

August 2017

International Healthcare Systems and the US Health Reform Debate

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The ongoing challenges within the US healthcare system include its high costs, uneven access, and tremendous complexity. These deficits regularly generate calls for full-scale health reform from both sides of the political aisle. Republicans in Washington DC have consistently proposed to repeal the Affordable Care Act (ACA) and replace it with a less regulated system; most progressives in California would like to do away with the ACA in favor of "single-payer" healthcare modeled on the Canadian system. When considering the desirability of reforms, whether they come from the right or the left, it makes sense to look at how other developed countries are tackling their own healthcare challenges.

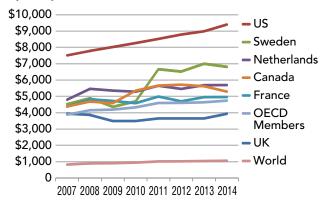
One reason to examine the experiences of other countries is to learn from different approaches to similar dilemmas. While the US is unlikely to adopt another country's system wholesale, particular reforms—such as the broader use of reference pricing or of health savings accounts paired with universal basic healthcare access—may be feasible and readily adaptable. Another good reason to take this overseas journey is to achieve the perspective that comes with seeing one's own system in comparative relief. Trade-offs are more apparent, strengths and weaknesses more clear.

In some cases it becomes apparent that for certain policy problems, the fault may lie not with the ineffectiveness of American institutions, but with the intractable nature of the problems themselves. As the economist Joseph White has remarked, "If a supposed 'problem' has not been significantly ameliorated (never mind solved) in any of twenty or more countries, maybe American failures are not due to American institutions. Maybe the problem is really, really hard." Humility must be the first virtue of any serious health policy analysis.

Rising Healthcare Expenditures Per Capita Worldwide (US Dollars)

Data Source: The World Bank

Analysis: Bay Area Council Economic Institute



In general, looking closely at the health systems of other developed countries shows the difficulty of making sweeping changes to healthcare. This is because constituencies become entrenched, both among providers and recipients of care, and because different systems are shaped by various inflection points in countries' histories. Choices made during World War II, for example, generated the dependence of the United States system on employer-sponsored insurance, while they led to the advent of the National Health Service in the United Kingdom.²

An international comparison also helps to show why the American debate over health reform may be too narrow. For instance, both proponents and detractors of what is commonly called "single-payer healthcare" tend to look at much too restrictive a range of international financing and delivery arrangements. Within political debates, the United States is often held up in contrast to the rest of world as if other countries share a uniform government-directed healthcare system and hence our supposed "free market" system is either uniquely good or bad.

Examining the health systems of a number of other countries with curiosity and an open mind, however, highlights the wide range of possibilities, especially with respect to financing and regulation. Different tools are being used in different countries in different ways to grapple with the universal challenges of lowering health costs, improving quality, and expanding access to care. What follows are the key takeaways from such an analysis.

1. There is a tremendous variety of international healthcare systems.

The variety of national health systems is considerable. Some countries have one dominant insurer. Other countries have hundreds or even thousands of smaller ones. Still others have essentially chosen direct government provision of care and operate, for the most part, without insurers.

Some systems, such as Canada's, are "singlepayer," in which healthcare is funded by federal and regional governments and is generally paid for through tax collections. Others, like France and Germany, have multiple payers whose actions are subject to close government regulation. These systems resemble, from an American standpoint, regulated public utilities.

One key point is that most countries preserve a role for private insurers. This role ranges from financing distinct and parallel systems providing access to different physicians, such as in the United Kingdom and China, to offering benefits that are not included in the package offered by public insurance, such as in France. Most of the world does not practice "socialized" medicine in the sense that the government runs hospitals and clinics and doctors are public employees, or even in the sense that there are no private insurers in the country.

Rather, most countries follow one of five basic patterns. These approaches run the gamut from full public responsibility for the financing and delivering of care to a mixture of public and private financing and delivery mechanisms. This paper identifies these major models and highlights the features of each one that are most important to US reform debates.

2. How any health system is judged depends greatly on what is being measured and valued.

When measured by the criteria of per capita costs, equity across ethnic and socioeconomic groups, and certain public health outcomes, the US fares badly in international comparisons. In the annual Commonwealth Fund report on how the US healthcare system compares internationally, the US is repeatedly ranked last out of eleven other industrialized countries, including the UK and Switzerland, in healthcare accessibility and equity.3 The report notes that the most obvious way that the US differs from other developed countries is the lack of a universal healthcare financing system, and that the complexity of our current structure inhibits progress on most measures of quality and access. In addition, administrative costs born of this complexity, lack of communication between providers, and repeated medical testing raise costs and inefficiency.

However, the US scores much more highly on different measures, including innovation, patientcentered care, and preventive health measures. The American healthcare system also serves as a leader in reducing avoidable harm to patients: the Virginia Mason hospital, located in Seattle, delivers "near zero harm," an effect other systems seek to replicate. Specialty care is better in many categories and subgroups, although access to this care is inconsistent across subgroups. The US excels, for example, in cancer care, on which it spends more than any other country, but for which it places at or very near the top of most international rankings for cancer outcomes. In a study of the association between cancer spending and survival between 1995 and 2007 that was published in the journal Health Affairs in 2015, the US had the third lowest 2007 mortality rate for amenable cancers in comparison to eleven other industrialized countries with high or medium levels of cancer care spending.

While the US has best in class outcomes in many forms of individualized care, its healthcare system has poor results in many population-based health outcomes. This may not, however, be primarily a failing of the healthcare system itself. While the US ranks about average among industrialized countries on overall social spending, it spends a far greater percentage of this total on healthcare, while still producing comparatively mediocre broad health outcomes. Studies of data at both the international and the state levels indicate that in comparison to medical spending, a higher ratio of spending on social services, such as housing, produces better overall population health outcomes for conditions such as adult obesity, asthma, mental health indicators, mortality rates for lung cancer, high blood pressure, heart attack, and Type 2 diabetes.6

The problems of rising costs, inappropriate care, and adopting new technology are present in all countries.

While in comparison to other high-income countries (eight European countries plus Canada, Japan, Australia, and New Zealand), the US has the highest healthcare spending as a percentage of GDP⁷, the rest of the world is also struggling with rising healthcare costs, and a 2015 OECD (Organisation for Economic Co-operation and Development) study concluded that these costs are rising so rapidly in advanced economies that they will become unaffordable by mid-century unless reforms are made.⁸

Changes in Cancer Care Spending and Amenable Mortality Rates for Cancer Between 1995 and 2007

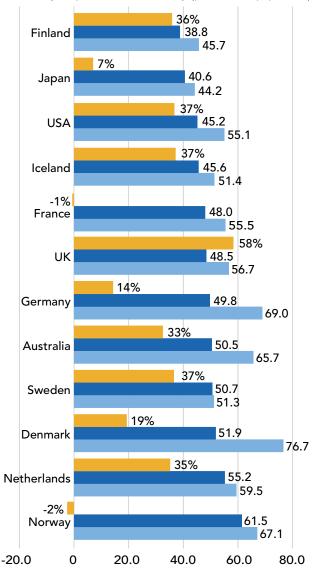
Source: Data from the World Health Organization compiled by Warren Stevens et al. (see endnote 5)

Analysis: Bay Area Council Economic Institute

Note: Amenable mortality measures mortality in a set of conditions in which deaths can be avoided in the presence of timely and effective treatment.

Association between per patient spending change and mortality rate reduction

- Per patient spending percent change between 1995 and 2007 2007 age-adjusted cancer mortality (per 100,000 population)
- 1995 age-adjusted cancer mortality (per 100,000 population)



In the US case, the country has recently experienced a period of relatively flat healthcare cost growth, although spending is now ticking upward again. Many developed economies in Asian and some European countries, on the other hand, began to experience high rates of cost growth around 2011 as they came out of the recession, largely due to advancing technology and pharmaceutical consumption. 10

Typically, the US pays much higher prices than the rest of the world for healthcare goods and services, particularly outpatient care, drugs, and healthcare administration costs. ¹¹ This is the principal reason for its greater spending. The US also adopts new technologies more rapidly and more comprehensively across its healthcare system as a whole. The adoption of new technologies in healthcare can, of course, sometimes lead to better outcomes; it almost always, however, results in higher prices in contrast to the effect of adoption of technology in most other industries.

The paradox of inappropriate care—failure to deliver needed services alongside the continuing delivery of unnecessary services—a situation that has been demonstrated in hospitals in the US, also occurs around the world. Overuse of low-value care combined with the underuse of proven contributors to health outcomes, such as beta blockers, is an international problem as well.¹²

4. Each national system reflects the circumstances of its birth and subsequent growth: healthcare systems are strongly "path-dependent."

Most systems display characteristics related to their unique patterns of evolution. The paths that these systems have taken in the course of their development have created constituencies that make fundamental change very difficult, even in systems which, on paper, possess tremendous governmental administrative power. So, much as the US has moved fitfully toward expanding access to care, the NHS in Great Britain has struggled to find ways (such as economic bonuses and incentives) to make physicians practice in more efficient ways.

Many of the key moments that put healthcare on its distinctive course in the US involved tax code changes, issued during World War II and in the 1950s, some of which did not address health care directly at all. Because these rules encouraged companies to offer health insurance as a benefit of employment, the mainstream of subsequent reform took the path of filling in the large gaps that this linkage between work and healthcare access left behind. Medicare served this function for seniors and the disabled. One principal goal of the Affordable Care Act, as yet unachieved, was to bring to the self-employed and to uninsured adults coverage of a standard equivalent to employer health benefits. Not only the coverage but

Health spending has outpaced economic growth.

Average growth rate of health spending and GDP per capita, 1990–2012

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Average GDP growth per capita

Average health spending growth per capita

the types of benefits on offer through these system reforms have reflected the employer-based roots of the modern US system: the cumbersome distinction between Part A and Part B of Medicare, for example, reflects the design of dominant employer benefit plans in the 1960s.

These four basic observations should give policymakers pause, whether they are making bold claims on behalf of the power of markets or of the government alone to solve the bedeviling challenges of the provision of universal affordable high-quality healthcare within a broader cultural and policy context that supports public health.

Healthcare Systems Models¹³

Single-Payer and Government-Operated

In the countries that use this approach, of which England is the best known, healthcare is provided and financed by the government and predominantly delivered in government-owned hospitals or other facilities. Many doctors, particularly specialists, work for the government, and primary care doctors are either private contractors or government-salaried employees. Private insurance covers only benefits not covered by the national or regional benefits scheme. In addition to England, countries that employ a version of this approach include Spain, Italy, New Zealand, and most of Scandinavia.

Single-Payer National Health Insurance, Private Complement

The federal government (or a regional government) acts as the sole financer of care, out of funds typically collected by a social insurance model of levies on earned income. Physicians remain in private practice, and private insurance either "tops up" the public benefit package or, in several countries, constitutes a full-scale package of its own, for a higher price. Canada is the flagship of this approach; other countries on a similar path include Australia, Taiwan, and South Korea.

Multi-Payer with Strong Regulation

In countries using this model, of which Germany and France are the best known exemplars, non-profit

insurers (referred to as "sickness funds" or the equivalent) collect payroll taxes and payments from employers. With some caveats, participation in these insurance pools is open to all citizens. Providers and hospitals, on the whole, remain in private practice or in private hands. A federal price list for all procedures, drugs, and medical devices is applied to all regions, keeping costs down. In addition to Germany and France, Japan and Belgium use this basic model.

Multi-Payer with Market Incentives

In the Netherlands and Switzerland, unlike in Germany, insurers can compete on price. Individuals are required to purchase coverage and have their own incentive to select lower-priced plans. This approach more closely resembles an expanded version of the Affordable Care Act. Singapore, though in some senses a single-payer system because the government pays all basic medical claims, has gone perhaps the farthest in the world toward developing a system in which individual choice creates a marketplace for the provision of healthcare services. Singapore residents are required to place part of their incomes in health savings accounts in order to pay for care. Above a floor, patients pay for more extensive hospital and physician care according to their preferences. At the same time, the government ensures a good deal of price and quality transparency, while strictly limiting the purchase of new medical technologies. (Singapore's unique combination of regulation and market incentives, which has yielded low relative levels of health spending, is the subject of a forthcoming brief in this series.)

Hybrid Multi-Payer

The United States—which combines a dominant employer-based system with a large public sector of almost comparable size, including not only Medicare and Medicaid but smaller government programs such as Tricare, Indian Health Services, and the Federal Employees Health Benefit System—is the exemplar of this model. Emerging economies such as China and India also have a combination of public insurance plans that cover urban residents and some rural dwellers, but they retain a large sector in which individuals pay mostly out-of-pocket for hospital care.

International Importable Practices and Policies

Strategies for Bringing Down Pharmaceutical Costs (Australia, Canada, Norway et al.)

The governments of virtually every country in the world except the US both negotiate prices with drug companies and maintain technology assessment offices to gauge the added medical benefit, if any, that the introduction of a new drug could deliver. The National Institute for Health Care Excellence (NICE) in England and the Pharmaceutical Benefits Advisory Committee (PBAC) in Australia are among the best known of these institutions that decide which drugs are approved for use and for reimbursement. For example, NICE declined at first to include on its formulary two cholesterollowering drugs, Amgen's Repatha and Sanofi's Praluent, but later reversed its decision after reaching agreements with the manufacturers to receive additional discounts off their list prices.¹⁴

The United States government has moved away from technology assessment within the public sector since the

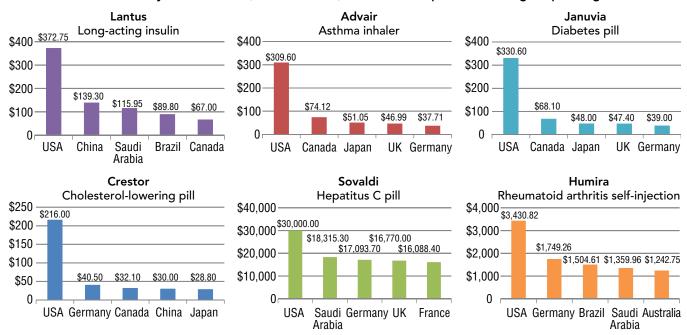
Office of Technology Assessment was shuttered in 1984 on the grounds that it hampered innovation. Though there are a number of influential health technology assessments, they are independent. The Secretary of Health and Human Services is explicitly prohibited from negotiating with drug makers on behalf of the entire Part D program (Medicare's prescription drug benefit), but manufacturers negotiate prices with Part D plan sponsors that act as private contractors for the program. Other US purchasers, such as the VA and state Medicaid programs, have statutory access to lower prices for drugs and can command supplemental rebates in order to reflect the relative value of a particular drug.

Other countries, including Germany, Spain, Italy, and Canada, have used reference pricing to try to grapple with the issue of pharmaceutical costs at odds with value without crimping innovation. Under reference pricing, drugs that have identical or similar therapeutic effects are grouped into classes, and the insurer pays only one price (the reference price) for all drugs in that

Prices for top-selling drugs are higher in the US than in other countries.

Data Source: Bloomberg, https://www.bloomberg.com/graphics/2015-drug-prices/ Analysis: Bay Area Council Economic Institute

2015 Monthly Price in Dollars (Before Discount) in the 5 Most Expensive Sales Regions per Drug



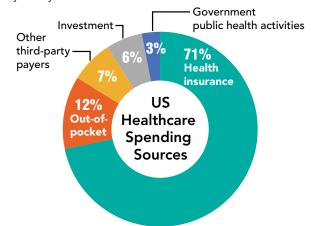
class. If a drug company is charging more than the reference price for a drug in that class, and a consumer wants to use that more expensive drug, the consumer pays the difference. This approach raises a number of issues in theory which are borne out in practice: where to set the reference price relative to a group of drugs, which drugs are truly novel and "out of class," and how to decide the classification groups of pharmaceuticals to start with. 15 Yet the results are worth paying heed to—a study published in The American Journal of Managed Care found that the use of four reference pricing policies (in Germany, Norway, Spain, and Canada) was associated with decreases in the price of the target drug classes ranging from 7 to 24 percent. 16 The basic use of reference pricing should target pharmaceutical drugs, but the principle is useful as well for some medical devices and procedures that can be easily grouped in a class and priced.

Another promising approach with an international component would be establishing reciprocity with drug-approval agencies in other developed countries so that drugs that have been approved overseas and have yet to receive FDA approval could get expedited approval in the United States. As former FDA official Henry I. Miller writes, this would involve "routine, automatic 'reciprocity' of drug and medicaldevice approvals with certain of the FDA's foreign counterparts, so that an approval in one country would be reciprocated automatically (subject to the creation of approved labeling, etc.) by the others. That would make more drugs available sooner in the United States (and other participating countries), increase competition, and put downward pressure on prices. Availability is critical, because if a drug is not available, then price is irrelevant."17

Reciprocity would be a more substantial change in policy than the reimportation ideas that have won bipartisan favor in the past, but it could also result in a much greater impact on prices and on choice. Challenges would involve patent protection issues, the impact on domestic markets of potential US demand, and the danger that the regulatory process would be lax in some countries and jeopardize the health of Americans.¹⁸

Who pays for healthcare in the US?

Data Source: US Department of Health and Human Services, 2011 Analysis: Bay Area Council Economic Institute



Paring Back Overuse of Medical Technology (Japan)

Americans' heavy and early use of new medical technologies, abetted by early reimbursement by insurers, is another key factor in higher US health costs. For instance, proton beam therapy aimed at shrinking tumors has been a huge growth area despite little or no evidence that it yields better outcomes than traditional radiation treatments. By 2018, there will be four proton beam machines in Florida, three in Washington, DC, and two in Oklahoma City, compared to a single machine in Canada.¹⁹

There are ways to scale back the heavy use of new technology without seriously inhibiting the incentives that prompt inventors and entrepreneurs to bring new potential breakthrough technology to the market. For instance, Japan actually has more privately-owned MRI (magnetic-resonance-imaging) machines per capita than the United States. However, per capita spending in Japan on MRIs is less than in the US.

Why? One reason is reimbursement policy. Unlike the US, the Japanese government reimburses only a fraction of the original price per procedure for multiple MRIs performed on the same body part of the same patient. Other countries practice a form of bundled pricing in which the cost of scans must fit into an overall patient budget. Japan, to be sure, has been taken to task by other countries for its supposed profligacy toward imaging costs, but adopting even a version of its market-friendly approach toward technology could bring down US costs.²⁰

Identifying and Treating High-Cost Patients (England)

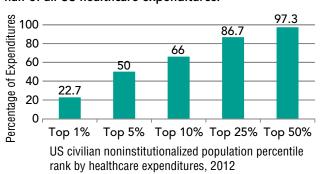
In all countries, a small number of individuals are responsible for the majority of health spending—typically around 10 percent of a population incurs 60 percent or more of the costs. In the past several years, England has moved aggressively toward trying to identify these patients, both in advance and prospectively, and to remodel its basic health system around the goal of reducing the cost of patients with comorbidities or spreading these costs out over time. Legislation in 2012 has led to an increase in integrated care between hospitals and community-based services, including primary and social care. In 2014, pilot programs at fifty so-called "vanguard" sites continued this trend by testing new kinds of primary care, improving the equivalent of assisted living facilities, and charging GPs (frontline primary care doctors) with increased responsibility for patients who had recently been discharged from the hospital.

The US health system, because of design and "silo" issues created by separate budgets and the prevalence of spending on acute care, has only a fledgling commitment to the coordination of care in this fashion or to the prevention of chronic illness through "upstream" investment in housing, education, and social services. Nevertheless, a number of initiatives recently developed by hospital systems and communities to reduce spending by "super-utilizers" are showing promise.²¹

How are US healthcare expenses distributed?

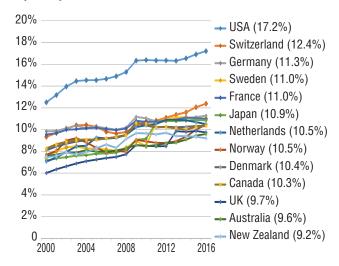
Source: Agency for Healthcare Research and Quality, MEPS Statistical Brief #455, October 2014

A small proportion of the total population accounts for half of all US healthcare expenditures.



Healthcare Spending as a Percentage of GDP, 2000–2016

Data Source: OECD Analysis: Bay Area Council Economic Institute



Balancing Public and Private Insurance (Germany)

Health insurance in Germany is closely regulated by the government. However, it is not principally funded by taxation. Instead, workers pay income-related premiums (up to a capped amount of around \$65,000) and, as in the United States, employers contribute an equal amount (on average, about half what American companies pay per capita). Premiums are pooled and distributed to more than 100 non-government, not-forprofit insurers, known as "sickness funds." Dependents and nonworking spouses are covered without additional charge. Wealthier Germans and civil servants can also opt out of the public system altogether and pay premiums to insurers (roughly half for-profit) which put together networks of (generally) more prestigious doctors and hospitals; about ten percent of the population does opt out of the public system. Doctors who treat patients on an outpatient basis are mostly in private practice while those who work in hospitals are usually salaried.²²

The German health system is a model of compulsion (mandatory coverage, income-based premiums) paired with administrative decentralization and functioning private markets. It depends, like other multi-payer systems it resembles, on a majority of adults choosing to remain

in the system of public coverage and being willing to pay highly varying premiums for access to similar care—in other words, the principle of solidarity which is touted frequently in the rationale for this approach. Compared to countries with single-payer systems and much of Europe, Germany's overall costs are on the higher side, at just over 11 percent of GDP, but most Germans appear to be satisfied with this trade-off.

Expanding the Role of Private Insurance (The Netherlands, Switzerland)

The requirement to purchase individual coverage has consistently been the least popular part of the Affordable Care Act. In the absence of broad participation, however, a health insurance marketplace that fails to include many of the best health risks (principally those with employer coverage) is likely to struggle with costs. Combining younger and healthier people with the formerly uninsured and those in the existing individual marketplace is especially important if marketplaces are regional in scope, not national.

In similar though not identical ways, what Switzerland (in 1996) and Holland (in 2006) tried to accomplish by health reforms was to preserve for all citizens a uniform "floor" of coverage and standard benefits, like other social insurance systems, while allowing greater individual choice for those with more money. Unlike in the US, the reforms were not aimed at increasing coverage (which was close to one hundred percent) but instead were trying to introduce modestly-tiered coverage.

While both countries' insurers were required to offer a standard set of benefits and Switzerland required insurers to be not-for-profit, the reformed systems allowed both the Swiss and Dutch to select from a variety of network and hospital choices. Costs went up in both countries, though they have subsided in recent years, particularly in the Netherlands. Without reforms, wealthier Swiss and Dutch citizens would have chafed at remaining in the public system; without a mandate, the fledgling markets would have suffered erosion both from lower-income residents who couldn't afford premiums and from higher-income individuals who would have paid out of pocket and opted out of the system altogether. The fact that the parallel private

health systems of Switzerland and the Netherlands are already the most expensive systems of their type in Europe²³ shows these centrifugal tendencies at work.

Influencing the Healthcare Marketplace (Singapore)

Singapore's healthcare system is fundamentally government-controlled, keeping costs in check while providing high-quality care. This type of system relies on government control of healthcare provision in all aspects: people are required to save for primary care through mandatory savings accounts; the drug prices and types of equipment used by hospitals are managed by the government; and hospitals receive hefty subsidies. Perhaps most strikingly of all, 80 percent of all hospitals in Singapore are public, as mandated by law.²⁴

Singapore manages the burden of health care costs through the use of subsidies and price controls. Through mandatory savings accounts, people pay for primary care out of their own pockets; catastrophic illness care and hospitalization are heavily subsidized. The system is also organized to foster competition between varying hospital groups—in contrast to areas of the United States, or even California, where the predominance of one hospital group in a particular region raises prices. Singapore's Ministry of Health provides price transparency by publishing the hospital bills for common illnesses on its website, a tactic which motivates healthcare institutions to keep costs down and empowers consumers to make educated choices. The resulting impact of this system is lowered prices with better quality, enabling a society where healthcare is available to everyone.

Singapore's mandatory health savings accounts, price transparency, subsidies, and rigorous price regulation are all effective strategies for controlling costs while maintaining high-quality care. However, producing a structure in the US that incorporates such strategies would be extremely difficult: limitations on government restriction, the influence of privatized health care, and the destructuring of the ACA all point toward the impossibility of attaining a healthcare system with the effectiveness of Singapore's. An equally large issue would be the requirement of individual savings accounts, which would surely face political opposition in the US.

Notes

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About the Authors



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Micah Weinberg is currently President of the Economic Institute at the Bay Area Council. In this role, he manages a team of professional researchers who produce world class economic and policy analysis and insight. Economic opportunity, affordable housing, reliable transportation, and lifelong learning are the pillars of personal and community

health. Dr. Weinberg's own research and advocacy focuses on improving these "social determinants" of health as well as on expanding access to high quality, affordable healthcare. Before coming to the Council, Micah was Senior Research Fellow at the New America Foundation. Dr. Weinberg's writing has appeared in diverse outlets from Politico to Policy Studies Journal, and he has appeared on Fox News and NPR. He holds a doctoral degree in Political Science from the University of North Carolina at Chapel Hill and graduated with honors from Princeton University with a degree in Politics.



Lanhee J. Chen, PhD

Lanhee J. Chen is the David and Diane Steffy Research Fellow at the Hoover Institution and Director of Domestic Policy Studies and Lecturer in the Public Policy Program at Stanford University. He is also Counsel at the law firm of Arent Fox LLP.

Dr. Chen has served as an adviser to numerous public officials and was

the policy director of the Romney-Ryan 2012 presidential campaign. He also served as a senior official at the U.S. Department of Health and Human Services during the George W. Bush Administration. Dr. Chen currently serves as a presidentially-appointed member of the Social Security Advisory Board—an independent, bipartisan panel that advises the president, Congress, and the Commissioner of Social Security on matters related to the Social Security program. He earned his PhD in Political Science from Harvard University and a JD from Harvard Law School.

About the Economic Institute

Since 1990, the Bay Area Council Economic Institute has been the leading think tank focused on the economic and policy issues facing the San Francisco/Silicon Valley Bay Area, one of the most dynamic regions in the United States and the world's leading center for technology and innovation. A valued forum for stakeholder engagement and a respected source of information and fact-based analysis, the Institute is a trusted partner and adviser to both business leaders and government officials. Through its economic and policy research and its many partnerships, the Institute addresses major factors impacting the competitiveness, economic development and quality of life of the

region and the state, including infrastructure, globalization, science and technology, and health policy. It is guided by a Board of Trustees drawn from influential leaders in the corporate, academic, non-profit, and government sectors. The Institute is housed at and supported by the Bay Area Council, a public policy organization that includes hundreds of the region's largest employers and is committed to keeping the Bay Area the world's most competitive economy and best place to live. The Institute also supports and manages the Bay Area Science and Innovation Consortium (BASIC), a partnership of Northern California's leading scientific research laboratories and thinkers.

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