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NBER Profile:
Andrew Caplin

Andrew Caplin is the Silver Professor of Economics and Co-Director of the Center for Experimental Social Science at New York University. As an economic data engineer, he develops complementary advances in theory and measurement. He is the Director of the Scientific Agenda for the HUMAN Project and a Research Associate in the NBER's Aging and Economic Fluctuations

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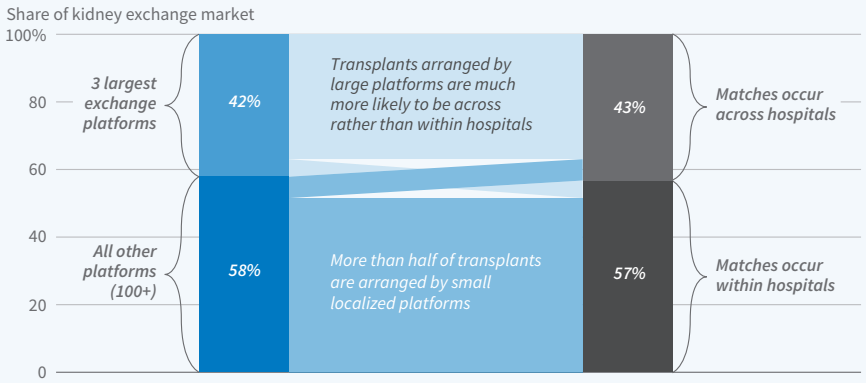
Market Failure in Kidney Exchange

For individuals with chronic kidney disease, a kidney transplant is a life-saving medical intervention, often preferable to dialysis in terms of the expected length and quality of life. Currently, nearly 100,000 patients are on the wait list for a kidney from a deceased donor and the average wait time is years long. While some patients have a family member or friend willing to donate a kidney to them, the donor and recipient must be compatible in blood and tissue type in order for a direct donation to be feasible.

The kidney exchange market in the U.S. enables transplants each year for about 800 patients with a willing live but incompatible donor. In **"Market**

(continued on page 2)

Fragmentation of the Kidney Exchange Market, 2014



The 3 largest exchange platforms are the National Kidney Exchange, the Alliance for Paired Kidney Donation, and the United Network for Organ Sharing
Source: Researchers' calculations using data from the Organ Procurement Transplantation Network, the National Kidney Registry, the Alliance for Paired Donation, and the United Network for Organ Sharing

THIS IS THE FINAL ISSUE OF THE NBER *BULLETIN ON AGING AND HEALTH*.

Starting in 2019, this publication will be replaced by two new publications: the NBER Bulletin on Retirement and Disability Research and the NBER Bulletin on Health and Health Care. All email subscribers to the BAH will automatically be subscribed to these two new publications, which will be available in electronic format only. To insure continuity of service, print subscribers are asked to send their email contact information to subs@nber.org.

We look forward to continuing to provide you with the latest research findings via these new publications.

INSIDE:

Profile *(from page 1)*

and Growth programs. Dr. Carlin is also Principal Investigator for the Sloan-Nomis Program on Cognitive Foundations of Economic Behavior and the Vanguard Research Initiative. He has a long-standing interest in household finance and has proposed reforms to mortgage markets that are under active development. Caplin is a Fellow of the Econometric Society. He earned his PhD in Economics at Yale University. In his spare time he enjoys dining out and nature travel.

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*The **Bulletin** is edited by Courtney Coile.*

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Kidney Exchange *(from page 1)*

Failure in Kidney Exchange" (NBER Working Paper No. 24775), researchers Nikhil Agarwal, Itai Ashlagi, Eduardo Azevedo, Clayton Featherstone, and Ömer Karaduman explore the workings of the kidney exchange market.

Kidney exchanges are organized when two or more incompatible donor-recipient pairs are swapped to create compatible matches, or when an altruistic (unpaired) donor provides a kidney and this enables a chain of compatible pairs to be formed. Kidney exchanges are organized through three large national platforms as well as within hospitals. There are some incentives for hospitals to use these platforms, such as receiving an organ for an unpaired patient if they provide an altruistic donor. The platforms use optimization software to maximize the number of matches (weighted to give priority to some patients, such as previous live donors and hard to match patients). Due to biological compatibility, some matches are inefficient. For example, a patient with blood type O can only receive a donation from an O donor, while a patient with blood type A can receive a donation from an A or an O donor. Matching an O donor with an A recipient is inefficient because it makes it more likely that there will be an unmatched O patient.

The researchers first document the fragmentation in the kidney exchange market. In 2014, the three largest platforms arranged only 42 percent of the exchanges, while hospitals or small regional platforms arranged 58 percent. Furthermore, hospitals or small regional platforms nearly always arrange transplants within hospitals (with a donor and recipient from the same hospital), whereas the national platforms nearly always arrange transplants across hospitals. This is potentially important because national platforms can take advantage of their larger donor and recipient pools to arrange for more efficient matches.

Indeed, the case of O donors and recipients provides evidence of this. In transplants arranged by the national platforms, only 7 percent of O donor organs are used for non-O patients, while this rate is 23 percent for transplants organized by hospitals and small platforms. More generally, in the transplants they arrange, hospitals often transplant kidneys from easy-to-match donors to easy-to-match recipients, which will tend to leave harder-to-match recipients unmatched. Hospitals also seem to be sensitive to the financial and administrative costs of participating in a large exchange and typically do not conduct all of their exchanges through a national platform even if they use it sometimes.

The researchers develop a theoretical model to explain these facts. Their analysis suggests that hospitals would be more likely to participate in a national platform if they were awarded points in accordance with the value of the additional matches made possible by their donations. The analysis also suggests that subsidies could offset the costs that discourage hospitals from participating in national platforms.

Finally, the researchers project that addressing the fragmentation in the U.S. kidney exchange market could generate an additional 200 to 440 additional transplants per year, representing a 25 to 55 percent increase over the current number of live donor transplants.

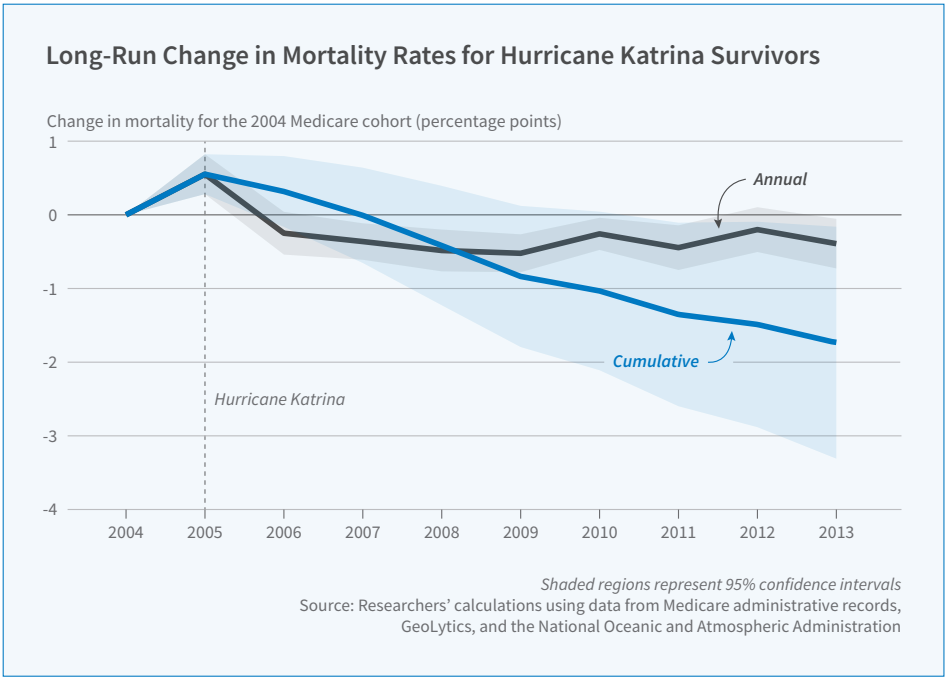
In concluding, the researchers note that there are some pilot programs under way that would award points for organ donations and cover the costs of participating in the national platforms. Overall, "[o]ur results indicate that there could be large gains from continuing to move in this direction."

The authors acknowledge funding from Wharton's Dean's research fund and the National Science Foundation (SES-1254768).

Mortality Impacts of Hurricane Katrina

Hurricane Katrina was the costliest storm of its type to ever strike the U.S. mainland. The 2005 storm killed nearly 2,000 individuals and displaced more than one million residents, resulting in the largest migration of U.S. residents since the 1930s Dust Bowl.

While the immediate death toll of the storm is well known, the long-term effects of the storm and resulting displacement on health and longevity are less well understood. Former New Orleans residents dispersed across the U.S., raising the possibility that local conditions may have affected the health of movers.



In **"Does When You Die Depend on Where You Live? Evidence from Hurricane Katrina"** (NBER Working Paper No. 24822), researchers Tatyana Deryugina and David Molitor examine the long-run mortality impacts of Hurricane Katrina on the elderly and disabled population of New Orleans.

This vulnerable population was deeply impacted by the hurricane — over one half of those killed by the immediate impact of the storm were over age 75, and elderly Medicare beneficiaries made up one-fifth of the displaced population. While the storm and subsequent displacement may have been scarring for this group's health in the short term, moving to areas with better economic and health outcomes may have generated long-term health benefits.

Using Medicare administrative data, the researchers identify Medicare beneficiaries living in New Orleans before the storm and track their mobility and mortality over the following eight years. They compare the mortality outcomes of this group to a comparable group of beneficiaries living in 10 control cities before the storm.

The researchers find that the mortality rate of the New Orleans beneficiaries was 0.5 percentage points higher in 2005 (the year of the storm), representing an increase of over 10 percent. Most of these excess deaths occurred within a week of the hurricane's landfall.

By contrast, Hurricane Katrina led to sustained mortality reductions over the following eight years for those living in New Orleans at the time of the storm. Including the initial storm-related deaths, the hurricane increased the probability of surviving to 2013 by 1.7 percentage points, a nearly 3 percent increase relative to the eight-year survival probability. This result is not explained by healthier beneficiaries being more likely to survive the storm, since the calculation includes storm-related deaths.

To explore the role of place in health, the researchers compare mortality outcomes for elderly beneficiaries who left New Orleans for low-mortality regions versus those who left for high-mortality regions. They find a strong relationship between mortality in the destination region and the movers' mortality — with every one-point increase in the destination mortality rate, there is a 0.8 to 0.9 point increase in the movers' mortality. They estimate that 70 percent of the long-run mortality decline is attributable to the change in local mortality rate experienced by hurricane victims.

Despite a high death toll in the immediate aftermath of the storm, Hurricane Katrina reduced long-run mortality among elderly and disabled Medicare beneficiaries by inducing relocation to lower-mortality regions. This study joins a growing literature highlighting the critical effect of place on health. As the researchers note, "[o]ur finding that a migrant's individual mortality risk corresponds closely to the destination region's mortality rate suggests that local public health conditions are an important determinant of individual health outcomes, at least for the elderly and disabled populations."

The authors acknowledge funding from the National Institute on Aging (grant R21AG050795).

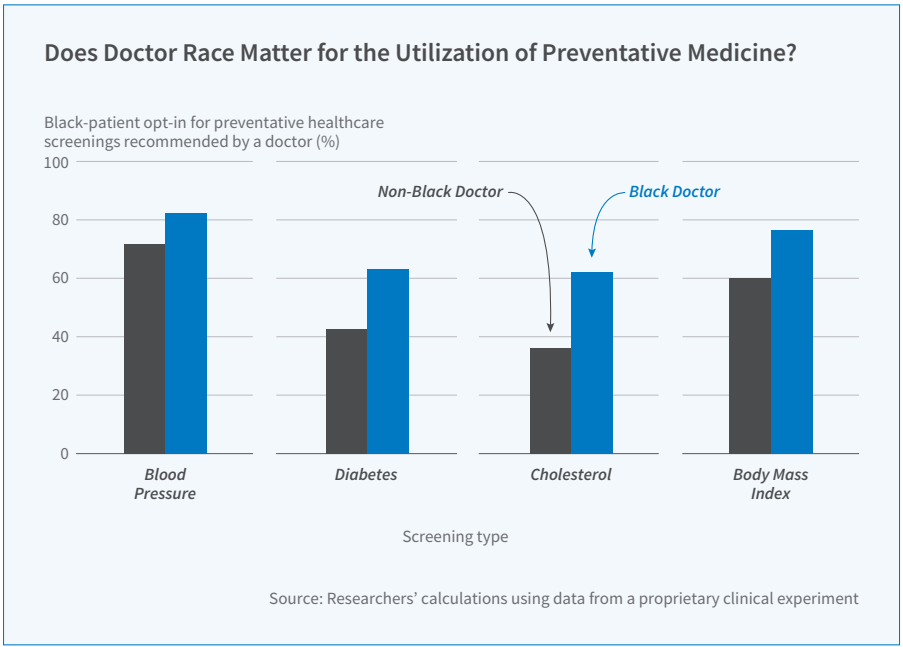
Does Doctor Race Affect the Health of Black Men?

The life expectancy of black men is 4.5 years lower than that of non-Hispanic white men. Approximately 60 percent of this gap can be attributed to the higher rate of chronic disease among black men. As chronic diseases can often be prevented or effectively managed with lifestyle changes and medication, there are large potential health gains from ensuring that black men receive preventive health services. Yet black men are less likely to visit a doctor and to receive services like a flu shot, a gap that cannot be fully explained by education or insurance access.

A lack of diversity in the physician workforce may contribute to racial health disparities. Blacks comprise 13 percent of the U.S. population, but make up only 4 percent of physicians and less than 7 percent of recent medical school graduates. Black men have higher levels of mistrust of the medical establishment, likely due to the prominent history of abuse and neglect of disadvantaged populations by health authorities, such as in the syphilis experiment in Tuskegee, Alabama. Having a same race doctor may increase a patient's trust in their doctor's medical advice, but existing evidence is mixed as to whether patient-doctor racial concordance improves health outcomes.

In their recent study **"Does Diversity Matter for Health? Experimental Evidence from Oakland"** (NBER Working Paper No. 24787), researchers Marcella Alsan, Owen Garrick, and Grant Graziani provide new evidence on the effect of doctor race on the health of black men.

To explore this issue, the researchers conduct a randomized controlled trial in Oakland, California. Over 1,300 black men were recruited to fill out a health questionnaire and given a coupon for a free health screening at a clinic set up for the experiment. Participants who came in for the screening were randomly assigned to a black or non-black (white or Asian) doctor. Participants were shown a photo of their doctor and asked to indicate whether they would like to receive any of a number of health screening services. Participants then had an opportunity to talk with their doctor in person and could revise their decisions regarding the health screenings.



The researchers find no significant difference by doctor race in the initial take-up of screening services before patients have spoken to their doctors. However, after patients and doctors had a conversation, black male patients assigned to a black doctor had a much higher take-up of screening services than those assigned to a non-black doctor. For diabetes and cholesterol screenings, for example, being assigned a black doctor raised the probability of receiving the test by about 20 to 25 percentage points, which was an increase of 50 percent or more relative to the baseline rate of screening. Screenings for blood pressure and BMI were higher as well.

Better communication between same-race patients and doctors appears to be a key driver of these results. Patients were more likely to bring up other health problems when assigned to a black doctor and black doctors were more likely to write notes about their patients. Furthermore, while talking to their doctor increased take-up of non-invasive screenings — those not requiring a blood test or injection — for patients assigned to non-black doctors as well as black doctors (although the effect was bigger for those assigned a black doctor), take-up of invasive screenings only increased for the group assigned a black doctor. Invasive tests carry more risks and likely require more trust in the person providing the service.

The researchers simulate the potential health gains of the greater take-up of services that results from having a same-race doctor. Combining their findings with those from other studies about the health value of treatment, they estimate that having more black doctors could reduce the black-white gap in cardiovascular mortality by 19 percent and the overall black-white male gap in life expectancy by 8 percent. They conclude, "[g]iven the current supply of black doctors, a more diverse physician workforce might be necessary to realize these gains."

The authors acknowledge funding from the Abdul Latif Jameel Poverty Action Lab–Health Care Delivery Initiative, with supplemental support from NBER P30AG012810.

NBER Affiliates' Work Appearing in Medical or Other Journals

Many NBER-affiliated researchers publish some of their findings in medical or other journals that do not allow pre-publication distribution. This makes it impossible to include these papers in the NBER working paper series. This is a partial listing of recent papers in this category.

The Social Genome of Friends and Schoolmates in the National Longitudinal Study of Adolescent to Adult Health
B. W. Domingue, D. W. Belsky, ***J. M. Fletcher****,* ***D. Conley****, J. D. Boardman, K. M. Harris,* PNAS*, 115(4), January 2018, pp. 702–7.*

Geographic Clustering of Polygenic Scores at Different Stages of the Life Course
B. W. Domingue, D. H. Rehkopf, ***D. Conley****, J. D. Boardman,* The Russell Sage Foundation Journal of the Social Sciences*, 4(4), April 2018, pp. 137–49.*

Impacts 2 Years after a Scalable Early Childhood Development Intervention to Increase Psychosocial Stimulation in the Home: A Follow-Up of a Cluster Randomized Controlled Trial in Colombia
A. Andrew, ***O. Attanasio****, E. Fitzsimons, S. Grantham-McGregor,* ***C. Meghir****, M. Rubio-Codina,* PLoS Med*, 15(4), April 2018, (published online).*

The Promise of Genes for Understanding Cause and Effect
D. Conley*, S. Zhang,* PNAS*, 115(22), May 2018, (published online).*

A Sibling Method for Identifying vQTLs
D. Conley*, R. Johnson, B. Domingue, C. Dawes, J. Boardman, M. Siegal,* PLOS ONE*, 13(5), May 2018, (published online).*

Adverse Selection Into and Within the Individual Health Insurance Market in California in 2014
V. Fung, C. Peitzman, J. Shi, C. Liang, ***W. Dow****, A. Zaslavsky, B. Fireman, S. F. Derose,* ***M. Chernew****,* ***J. P. Newhouse****, J. Hsu,* Health Services Research*, 53(5, Part 1), May 2018, pp. 3750–69.*

Gene Discovery and Polygenic Prediction from a Genome-Wide Association Study of Educational Attainment in 1.1 Million Individuals
J. J. Lee, R. Wedow, A. Okbay, E. Kong, O. Maghzian, M. Zacher, T. A. Nguyen-Viet, P. Bowers, J. Sidorenko, R. K. Linnér, M. A. Fontana, T. Kundu, C. Lee, H. Li, R. Li, R. Royer, P. N. Timshel, R. K. Walters, E. A. Willoughby, L. Yengo, 23andMe Research Team, COGENT (Cognitive Genomics Consortium), Social Science Genetic Association Consortium, M. Alver, Y. Bao, D. W. Clark, F. R. Day, N. A. Furlotte, P. K. Joshi, K. E. Kemper, A. Kleinman, C. Langenberg, R. Mägi, J. W. Trampush, S. S. Verma, Y. Wu, M. Lam, J. H. Zhao, Z. Zheng, J. D. Boardman, H. Campbell, J. Freese, K. M. Harris, C. Hayward, P. Herd, M. Kumari, T. Lencz, J. Luan, A. K. Malhotra, A. Metspalu, L. Milani, K. K. Ong, J. R. B. Perry, D. J. Porteous, M. D. Ritchie, M. C. Smart, B. H. Smith, J. Y. Tung, N. J. Wareham, J. F. Wilson, J. P. Beauchamp, ***D. C. Conley****, T. Esko,* ***S. F. Lehrer****, P. K. E. Magnusson, S. Oskarsson, T. H. Pers, M. R. Robinson, K. Thom, C. Watson, C. F. Chabris, M. N. Meyer,* ***D. I. Laibson****, J. Yang, M. Johannesson, P. D. Koellinger, P. Turley, P. M. Visscher,* ***D. J. Benjamin****,* ***D. Cesarini****,* Nature Genetics*, 50, July 2018, (published online.)*

Drug Mortality and Lost Life Years among U.S. Midlife Adults, 1999–2015
C. J. Ruhm*,* American Journal of Preventive Medicine*, 55(1), July 2018, pp. 11–18.*

Heat, Disparities, and Health Outcomes in San Diego County's Diverse Climate Zones
K. Guirguis, R. Basu, W. K. Al-Delaimy, T. Benmarhnia, R. E. S. Clemesha, I. Corcos, J. Guzman-Morales, B. Hailey, I. Small, A. Tardy, D. Vashishtha, ***J. G. Zivin****, A. Gershunov,* GeoHealth*, 2(7), July 2018, pp. 212–23.*

Genetic Analysis of Social-Class Mobility in Five Longitudinal Studies
D. W. Belsky, B. W. Domingue, R. Wedow, L. Arseneault, J. D. Boardman, A. Caspi, ***D. Conley****, J. M. Fletcher, J. Freese, P. Herd, T. E. Moffitt, R. Poulton, K. Sicinski, J. Wertz, K. M. Harris,* PNAS*, 115(31), July 2018, (published online).*

Corrected U.S. Opioid-Involved Drug Poisoning Deaths and Mortality Rates, 1999–2015
C. J. Ruhm*,* Addiction*, 113(7), July 2018, pp. 1339–44.*

Future Directions for the Demography of Aging
D. Bloom*, N. Sudharsanan,* National Academy of Sciences, Engineering, and Medicine*:* Future Directions for the Demography of Aging*, Chapter 11, July 2018, pp. 309–38.*

Simplifying the Medicare Plan Finder Tool Could Help Older Adults Choose Lower-Cost Part D Plans
*B. E. McGarry, **N. Maestas**, D. C. Grabowski,* Health Affairs*, 37(8), August 2018, (published online).*

The Promise and Peril of Universal Health Care
***D. E. Bloom**, A. Khoury, R. Subbaraman,* Science, *361(6404), August 2018, (published online).*

Readmission Rates and Skilled Nursing Facility Utilization after Major Inpatient Surgery
*L. Chen, Y. Acharya, **E. C. Norton**, M. Banerjee, J. D. Birkmeyer,* Medical Care*, 56(8), August 2018, pp. 679–85.*

Variation in Prostate Cancer Treatment and Spending Among Medicare Shared Savings Program Accountable Care Organizations
*P. K. Modi, S. R. Kaufman, T. Borza, P. Yan, D. C. Miller, T. A. Skolarus, J. M. Hollingsworth, **E. C. Norton**, V. B. Shahinian, B. K. Hollenbeck,* Cancer*, 124(16), August 2018, pp. 3364–71.*

Do Skilled Nursing Facilities Selected to Participate in Preferred Provider Networks Have Higher Quality and Lower Costs?
*P. J. Huckfeldt, L. Weissblum, J. J. Escarce, **P. Karaca-Mandic**, **N. Sood**,* Health Services Research*, August 2018, (published online).*

Does Enrollment in High-Deductible Health Plans Encourage Price Shopping?
*X. Zhang, A. Haviland, A. Mehrotra, P. Huckfeldt, Z. Wagner, **N. Sood**,* Health Services Research*, 53(S1), August 2018, pp. 2718–34.*

Documented Pain Diagnoses in Adults Prescribed Opioids: Results from the National Ambulatory Medical Care Survey, 2006–2015
*T. B. Sherry, A. Sabety, **N. Maestas**,* Annals of Internal Medicine*, September 2018, (published online).*

Mandatory Medicare Bundled Payment Program for Lower Extremity Joint Replacement and Discharge to Institutional Postacute Care: Interim Analysis of the First Year of a 5-Year Randomized Trial
***A. Finkelstein**, Y. Ji, N. Mahoney, **J. Skinner**,* JAMA*, 320(9), September 2018, pp. 892–900.*

The Effects of Active and Passive Leisure on Cognition in Children: Evidence from Exogenous Variation in Weather
*T. Laidley, **D. Conley**,* Social Forces*, 97(1), September 2018, pp 129–56.*

A Comprehensive Measure of the Costs of Caring for a Parent: Differences According to Functional Status
***N. B. Coe**, M. M. Skira, E. B. Larson,* Journal of the American Geriatrics Society*, 66(10), September 2018, pp. 2003–8.*

The Impact of New Drug Launches on Longevity Growth in Nine Middle Eastern and African Countries, 2007–15
***F. R. Lichtenburg**,* Review of Middle East Economics and Finance*, September 2018, (published online).*

The Impact of New Drug Launches on Life-Years Lost in 2015 from 19 Types of Cancer in 36 Countries
***F. R. Lichtenburg**,* Journal of Demographic Economics*, 84(3), September 2018, pp. 309–54.*

Effect of Peer Comparison Letters for High-Volume Primary Care Prescribers of Quetiapine in Older and Disabled Adults: A Randomized Clinical Trial
***A. Sacarny**, M. L. Barnett, J. Le, F. Tetkoski, D. Yokum, S. Agrawal,* JAMA Psychiatry*, 75(10), October 2018, (published online).*

Medical Marijuana Laws and Workplace Fatalities in the United States
***D. M. Anderson, D. I. Rees, E. Tekin**,* International Journal of Drug Policy*, 60, October 2018, pp. 33–9.*

Intergenerational Transmission of Paternal Trauma Among U.S. Civil War ex-POWs
***D. L. Costa**, N. Yetter, H. DeSomer,* PNAS*, 115(44), October 2018, (published online).*

Exnovation of Low Value Care: A Decade of Prostate-Specific Antigen Screening Practices
*J. Bynum, H. Passow, D. Carmichael, **J. Skinner**,* Journal of the American Geriatrics Society*, October 2018, (published online).*

Association between Patient Cognitive and Functional Status and Medicare Total Annual Cost of Care: Implications for Value-Based Payment
*K. J. Johnston, H. Wen, **J. M. Hockenberry**, K. E. Joynt Maddox,* JAMA Internal Medicine*, 178(11), November 2018, pp. 1489–97.*

Abstracts of Selected Recent NBER Working Papers

w24759

Cross-State Variation in Health Care Utilization of SSDI Beneficiaries: Evidence from Medicare Claims

Joyce Manchester

Using 100 percent Medicare Part B fee-for-service (FFS) claims in 2012 for people under age 65, I examine office and outpatient services by state and primary diagnosis for the service. The number of services per Medicare-eligible beneficiary in the U.S. Social Security Disability Insurance (SSDI) program was about 32 in 2012, or 2.7 per month, comparable to services for the 65+ Medicare population. The number of services for SSDI beneficiaries ranged from almost 48 per capita in Minnesota to 23 in Arkansas. Services for musculoskeletal impairments averaged 4.6 per capita, ranging from 6.7 in Minnesota to 2.5 in Hawaii. The greatest variation occurred in services for mental disorders, averaging 3.2 for the U.S. but ranging from 9.1 in Massachusetts to 1.4 in Alabama. Factors such as the number of health care professionals or hospital beds per capita, the share enrolled in Medicare Advantage, and demographic factors are associated with health care utilization across states. Knowledge of health care utilization could inform policy choices for programs such as early intervention efforts both at the federal level and tailored to particular needs at the state level.

w24762

Local Food Prices, SNAP Purchasing Power, and Child Health

Erin T. Bronchetti, Garret S. Christensen, Hilary W. Hoynes

The Supplemental Nutrition Assistance Program (SNAP, formerly food stamps) is one of the most important elements of the social safety net. Unlike most other safety net programs, SNAP varies little across states and over time, which creates challenges for quasi-experimental evaluation. Notably, SNAP benefits are fixed across 48 states; but local food prices vary, leading to geographic variation in the real value — or purchasing power — of SNAP benefits. In this study, we provide the first estimates that leverage variation in SNAP purchasing power across markets to examine effects of SNAP on child health. We link panel data on regional food prices to National Health Interview Survey data and use a fixed effects framework to estimate the relationship between local purchasing power of SNAP and children's health and health care utilization. We find that lower SNAP purchasing power leads to lower utilization of preventive health care and more days of school missed due to illness. We find no effect on reported health status.

w24803

Financial Fraud among Older Americans: Evidence and Implications

Marguerite DeLiema, Martha Deevy, Annamaria Lusardi, Olivia S. Mitchell

The consequences of poor financial capability at older ages are serious and include making mistakes with credit, spending retirement assets too quickly, and being defrauded by financial predators. Because older persons are at or past the peak of their wealth accumulation, they are often the targets of fraud. Our project analyzes a module we developed and fielded in the 2016 Health and Retirement Study (HRS). Using this dataset, we evaluate the incidence and risk factors for investment fraud, prize/lottery scams, and account misuse, using regression analysis. Relatively few HRS respondents mentioned any single form of fraud over the prior five years, but nearly 5% reported at least one form of investment fraud, 4% recounted prize/lottery fraud, and 30% indicated that others had used/attempted to use their accounts without permission. There were few risk factors consistently associated with such victimization in the older population. Fraud is a complex phenomenon and no single factor uniquely predicts victimization. The incidence of fraud could be reduced by educating consumers about various types of fraud and by increasing awareness among financial service professionals.

w24819

Guns and Violence: The Enduring Impact of Crack Cocaine Markets on Young Black Males

William N. Evans, Craig Garthwaite, Timothy J. Moore

Crack cocaine markets were associated with substantial increases in violence in the U.S. during the 1980s and 1990s. Using cross-city variation in the emergence of these markets, we show that the resulting violence has important long-term implications for understanding current levels of murder rates by age, sex and race. We estimate that the murder rate of young black males doubled soon after crack's entrance into a city, and that these rates were still 70 percent higher 17 years after crack's arrival. We document the role of increased gun possession as a mechanism for this increase. Following previous work, we show that the fraction of suicides by firearms is a good proxy for gun availability and that this variable among young black males follows a similar trajectory to murder rates. Access to guns by young black males explains their elevated murder rates today compared to older cohorts. The long run effects of this increase in violence are large. We attribute nearly eight percent of the murders in 2000 to the long-run effects of the emergence of crack markets. Elevated murder rates for younger black males continue through to today and can explain approximately one tenth of the gap in life expectancy between black and white males.

w24830
Financial Incentives and Earnings of Disability Insurance Recipients: Evidence from a Notch Design
Philippe Ruh, Stefan Staubli

Most countries reduce Disability Insurance (DI) benefits for beneficiaries earning above a specified threshold. Such an earnings threshold generates a discontinuous increase in tax liability—a notch—and creates an incentive to keep earnings below the threshold. Exploiting such a notch in Austria, we provide transparent and credible identification of the effect of financial incentives on DI beneficiaries' earnings. Using rich administrative data, we document large and sharp bunching at the earnings threshold. However, the elasticity driving these responses is small. Our estimate suggests that relaxing the earnings threshold reduces fiscal cost only if program entry is very inelastic.

w24869
Are Health Care Services Shoppable? Evidence from the Consumption of Lower-Limb MRI Scans
Michael Chernew, Zack Cooper, Eugene Larsen-Hallock, Fiona Scott Morton

We study how individuals with private health insurance choose providers for lower-limb MRI scans. Lower-limb MRI scans are a fairly undifferentiated service and providers' prices routinely vary by a factor of five or more across providers within hospital referral regions. We observe that despite significant out-of-pocket cost exposure, patients often received care in high-priced locations when lower priced options were available. Fewer than 1 percent of individuals used a price transparency tool to search for the price of their services in advance of care. The choice of provider is such that, on average, individuals bypassed 6 lower-priced providers between their home and the location where they received their scan. Referring physicians heavily influence where their patients receive care. The influence of referring physicians is dramatically greater than the effect of patient cost-sharing. As a result, in order to lower out-of-pocket costs and reduce total MRI spending, patients must diverge from the established referral pathways of their referring physicians. We also observe that patients with vertically integrated (i.e. hospital-owned) referring physicians are more likely to have hospital-based (and more costly) MRI scans.

w24889
The Impact of Information Disclosure on Consumer Behavior: Evidence from a Randomized Field Experiment of Calorie Labels on Restaurant Menus
John Cawley, Alex Susskind, Barton Willage

The impact of information on consumer behavior is a classic topic in economics, and there has recently been particular interest in whether providing nutritional information leads consumers to choose healthier diets. For example, a nationwide requirement of calorie counts on the menus of chain restaurants took effect in the U.S. in May, 2018, and the results of such information disclosure are not well known. To estimate the impact of menu labeling, we conducted a randomized controlled field experiment in two full-service restaurants, in which the control group received the usual menus and the treatment group received the same menus but with calorie counts. We estimate that the labels resulted in a 3.0% reduction in calories ordered, with the reduction occurring in appetizers and entrees but not drinks or desserts. Exposure to the information also increases consumers' support for requiring calorie labels by 9.6%. These results are informative about the impact of the new nationwide menu label requirement, and more generally contribute to the literature on the impact of information disclosure on consumer behavior.

w24892
Changes in Household Diet: Determinants and Predictability
Stefan Hut, Emily Oster

We use grocery purchase data to analyze dietary changes. We show that households — including those with more income or education — do not improve diet in response to disease diagnosis or changes in household circumstances. We then identify households who show large improvements in diet quality. We use machine learning to predict these households and find (1) concentration of baseline diet in a small number of foods is a predictor of improvement and (2) dietary changes are concentrated in a small number of foods. We argue these patterns may be well fit by a model which incorporates attention costs.

w24926
Mergers and Marginal Costs: New Evidence on Hospital Buyer Power
Stuart Craig, Matthew Grennan, Ashley Swanson

We estimate the effects of horizontal mergers on marginal cost efficiencies – an ubiquitous merger justification – using data containing supply purchase orders from a large sample of U.S. hospitals 2009-2015. The data provide a level of detail that has been difficult to observe previously, and a variety of product categories that allows us to examine economic mechanisms underlying "buyer power." We find that merger target hospitals save on average $176 thousand (or 1.5 percent) annually, driven by geographically local efficiencies in price negotiations for high-tech "physician preference items." We find only mixed evidence on savings by acquirers.

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