

A photograph of a grand neoclassical building facade, likely the Yale University Art Gallery. The image shows a series of tall, fluted columns supporting a heavy entablature. Above the columns is a large triangular pediment filled with intricate relief sculptures of figures. To the left, a portion of a large, ornate dome is visible. The sky is a mix of blue and orange, suggesting a sunset or sunrise. The overall tone is professional and academic.

Yale

TOBIN CENTER FOR
ECONOMIC POLICY

Tobin's first three years as a staffed enterprise

SUPPORTING THE NATION THROUGH RESEARCH AND POLICY

FROM 2019 TO 2022



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THE TOBIN CENTER'S NEW BUILDING, NEARING COMPLETION

Executive Summary



Executive Director, David Wilkinson, in discussion with, from right, Gene Sperling, Senior Advisor to the President; Monica Bell, Yale Law Professor; Sameera Fazili, recent Deputy Director of the White House National Economic Council.

America confronts both new and longstanding challenges. Modern advances in economics, data, and analytics offer exciting and untapped opportunities to better understand and address these challenges. The Tobin Center is developing new ways to unlock these research opportunities at Yale. In tandem, we are advancing the resulting insights and innovations for impact by bringing them to the policy arena. In so doing, we seek to achieve measurable advances on critical issues from health, education, and economic mobility to climate change, market function, and infrastructure.

In this inaugural report, we examine Tobin's past work in the context of our inaugural phase strategy to (i) act now to bring forward research for impact; (ii) intentionally test a range of promising research support and engagement approaches to assess what works best for our new organization; and (iii) enhance center and university infrastructure to meet our mandate.

ADVANCING RESEARCH FOR REAL WORLD IMPACT

Health Economics

Tobin saw a groundbreaking accomplishment in our health portfolio: passage and implementation of a federal law banning surprise medical billing, which was hailed by the Washington Post Editorial Board as among the top 22 "Good things" that occurred in 2022. Surprise billing affects millions of American families, confronting many with burdensome medical debt despite being insured. The law was a rare bipartisan accomplishment in an era of political polarization. It showed that academic research, in this case led by Tobin Associate Faculty Director Zack Cooper, can motivate policymakers to work together for the common good, even at the highest level. This

success demonstrates the potential of the Tobin Center to influence domestic policy debates and help solve problems of national scope.

Other Tobin-supported health care research yields essential new insights across the range of public and private insurance systems, including:

- Important new findings that inform the longstanding debate between Medicaid fee-for-service and managed care approaches that could inform optimal ways to control costs without compromising patient experience and outcomes.

- Broad, first-of-kind evidence on Medicare’s tremendous impact in reducing racial health inequity, as well as specific opportunities to vastly increase that impact.
- Evidence that streamlining the often confusing array of employer-based private health plans – including reducing the number of options — can yield significant savings and better results for employees.
- Discovery of large differences in mortality rates across Medicare Advantage plans and, further, that current, widely accepted quality ratings are uncorrelated with plan mortality effects, presenting promising policy opportunity.

Tobin’s health portfolio builds on experience and strength at Yale that is serving as a model for our work in other areas of research and policy.

Digital Markets

The rise of large digital platforms (like Facebook, Google, and Amazon) has led to unprecedented collection of individual data and great concentrations of economic value. Seven of the world’s ten largest corporations by market capitalization are now digital platforms. Data markets and the institutions active in those markets are currently under intense public discussion and policy debate. With support from the Sloan Foundation and others, the Tobin Center has launched The Digital Economy Project: a problem-focused global consortium of top economists working to develop time-sensitive, necessary, underlying research to prepare policymakers for the likely imminent development of broad new regulatory regime(s) for digital platforms.

This report also highlights new interdisciplinary collaborations with Yale Law School intended to most productively direct economic recommendations within legal and regulatory frameworks.

Responding to COVID-19

The COVID-19 pandemic presented an acute

and real world test for the Center’s theory that it could accelerate research and bring it forward for positive impact. Our success with the temporary COVID-19 Policy Lab confirms our hypothesis that our model can amplify the impact of Yale, channeling its talent and resources to support the nation. Among other successes, this report notes that in just 18 months, the COVID-19 Policy Lab has mobilized talent at Yale to:

- Create a new online resource on health risks to skilled nursing facilities, collaborate with the CDC to feature research nationally, partner with the AARP, and demonstrably change practice in nursing homes across the county.
- Provide widely-covered research in

Our success with the temporary COVID-19 Policy Lab confirms our hypothesis that our model can amplify the impact of Yale, channeling its talent and resources to support the nation.

the prominent national debate over unemployment insurance expansion, highlighted by prominent leaders on both sides of the aisle and recognized by the *New York Times* as perhaps the most influential research on the subject.

- Inform major federal policy on COVID-19 testing – specifically advising higher Medicare reimbursement rates to unlock the expansion of testing, advice credited by administration officials for spurring action.
- Launch a successful fellows program with the Connecticut Governor’s Office with 14 full-time fellows supporting COVID-19 response across health, social, and economic issues.
- Establish the largest-ever survey of the nation’s childcare workforce, partnering

with a prominent national association that made findings broadly understood and actionable for providers nationwide.

- Serve as the lead academic partner of the major national campaign to increase vaccine uptake among communities of color.

While the impact of COVID-19 cuts across several issue areas, this report also includes highlights of other research apart from pandemic response, including the economics of education, early childhood, community development, equity, and economic mobility.

STRATEGIC DISCOVERY: SUMMARY OF LESSONS LEARNED

The Tobin Center is a new type of enterprise at Yale and, we hope, in the nation. In the Tobin Center's inaugural phase, we have taken an intentional approach of testing different, promising approaches of bringing research forward for impact.

- There is not a “one size fits all” approach when it comes to translating research. For each project, it is important to take the research where it is needed most in the form it can best be absorbed. User-friendly resource platforms and public databases can be an effective way to inform policymaker decisions across multiple jurisdictions.
- Individual research projects, in and of themselves, cannot typically address the country's largest policy challenges. The Tobin Center can

reach across disciplines and universities to initiate large-scale research efforts capable of developing insights and recommendations for national policy.

- Strategic, well-vetted partnerships can amplify the impact of Yale's research and identify real world needs that are poised for fast action.
- Expert Policy Fellows can help the Tobin Center build and maintain strong connections in philanthropy, government, and non-profits.
- As the Tobin Center matures, we should still leave space to be entrepreneurial: to follow opportunities where the potential for impact is great and where the Center can add significant value.

EXPANDING CAPACITY FOR IMPACT AT YALE

Realizing the Tobin Center's mandate to become a singular presence in domestic policy requires building the infrastructure to do so. To address this challenge, we remain steadfastly focused on the third pillar of our strategic approach: building the organizational infrastructure to meet our mandate.

This report highlights Tobin's leadership in launching a new center supporting data-intensive social science at Yale. We also feature the continued progress of our predoctoral program, now among the nation's largest. The objective of these university-wide services of the Tobin Center is to establish at Yale a best-in-nation research infrastructure for conducting policy-relevant social science.



James Tobin, Nobel Laureate and longtime Professor of Economics

Introduction

In a highly partisan era, universities are among the few trusted sources that can provide research-based, data-driven, non-partisan policy advice. As reflected in these pages, the Tobin Center supports and coordinates domestic, policy-relevant economics and social science research across Yale. We've begun to prove our ability to advance policy change based on sound, data-driven research.

In our inaugural phase, Tobin leadership has sought to take a “learn by doing” approach to discover how to best support cutting edge research and reduce its time to impact. We deployed a three-part strategy for doing so:

1. Acting now on immediate potential to achieve impact, supporting policy-relevant research, and bringing it in the optimal form to the right audiences in media and policy.

2. Intentionally testing a range of promising approaches to policy engagement and research support to determine what works best at Yale to bring research forward for results.

3. Developing and expanding capacity, including underlying university-wide infrastructure, to facilitate policy-relevant, data-intensive research and advance it in the public arena.

In this inaugural report, we highlight several noteworthy accomplishments in research and policy. We also examine our efforts of the past year through our three-part strategy, taking stock of accomplishments and considering implications for the path ahead.

**I. ADVANCING
RESEARCH
FOR REAL
WORLD IMPACT**

Health Economics



A NEW FEDERAL LAW: CATALYTIC WORK LEADS TO END OF SURPRISE MEDICAL BILLING

In passing the Consolidated Appropriations Act of 2021, Congress included a law to end the phenomenon of surprise medical billing. Impacting nearly one in four privately insured individuals who access medical care annually, these unexpected “out-of-network” bills have been a fast-rising cost that has directly impacted American families and caused severe financial hardship for many.

Tobin Center Assoc. Faculty Director Zack Cooper’s research is broadly credited with catalyzing the legislation. Tobin supported Cooper in follow-on studies, media interaction, and one-on-one engagement with elected officials and staffers at the state and federal level. Tobin also assisted Cooper in attracting outside funding for his work. Cooper’s continued stream of evidence-based research and personal engagement (honed to meet the needs of policymakers) resulted in being identified as a trusted arbiter of truth in solving this problem.

The **No Surprises Act** protects consumers from surprise medical bills by establishing an arbitration process to settle disputes between physicians and insurers over payments for services delivered by out-of-network physicians working from in-network facilities. The federal solution closely tracks recommendations of Tobin’s Cooper, based on policy insights derived from his extensive follow-on research on a New York State arbitration law to address the issue. Cooper and the Tobin Health Policy team continue to serve as an active resource to the federal administration in the development of regulations implementing the bill.

Materially enabling the passage of a major federal law is an uncommon accomplishment for any policy-focused enterprise, even more so for an academy-based center. This represents a signature accomplishment that is an incredible early victory and a central part of the Tobin story.

OTHER HEALTH ECONOMICS HIGHLIGHTS: “COMPREHENSIVE COVERAGE”

Health care economics is an area of strength and a core priority for the Tobin Center. Our research portfolio includes leading scholars and perspectives that consider how the health system and American economy impact each other, including across the range of major payors: private insurance (as exemplified above), public (Medicare and Medicaid), and private supplementary insurance systems that bridge the gap.



Prof. Chima Ndumele

Medicaid Costs and Outcomes

The nation's largest insurer, Medicaid, insures 1 in 5 Americans at an annual cost of \$600 billion. The Tobin Center has actively supported **Prof. Chima Ndumele and Jacob Wallace** in developing a leading Medicaid research portfolio.



Prof. Jacob Wallace

A perennial health policy debate is whether Medicaid administration is best handled directly by states as fee-for-service provider reimbursement or contracted out to private, full-risk-bearing managed care plans. Ndumele and Wallace offer new insight on the question, finding **true cost savings in state-contracted managed care solutions versus state-operated fee-for-service programs, though often with trade-offs to patient experience.** Of note, the largest savings with least trade-offs is found in pharmaceutical savings approaches of managed care plans. The researchers found comparatively modest savings associated with care constraints and that such constraints present greater downside to patient experience and outcomes.



Faculty Director
Zack Cooper

Other research by the team projects the causal **spending and health effects of increasing specialist participation in Medicaid.**



Prof. Jason Abaluck

Tobin has also assisted Ndumele and Wallace in attaining vast new sets of state administrative data on SNAP and Medicare, enabling a distinctive and **comprehensive look at the degree to which the preventive nutrition program may reduce health system involvement and Medicaid costs.**

Medicare's Role in Health Equity

Prof. Paul Goldsmith-Pinkham's research shows Medicare has a profound effect in reducing racial/ethnic disparities in health equity. He and co-authors project that **lowering the Medicare eligibility age from 65 to 60 would have substantial impact in reducing racial disparities in insurance attainment,** health care access, and morbidity and mortality related to multiple common diagnoses.

Medicare Advantage Plans and Mortality Rates

Competition in health insurance markets may fail to improve health outcomes if consumers are not able to identify high quality plans. **Prof. Jason Abaluck** and co-authors document **large differences in the mortality rates of Medicare Advantage plans within local markets.** They show that when high mortality plans exit these markets, enrollees tend to switch to more typical plans and subsequently experience lower mortality. **They find that existing quality ratings are uncorrelated with plan mortality effects.** Good insurance plans substantially reduce mortality. Policies and approaches that redirect consumers to such plans could have broad, positive health implications for America's seniors.

Private Health Insurance Consumers Benefit from Fewer Options

Employees who have employer-based health insurance often face a dizzying and confusing array of options with inconsistent and incomplete information by which to select among them. In other research supported by the Tobin Center, Prof. Abaluck accesses novel administrative data to show that **offering fewer, well-screened health plan alternatives to employees would save consumers an average of \$600 annually.**

Digital Markets



THE DIGITAL ECONOMY PROJECT: MOBILIZING LEADING ECONOMISTS TO TAKE ON A GLOBAL CHALLENGE

The Tobin Center has launched a major global initiative to prepare policymakers for the likely imminent development of vast new regulatory regime(s) for digital platforms.

The rise of large digital platforms (like Facebook, Google, and Amazon) has led to unprecedented collection of individual data and great concentrations of economic value. Seven of the world's ten largest corporations by market capitalization are now digital platforms. Data markets and the institutions active in those markets are currently under intense public discussion and policy debate. Notwithstanding the maturity and ubiquity of digital markets, our theoretical understanding and our empirical knowledge of them is limited. This, in turn, may compromise the quality and sophistication of current and future policy that would oversee, regulate, and enable these markets.

The mismatch between our understanding of data markets and the ways in which they actually operate presents profound implications for how these markets, when regulated, interact with and affect society. Tools and policies developed based on theories and observation of traditional markets and applied to the unique circumstances of data markets are likely to result in unintended consequences with deleterious impact to consumers and data institutions alike.

Global interest to regulate these entities has been met with the realization that we're not prepared to do so. Economists agree our theoretical and empirical understanding of these markets is not at the level required for effective regulation. Yet the moment of more interventionist regulatory policy is likely imminent. Meeting the scale and urgency of

this challenge requires collective action among economists to develop the theoretical baseline while preparing and expanding the community of regulatory economists to work on this critical issue. The Tobin Center is advancing a coordinated effort to accelerate development of new theoretical understanding tailored to these unique markets as well as improved empirical understanding of how they work. Based on the research, we will coordinate with policymakers and advocates to inform better, more effective policy.

Tobin’s “Digital Economy Project” has assembled a consortium of the world’s leading theoretical and regulatory economists, coordinated by Yale **Professors Fiona Scott Morton, Dirk Bergemann, and Katja Seim**. Participating consortium members are from numerous universities including **Stanford, MIT, Harvard, Columbia, Munich, and Toulouse**. Supplementing its own investment, Tobin has won generous support from philanthropy (including the **Sloan Foundation, Omidyar**

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Prof. Fiona Scott Morton and U.S. Senator Blumenthal at the Thurman Arnold Project (TAP) digital platform regulation event in Washington, D.C., May 2022

Network, and the Knight Foundation) in this historic new effort.

ECONOMICS, LAW, AND DIGITAL PLATFORMS

Collaborative Research to Amplify Impact

From its inception, the Tobin Center has been called on to advance interdisciplinary solutions to address policy issues of the day. The regulatory economics work of the Digital Economy Project can be buttressed and strengthened by world-leading legal scholars at the Yale Law School, where **Prof. Jack Balkin’s Information Society Project (ISP)** is an influential voice on legal models, theories, and policy solutions related to digital platforms. Our partnership with ISP will match economic insights from the Digital Economy Project to efficient approaches of legal implementation.

An Applied Legal Clinic

Tobin has attracted funding to launch a new legal clinic at the law school. Currently in its exploratory phase under Tobin **Senior Policy Fellow David Dinielli**, an experienced litigator with a joint appointment at the Law School, the clinic will be positioned to strategically assess and advance solutions flowing from the Digital Economy Project in both policy and legal systems.

Birdwatch: Big Data Analysis of Major Social Media Civility Experiment

In related digital platform work, the Tobin Center supports **Prof. Tracey Meares** and the Law School’s Justice Collaboratory to access a groundbreaking dataset via Twitter’s new Birdwatch project. The project aims to promote civility online and create healthy communities.

Through its research, Meares and the Tobin-funded data team hope to better understand what is actually happening inside this unprecedented live experiment on the platform and the extent to which it achieves its underlying goals of (i) increasing veracity via community self-policing (similar to Wikipedia); and (ii) reducing toxic partisanship.



Addressing the COVID-19 Crisis

Tobin's **COVID-19 Policy Lab** was designed to mobilize the untapped capacity of economists at Yale to respond to immediate challenges with practical solutions, enhance public understanding over the political noise, and serve as a platform to connect talent at Yale with policymakers that need support taking on unprecedented challenges. To date, the lab has supported over 35 research and policy

projects in response to the social, health, and economic challenges presented by COVID-19. Results have influenced federal, state, and local policy across a range of issues, informed practice in key sectors of the economy, increased access and acceptance of the vaccine, and provided new insights on the nature of the pandemic's effect on society. Below are some select highlights.

LEAD ACADEMIC PARTNER TO NATIONAL CAMPAIGN TO INCREASE VACCINE UPTAKE AMONG COMMUNITIES OF COLOR

The Tobin Center has become the lead academic partner to the central national campaign, led by **Made to Save** (M2S), working to increase vaccine access and uptake among communities of color in the United States. M2S has become the center of gravity for this national priority, one of the most important actions required both to defeat the virus and counteract a stark new driver of health inequity. Having raised substantial philanthropic support, M2S coordinates efforts among national organizations, influential celebrities, community-based organizations, and the Biden administration. M2S is overseen by a board

that includes Valerie Jarrett, Pete Rouse, Cecilia Muñoz, and other known policy leaders.

As an official academic partner, the Tobin Center has exercised its interdisciplinary mandate, assembling faculty from Arts & Sciences, the Medical School, and the School of Public Health towards immediate research and data needs of this national initiative. Among the projects underway are:

- A field experiment testing behavioral messaging strategies to increase vaccine uptake and openness.

- An applied project to address a national information gap on the degree of vaccine uptake by demographic group by assembling hard-to-access administrative data. Such a resource can help organizations and governments better target their efforts while potentially providing a new resource for research on vaccine uptake.
- An education project: recognizing people’s health providers are the most influential on individual health decisions, expert faculty co-created with M2S a continuing education course for medical professionals to help them talk to vaccine-hesitant patients. Tobin worked with the medical school to fast-track official Yale accreditation so that the course provides credits required for most patient-facing practitioners nationwide.

PROTECT NURSING HOMES: BRINGING RESEARCH TO LIFE FOR PRACTITIONERS AND POLICYMAKERS

Previously, we reported Tobin’s support for **Prof. Judy Chevalier**, whose work uncovered a major driver in the spread of COVID-19. She saw that shared staffing among nursing homes was believed to contribute to infection rates but that it was hard for practitioners and public health agencies to get clear information on extent of connectivity and the degree of risk it presented. In the absence of administrative data, the research team took a novel approach: they combined cell phone mobility data with GIS locations of US nursing homes to see which phones regularly appeared in two or more facilities.

The result is the richest and most detailed look ever at the interconnectivity of nursing homes by shared staff. The research showed that the phenomenon of staff interconnectivity has been a significant driver of SARS-CoV-2 transmission in the US. During the year nursing homes were closed to visitors, shared staffing was responsible for 49% of cases. It further shows that an outbreak in one center is highly predictive of outbreaks in connected centers linked by staff. It showed staff

interconnectivity is more predictive than any other factor researchers could identify — such as geographic proximity or CMS quality ratings.

Innovating to Bring Research to Market

After the research won coverage in the *New York Times*, Tobin began to bring the researcher’s state-level data to state public health agencies. State nursing home associations also became interested in using the data to mitigate risk.

Faced with unprecedented demand and the desire to support the nation in addressing this devastating challenge, Tobin partnered with the Rockefeller Foundation and US Digital Response to create and release a national resource, Tobin’s ProtectNursingHomes.org.

On the site, public health officials and nursing home practitioners can see the entire network of connected facilities in their state, county, and city. The site also shares the level and degree of connectivity among and between all nursing homes to help inform risk.

ProtectNursingHomes.org

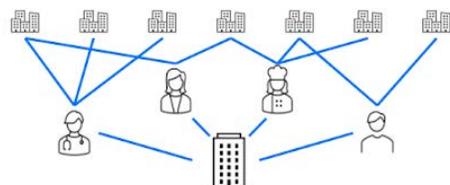
0.6%

% of Americans who live in nursing homes and assisted living facilities

40%

% of COVID-19 deaths taking place in nursing homes and assisted living facilities

ProtectNursingHomes.org



A National Reception

The CDC took interest in the resource and hosted a national event for Tobin to launch the site. Since then, the site has been featured by the national association of state public

While nursing homes still face COVID-19 risks, many practitioners and public health officials are equally interested in the site for its applicability to countering the spread of other infections.

health agencies, the equivalent association for county and city governments, as well as many leading organizations in the aging space, most prominently the **AARP**. It has also been featured extensively by the nation's largest nursing home association, **Leading Age**, which credits the site for saving lives.

The data were useful: the state of Ohio used it to roll out vaccines to the most interconnected nursing homes, Washington state integrated it into their risk scoring, and several jurisdictions and associations have used it to provide an early warning system to stem the spread. It has been

A LEADING AMERICAN RESOURCE ON COVID-19 AND CHILDCARE

Safe, quality childcare is critical to bringing more Americans back into the workforce. Last year, we reported on our efforts to address a major concern for economists, families, and childcare providers: while evidence was clear COVID-19 presented vastly lower risk to young children, wholly unknown was the degree to which they could pass it to adults. Tobin-supported researchers were especially concerned with childcare workers who are routinely in very close contact with many children, whose ability to continue to work was important to the economy (as well as families), and who themselves were wondering if they were at risk. To answer these questions, we found an ideal partner in **Child Care Aware of America**, the nation's largest childcare association. It enabled the largest ever survey of the American childcare workforce, including

included in a federally funded risk mitigation training. Tobin has directly engaged with over 20 jurisdictions and 11 state nursing home associations in use of the data and the site.

The site has had thousands of users. While nursing homes still face COVID-19 risks, many practitioners and public health officials are equally interested in the site for its applicability to countering the spread of other infections that have disproportionate impact on nursing home communities such as *Clostridium difficile* (C-Diff) and Influenza.

The traction that the site has gotten on the ground among nursing home leaders and local health agencies has mightily increased interest from the policy space. This is a welcome occurrence. While it is valuable to equip practitioners with information about risk so that they may respond, a superior solution would be to eliminate that risk in the first place. That can only be achieved by policymakers. Among others, the **AARP** has partnered with the Tobin Center to bring the work forward in policy arena, including a national **AARP**-Tobin Center symposium of policy leaders and other, ongoing policy efforts.

nearly 100,000 participants. The scale of the survey also presented a unique challenge: with nearly 100,000 respondents collectively generating millions of individual responses, it would take months for a typical research team to simply assess, align, and analyze the data. But getting answers quickly was critical for public understanding of the risk and to inform the choices of parents and providers.

To accelerate the research, Tobin activated its rapid response COVID-19 volunteer network of Yale, which we created to channel social science skills to research with immediate policy applications. The research found that children in childcare programs present no significant risk to adult childcare providers.

It received wide media attention (*New York*

Times, *Wall Street Journal*, *Washington Post*, and major television networks). The research has frequently been featured by the CDC and was presented to a forum of the National Governors Association. It was selected as an article of the year in the journal *Pediatrics* and has become most cited in its area (COVID-19 and the business of childcare).

Most importantly, the research has been widely recognized as a key resource in the American early childhood sector and across individual childcare centers nationwide. This has been thanks to our team's collaboration with Child Care Aware of America. Examined in greater detail below, our experience highlights the potential of strategic, well-vetted partnerships to bring forward research for

broad and fast impact.

The initial project has enabled substantial follow-on research leading to additional policy insights and findings related to both health and economics of childcare centers. For instance, one study by the research team, including **Profs. John Eric Humphries, Walter Gilliam, Saad Omer** and others, finds childcare providers out-perform the US population in vaccine uptake – a fact consistently true across all states and demographic groups. Another study indicates that childcare centers that apply consistent masking policies are substantially (i.e., 14%) less likely to shutdown due to COVID exposures, preventing disruptions to millions of working parents.

OTHER SELECT COVID-19 RESEARCH HIGHLIGHTS

School Closures Disproportionately Impact Low Income Families

Pandemic-driven school closures have been a major topic of American attention. Tobin actively supported research of **Prof. Fabrizio Zilibotti** et. al that shed new light on how closures affect kids' education. He finds that

the combined impact of school resources, peer effects, and parental investments have contributed to significantly growing educational inequality during the pandemic.

Covered in the *New York Times*, the researchers' model implies that 9th graders



from the poorest neighborhoods lose half a point on the 4-point GPA scale from school closures. Those living in the richest neighborhoods remain unscathed. Forward looking projections point to the need for intentional policy intervention: the socio-economic gap narrows when schools reopen, but by the end of high school, 50% of the additional inequality induced by the pandemic remains. Four years down the road, **researchers project that school closures will have caused an average 25% reduction of labor earnings for the poorest children** when they enter the labor market.

Behavioral Messaging Experiments and Municipal Services

Yale University is home to leading experts in behavioral science and messaging across disciplines, including economics, political science, and health disciplines. Given the promise of research to inform fast action, the Tobin Center has invested in several such research projects and attracted funding from the **Rockefeller Foundation** to advise on municipality led efforts in Tulsa, Miami Beach, and New Orleans.

Tobin-supported efforts by **Profs. Alan Gerber, Greg Huber, Saad Omer, Josh Kalla**, and others identified **effective messages to increase mask wearing, vaccine acceptance, and willingness to talk to others about**

Yale University is home to leading experts in behavioral science and messaging across disciplines, including economists, political scientists, and health disciplines.

vaccine uptake. They found that government incentive programs often have the unintended effect of undermining the ability of vaccinated individuals to persuade unvaccinated peers. Another project found that a key demographic group, unvaccinated white evangelicals, have shifted away from being a convincible group, becoming increasingly hard to persuade over the last year.

Update and Retrospective: Leading Resource in the National Debate on Unemployment Insurance

Last year we reported on the wide national attention of Tobin-enabled research that found no negative effect on American workforce participation created by the \$600 unemployment expansion recovery funding. A collaborative effort by **Profs. Joe Altonji, Ilse Lindenlaub, Costas Meghir, Cormac O’Dea, Ebonya Washington** and students, the research has been covered multiple times in the *Washington Post*, *New York Times*, **ABC**, **CBS**, and **NPR**, among other major venues. It spurred a debate in the editorial pages of the *Wall Street Journal*. The research continued to receive national attention after our prior annual report and has now been covered on over 200 occasions and been recognized in the *New York Times* as perhaps the most influential research on the question.

The research findings also received great attention in the political realm, discussed by Treasury Secretary Mnuchin, Speaker Pelosi, and Senator Gillibrand, among others. Then Tobin advisor Janet Yellen, before becoming Treasury Secretary, used the research to inform her Senate testimony on the topic. The findings have been validated by researchers and think tanks associated with both sides of the political aisle. The research team, led by PhD students **Dana Scott** and **Lucas Finamor**, has gone on to publish expanded research on the questions, deploying additional methodologies which have found the same result.

The effort highlights the unique value of a Center that can seek and identify research opportunities through which the talents of Yale economists can generate policy insights with impact. In this case, independent policy relationships of the Center led to the identification and access to the critical national time-clock data that enabled the groundbreaking findings. Then, once the research was complete, the Tobin Center designed a targeted media strategy, creating the conditions for it to become the most covered social science research on a topic of great national attention.

Education and Early Childhood



The Tobin Center supports a broad array of economic research in education and early childhood, a growing priority in our inaugural phase. The selected highlights below illustrate the range of work enabled by the Center:

- A Tobin-supported partnership with **New Haven Public Schools** is designed to develop a **deeper understanding of how school choice systems are linked to student outcomes**. **Prof. Altonji** and **Prof. Neilson** combine large administrative datasets with randomized information interventions and with controlled changes in the New Haven school choice system. The research infrastructure developed in this project can support a large quantity of new research. Of note, the project accesses over 20 years of past school lottery data allowing for rich new analysis of long-term outcomes.
- Evidence shows that early childhood education is crucial, but it is also known that there are large gaps between socioeconomic groups that arise before children even reach kindergarten. The federal and state government have developed programs to address this inequity, but **parents face a dizzying array of different pre-K programs with different subsidies and different qualities**.
- This complex array of policies also makes it difficult for parents to compare and choose options, in part due to a lack of information. Leveraging recent success working with **New Haven Public Schools**, **Prof. Humphries** and **Prof. Neilson** are studying i) how parents make choices about pre-K in the New Haven County area, ii) whether better information will shift pre-K choices, and iii) how these choices later change student academic achievement and family outcomes such as mothers' labor supply.
- The gender gap in earnings is a perennial focus of policy discussion, but the sources of the gap are still not fully understood despite decades of research. **Profs. Altonji and Humphries** focus on men and women with a college degree or more, for whom the gender pay gap is very large. Altonji and Humphries are studying not only the current gender pay gap, but changes in the gap between cohorts born in the 1930s and cohorts born in the 1980s. No previous study has quantified **the importance of both undergraduate field and graduate field to long-term trends in the gender earnings gap**.
- **Prof. Barbara Biasi** researches the Education-Innovation Gap, or the typical time between major frontier research and its coverage in university coursework. Examining 1.7 million syllabi in concert with 20 million scientific journal articles, she finds that, controlling for other factors such as school selectivity, the **Education-Innovation Gap is correlated with students' graduation rates and incomes after graduation**.

Economic Mobility, Opportunity, and Equality

The Tobin Center has supported a great deal of research associated with issues of opportunity, equity, and mobility – resulting in over 20 published and working papers to date. Topics cover a range of issues including economic development, evictions, racial equity, family economic success, mental health, and government programs. Below are some representative highlights of research Tobin supports:

- Much government redistribution takes the form of in-kind goods and services. In many cases, this runs counter to both conventional economic theory and increasing evidence suggesting that direct cash transfers would be superior in improving wellbeing. **Prof. Zach Liscow** undertook a large survey experiment to understand **popular sentiment on the question of cash verses in-kind redistribution**. The research shows strong preference for in-kind support over cash transfers among all Americans, including mixed preferences on the matter among the poor. He finds messages that explain the value of choice enabled by cash transfers significantly increases support for them over in-kind mechanisms.
- In research related to the Tobin Center's operational goal to **increase the presence and voices of under-represented minorities in the economics field**, **Prof. Ebonya Washington** offers new research pointing to ways of improving the experience of Black, Latinx, and Native American people in the profession, thereby increasing the appeal and potential retention of those who offer critical, diverse perspectives.
- Zoning restrictions, such as minimum lot size requirements, have been long considered a contributor to economic inequality in America. Such restrictions specifically make it harder for lower income populations to reside in certain jurisdictions by keeping prices high. The Tobin Center has actively supported work by PhD student **Jaehee Song** to assemble a **novel, nationwide data set enabling new insights on the impact of zoning restrictions**. Equipped with this new data, initial research by Song confirms substantial upward price effect on sales and rents. Song also models the impact of halving zoning sizes. Such a reform would substantially increase the supply of small and inexpensive homes and benefit racial minorities, while, notably, minimally affecting existing home values.
- While zoning restrictions reduce access and opportunity for low-income families, the common phenomenon of **long-term vacancies has disproportionate and negative effects on lower-income communities**. Novel research by **Prof. José-Antonio Espin-Sanchez** shows that long-term vacancies resulting from foreclosure has significant impact on communities, notably decreasing neighborhood home values and increasing crime rates. Espin identifies simple policy and practice changes that could reduce extended vacancy periods and the corresponding negative consequences.

TOBIN CENTER TO-DATE: KEY STATS



Research Support:

Supported 56 faculty members generating 126 new pieces of research



Media Coverage:

Tobin Center has won coverage 502 times across 30 pieces of research



Policy Engagement:

40 substantive engagements with Federal, state & local agencies & legislative bodies



Predoc Program:

In 3 years, recruited & onboarded 132 predocs who have supported research of 60 faculty members



Activating new support beyond endowment:

Raised over \$15MM across 31 awards from philanthropy & other generous donors

II. STRATEGIC DISCOVERY

Testing New Strategies: Select Highlights

The Tobin Center is a new type of enterprise at Yale and, we hope, in the nation.

In the Tobin Center's inaugural phase, we have intentionally tested different, promising approaches of bringing research forward for impact. Discovering what works best for Yale's faculty and researchers as well as our policy audiences requires experimenting with different strategies and seeing which among them exhibit the greatest promise. The objective in this process is to develop a strategy or tool kit of approaches that optimizes our capacity to become a valued reference and voice in domestic policy.

Here we highlight several strategies executed in the past year, including *(i) partnerships, (ii) the provision of public resources for research and practice, (iii) multi-university academic mobilizations, and (iv) expert policy fellows.*



Connecticut Governor Lamont with the Governor's Policy Fellows

PARTNERSHIPS

Well-vetted partnerships offer ways to amplify the reach of a university-based center like Tobin. Working with partners under the right conditions, we can leverage advantages in reach, expertise, credibility, and familiarity with specific audience, and policy authority to achieve far greater impact. Furthermore, cultivating trusted, durable partnerships may allow us to better identify real world needs that are poised for fast action.

Our experience to date validates these theories. Partnerships are showing promising early results: there is demand among partners for Yale-generated research, and there is enthusiasm at Yale for expressed needs of partners when there is line of sight for research to have fast impact. This is notable in our collaboration with **Made to Save**,

where faculty saw that a partner would not only enable (and pay for) a massive behavioral messaging experiment, but that any valuable findings are likely to be rapidly acted on nationwide.

While other partnerships, some of which are noted in these pages, with **AARP**, **Leading Age**, **Schmidt Futures**, **US of Care**, the **Atlanta Fed**, and the **Connecticut Governor's Office** (for COVID-related fellows partnership), are of different maturity and scope, they each show promise. The following case study on our engagement with **Child Care Aware of America** provides color on how a Yale-initiated research concept can come alive with the right partner.

CASE STUDY: PARTNERING WITH A NATIONAL INDUSTRY ASSOCIATION IN CHILDCARE

Our above-detailed research finding low risk to childcare providers received broad national media attention and publication honors. Through our partnership with Child Care Aware of America, we brought the findings back to the most critical audience: the nation's childcare providers. The research has been widely recognized as a key resource in the American early childhood sector and across individual childcare centers nationwide. Of note, the partnership:

Enabled Groundbreaking Research

While we typically expect a partner to help on the back-end (i.e., getting research to the right audience), this partner was essential on the front-end as well.¹ Child Care Aware provided access to vast state networks collectively representing hundreds of thousands of childcare workers. This allowed Tobin and Yale partners to conduct the largest-ever survey of the nation's childcare workforce (and thought to be the largest occupational-epidemiological study ever conducted). The research showed children present no appreciable risk to providers. The journal *Pediatrics* named it one of the best *Pediatrics* articles of the year. The findings were broadly covered in the national media, including the [Wall Street Journal](#), [The New York Times](#) (twice), [The Washington Post](#), [The LA Times](#), [NPR](#), and [NBC \(the Today show\)](#). It has been prominently featured by the CDC.

Brought the Research to the Most Critical Audience

Child Care Aware worked with us to package the materials for childcare providers who were determining whether to stay open and for workers wondering if it was safe to come to work. They created a [special online platform](#) to help providers across the country access, understand, and act on the findings. They used their reach and credibility to drive audiences to the site.

“Childcare providers were facing unprecedented challenges and were stepping up despite uncertain risk. This research was the first to provide answers ... We were thrilled to spotlight this research in the national childcare community. It has proved an essential resource for providers, parents and policymakers.”

Lynette Fraga, CEO of Child Care Aware of America

Created a Lasting New Research Mechanism

The positive experience with our partner, and the goodwill generated among childcare workers nationwide, has led to the continuation of the study. Child Care Aware has allowed us to access their networks for two subsequent surveys and opened the door to a long-term collaboration. The childcare sector is critical to our economy but poorly understood. Our rich and growing partnership creates great opportunities for applied economics research and for policy impact.

¹ This early conception that partners are useful primarily to reach key policy audiences may prove incomplete. In two other cases (Made to Save, Atlanta Fed) the partner's upfront role has been critical in enabling the research or product.

PUBLIC RESOURCES: NATIONAL PLATFORMS FOR RESEARCH AND PRACTICE

One path to bring our work forward for impact is to offer distinct data resources and interactive, data-driven information platforms to researchers, journalists, and the public. The Tobin Center has experienced early success with this approach.

National COVID-19 Health Restrictions Database

The Tobin Center has played a central role supporting Yale economists to assemble and launch the nation's most comprehensive resource of county and state public health restrictions. The "SOM-Tobin Center State and Local COVID Restriction Database" was developed under Yale **Profs. Matthew Spiegel** and **Heather Tookes**, using a small army of nearly 20 Tobin RAs to continually scrape websites and update data on the

policy makers. For instance, among many other applications, it has been used in assessing which policies are most effective at achieving desired goals (e.g., reducing infection) and which may have outsized unintended effects (e.g., null infection mitigation but negative economic effects).

The Lesson of #ProtectNursingHomes: Find the Right Path for Research to Make a Difference

Tobin's **ProtectNursingHomes.org** website, detailed above, has attracted thousands of users and generated a national conversation among both practitioners and policy experts in the aging space. The resource itself has been used to inform real world decisions and actions, from state public health departments to managers of individual nursing homes. When we launched the Tobin Center, we had not anticipated creating practitioner-focused resources aimed at changing practice in a profession. It was simply the most natural path for the research to have impact.

The experience of #ProtectNursingHomes tells us that as the Center hones its standard tool kit, we may want to leave space to be entrepreneurial, and where the impact potential is great to follow the strategic path that the research opens to us. Most recently we have entered into a partnership agreement with the **Federal Reserve Bank of Atlanta** to potentially develop and expand a novel data resource on benefits cliffs.

The Tobin Center has played a central role supporting Yale economists to assemble and launch the nation's most comprehensive resource of county and state public health restrictions.

constantly evolving range of public health restrictions across thousands of jurisdictions. With broad access, this resource has been uniquely valuable to both researchers and

MULTI-UNIVERSITY COLLABORATIONS

Academia has much to offer in taking on the broad and enduring challenges faced by society. Yet research tends to be singular among individuals and small groups. It focuses deeply on specific complex questions, a comparative strength as compared to the policy world. Yet the singularity and specificity limitations of academia mean that it is not naturally well-suited to the coordination required for policy impact on big, broad challenges. In short, while the components for breakthrough progress are present, they are not assembled.

There is great untapped potential in solving this collective action problem. Comparatively modest coordinating investment can leverage tremendous intellectual capacity directed strategically at component parts of a problem to collectively advance systemic impact.

This articulation of the challenge and opportunity reflects the signature insight of Assoc. Faculty Director Zack Cooper when he conceptualized the 1% Steps for Health Care Reform Project, on which we provide an update here.

1% Steps for Health Care Reform Project

In January 2021, Tobin co-sponsored **Assoc. Faculty Director Cooper**'s public launch of the **1% Steps for Health Reform Project**. The effort brings together 27 researchers from leading institutions across the US. To date, the effort has produced 16 policy recommendations, based on peer review scholarship, that offer evidence-based solutions to fix discrete problems in the US health system that raise health spending without commensurate health gains. If fully implemented, these solutions represent a path to reduce national health expenditures by 9 percent annually (or \$320 billion/year).

The project received coverage in **Politico** and the **New York Times**. Cooper and colleagues have participated in numerous meetings and conversations to discuss the work with officials and staff in both houses of Congress as well as senior policymakers at the federal and state levels. Since one of the 1% Steps recommendations was to eliminate surprise billing, the Project also now has a major legislative win: the above-detailed No Surprises Act. Tobin will continue to support

the 1% Steps Project and the conversations on how best to advance the policy solutions raised as part of this project.

Digital Economy Project

Based on early indicators of success, Tobin also determined that the academic mobilization model was a good fit for another broad challenge: digital platform regulation. Described in detail above, here we share the rationale for this approach, which the **Sloan Foundation** found compelling in our successful proposal:

“The rapid development of digital markets has so far outpaced the ability of researchers and regulators to frame their economic activities and thus meet the rapidly approaching moment of regulation. There is risk in getting it wrong. In taking on a challenge of this magnitude and urgency we face a collective action problem. A community of economists must be mobilized to support each other and take advantage of complementarities in the research process.”



Rebecca Toseland, Director of Research Support; Steve Berry, Faculty Director; Zack Cooper, Associate Faculty Director; Stuart Craig, Postdoctoral Associate

EXPERT FELLOWS

One strategy commonly deployed by leading academic policy centers is to hire expert fellows. The Tobin Center's somewhat distinctive, purpose-driven mandate has led us to seek fellows with rich policy experience and networks to broaden our reach and impact potential.

The Center has welcomed five Senior Policy Fellows who are respected leaders and experts in their fields, who have had visible careers at the intersection of policy and research, and who have generated goodwill and respect in their fields.



Kathy Stack is a nationally distinguished leader in the field of data-driven government. She coordinates several Tobin efforts to advance evidence-based policy and data interoperability at the federal level. Stack is a 30-year alumna of the federal government, including 20 years serving in senior official roles at the White House Office of Management and Budget.



Liz Jurinka is a national health care policy expert most recently serving as Special Assistant to the President of the United States and Senate Legislative Affairs Liaison. At Tobin, she will lead health policy efforts. Jurinka has been on the frontlines of health policy for more than a decade and brings a wealth of insight on how to use research to shape public policy as demonstrated by her track record of legislative accomplishments.



David Dinielli is a recognized expert in the law and economics of digital platforms. He leads policy aspects of Tobin's Digital Economy Project with Profs. Morton, Bergemann and Seim. Dinielli most recently served as a Senior Advisor to the Omidyar Network. He has testified before Congress on digital platform regulation and co-authored multiple policy papers with academic economists on the subject.



Gene Kimmelman is a nationally recognized expert in the law and economics of digital platforms. He leads policy engagement for Tobin's Digital Economy Project. Kimmelman has over four decades of experience in federal policy, serving in several senior policy roles.



Dr. Matthew Agarwala is a leading expert on the economics of climate and sustainability. Currently, he supports policy aspects of Tobin's climate efforts with a focus on natural capital accounting. He also leads the Bennett Institute for Public Policy's Wealth Economy project at the University of Cambridge.

III. YALE CAPACITY

Building An “Enabling Infrastructure”

From its inception, the Tobin Center has had two core components in its effort to advance empirical, policy-relevant research. One component – bringing research into the policy arena (e.g., to media, policymakers) for impact – is more visible. The other, equally important component is to expand the range and quality of data-intensive, policy-relevant research

being conducted at Yale. This means not only providing targeted funding for individual research projects, but also advancing Yale-wide solutions that reduce barriers to doing this work – much of which is at the frontiers of social science – and providing the tools and talent to make doing it quicker, easier, and more efficient.

YALE’S NEW DATA INTENSIVE SOCIAL SCIENCE CENTER (DISSC)

Towards this end, the Tobin Center has made great strides in advancing a core objective for the year: launching a university-wide center for data-intensive social science (DISSC). Building on an expansive report of a Yale-wide committee led by then social sciences Dean, **Prof. Alan Gerber**, the Tobin Center has taken a central role in operationalizing and launching the DISSC.

The University has made a generous, long-term commitment to the new DISSC, in part thanks to the practical (and investable) implementation strategies Tobin developed. Tobin Center was selected by the Provost to

co-incubate the new center, along with the Institution for Social and Policy Studies (ISPS). Tobin **Faculty Director Steve Berry** and now-**ISPS Director, Prof. Alan Gerber** will serve as co-faculty directors. **Ron Borzekowski** will serve as DISSC’s Founding Executive Director.

The launch of the DISSC is a major priority for the Tobin Center. We have made (and will continue to make) a substantial institutional investment in its success. It will be an engine enabling more, better, and faster applied research at Yale – expanding the range, number, and strength of policy insights Tobin can bring to the policy arena for impact.

THE PREDOCTORAL PROGRAM: PROVIDING RESEARCH SUPPORT TO ENABLE MODERN, DATA-INTENSIVE ECONOMICS

Before the DISSC, the first major investment Tobin made to expand data-intensive, policy-relevant research at Yale was the launch of the **Tobin Center/Economics Predoctoral Fellows Program** (PreDoc Program). Now in its third year, the PreDoc Program continues to see increasing levels of faculty demand. True to our mission to support economists across the university, the program now supports

economists not only in the Department of Economics but also in the School of Management, Law School, School of Public Health, and School of the Environment. The PreDoc Program advances two key goals for the Tobin Center:

- The program helps to overcome a key barrier to data-intensive, policy-relevant economics



research. Recent economics graduates with data analytics skills are increasingly essential to this scholarship. Finding, recruiting, and onboarding these fellows is complex and time consuming for individual faculty members.

- Through the program, we intend for Yale to contribute to the future of economics, infusing a critical mass of data-experienced young economists into the field while also increasing the presence of women, underrepresented minorities, and first-generation college students, who bring vital new perspectives to the profession stemming from different backgrounds and experiences. The Tobin Center has achieved continued success on this measure.

Across three years of recruitment and three rounds of admissions, the Tobin Center has onboarded 132 PreDocs who have supported 60 faculty members. There are 55 active PreDocs this year. The program currently includes 29 PreDocs (representing 60% of the total) who identify as a member of an underrepresented group in economics, including women, underrepresented minorities, and first-generation college students. After our program was highlighted in [The Economist](#), the Tobin Center became active member of Pathways to Research and Doctoral Careers

(PREDOC), a consortium of universities and research institutions working to foster a talented, diverse, and inclusive population in the quantitative social sciences, where Tobin **Director of Research Support Rebecca Toseland** plays a leading role.

The Tobin Center's distinctive emphasis on applied economics and real world impact may help attract a broader audience of recent graduates by providing opportunities to engage in the numerous ways economics can improve society. Last year, the PreDocs contributed to more than 50 faculty research projects. This illustrative list of research topics on which PreDocs are working includes:

- Immigration and technological innovation
- The labor market value of advanced degrees
- Evictions and economic insecurity
- Savings and economic well-being in retirement
- Parental decision making and child outcomes
- Racial disparities in health care access and outcomes
- Optimal design of unilateral carbon policies

Among our alumni, 27 have entered PhD programs so far, 2 have entered other graduate programs, 8 are working in government or non-profit organizations, and 6 are working in the private sector.

OTHER SELECT HIGHLIGHTS: SUPPORTING RESEARCH POLICY COLLABORATION ACROSS YALE

Key Support for New University-Wide Climate Initiative

The Tobin Center will play a lead coordinating role in the **Planetary Solutions Project** (PSP). A signature priority of Yale's provost, PSP advances and expands climate-related research in the sciences and social sciences with an emphasis on applied solutions to the global climate challenge. Yale economists across the university (including Nobel laureate **Prof. William Nordhaus**, a Tobin Faculty Advisor) have made rich contributions to the field and have a major role to play in PSP. The Tobin Center is charged with coordinating the economic component of PSP. Tobin also serves on the small Management Council supporting

the PSP effort alongside faculty.

University-Wide Covid-19 Response

The Tobin Center continues to represent the social sciences in the Yale-wide COVID-19 response board, through which we've channeled experts and student volunteers to numerous projects. This effort has been successful in catalyzing interdisciplinary projects, including the childcare and Made to Save initiatives featured in these pages.



Tobin Center for Economic Policy Pre-Doctoral Fellows (subset of the 2022-2023 cohort)

Conclusion

With an emphasis on relevant, non-partisan, and practical solutions, the Tobin Center is successfully funding and supporting data-driven, policy-relevant research. We are also prototyping new tools, partnerships, and ways to mobilize and support economists towards pressing policy needs.

One lesson from our collective experiences may be that, as the Tobin Center matures, it should leave space to be entrepreneurial: to follow opportunities where the potential for impact is great and where the Center can add significant value.

Experts in the growing arena of policy-oriented social science centers have expressed that Tobin is currently exceeding what might be expected of a team its size. On the critical metric of impact, we compare favorably to any peer-like academic center and we are proud of our early track record. Our success has been accelerated in part by our response

to the COVID-19 crisis, and the tremendous willingness of faculty, students, media, and policymakers to engage in different ways with our efforts.

In the year ahead, we will continue to build a broader bench of actionable, research-driven policy insights to bring forward for impact, to test novel approaches as we settle on a reliable tool kit for impact, and to grow capacity in the Center and university-wide to meet our mandate.

Inspired by our mission and encouraged by our progress, we look forward to the path ahead.



THE TOBIN CENTER'S NEW BUILDING, NEARING COMPLETION

Yale

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