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Fault Lines in the Compact: HIGHER EDUCATION *and the Public Interest in the United States*

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The research university stands as one of the most admired and emulated of American institutions.

Year after year, American universities dominate the international rankings of institutions of higher education. The demand for places in American programs continues to grow, and the quality of matriculating students continues to improve. The prospects for students graduating from American universities continue to strengthen, as measured along dimensions as varied as enhanced lifetime earnings, life expectancy, and quality of civic participation. And the research contributions of American universities continue to command scientific recognition and fuel economic innovation and life-saving discoveries.

And yet, in spite of these achievements, the relationship between government and the university in the United States is, in the minds of many commentators, fraught. The points of conflict are many: federal governmental failure to protect the real value of research investment; marked reductions in state support for public universities; non-trivial university tuition increases that have raised vexing issues of access and affordability (and triggered threats of governmental intervention); and highly publicized and acrimonious governance conflicts that have pitted publicly appointed state governing boards against university leaders (on subjects ranging from program priorities, to the use of technology, to cost control and pricing).

There is no gainsaying that throughout American history the role of the university has commanded the attention and intervention of government. This is to be expected. Under the neo-classical framework, government has a central role to play in addressing a host of market failures involving higher education and in ensuring the Jeffersonian promise of equality of opportunity.

And indeed, over the years, governments and universities had forged a robust and dynamic compact in the United States. Public institutions and instruments have shaped the growth of the modern American university: The federal government has invested over $500

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billion in academic research and $1.7 trillion in student aid since 1970, has created and financed a range of grant and loan programs aimed at subsidizing student participation, and oversees a vast system of regional accreditation that seek to address quality and related concerns. State governments—in many cases, aided by federal legislation and support—have founded state public universities and actively supported their activities, providing direct appropriations to institutions as well as grant aid to students. At the same time, our universities have returned countless benefits to the communities in which they reside, anchoring and accelerating the economies in the surrounding areas, serving as an engine for upward mobility and economic advancement, and birthing countless world-altering discoveries for the betterment of humanity.

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It is against this backdrop of decades of constructive collaboration, one that has conferred staggering benefits on American society, that the current malaise between university and government is so disturbing.

In this paper, we explore the state of the compact between the government and the university in the United States and the prospects for constructive reengagement. In the first part of the paper, we discuss the rationales for government intervention in the higher education sector. In Part II, we briefly sketch the history of the compact between the government and universities, and the ways in which government has shaped and supported the flourishing of the sector. In Part III, we canvass the sources of the contemporary conflict between the government and higher education, which we argue has been exacerbated by the economic and social impact of the Great Recession. In Part IV, we identify several ideas for institutional and policy reform, while also locating these questions in a broader debate about inter-generational equity and the capacity of government to invest in our future. We argue that, although there is scope for more creative use of policy instruments to redress some of the current tensions between the state and research universities, ultimately a broader and more systematic set of interventions aimed at redressing rising inequality in the United States is necessary.

Part I: The Role of Government

The market for higher education is beset by several frailties—public goods, human capital market failures, information asymmetries, and equity concerns—that demand government intervention.

To be sure, the state has not always produced efficacious regulation in this domain. And yet, this should not be seen as an argument for an end to government's role altogether. One must instead ask how it can intervene in a targeted manner that responds to the risks posed by institutional actors, so the public can obtain the benefits of private initiative, investment, and ingenuity in this area without distortion of incentives or danger of abuse.

Public Goods and Positive Externalities. Some share of the benefits of post-secondary education—promotion of research and discovery, inculcation of civic values, and economic growth—accrue to the public good and not to individual students alone. This means that without government support, the education and research activities associated with higher education will be under-supplied from a social welfare perspective. Take, for example, basic research activity. Without supplementary funding, it is unlikely that private parties will dedicate a significant amount of their resources to such research, which has grounded much of the industrial innovation and other achievements whose benefits extend far beyond the university itself. Columbia University Provost Emeritus Jonathan Cole estimated that "perhaps as many as 80 percent of new industries are derived from discoveries at American universities." The widespread social benefits of these research activities provide a clear rationale for government investment.

Wholly apart from its contributions to basic research, universities are among the most powerful engines for economic growth and development. Higher educational attainment has been connected to reduced crime rates, lower unemployment rates, and reductions in public spending on assistance and social support programs. One recent study shows that an additional year of average university level education in a country raises national output by a remarkable 19 percent. The university is also a powerful source for upward social economic mobility for its students and their families (this rationale overlaps with the equity rationale below). For all of these reasons, the state has a prevailing interest in nurturing the sector.

A range of intangible benefits can also be traced to higher education. For example, volunteerism and voting rates are higher among those with bachelor's degrees than high school graduates. Universities also play a central role in advancing civic culture and community cohesion. These non-pecuniary benefits to society provide yet another powerful set of rationales for government involvement.

Imperfections in Human Capital Markets. The state also has a strong interest in intervening in higher education to right failures in human capital markets that constrain the ability of students to finance their education.

Banks are often reluctant to provide private loans to students, due to their inability to secure collateral in the students' prospective human capital, and their difficulty of anticipating students' likelihood of academic success and future economic prospects. In the best of circumstances, banks will charge a risk premium that will often price students—who are reluctant to accumulate substantial amounts of debt at such an early age—out of higher education. This is a particular challenge for students of lower socioeconomic backgrounds, leading to distributional effects. All of these problems lead to suboptimal private lending in higher education, and a need for government intervention to compensate for these failures by reducing the amount students need to borrow.

Information Asymmetries. Since post-secondary education is inherently optional, and potential post-secondary students are of an age where they should be regarded as being capable of making rational and informed decisions regarding the future course of their education, the government should perhaps be wary of exercising a paternalistic role in shaping those decisions. However, there may be some modest scope for government intervention to resolve information asymmetries between students and post-secondary institutions. Accordingly, the state has a role in requiring those institutions that receive public funds to publish information respecting the quality of the entering class, the quality and character of the academic program, student completion rates, faculty research activity, and career placement patterns for graduates.

Equity. Given the considerable role that institutions of higher education play as gatekeepers to economic opportunity and professional advancement, the representation of various communities in these institutions and the social consequences of admissions policies must be taken seriously. Most universities are committed to recruiting the strongest possible student body, and the admissions decision is typically merit driven. Even so, universities present a unique capability to remedy persistent and self-perpetuating ethnic or socioeconomic imbalances in higher education and society at large. States have an interest in supporting and preserving the unique role of universities as a force for equal opportunity for its citizens, and making sure that all citizens are given a chance to obtain the skills and training that are essential to upward mobility in our knowledge-based society.

Part II: The Forging of the Compact

For each of these reasons, and in each of these ways, the state has played a fundamental role in shaping higher education in the United States. The compact we know today was forged over time across the sweep of American history: The university did not always act in response to the needs of the state, and the state did not always act in the interest of the university. However, over time, history reflected a dawning recognition of the two institutions' indispensable relationship.

Even before the American Revolution, colonial governments dedicated transportation taxes, sales taxes, and other sources of revenue to the founding and maintaining of a college in each colony. The methods and types of institutions varied from state to state, but there was, even then, a commitment to supporting the provision of higher education, and a belief that education was a fundamental state interest.

The relationship only grew stronger during the first century of the republic. One key moment in this relationship occurred in 1862, when Congress enacted the Morrill Land Grant Act, through which the federal government would provide land grants to certain eligible states to support collegiate programs in "useful arts" such as agriculture, mechanics, and military instruction. Over the next thirty years, Congress would expand the sweep of the Morrill Act to the entire nation. These statutes set a powerful precedent: they expanded undergraduate colleges into the university model across the United States with multiple programs beyond the liberal arts, and they enlisted the states in an effort to make higher education accessible to groups outside of the privileged elites, making them available to the working classes of the period.

The first half of the 20th century saw the emergence of state legislatures as major players in their own right in the funding of higher education: states in the Midwest and the West in particular used tax revenues to fund and grow universities into the tens of thousands of students. The levels and types of support varied considerably from state to state. California, for example, made access to education a priority and charged no tuition, while other states saw higher education as a privilege and kept tuition at public institutions higher. Nonetheless, this area saw the expansion of state support that would eventually lead to the creation of renowned public research universities that operate at the level of private institutions while working to serve a larger segment of the state's population.

The federal government would stake out an even more influential and striking role in expanding access to higher education with the GI Bill in 1944, which guaranteed up to four years of tuition, fees, and a stipend at a U.S. institution of higher education in exchange for service in the U.S. military. By 1947, veterans accounted for 49 percent of college admissions. The increases in enrollments spurred by the GI Bill and continuing through the 50s and 60s led to the acceptance of enrollment-based funding at the state level, allowing public universities to absorb the new students without dramatically increasing tuition levels. The federal government, concerned about the growth of diploma mills and looking to protect veterans and taxpayer dollars, also began making eligibility for funds contingent on accreditation. This program laid the foundation for increasing access and affordability through portable student grants, which would become one of the most important forms of federal support for higher education in the next half of the century.

Soon after the GI bill, two documents set the modern trajectory for the federal government's involvement in U.S. higher education for the next fifty years, one on the issue of research support, the other on funding: Vannevar Bush's *Science: The Endless Frontier* in 1945 argued for the essential role of federal support for basic research, using competitive grants to universities. Over the next several decades, a host of federal agencies would harness the research talent at universities to create what Clark Kerr would later call the "Federal Grant University"—about 20 institutions received almost 80 percent of federal research funds. Support for university research is still one of the federal government's most important avenues of support for higher education.

At the same time, the Truman Commission Report on Higher Education chronicled fundamental concerns with equity and access in higher education. Among its influences, the Truman Report would lay the groundwork for future financial aid policies. One of the most historic steps along this path at the federal level was the passage of the Higher Education Act of 1965, and then the amendments to it in 1972, which established direct grants and loans to students. The Basic Educational Opportunity Grant, later renamed the Pell Grant, remains a major source of aid for low-income students. These grants are portable, allowing students to become consumers of education and forcing institutions to compete for their aid dollars. The federal government has continued to raise the maximum grant amount, and spending on the program more than doubled between 2000 and 2010. Many state governments also took steps in this period to make higher education more affordable and accessible to a significant portion of the population through appropriations to institutions and low tuition.

Part III: Fault Lines and the Great Recession

And yet, despite these energetic state interventions in higher education, fault lines have emerged in the relationship in recent years.

One area of very real tension concerns the level of government financial support for higher education. The many reasons for the state to invest in higher education remain as true today as they did in earlier times (perhaps even more so given the rise of the human capital economy), and yet the willingness and/or capacity of government to invest in higher education has waned. On average, state level support for higher education has declined 25 percent in the last decade, while in many states, the cuts have been steeper still (National Research Council, 2012). What is more, the level of state support for higher education is significantly lower than it was a few decades ago: in 1990 states spent an average of $9,100 per student on higher education, while in 2011 the number has dropped to $6,700 per student, both in 2011 dollars.

A similar (although softer) trajectory can be seen in federal research investment: After the dramatic doubling of government investment in NIH research during the Clinton administration, the real value of support has declined almost 20 percent in the last decade. As a consequence, the average age of a first RO1 research award has risen steadily, while the success rate for applications has steadily declined. The consequences of this government withdrawal have been profound for our universities and their research mission, as well as the status of the United States as the world's leader in research (and industrial competitiveness): As other countries continue to increase their research expenditures, the U.S. share of world R&D expenditures has declined significantly. All of this has occurred at the precise moment when universities with academic health centers in the United States are also wrestling with significant changes to health care models and declining clinical revenues, making it even more difficult for them to weather these financial shocks.

Another fault line has surfaced around issues of cost and affordability. Universities have raised tuition significantly in recent years: While median family income rose 147 percent from 1982 to 2007, tuition and fees rose 439 percent over the same period. The share of income families spend on higher education has risen for decades, and the rise has been sharpest for low-income families, who need to spend about half of their income to send a child to college. Despite efforts by several of the leading American research universities to augment financial aid, and the expansions to Pell Grants and other federal aid programs instituted by the Obama administration, there has been a declining level of participation by low- and moderate-income students in four-year university programs. In 2010, the Advisory Committee on Student Financial Assistance presented a report to Congress on increasing inequality in college access: While total college enrollment had increased over the past few decades, their study found that between 1992 and 2004 enrollment rates of academically qualified low-income high school graduates in four-year colleges decreased from 54 percent to 40 percent (Advisory Committee on Student Financial Assistance, 2010).

Still another area of tension has concerned value and innovation. Empirically, the benefits of higher education have clearly been shown (particularly in relation to lifetime earnings and risks of unemployment). However, many have begun to question the objective and mission of a university, and the pedagogical approach of universities, and inserted themselves into academic decision-making. Universities are increasingly viewed as engines of job creation and wealth. More than ever, their essential role as wellsprings of citizenship and social welfare is overlooked. Governors have sought to scale back low-enrollment programs or fields with less perceived utility post-graduation, such as the humanities, and have sought to tie funding to job placement and similar metrics. Critics have also pointed to declining completion rates as evidence that universities may not be accomplishing their fundamental education mission, as well as recent studies that reach a similar conclusion. One recent analysis by sociologists Richard Arum and Josipa Roksa (2011) maintains that 45 percent of students had effectively made no progress in critical thinking, complex reasoning, and writing in their first two years at U.S. colleges and universities. (Notably, two recent studies by the Council for Aid to Education contradict that finding, arguing that there is a significant improvement in students' performance between their freshman and senior years.)

Each of these concerns might have continued to vex the relationship between the state and higher education, but would not have commanded the policy salience they do today, if not for the devastating impact of the Great Recession. In 2008 and 2009, the U.S. labor market lost 8.8 million jobs and total wealth declined by $15 trillion. The median household income fell to its lowest level since 1996, meaning that the recession effectively wiped out the middle class income gains for the last 15 years. The effects of the contraction on the higher education sector have been profound and varied. At one level, the Great Recession placed enormous financial stress on the states' fiscal capacity and constricted their ability to maintain their investments in higher education. At another level, the Great Recession impaired the ability of many families who suffered wealth and income reductions to provide the level of anticipated support for their children's enrollment in university. Finally, universities themselves were directly buffeted by the effects of the Great Recession in the form of significant decreases in private donations, endowment reductions, and increased demands for financial aid support.

And although the country has started to recover from the Great Recession, the challenges surrounding the federal government's fiscal pressures continue to impact the sector. For instance, federally mandated sequestration will reduce NIH funding by another 7.8 percent, the largest cut in its history. The price of attending a four-year public university in the United States will have increased 27 percent above the rate of inflation across the last five years, even though average family incomes will have actually declined during that period even when adjusted for inflation (Oliff, Palacios, Johnson, & Leachman, 2013). Colleges are downsizing: some have cut as many as 200 academic programs, while also slashing funds for instructional staff, library, and student services. More and more students are choosing to enroll first in community

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colleges instead of four-year schools, but these schools also face significant budget cuts. Sixty-nine percent of Americans now feel that college is unaffordable and that there are highly qualified students who cannot gain access to a university education (Immerwahr & Johnson, 2010).

All of this in turn has fueled mounting concern and heightened rhetoric on the part of government officials regarding questions of rising costs, declining completion rates, and the value of a college education. State officials in Wisconsin, Virginia, Montana, and others have all attacked universities for rising costs and have imposed tuition freezes, even as state spending declines. Florida Governor Rick Scott has proposed charging different rates of tuition for different majors in an effort to drive students toward STEM fields, saying, "If I'm going to take money from a citizen to put into education then I'm going to take that money to create jobs." North Carolina Governor Patrick McCrory has argued that there is no value to the humanities, and said, "If you want to take gender studies that's fine. Go to a private school, and take it… But I don't want to subsidize that if that's not going to get someone a job." And President Obama has made college affordability one of the centerpieces of his second term agenda, emphasizing that government "can't just keep on subsidizing skyrocketing tuition," and even suggesting that universities would need to keep costs down or lose federal funding.

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Part IV: New Approaches and Enduring Questions

It may be tempting to dismiss many of these tensions as cyclical, and believe that when the economy rebounds, states will reinvest, tensions will cool, and the earlier equilibrium of constructive collaboration will return.

However, there are reasons to believe that these recent tensions reflect deeper structural issues, and the Great Recession has raised fundamental and vexing questions surrounding the strength, durability, and content of the compact between state and university that command attention and resolution.

At one level, addressing the conflict will require renewed federal and state efforts in devising innovative and thoughtful regulatory approaches.

For instance, we must explore new approaches to financial assistance that do a more effective job of addressing market failures and aligning resources to areas of need. One promising set of options that has won favor in recent years involves income-contingent loan repayment programs, through which students pay what they can up front, and contract with the government to defer any remaining payments until they graduate and are working. At that time, they pay any deferred fees as a fixed percentage of their income, an obligation enforced through the tax code. The loans address concerns of liquidity, enforceability, and complexity in the current system and the daunting fear of students that they will not be able to pay back loans. This approach to student debt has been popular in Britain and Australia for years; although the United States has offered an income contingent plan for federal loans, it is not widely used by students, many of whom are not aware of their repayment options or are put off by the program's complexity. The Obama administration has taken steps to simplify the process and make information more available to borrowers, and the administration's proposed 2014 budget included an expansion of the option to all borrowers, eliminating the income caps and other barriers that currently make some students ineligible.

We can also do a better job of addressing the scope of states to undermine the U.S. government's expenditure of funds through the opportunistic substitution of federal for state funds. As one example, the 2009 federal stimulus created a $48.6 billion State Fiscal Stabilization Fund that provided direct formula-based grant aid to states to advance essential education reforms. However, 23 states cut spending on higher education in the first year that they received the federal funds. And six of those states slashed spending on higher education while increasing their total state spending, suggesting that rather than using stimulus funds to offset necessary cuts, the grant allowed them to divert education spending elsewhere (Cohen, 2010). We need to explore methods of federal funding that limit the opportunities for this substitution, including rewards to states that increase their spending, directives to states to maintain certain levels of investment to receive federal funds, or the provision of funds to states through competitions that are keyed to appropriate criteria rather than formulas.

And, we should seek policy tools to redress the widening gap between the magnitude of state investment in, and state regulation of, higher education. Often, states will provide relatively little in the way of investment in its higher education system, but involve itself extensively in the internal affairs of its universities. For example, the University of Colorado receives only four percent of its budget from the state (the average public university received about 20 percent), and finds itself the target of significant and obtrusive regulations and intervention. The state approves and reviews all academic programs, establishes admissions standards, and prescribes standards for construction and capital improvement. It is time to start a conversation about the importance of parity in the scope of funding and intervention. This could include incentives for states to withdraw from governance in situations where they have a *de minimis* stake in operational support, or even a national conversation to develop norms and expectations for state regulation in a sector under strain.

And yet, universities also must shoulder their share of the burden for addressing the tensions in higher education. The call has gone out for universities to reduce tuition and control costs, and they must respond with purpose. Of course, the precise cause of rising costs in higher education is a matter of some debate. One theory blames rising costs on stagnating productivity, and says it is difficult for a labor-intensive industry such as education to substitute capital for labor, and so as wages rise, so inevitably do costs. Another theory, proposed by Howard Bowen (1980), argues that universities' principal goals are excellence, influence, and prestige and they are prepared to spend whatever is necessary to achieve these goals—in particular, as revenues increase, from tuition, endowments, and donations, so unavoidably will expenditures and costs. William Bowen (2012) argues that there are inefficiencies too fundamental to how universities are structured to be easily resolved, including fixed costs such as specialized laboratories and faculty with highly specialized talents.

Whatever the cause, universities cannot remain unstirred much longer to the changes roiling the industry around them. These changes include not only the enormous financial strain in the U.S. economy, with the accompanying calls for higher education to reduce tuition and control costs. It also involves the manifold changes occasioned by the information age: Higher education is famously one of the few industries that until now have managed largely to hold at bay the disruptive and potentially transformative effects of technological development in the information age. Universities have still largely unexplored the opportunities of this age, ones with the capacity not only to reshape and reduce administrative costs and improve services to students, but also expand mission and reach, augment revenue and reshape pedagogy in ways we have never seen before.

And yet, in truth, all of the above approaches can only take us so far. The problems we face are broader than only higher education, and cannot be solved by higher education policy standing alone.

The Great Recession exposed in a profound way the weakening of the middle class in America. Low- and middle-income families were hit the hardest by the downturn, and they have been the slowest to recover. Families in high-poverty areas lost the highest percentage of their wealth and were the most likely to be unemployed during the recession. According to a recent report from the Russell Sage Foundation, Americans are now less socially mobile than the citizens of a number of other countries around the world. A middle class upbringing is no longer a guarantee of lifetime success, with a third of Americans raised in the middle class falling below the middle class as adults.

For most of U.S. history, higher education was one of the most powerful mechanisms for social mobility in the nation, and served as a powerful counterforce to rising stratification. However, caught in a spiral of rising tuition and declining state investment, compounded by the fiscal effects of the Great Recession, the capacity of higher education to play this role is itself in jeopardy. The historic rate of growth in educational attainment has slowed—the percentage of those under 34 with a bachelor's degree has remained virtually unchanged for decades—and the gap in enrollment rates between students from low- and high-income families has risen steadily over the last forty years. Only 11 percent of students from the bottom quintile ever graduate, compared to 53 percent from the top. Our education system is not helping low-income students reach the same attainment as their higher-income peers.

As economists Claudia Goldin and Lawrence Katz (2008) argue, these trends in educational attainment deeply compound the problems of income equality across the American economy. The Great Recession has only widened this gap, with the college educated recovering more quickly and bearing less of the brunt of the crisis. Those with a college degree actually gained 187,000 jobs from December 2007 to January 2010, while those with high school diplomas or less lost 5.6 million jobs in this period, and another 230,000 during the recovery (Carnevale, Javasundera, & Cheah, 2012). More than half of the jobs created during the recent recovery from the recession have gone to workers with a college degree or higher, even though they make up only a third of the labor force.

One of the principal ways to narrow this divide is to invest in pre-K, K-12 education, higher education, training, and technology—in short,

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invest in tomorrow. And yet, the government is ill equipped to take these steps. There is perhaps no greater impediment to addressing the endemic problems plaguing society than the crushing growth in entitlement spending (particularly health care). This fiscal burden is subverting the scope for federal and state investment in education and starving the country of the investments that—at each stage in U.S. history—has nourished a cycle of innovation and growth that has accrued to the benefit of all. The current approach to retirement funding is nothing less than a dramatic inter-generational transfer. To take only one example, the Medicare funding formulas mean that male recipients only paid a dollar for every three received. Because they live longer, the discrepancy is even greater for women.

Without meaningful reform of these sorts of spending pattern, we are tilting our priorities toward consumption at the expense of investment. We are, simply put, forfeiting our capacity to invest in the next generation, in their capacity to create and converse and experiment and innovate. Ironically, universities are better positioned than most to drive the innovations that will bend the health care cost curve, at the very moment when this is leading to disinvestment. Unless and until the core issue of inter-generational equity and, more specifically, entitlement reform is addressed squarely by government, the likelihood that either the federal or state governments will be able to resume their vanguard role in ensuring the next stage of the great American experiment with higher education is dim indeed

Conclusion

Since the founding of the Republic, universities have been a powerful force for upward social mobility and forward economic progress, just as the state has been a powerful force in building and shaping the modern university. For much of our history, this cooperative arrangement has been at the heart of the American experiment and the American dream.

Nevertheless, it is the thesis of this paper that several forces are conspiring to test the stability and durability of this compact, and pose significant risks to the strength of American higher education and to the country as a whole. To some degree, we believe that the preservation of the compact requires a willingness of government and university to adopt more innovative instruments to ensure alignment of universities with well-established public goals. It also requires energetic public leadership that is aimed at preserving (and, indeed, enhancing) the level of state investment in higher education given the sundry public benefits associated with this sector. But, most significantly, we believe that the durability of this compact cannot be isolated from the broader debates and concerns over growing inequality in the country (which were given particular salience by the wrenching economic losses associated with the Great Recession). Simply put, in the absence of a vigorous and systematic approach to the challenge of income equality in a human capital society, the more likely it is that universities will be saddled with the symbolic burdens associated with the failure to live up to the Jeffersonian ideals of equal opportunity. This is a lesson that stakeholders in modern research universities ignore at their peril.

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