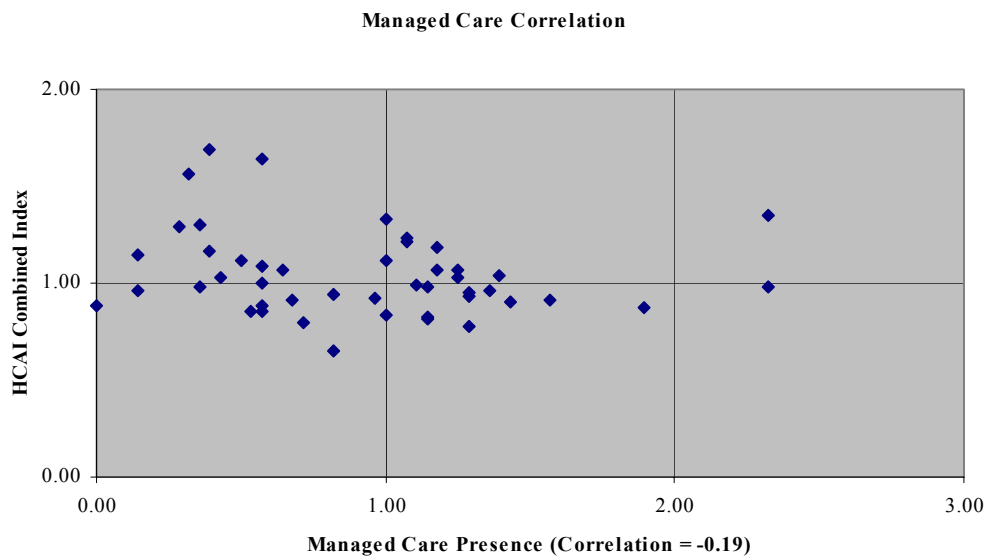
- Correlation to inpatient utilization: The HCAI and inpatient utilization levels are moderately correlated (Correlation = .37). Chart 1 presents these results. All but two of the states with HCAI's less than .9 have better than average inpatient hospital utilization. All but three of the states with HCAI's in the .9 - .99 range, have a better than average inpatient utilization level. On the contrary, only 11 of the 23 less affordable states have better than average inpatient utilization.

**Chart 1**



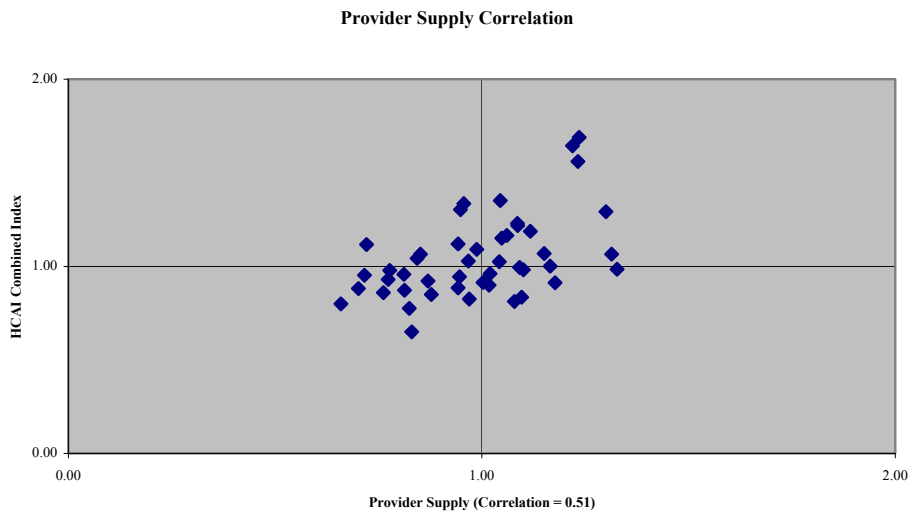
- Correlation with managed care penetration: There is a slight negative correlation between managed care penetration and health care affordability (i.e., Correlation =  $-0.19$ ). Chart 2 shows a tendency for improved health care affordability in regions with higher managed care penetration. This is similar to that shown in Chart 1, except Chart 1 demonstrates the impact of more efficient care whether or not managed care plans exist. Chart 2 shows the impact across all types of effectiveness among managed care plans. In looking at specific states with favorable health care affordability, many of them have very strong managed care companies operating in their states, often in urban centers.

**Chart 2**



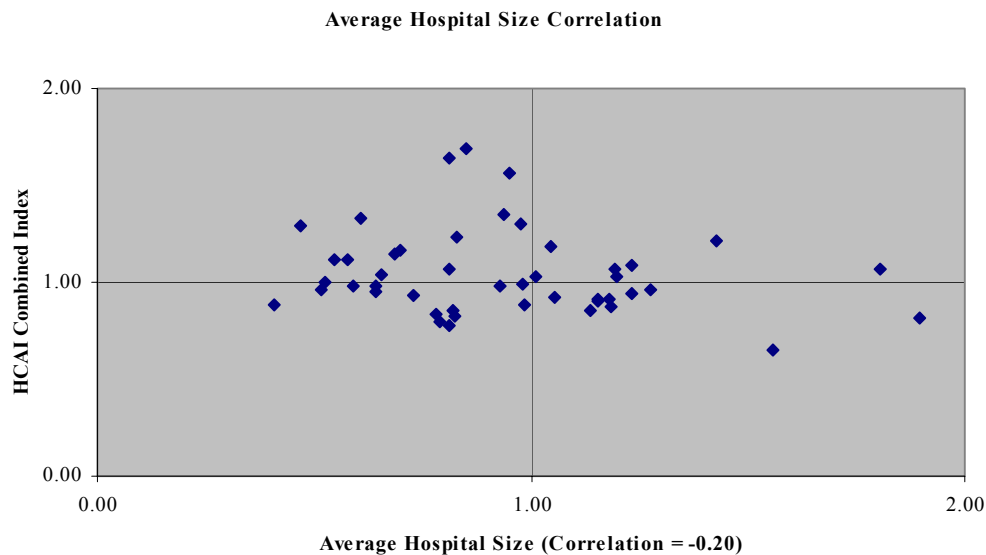
- Correlation to provider supply: There is a reasonably strong correlation (Correlation = .51) with provider supply. Chart 3 presents these results showing the greater the supply of providers, the less affordable the healthcare system. This is consistent with the belief that health care generally does not follow traditional supply/demand economics. Generally the communities with the highest concentration of providers have the highest health care system use rates. Many health care experts believe that an oversupply of health care providers actually increases health care costs. If true this helps to explain the affordability and provider supply relationships.

**Chart 3**



- Correlation to average size of hospital: Many believe that the average size of a hospital can impact the overall level of its own health care costs. The smaller a facility, the less its ability to spread fixed costs and also the less equipped it could be to handle certain more complex cases. If true, one might be able to link average size of facility to health care affordability. Chart 4 shows a slight negative correlation (i.e., Correlation =  $-0.20$ ) to size. This suggests improved affordability for communities with larger average sized facilities. Most of the states have smaller than average sized facilities, with wide dispersion of affordability.

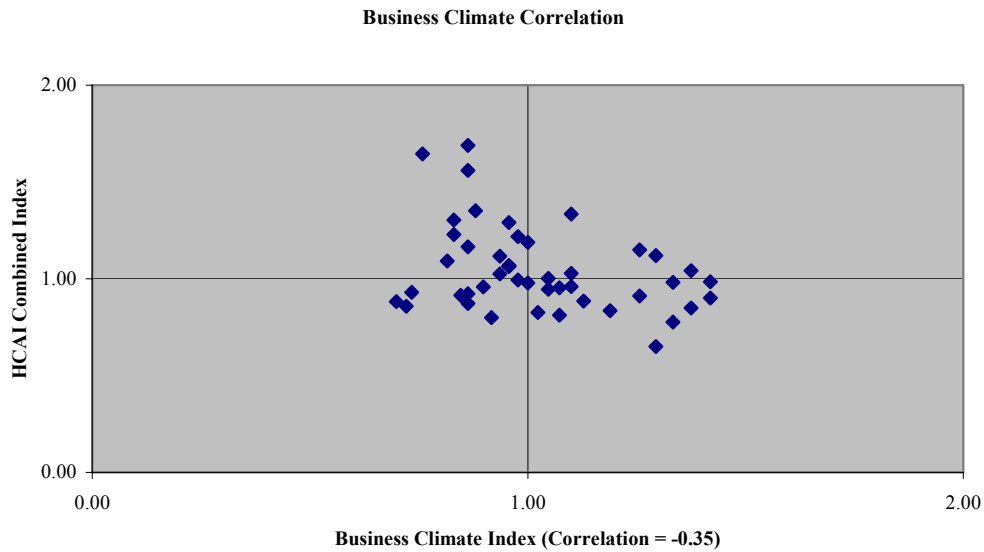
**Chart 4**



A much stronger correlation occurred between the employer and the employee affordability indices and average size, suggesting that commercial benefit programs are much more sensitive to average provider size. Perhaps the lack of government correlation is tied to their contracting/reimbursement approaches where both Medicare and Medicaid most often pay the lowest amounts to providers.

- Correlation to business climate: There was a stronger negative correlation between business climate and affordability (Correlation = -.35) suggesting more affordable care where business growth and profitability is higher. Chart 5 presents this. Historically, there is a tendency for utilization and health costs to increase as unemployment increases and the general economic situation becomes uncertain. As the economic strength increases, it appears there is an improvement in affordability.

**Chart 5**



- Correlation to health care affordability components: Since the overall combined health care affordability was based upon a composite of three separate indices, we analyzed the correlation to each. We wanted to find out which indice best correlated to the overall composite index. Chart 6 shows a fairly strong correlation to the derived Employer affordability index (i.e., Correlation = .40) suggesting a connection between the employer's affordability and the overall derive affordability. Some of this is expected since one was used to help calculate the other, but it still provides interesting results.

**Chart 6**

**Employer Correlation to Combined Index**

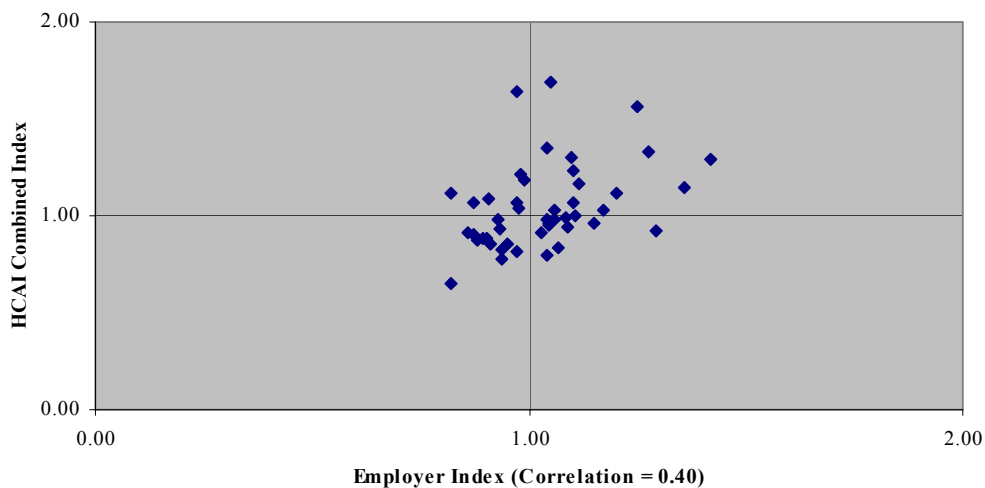


Chart 7 showed a much stronger correlation was found with the employee index (i.e., Correlation = .86). This is somewhat unexpected since a good portion of the healthcare costs are paid for by the employer. It suggests that affordability at the employee level provides a good proxy for overall health care affordability. This provides a simplifying assumption which can be more carefully derived at a local level.

**Chart 7**

**Employee Correlation to Combined Index**

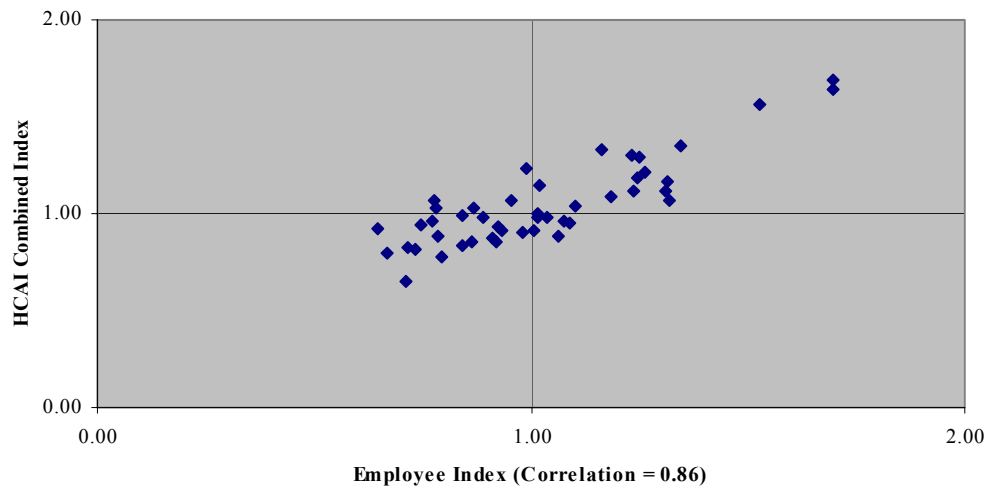
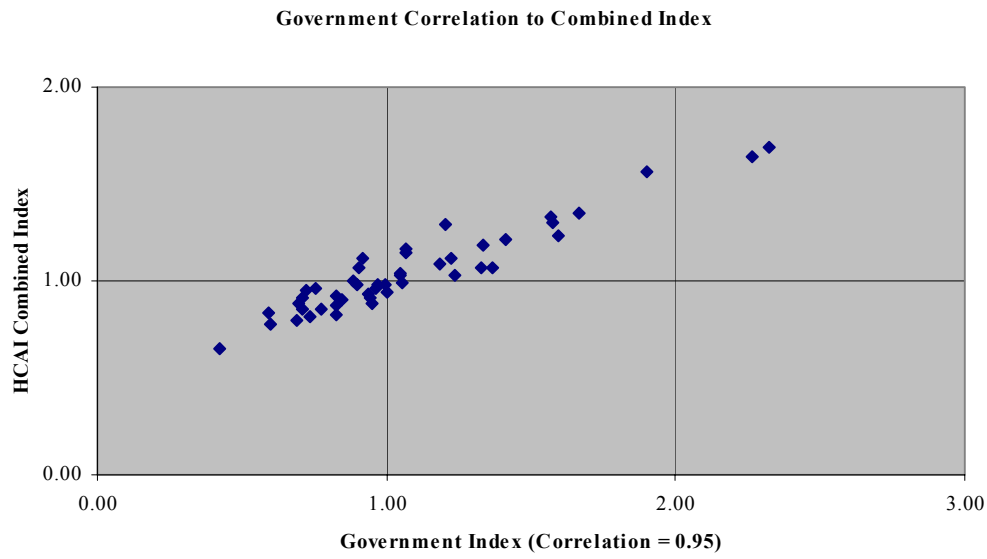


Chart 8 shows that the strongest correlation occurs between the government index and the combined index (i.e., Correlation = .95). The government index is the most difficult to determine at a local level but can be readily derived at the state and federal level. Combining the results in Chart 7 and these results this approach can be very useful for public policymakers to determine and assess affordability and implementing helpful legislation.

**Chart 8**



## Projected HCAI Changes

Our intent is to annually update the AHP HCAI and monitor the affordability of health care services year by year. As the characteristics of the health care system and our ability to pay for it change over time, the HCAI will vary. Future HCAI's can be projected based upon specific economic assumptions.

The current national average HCAI calculations are based upon the following information:

- Employer index: 5.4%
- Employee index: 2.7%
- Government index: 15.7%

We have projected HCAI for both 2 years and 5 years based upon best estimate economic projections. We expect a 15% increase in overall HCAI (worsening of affordability) over the next 2 years, and a 29% increase over the next 5 years. The private sector increases are projected at nearly twice these increases. Assuming no significant shift in employer/employee financial responsibility, a significant reduction in corporate earnings will be required to pay for increased healthcare costs (i.e., 1.4% in 2 years and 3.0% in 5 years). At some point, corporations will no longer be able to fund future health care costs or cost increases.

However, we believe the most likely scenario is one where corporations pass more of their cost to the employees. Even a minor shift to the employee significantly impacts the overall affordability of health care. Under the assumption that an average corporation pays 80% of the total cost of a health care program, a transfer of half of the projected increase in affordability over the next 5 years more than doubles the employee affordability index. The net impact to overall health care affordability is significant.

One interesting projection resulting from the above analysis is the projected HCAI five years from now by state. Taking the above 29% increase over the next five years and applying it uniformly to the values shown in Table 5. If we divide the current average of 1.00 by 1.29 we get .775. As a result, any state with an overall HCA greater than .775 today, will be greater than 1.00 in five years, per the projection. Table 5 shows only one state below that, suggesting that under the financial assumptions used to project HCAI, almost all states will be higher than today's average in five years.

## Summary

The AHP Health Care Affordability Index provides several valuable insights for health plans, providers, plan sponsors and public policymakers including the following:

- Provider supply has a strong correlation with health care affordability. Matching provider supply to our appropriate health care needs will likely improve our ability to pay for health care in the future.
- Business climate has a strong reverse correlation with health care affordability. A healthier economy improves our ability to pay for health care. A weakened economy quickly leads to serious health care concerns.
- Although less dramatic, the efficiency of health care providers and their relative average size, particularly of hospitals, impacts health care affordability. Elimination of unnecessary variation and inefficiencies in the way health care services are provided improves the affordability of health care and our ability to preserve the system as we know it.

As solutions to the affordability crisis are developed and considered it is important to recognize the relationships described above. Appropriate distribution of health care providers with an appropriate supply of providers will help improve the affordability of care. An improvement in the general economy will likely lead to improved healthcare affordability (i.e., lower affordability indices). Effective managed care principles and/or their successors will also have a positive impact on healthcare affordability. Wisely spending our limited health care resources improves the affordability of care, improves the quality of care, and helps maintain a long-term viable health care system.

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For more information on the AHP HCAI or how you might adapt it to your community, please feel free to contact the authors.

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