

There



to Care:

INVESTING IN A HEALTHY ARIZONA

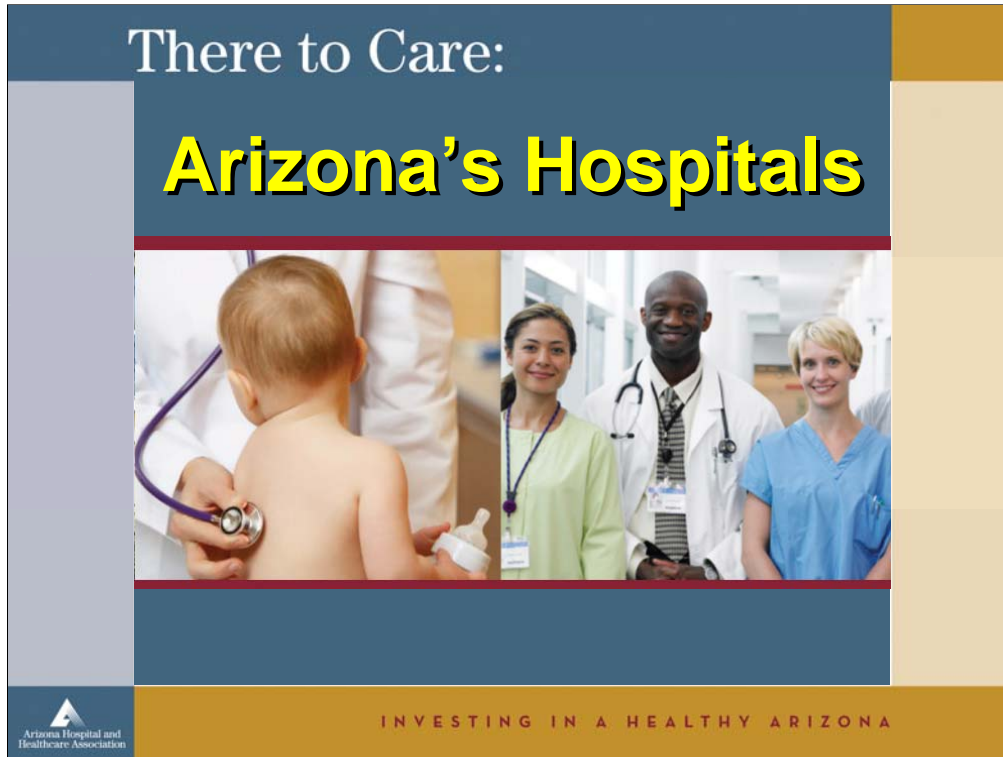
THE ECONOMIC IMPACT OF ARIZONA'S
HOSPITALS ON THE STATE & ITS COUNTIES



Use this opportunity to introduce yourself and to provide an overview of your organization as well as your role within the organization.



Let your audience know that the Arizona Hospital and Healthcare Association (AzHHA) in conjunction with the experienced economic team at Arizona State University's W.P. Carey School of Business, L. William Seidman Research Institute conducted this study to measure the economic impact of the state's hospitals on Arizona and its counties. Released in January 2007, the study covers hospitals' economic activity from 2005.



Provide a preview of the information you will cover during your presentation by noting that healthcare is a vital contributor to the state's economy as well as individual counties.

Note that all Arizonans are seeking quality of life and prosperity. This brings people to the state and has elevated Arizona to the fastest growing state in the nation. High-quality healthcare helps keeps people in our state.

Note that Arizona is changing and so is its economy. Healthcare has emerged as a powerhouse in Arizona's new economy.

Finally, outline the topics to be covered for your audience:

- The scope of Arizona's hospitals in terms of employment.
- The economic contributions of hospital employees to our state.
- The way in which hospital operations impact Arizona's economic health.
- Hospitals' direct and indirect economic contributions to the state and their counties.
- We'll also look at hospital growth going back five years and looking forward five years.

There to Care:

Arizona's Hospitals

- **119 Arizona Hospitals**
- **14,680 beds in AZ counties**
- **High skill - high tech jobs**
- **Other diverse job types**
- **Support local business**
- **Impact state economy**



INVESTING IN A HEALTHY ARIZONA

Let your audience know that there are 119 hospitals across the state of Arizona. Those hospitals have a total of 11,767 beds throughout Arizona counties.

What are the attributes of hospitals? They offer a diverse work environment. Jobs range from plant operations to surgical operation, and people who deliver mail as well as babies.

Those who work in the state's hospitals support local businesses with the money they are paid.

The construction of hospitals also employs thousands of people year-to-year as new hospitals are opened to meet community health needs throughout the state.

This is a good opportunity for you to mention construction and expansion plans at your facility or system. See how that fits in with the rest of the state's growth.

Total Economic Impact

- **Gross State Product (GSP):**
\$11.5 billion (2005)
- **Arizona Jobs Created:**
192,100 statewide
- **Wages & Benefits:**
\$7.9 billion

Including all multiplier effects



Summarize the total economic impact of Arizona hospitals.

To help your group put these numbers into perspective the hospital industry is 63 percent larger than the hotel industry, 37 percent larger than the electronics and aerospace industries combined. It also is comparable in size to the banking and credit industry.

- Note that hospitals have an economic ripple effect that impact workers in other industries and enhance the economic well-being of Arizona.
- The state's hospitals contribute \$11.5 billion to Arizona's gross state product. Gross state product consists of employee compensation plus other classifications of income. Or, an easier way to think of gross state product is gross domestic product.
- The state's hospitals are responsible for a total of 192,100 Arizona jobs, including 81,400 jobs generated by the goods and services purchased by hospital employees and 37,400 jobs produced by hospital purchases to support their operations.
- Including both the direct and multiplier effects of hospital activity hospitals can account for 192,100 jobs.
- The total compensation paid to these employees is estimated to be \$7.9 billion including wages and benefits.

Northern Arizona Impact

- **Gross State Product (GSP):**
\$989.6 million (2005)
- **Northern Arizona Jobs:**
18,200
- **Wages & Benefits:**
\$740.1 million

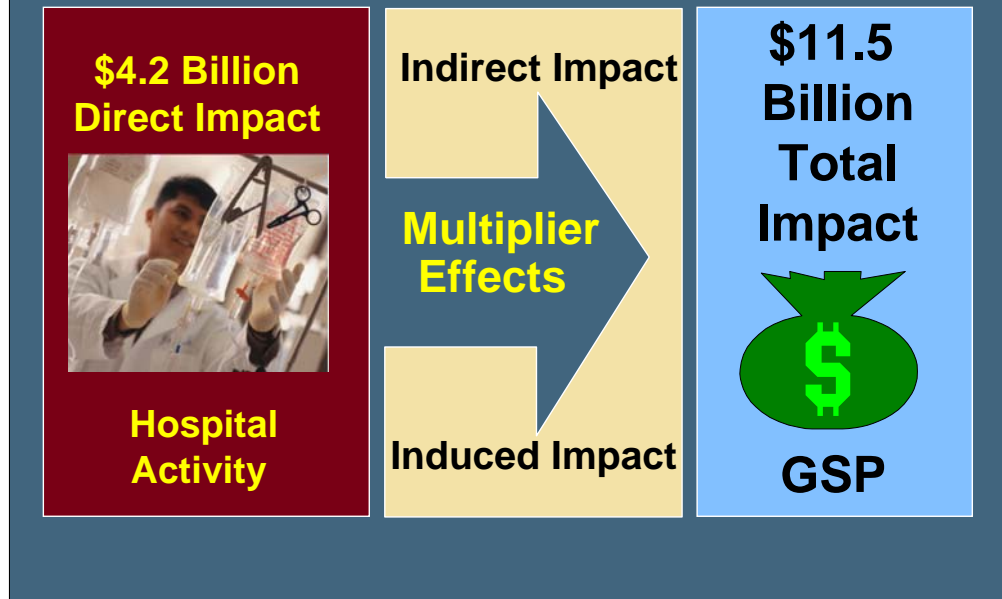
Including all multiplier effects

Apache
Coconino
Mohave
Navajo
Yavapai

Let your audience know that northern Arizona is making a big impact on the state!

- Of the \$11.5 billion the entire state contributes to the gross state product, northern Arizona contributes \$989.6 million.
- Northern Arizona employs 18,200, that includes both direct and indirect effects.
- The total compensation paid to these employees is estimated to be \$740.1 million including wages and benefits.

Economic Impact Sources



There are two ways to measure economic impact. One is direct impact, and the second is indirect impact. When those numbers are added together the sum is the total impact to the gross state product. For Arizona's hospitals, that is \$11.5 billion.

Let's break down the equation:

- Hospitals directly contribute \$4.2 billion to the Arizona's gross state product. Hospitals directly affect the economy through the jobs they provide and the incomes they pay to employees.
- The indirect or multiplier effects involve the jobs and productive activities required to produce goods and services that hospitals routinely purchase to carry out their operations.
- Both the direct effects and multiplier effects of hospital activity combine to hospitals' total contribution to the gross state product. That is estimated to be \$11.5 billion.

Direct Economic Impacts



No multiplier effects

Summarize Arizona hospital's direct economic impact. This includes the total employment of hospital jobs, how much is paid in wages and benefits and that total contribution to Arizona's gross state product. This is just hospital activity with nothing else taken into effect.

Use these numbers as it pertains to your specific county.
Hospital employment as a percent of total employment:

- 4.3% Apache County

- 3.7% Cochise County
- 4.3% Coconino County
- 5.1% Gila County
- 5.5% Graham County
- 3.6% La Paz County
- 2.3%% Maricopa County
- 4% Mohave County
- 4.3% Navajo County
- 4% Pima County
- 2.5% Pinal County
- 1.4% Santa Cruz County
- 4.2% Yavapai County
- 3.4% Yuma County

State of Arizona: 2.8%

Direct Economic Impacts

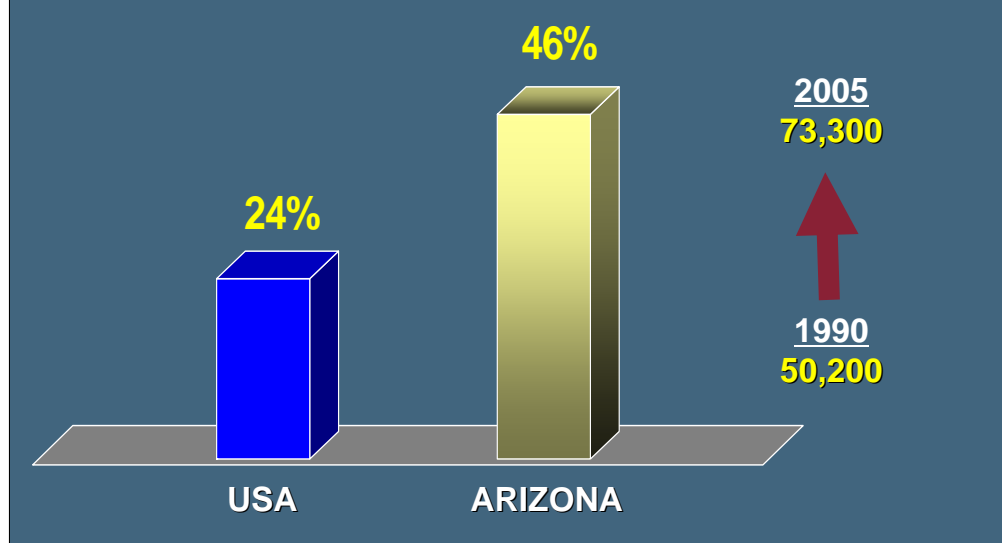
- **73,300 hospital jobs**
- **\$4.0 billion wages & benefits**
- **\$4.2 billion contribution to Arizona Gross State Product**

No multiplier effects

As mentioned earlier, hospitals are a significant part of the economy.

- Arizona's hospitals employ 73,300 people, nearly 3 percent of all the state's workers.
- In 2005, the total compensation paid by Arizona hospitals to their employees was \$4 billion.
- This amounts to an average compensation of \$54,400 per hospital employee.
- In comparison, average employee compensation in Arizona is \$46,200 per worker. The compensation premium paid by hospitals reflects the relatively high level of skills required to perform hospital jobs.
- Hospitals directly contribute \$4.2 billion to the Arizona's gross state product.

Arizona Hospital Jobs Rose 46% Since 1990



Those working in the healthcare field have seen an increase in employees over the last 15 plus years. The growth experienced by the healthcare industry in Arizona is more than twice as fast as the growth in total national employment.

- From 1990 to 2005 in Arizona, just 15 years, hospital jobs have increased 46 percent.
- Nationally, those jobs have only increased 24 percent.

This, of course, is driven by Arizona's population growth.

Hospital Jobs & Beds

(Per 1,000 population in 2005)

State	Jobs/1,000	Beds/1,000
New Mexico	15.0	1.9
Colorado	14.7	2.0
California	14.2	2.0
Arizona	12.3	1.9
Utah	12.3	1.9
USA	18.6	3.2

Source: Beds/1,000 from American Hospital Assoc. 2005

Let the audience know that Arizona has fewer inpatient hospital beds per 1,000 population. Note that the state is increasing its inpatient bed to population ratio, which you will cover later.

- In Arizona there are 12.3 hospital jobs per 1,000 population.
- A look at neighboring states, California and New Mexico, shows a somewhat different picture.
- And across the U.S. the national average is 18.6 hospital jobs per 1,000 population.

Ask your audience to consider what it would mean to the state if there were not enough inpatient beds to meet the needs of the population.

A report by the U.S. Department of Health and Human Services shows that Arizona ranks 45th in the nation for the number of hospital beds per 100,000 population.

Additionally, the state has 1.9 inpatient beds per 1,000 population, lagging well behind the national average of 2.8 inpatient beds per 1,000 population, according to the American Hospital Association.

Arizona Hospital Jobs

Location	Hospital Jobs
Maricopa Co.	41,383
Northern AZ	9,642
Rest of State	22,275
Arizona Total	73,300

Let your audience know that this is how the 73,300 jobs break up between the five northern Arizona counties, Apache, Coconino, Mohave, Navajo and Yavapai.

See how that compares to the rest of the state.

Northern Arizona Jobs

County	Hospital Jobs
Apache	878
Coconino	2,615
Mohave	2,210
Navajo	1,277
Yavapai	2,622
Total	9,642

Here is a breakdown within the five counties of the total hospital jobs in each northern Arizona county.

Arizona Jobs By Industry

Industry	Jobs
Electronics	26,981
Hotels & Lodging	45,079
Hospitals	73,300*
Schools	129,672
Arizona Total	2,489,462

***2.9 percent of Arizona employment in 2005**

Take note that hospitals employ 3 percent of the state's population, that is 63 percent larger than the hotel industry, 37 percent larger than the electronics industry and aerospace industries combined.

Hospitals together with ambulatory healthcare facilities employ 38 percent more workers than do primary and secondary schools. Ambulatory healthcare facilities include, for example, physician offices, clinics, outpatient care centers and laboratories.

Healthcare Jobs Are Among Fastest Growing

- 7 of top 10 fastest growing Arizona occupations are in healthcare fields**
- 16,364 Registered Nurses needed in next 10 years**

Let the audience know that economists estimate that 16,364 registered nurses will be needed by the year 2017. That number is larger than the amount of computer related jobs needed, elementary school teachers, accountants and engineers.

Fifteen years ago the “hot jobs” were information technology and computers and those were the jobs economists were encouraging young people to take. Those “hot jobs” are now in healthcare.

As the average state income increases demand goes up for higher quality goods and services and that includes healthcare.

Also, baby boomers will be nearing 65 in the next few years, that also adds to the need for healthcare professionals.

New Arizona Jobs – 10 Yrs

Occupation	New Jobs
Registered Nurses	16,364
Health Technicians	16,117
Computer Related	15,890
Elementary Teachers	14,386
Accountants	7,059
Engineers	6,387

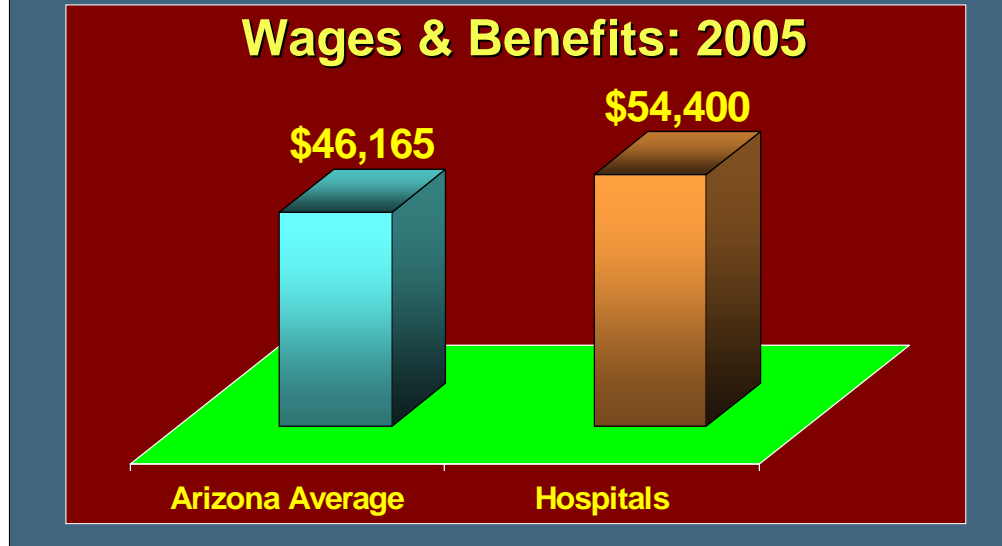
Source: Arizona Department of Economic Security

Note that in the next 10 years, 32,481 healthcare jobs, including RNs and other healthcare professionals, will be needed. Compare that number to 14,386 elementary teachers needed and 7,059 accountants needed. Note that many computer related jobs have been outsourced over the last 15 years so fewer of those kinds of professionals are needed in Arizona than in the past.

Follow-up with the question: What does this mean for the state's universities in the next 10 years?

Note that the hospital community has worked with education to nearly double the capacity of university and community college nursing education programs, but it is apparent that we will need even more capacity. AzHHA and its members are working on this issue.

Arizona Hospitals Create High Value Jobs



Take note that hospital employees earn an average of \$54,400, roughly \$8,000 more than the \$46,165 average earnings in other Arizona industries.

Remind your audience that there is a demand for these high paying jobs and not enough people to fill those spots. Hospitals create stable, high-earning jobs.

Note that nurses and other healthcare professionals are in high demand because of the state's population growth, which is the fastest growing in the nation. This has prompted hospitals to add more services, beds and facilities, in response to community needs.

Direct Economic Impacts

Arizona Hospitals

**\$4.2 billion contribution to
Arizona Gross State Product**

**GSP = Payments to sources of
production: wages, interest,
profits + business taxes
(Value Added)**

Let your audience know that the direct impact of the state's hospitals is \$4.2 billion. That number is contribution to Arizona's gross state product.

To break this down for your audience even further you can explain that these are the dollars that go from hospital activities, hospital suppliers and hospital employee spending to directly benefit the economy.

Direct Economic Impacts

Arizona Hospitals

**\$4.2 billion contribution to
Arizona Gross State Product**

Northern Arizona Hospitals

**\$543 million contribution to
Arizona Gross State**

Note that these numbers only include the direct impact of hospitals to the state's economy.

Northern Arizona contributes \$543 million to Arizona's gross state product.

Arizona GSP By Industry

Industry	GSP
Mining	\$2.0 billion
Utilities	\$3.8 billion
Hospitals	\$4.2 billion
All Health Care	\$14.9 billion
Manufacturing	\$19.6 billion
Arizona Total	\$216.5 billion

Remind your audience that Arizona has long-been known as a “mining” state. But, hospitals bring in more than twice the amount of money as mining and more money than utilities. Consider that almost every home in the state uses utilities and yet hospitals have a greater impact on the state’s economy.

Multiplier Effects

Hospital “ripple effects” generate additional impacts of:

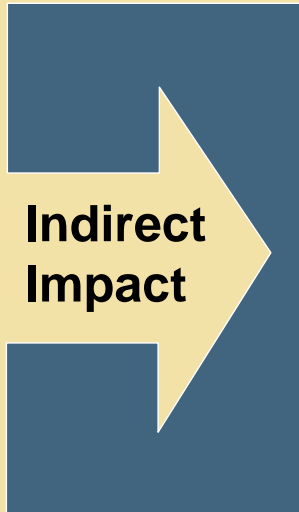
- **118,800 more Arizona jobs**
- **\$3.9 billion wages & benefits**
- **\$7.3 billion contribution to Arizona Gross State Product**

Remind your audience of the 73,300 jobs that Arizona hospitals provide. Those workers foster an abundance of economic activity, accounting for an additional 118,800 jobs.

Those workers earn an additional \$3.9 billion in wages and benefits contributing \$7.3 billion to Arizona’s gross state product.

To make it easier for your audience to understand break it down like this: Hospital workers take the money they earn from working and spend that money. They go to the grocery store, buy insurance and other services. This creates the ripple effect.

Multiplier Effects



Hospital Suppliers

37,400 Jobs
\$1.2 billion Wages
\$2.5 billion GSP

Hospital suppliers include industries that provide services to the state hospital. This type of economic activity is necessary to produce goods and services routinely purchased by hospitals as part of their normal operations. For example, hospitals may outsource functions such as building maintenance, housekeeping and IT services.

- 37,400 jobs are created by hospitals indirectly.
- Those people are paid \$1.2 billion in wages.
- This adds \$2.5 billion to the state's gross state product.

Multiplier Effects

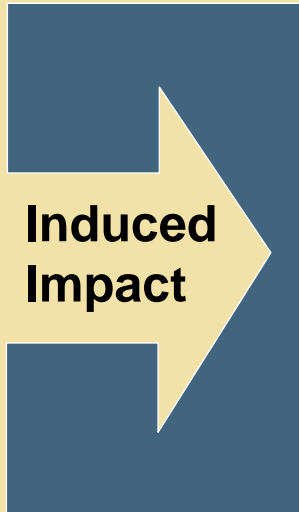
Purchases from Arizona Suppliers

- Pharmaceuticals
- Instruments
- Medical Supplies
- Electronics
- Utilities
- Wholesale Trade
- Business Services
- Building Services
- Legal Services
- Food Services
- Printing
- Communication

Source: IMPLAN Input-Out Model for Arizona

These are the different Arizona suppliers that the state's hospitals may choose to outsource. Take note of services your organization outsources as part of the overall picture.

Multiplier Effects



**Consumer Spending
by
Hospital Employees
Supplier Employees**

**81,400 Jobs
\$2.7 billion Wages
\$4.8 billion GSP**

Take note that spending by hospital employees and supplier employees:

- create 81,400 jobs;
- generate \$2.7 billion in wages; and
- contribute \$4.8 billion to the gross state product.

Multiplier Effects

- **Each Arizona hospital job supports 1.7 additional jobs**
- **73,300 hospital jobs support total employment of 192,100**
- **Hospitals support 1 out of every 13 jobs in Arizona**

To further demonstrate the impact of the multiplier effect note that:

- Each Arizona hospital job supports 1.7 additional jobs.
- This means the 73,300 hospitals jobs create a total of 192,100 jobs statewide.
- The big picture: every Arizona hospital job supports 13 other Arizona jobs.

Northern AZ Effects

- **Each hospital job supports .9 additional jobs**
- **9,642 hospital jobs support total employment of 18,200**
- **Hospitals support 1 out of every 13 jobs in Northern AZ**

Let your audience know that in northern Arizona each hospital job supports almost one additional job.

•9,642 hospital jobs create a total of 18,200 jobs in all the northern Arizona counties.

•Looking at the big picture, every hospital job in Arizona's northern counties supports 13 other northern county jobs.

There to Care:

**Arizona's Hospitals
Are
Planning For
Future Growth**

Arizona Hospital and
Healthcare Association

INVESTING IN A HEALTHY ARIZONA

Remind your audience that the healthcare industry is keeping up with the number one growing state in the nation. As the state continues to grow, so does the healthcare industry.

Hospital Construction

**1,300 new beds added
2000 - 2006**



In the last seven years 1,300 inpatient hospital beds were added in Arizona. The survey results indicate that a total of \$1.3 billion was spent on hospital construction since 2000. This is 9 percent of the total hospital inpatient bed capacity in 2006.

Hospital Construction

Impacts 2007 - 2011

- **2,900 new beds by 2011**
- **14,900 new Arizona jobs**
- **\$2.6 billion wages paid**
- **\$4.1 billion contribution to Gross State Product**

Tell your audience that planned hospital construction for the next four years include:

- 2,900 new inpatient beds; and
- 14,900 new construction-related jobs.

These are jobs created just by the addition of hospital construction projects. The people in those jobs will earn a total of \$2.6 billion in wages and that will add \$4.1 billion to Arizona's gross state product.

Economic Impact Summary Arizona's Hospitals

- **192,100 total jobs supported**
- **\$7.9 billion Arizona wages**
- **\$11.5 billion contributed to Arizona Gross State Product**

Including All Multiplier Effects

Remind your audience that the state's hospitals are responsible for a total of 192,100 Arizona jobs, including 81,400 jobs generated by the goods and services purchased by hospital employees and 37,400 jobs produced by hospital purchases to support their operations.

The total compensation paid to these employees is estimated to be \$7.9 billion including wages and benefits, and the state's hospitals contribute \$11.5 billion to Arizona's gross state product.

Economic Impact Summary Northern AZ Hospitals

- **18,200 total jobs supported**
- **\$740.1 million wages paid**
- **\$989.6 million contributed to Arizona Gross State Product**

Including All Multiplier Effects

Note that northern Arizona county's hospitals are responsible for a total of 18,200 jobs.

The total compensation paid to these employees is estimated to be \$740.1 million including wages and benefits. Northern Arizona county's hospitals contribute \$989.6 million to Arizona's gross state product.

Contribution to GSP

County	GSP
Apache	\$71.4 mil
Coconino	\$271.5 mil
Mohave	\$208.1 mil
Navajo	\$116.9 mil
Yavapai	\$321.7 mil
Total	\$989.6 mil

Including All Multiplier Effects

This is another look at how each northern Arizona county contributes to the gross state product.

Economic Impact Summary Arizona's Hospitals

Source	Gross State Product
Direct Impact	\$4.2 billion
Indirect Impact	\$2.5 billion
Induced Impact	\$4.8 billion
TOTAL IMPACT	\$11.5 billion

To summarize for your audience to get the total economic impact of Arizona's hospitals and to get the \$11.5 billion number you add:

- the direct impact (hospital activity);
- indirect impact (hospital suppliers); and
- induced impact (employee spending).

The final total is \$11.5 billion.

Economic Impact Summary Arizona's Hospitals

Source	Gross State Product
Hospital Activity	\$4.2 billion
Hospital Suppliers	\$2.5 billion
Employee Spending	\$4.8 billion
TOTAL IMPACT	\$11.5 billion

A simpler way to look at that is hospital activity is the direct impact, hospital suppliers are the indirect impact, employee spending is the induced impact and those numbers added up is the total impact of \$11.5 billion.

Economic Impact Summary

- **\$11.5 billion contributed to Arizona Gross State Product**
- **5.3 percent of Arizona GSP**
- **Equal to 28 Super Bowls!**
(\$400 million estimated impact)



To make it easier for your audience to understand compare the \$11.5 billion to the 2008 Super Bowl in Arizona and the amount of money it is expected to rake in.

- Economists estimate the 2008 Super Bowl will bring in \$400 million to the state.
- That means Arizona would need 28 Super Bowls to reach the \$11.5 billion that hospitals contribute to the gross state product.

Economic Impact Summary

Daily Economic Impact

- **192,100 jobs supported**
- **\$21.5 million wages paid**
- **\$31 million added to Arizona Gross State Product**

To summarize for your audience:

- Arizona hospitals have an economic ripple effect that impact workers in other industries and enhance the economic well-being of Arizona.
- The state's hospitals are responsible for a total of 192,100 Arizona jobs, including 81,400 jobs generated by the goods and services purchased by hospital employees and 37,400 jobs produced by hospital purchases to support their operations.
- Including both the direct and multiplier effects of hospital activity hospitals can account for 192,100 jobs.
- Wages and benefits paid to those employees is estimated to be \$31 million added to Arizona's gross state product.

There to Care:

Economic Impact of Arizona's Hospitals on the State & Its Counties

Prepared by
Seidman Research Institute
W. P. Carey School of Business

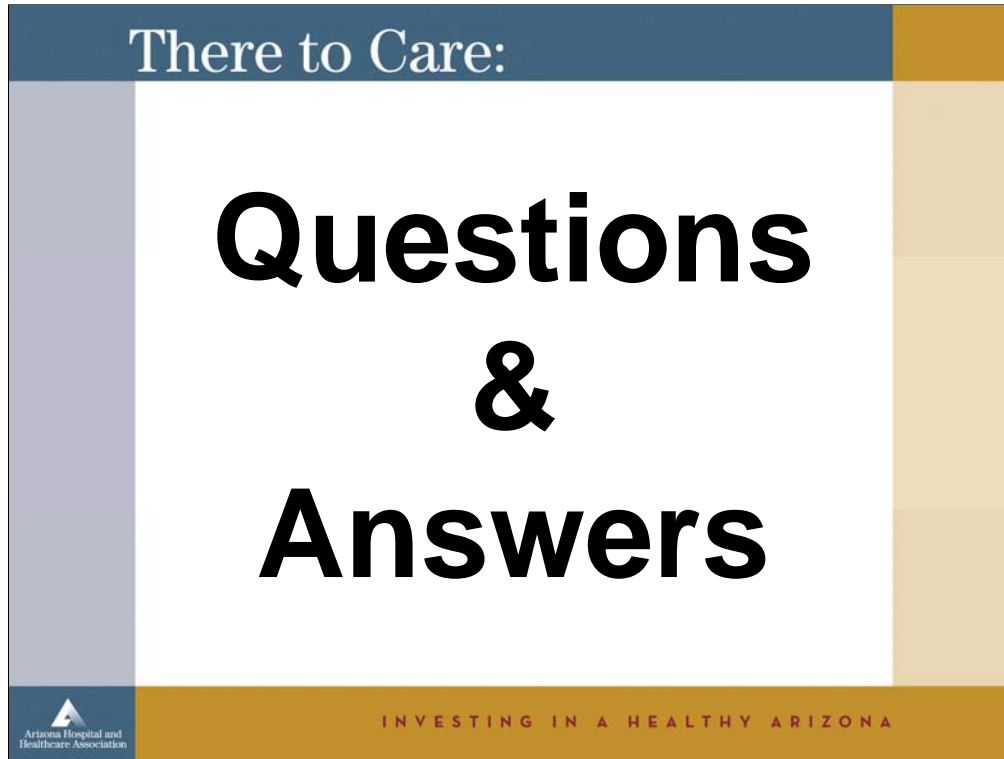
W. P. CAREY
SCHOOL of BUSINESS

ASU
ARIZONA STATE UNIVERSITY



INVESTING IN A HEALTHY ARIZONA

Note that the economic impact study was conducted by a local organization, another way to generate economic impact in the state!



This would be a good time for you to provide information about the unique role your organization plays in your community. Here are some suggestions:

- How many people does your hospital employ?
- How has this grown in the past five years?
- Highlight innovative programs your organization has implemented to recruit registered nurses and other healthcare professions.

Arizona's hospitals face challenges that they are addressing with the state's decision makers as well as other leaders. Some of those challenges include:

- Shortages of Healthcare Professionals—Workforce shortages, exacerbated by Arizona's growing population, challenge Arizona's healthcare delivery system.

Shortages are also linked to a lack of educators for nursing and other health profession education programs. Arizona's hospitals and other providers face shortages of:

- Registered Nurses—Arizona has 681 employed registered nurses (RNs) per 100,000 population compared to the national average of 825 RNs per 100,000 population (*U.S. Department of Health and Human Services, Health Resources and Services Administration*); and
- Physicians—The state has 219 physicians per 100,000 population, well below the national average of 283 physicians per 100,000 population (*Center for Health Information and Research, Arizona State University*).

Not Enough Inpatient Hospital Beds—Arizona currently ranks 45th in the number of hospital-staffed beds per 1,000 population (*American Hospital Association*).