Do Tax Cuts Produce More Einsteins? The Impacts of Financial Incentives vs. Exposure to Innovation on the Supply of Inventors

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Many countries provide financial incentives to spur innovation, ranging from tax incentives to research and development grants. In this paper, we study how such financial incentives affect individuals' decisions to pursue careers in innovation. We first present empirical evidence on inventors' career trajectories and income distributions using de-identified data on 1.2 million inventors from patent records linked to tax records in the U.S. We find that the private returns to innovation are extremely skewed – with the top 1% of inventors collecting more than 22% of total inventors' income – and are highly correlated with their social impact, as measured by citations. Inventors tend to have their most impactful innovations around age 40 and their incomes rise rapidly just before they have high-impact patents. We then build a stylized model of inventor career choice that matches these facts as well as recent evidence that childhood exposure to innovation plays a critical role in determining whether individuals become inventors. The model predicts that financial incentives, such as top income tax reductions, have limited potential to increase aggregate innovation because they only affect individuals who are exposed to innovation and have no impact on the decisions of star inventors, who matter most for aggregate innovation. Importantly, these results hold regardless of whether the private returns to innovation are known at the time of career choice. In contrast, increasing exposure to innovation (e.g., through mentorship programs) could have substantial impacts on innovation by drawing individuals who produce high-impact inventions into the innovation pipeline. Although we do not present direct evidence supporting these model-based predictions, our results call for a more careful assessment of the impacts of financial incentives and a greater focus on alternative policies to increase the supply of inventors. (JEL: L2, M2, O32, O33)

Earnings Losses and Labor Mobility Over the Life Cycle

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Large and persistent earnings losses following displacement have adverse consequences for the individual worker and the macroeconomy. Leading models cannot explain their size and disagree on their sources. Two mean-reverting forces make earnings losses transitory in these models: search as an upward force allows workers to climb back up the job ladder, and separations as a downward force make nondisplaced workers fall down the job ladder.

We show that job stability at the top rather than search frictions at the bottom is the main driver of persistent earnings losses. We provide new empirical evidence on heterogeneity in job stability and develop a life-cycle search model to explain the facts. Our model offers a quantitative reconciliation of key stylized facts about the U.S. labor market: large worker flows, a large share of stable jobs, and persistent earnings shocks. We explain the size of earnings losses by dampening the downward force. Our new explanation highlights the tight link between labor market mobility and earnings dynamics. Regarding the sources, we find that over 85% stem from the loss of a particularly good job at the top of the job ladder. We apply the model to study the effectiveness of two labor market policies, retraining and placement support, from the Dislocated Worker Program. We find that both are ineffective in reducing earnings losses in line with the program evaluation literature. (JEL: E24, J63, J64)

Demand for Giving to Multiple Charities: An Experimental Study

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We study how competition among charities affects individuals giving behavior. We characterize situations where charities benefitting substitute or complementary causes incentivize donations by offering subsidies in the form of rebates. Our theory predicts that an increase in the rebate rate offered by a given charity relative to a substitute charity will shift donations away from the substitute charity, but this stealing effect is not expected when complementary charities are considered. Our model further characterizes the conditions under which total donations increase with rebates. We test the model in an experimental setting, and demonstrate that the experimental results support our theoretical predictions. We derive the demand for giving as rebates vary for both substitute and complementary causes. The social net benefit of rebates is calculated by comparing campaign costs with new donations generated. (JEL: C90, D62, H41)

Task Specialization in U.S. Cities From 1880–2000

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We develop a new methodology for quantifying the tasks undertaken within occupations using over 3,000 verbs from more than 12,000 occupational descriptions in the Dictionary of Occupational Titles (DOTs). Using micro-data from the United States from 1880–2000, we find an increase in the employment share of interactive occupations within sectors over time that is larger in metro areas than non-metro areas. We interpret these findings using a model in which reductions in transport and communication costs induce urban areas to specialize according to their comparative advantage in interactive tasks. We

present suggestive evidence relating increases in employment in interactive occupations to improvements in transport and communication technologies. Our findings highlight a change in the nature of agglomeration over time towards an increased emphasis on human interaction. (JEL: N92, O18, R12)

Sticker Shocks: Using VAT Changes to Estimate Upper-Level Elasticities of Substitution
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We estimate the upper-level elasticity of substitution between goods and services of a nested aggregate CES preference specification. We show how this elasticity can be derived from the long-run response of the relative price of a good to a change in its VAT rate. We estimate this elasticity using new data on changes in VAT rates across 74 goods and services for 25 E.U. countries from 1996 through 2015. Depending on the level of aggregation, we find a VAT pass-through rate between 0.4 and 0.7. This implies an upper-level elasticity of 3, at the lowest level of aggregation with 74 categories, and 1 (Cobb-Douglas preferences) at a high level of aggregation that distinguishes 10 categories of goods and services. (JEL: E19, E21, D12)

Politics in the Courtroom: Political Ideology and Jury Decision Making
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This paper uses data from the Gothenburg District Court in Sweden and a research design that exploits the random assignment of politically appointed jurors (termed nämndemän) to make three contributions to the literature on jury decision-making: (i) an assessment of whether systematic biases exist in the Swedish nämndemän system, (ii) causal evidence on the impact of juror political party on verdicts, and (iii) an empirical examination of the role of peer effects in jury decision-making. The results reveal a number of systematic biases: convictions for young defendants and those with distinctly Arabic names increase substantially when they are randomly assigned jurors from the far-right (nationalist) Swedish Democrat party, while convictions in cases with a female victim increase markedly when they are assigned jurors from the far-left (feminist) Vänster party. An analysis of peer effects implies that jurors from the far-left and far-right parties influence the votes of nämndemän from centrist parties in a way that is consistent with their respective party platforms. This analysis also suggests that at least some of these peer effects result in genuine changes of opinions (affecting trial outcomes), rather than vote changes motivated solely to reach unanimous decisions. (JEL: K14, K40)

Interlinked Firms and the Consequences of Piecemeal Regulation

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Industrial regulations are typically designed with a particular policy objective and set of firms in mind. When input-output linkages connect firms across sectors, such "piecemeal" regulations may worsen externalities elsewhere in the economy. Using daily administrative and survey data, we show that in Peru's industrial fishing sector, the world's largest, air pollution from downstream (fishmeal) manufacturing plants caused 55,000 additional respiratory hospital admissions per year as a consequence of the introduction of individual property rights (over fish) upstream. The upstream regulatory change removed suppliers' incentive to "race" for the resource and enabled market share to move from inefficient to efficient downstream firms. As a result, the reform spread downstream production out across time, as predicted by a conceptual framework of vertically connected sectors. We show evidence consistent with the hypothesis that longer periods of moderate air polluting production can be worse for health than concentrating a similar amount of production in shorter periods. Our findings demonstrate the risks of piecemeal regulatory design in interlinked economies.(JEL: D2, L5, O1, I1)

Bribery: Behavioral Drivers Of Distorted Decisions

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We experimentally investigate behavioral drivers of bribery, focusing on the role of self-interest, reciprocity, and moral costs associated with distorting judgment. In our laboratory experiment, two participants compete for a prize; a referee picks the winner. Participants can bribe the referee. When the referee can keep only the winners bribe, bribes distort her judgment. When the referee keeps the bribes regardless of the winner, bribes no longer influence her decision. An experiment in an Indian market confirms these results. These findings imply that our participants are influenced by bribes out of self-interest, and not because of a desire to reciprocate. Further evidence shows that self-interest guides decisions to a greater extent when referees have scope for avoiding the moral costs associated with distorting judgment. As a result, limiting referees ability to form self-serving evaluations can significantly reduce the effectiveness of bribes. (JEL: D73, C91, K42)

External Effects of Diesel Trucks Circulating Inside the São Paulo Megacity
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The medical literature documents adverse health effects of acute exposure to diesel exhaust, yet quasi- experimental evidence of a policy intervention sustained over months at the scale of a metropolis is lacking. Exploiting the inauguration of a beltway that removed 20,000 cargo trucks passing daily through inner-city roads in São Paulo, we examine the spatially differentiated impacts on the megacity's traffic, air quality and public health. We combine rich panel data on road congestion, ambient NOx concentrations (as a signature of diesel exhaust), and hospital admissions and deaths. The policy reduced congestion, pollution, and hospitalizations, with effects attenuating at increasing distances from a key inner-city corridor used by the transit trucks prior to the beltway opening. The change in congestion was transient, as gasoline-ethanol passenger cars responded by filling the space the diesel trucks left behind. Effects on air and health persisted thanks to the compositional change in road users. We use 2SLS regression, taking policy-induced variation in NOx to instrument for measured pollution, to quantify about one annual hospitalization for every 10 to 20 trucks and one annual death for every 100 to 200 trucks using inner-city roads. Policymakers in megacities where humans and diesel vehicles reside and transit in close proximity may learn from São Paulo's experience. (JEL: H23, I18, Q51, Q53, R11, R41)