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CHAPTER 1

BEGINNINGS

FAST-FOOD RESTAURANTS, GANGSTERS, AND THE MINIMUM WAGE

I PERMANENTLY relocated to Princeton, New Jersey, from England in the summer of 1983 but had earlier spent a year in Princeton with my family in the 1979–1980 academic year. The anecdote that begins this chapter, recalled many years later, is about an immigrant's fears about the mafia in New Jersey and his anxiety about whether the United States was a good place to bring up a family and to spend a life of intellectual inquiry. America is famous, not just for its science and scholarship but also for its recurrent bouts of anti-intellectualism.

Princeton in the late 1980s was an exciting place to be an economist. My then young colleagues David Card and Alan Krueger were beginning their subsequently famous work on the minimum wage, looking at fast-food restaurants in New Jersey and Pennsylvania. Some years later, in a piece written in 1996, I described their work, which I admired, and the reaction to it, which I did not. I began to experience American anti-intellectualism. The Card and Krueger study, which was much cited in the official write-up for Card's 2021 Nobel Prize[1] (Alan

Krueger died in 2019), not only is an early example of a style that is heavily used in economics today but also shows what happens when research challenges vested interests and triggers hardball politics. Especially when, as here, the policy recommendations, if implemented, would redistribute income from the rich to the poor, from capital to labor, and from those with great power to those with much less.

I returned to the topic in a piece written in 2019, and that and the original piece are adapted here as the second and third sections of the chapter. The final section is an entirely new postscript written after Card won the Nobel Prize in 2021.

An Immigrant's First Impressions

America can seem very strange to foreigners. When I first set foot in New Jersey with my family in the summer of 1979, I half believed that the place was infested with gangsters. This idea did not come from watching *The Sopranos*, which lay far in the future, but more likely from reading *Tintin in America* to my kids or from versions of the Al Capone story in the *Reader's Digest* that had scared me as a child. In Scotland in the 1950s, in a home with few books and one television station, the *Reader's Digest* was my window into America.

In New Jersey, I took my family to a Burger King near Princeton (the town itself was then too snooty to allow such places). Coming from Britain, where *ham*burgers were made of *ham*—though only a small amount of the patty was ham; most of it was filler—we believed that American hamburgers were a health food. As I carried our heavily laden tray to a table, we were startled by what I took to be a gunshot. I looked up, and a man across the room had his hands over his face, viscous red liquid welling between his fingers. Just as I had supposed.

Apart from gangsters and the safety of New Jersey, my other worry was more personal. I often wondered about anti-intellectualism, or rather my puzzle over trying to reconcile the coexistence of anti-intellectualism and great universities. Years later, especially when Donald Trump was president, anti-intellectualism seemed more of an issue than did a relatively quiescent mafia. Populists are the new mob; they terrorize us more than gangsters, and populists hate immigrants and intellectuals in equal measure. Trump is an ardent (and apparently genuine) supporter of mercantilism—the long-discredited view that we get rich by exporting more than we import—and if Trump had ever had a science adviser, which he never managed to get around to selecting, he or she would likely have recommended leeches or alchemy (or perhaps bleach) as a cure for COVID-19. The tax bill of December 2017 not only redistributed from poor to rich but also imposed a tax on university endowments and, in an early version, proposed to tax as salaries the tuition relief that graduate students nominally receive as an accounting counterpart for the teaching that they are required to do. Universities are generally unpopular, with 59 percent of Republicans in 2019 saying that colleges and universities have a *negative* effect on the way things are going in the country. Only 18 percent of Democrats agree, but taken together, the numbers are not encouraging.[2] In February 2022, the lieutenant governor of Texas, Dan Patrick, proposed eliminating tenure at Texas public colleges and universities.

Many Americans view immigrants even less favorably than intellectuals, and during the Trump administration they were especially antagonistic toward immigrants from Muslim-majority or terror-prone countries, a designation that included three of the four American Nobelists in 2015. One of my fellow American Nobel laureates was Aziz Sancar, who was born in

Turkey; another, Bill Campbell, who found a cure for river blindness, was born in Ireland. My own country, Britain, was long classified as terror-prone because of the activities of the Irish Republican Army. In what now seems like the good old days, Nobel laureates who were American citizens were warmly welcomed to the White House—in my case by a well-informed and curious President Obama. In 2017 and later years, the Nobel visit to the White House did not happen, perhaps by mutual agreement, given that several laureates were no keener to meet the president than the president was to meet them. After all, what could Trump possibly learn from economics laureate Richard Thaler, whose work, among other things, is about self-control?

One immigration measure put on the table in February 2017 was the RAISE Act, proposed in the Senate by Republicans Tom Cotton and David Perdue, and supported by President Trump. It aimed to cut immigration by half and to subject potential immigrants to a test that would select only those whose skills were thought to benefit the country. The *New York Times* published a version of the test, on which a score of thirty points was needed to qualify. I scored thirty-one, just scraping by. The decisive factor for me was not my degrees from Cambridge in England, which did not count, but my high income, which I would not have had had I not already been in the United States. Catch-22.

But I had missed a footnote. A Nobel Prize scores thirty bonus points, which elevated me to sixty-one. However, it is not just *any* Nobel Prize—peace and literature are apparently not useful in today's United States. I was surprised only that Nobel Prizes in Economics counted, perhaps because Milton Friedman had won one.

Anti-intellectualism is not hardwired into America. The Puritans who started the Massachusetts Bay colony greatly valued learning and founded Harvard within a few years of their arrival. Richard Hofstadter, in his history of anti-intellectualism in America, quotes Moses Coit Tyler: "Only six years after John Winthrop's arrival in Salem harbor, the people of Massachusetts took from their own treasury the fund from which to found a university; so that while the tree-stumps were as yet scarcely weather-browned in their earliest harvest fields, and before the nightly howl of the wolf had ceased from the outskirts of their villages, they had made arrangements by which even in that wilderness their young men could at once enter upon the study of Aristotle and Thucydides, of Horace and Tacitus and the Hebrew Bible."[3] Harvard was teaching young men while Galileo was still at work in Pisa. Shortly after its founding, Oxford and Cambridge recognized Harvard's degrees as equivalent to their own. Of course, neither Trump nor his populist acolytes are Puritans.

Hofstadter's story is one of cycles, of periods of commitment to scholarship, and periods of turning away, largely associated with changes in religion. In more modern times, the United States made a large commitment to education after Sputnik in the early 1960s. And we might hope that, once populism has waned, and the pandemic has gone, Americans will once again understand the value of higher education. There may even come a time when the educated elite in general and academic economics in particular is no longer seen as partly responsible for the declining fortunes of less educated American workers.

As for immigrants, we are often reminded that the United States is a nation of immigrants, but here, too, attitudes change over time and are different from place to place. California, with more than a quarter of its population foreign born compared with 15 percent in the country as a whole, likes its immigrants, and at the beginning of the Trump administration was locked in a legal battle with Attorney General Jeff Sessions, a longtime opponent of immigration and at one time a senator from Alabama, where there are few immigrants.

But what about New Jersey and the mafia at Burger King? As it turned out, I was the shooter. I had dropped a plastic packet of tomato ketchup from my tray, then stepped on one end, causing the packet to explode and to shoot ketchup into my fellow patron's face. Sometimes, the blood is only fake blood. And it is good to let your prior beliefs meet experience and data. If there were still mafioso in New Jersey, they were not the cause of the incident in Burger King that day. And as I was to learn over the subsequent half century, the predators, the shakedown artists, and the protection rackets were less of a problem in New Jersey than they were, and are, in the nation's capital.

The Economics and Politics of Fast-Food Restaurants

On August 20, 1996, President Clinton signed into law a two-stage increase in the minimum wage, the first such increase passed since 1989. In Congress, the measure attracted bipartisan support, as had previous minimum wage hikes. In the Senate, the bill was so *popular* that Republican majority leader Trent Lott held the measure back as a reward for his colleagues if they completed other, less palatable measures before the summer recess. The enthusiasm of the voters, 80 percent of whom favored an increase, and of a majority of Republican lawmakers was not universal: House majority leader Dick Armey of Texas, a onetime economics professor in Montana and Texas, had sworn to "fight it with every fiber of my being."[4]

Armey's opposition to an increase in the minimum wage was shared by most of the American economics profession, even including several on the left, including in Joe Stiglitz's 1993 textbook *Economics*.[5] Although many economists supported an increase, including Stiglitz in his role as chief economist in the Clinton administration, 90 percent believed that increases in the minimum wage would increase unemployment. But there were dissenters, including, most notably, my then colleagues David Card and Alan Krueger, whose empirical work—cited by Labor Secretary Robert Reich (for whom Krueger had been chief economic adviser), by Senator Edward Kennedy, and (without naming the authors) by President Clinton—became the intellectual battleground for the policy.

The substance of Card and Krueger's work is summarized in their 1995 book *Myth and Measurement*.[6] They examine several episodes when the minimum wage changed and, through careful analysis of their own and others' data, build a consistent picture that modest increases in the minimum wage have little or no effect on the numbers of low-wage workers that are employed. Perhaps the most famous case was Card and Krueger's own comparison of employment levels in fast-food restaurants in the adjacent states of New Jersey and Pennsylvania, only one of which (NJ) raised its minimum wage in April 1992.[7] But that was only one of the many similar findings in the book. The results were (and continue to be) intensively debated. The nature and rhetoric of that debate in 1996 provided insights into the American economics profession, into the way in which empirical evidence is received when it challenges conventional beliefs, and into the relationships among research, methods, and policy.

In 1996, economic research had begun to be revolutionized by the widespread availability of previously unimaginable amounts of data. Research became more empirical and less dependent on theory. When data are scarce, we must rely more on our previous knowledge about how the world works and accept the risk that the knowledge may not be right or applicable. With lots of data, we can discard scaffolding that seems weak or outdated. Card and Krueger were among the very best practitioners of such methods, and the empirical results of their study were convincing and straightforward, so much so that their import was clear to policymakers and to the media.

Many of us who were pleased by this turn to the evidence and who had assumed that our views were shared by the profession were disquieted by the level of public and private vituperation that greeted Card and Krueger's conclusions. The reception accorded to Card and Krueger's Princeton colleagues when visiting economists in other institutions was what might be expected by the friends and defenders of child molesters, and the public outcry was even more extreme.

My prize for nastiness went to Paul Craig Roberts, a leading conservative commentator who used his regular column in *Business Week* to lambast the American Economic Association for awarding its John Bates Clark Medal—its most prestigious award—to Card, "an economist who does not believe in the law of demand, the cornerstone of economic science."[8] Roberts impugned the review process at the *American Economic Review*, claiming that both the publication of the paper and Card's selection for the medal had been contaminated by political correctness, and asking whether the honoring of Card was "because the laughable findings have friends in high places like the Oval Office." Roberts's maligning of the American Economic Association and of Card were repeated by Thomas Sowell in *Forbes*; in an article entitled "Repealing the law of gravity" Sowell likened Card and Krueger's results to "cold fusion."[9]

Card and Krueger's study of fast-food restaurants was also attacked by the Employment Policies Institute (EPI), which supplied payroll data to economists David Neumark and

William Wascher that showed that the increased minimum wage had indeed reduced employment. Judging from media reports and conversations with other economists, the EPI's attack—reiterated by *Business Week*, *Forbes*, and the *Wall Street Journal*—was extraordinarily successful in discrediting the quality of Card and Krueger's data. Rarely mentioned, however, is that the EPI was, and is, funded by business groups, that its then director was a lobbyist against the minimum wage, that the data (which were not available to other researchers) were not comparable to Card and Krueger's and came from different establishments, and that new data collected by Neumark and Wascher themselves did not actually contradict Card and Krueger's findings.

Among the leaders of the attack was the late Finis Welch, a distinguished empirical labor economist at Texas A&M. He provided some fine quotes: "The Clinton administration used sloppy statistical studies to support its argument and the so-called evidence they're citing has been killed big-time" (*Nation's Restaurant News*) and "Alan (Krueger) ought to consider the old saw: If you drop an apple and it rises, question your experiment before concluding that the laws of gravity have been repealed" (*Time*). In a similar vein, June O'Neill, then director of the Congressional Budget Office, the agency charged with assessing the effects of government policies, reminded the audience at an American Enterprise Institute meeting that theory is also evidence. Welch's review of Card and Krueger's book (in the *Industrial and Labor Relations Review*) is largely an attempt to discredit their data, using arguments that would apply to government (and perhaps all?) data, and it ends with the recommendation that economists should not attempt to collect their own data.[10]

What was at stake was less the political correctness of the American Economic Association than the theoretical incorrectness of the evidence. That evidence may have to be discarded in favor of "science" could hardly be better argued than in Nobel laureate James Buchanan's words in the *Wall Street Journal*: "Just as no physicist would claim that 'water runs uphill,' no self-respecting economist would claim that increases in the minimum wage increase employment. Such a claim, if seriously advanced, becomes equivalent to a denial that there is even minimum scientific content in economics, and that, in consequence, economists can do nothing but write as advocates for ideological interests. Fortunately, only a handful of economists are willing to throw over the teaching of two centuries; we have not yet become a bevy of camp-following whores."[11] The citadel of orthodoxy is exceedingly well defended.

Minimum Wage Revisited a Quarter Century Later

After many years, the debate on the minimum wage has lost none of its relevance or capacity to divide and upset. The EPI is still in business and still bemoans state-ordered increases in minimum wages. Card and Krueger's work continues to polarize both economists and politicians. Jason Furman, who served as the chair of President Obama's Council of Economic Advisers, has recently noted that their results changed the mind of half of the profession.[12]

Alan Krueger died by suicide in March 2019 at the age of fifty-eight. Over his sadly shortened career, he made lasting and creative contributions to economics over a wide range of fields. He also had a high-level career in policy, in the Department of Labor, in the Treasury, and as President Obama's head of the Council of Economic Advisers, then a cabinet-level position. David Card, his coauthor on the minimum wage studies, now at UC Berkeley, continues a career of extraordinary productivity. Unlike Krueger, he has been less involved with policy. Perhaps not exactly policy, but of intense public interest, was his testimony on behalf of Harvard University in the lawsuit alleging that its admissions policies discriminate against Asian Americans. (Harvard won, but as of spring 2023, the case awaits a decision by the Supreme Court, which is widely anticipated to reverse the judgment and perhaps permanently disable affirmative action in university admissions.)

Card and Krueger's work, together with that of others—particularly Joshua Angrist, who was a graduate student at Princeton around the same time—changed empirical economics. The field moved away from the theory-based modeling that was the standard at the time and toward a reliance on natural experiments, such as that created by the change in the minimum wage in New Jersey but not in nearby Pennsylvania. Card, Krueger, and Angrist were creative in finding other such natural experiments, and from there developed a general approach that looked for the causal effects of policy by trying to find two groups that were arguably identical except for the policy. The minimum wage work, and its use of natural experiments, seemed like magic at the time, setting the stage for new possibilities of investigation. As with all new methods, its problems have become more apparent over time, but the history since 1995 is important and instructive, not just for the minimum wage but for the way that economics is practiced today.

When it comes to assessing the ultimate impact of this empirical revolution, as Zhou Enlai said in 1972 about the French Revolution, it is too early to tell. Yet there is no doubting the impact of the work on the minimum wage as well as on economists' thinking about it. Although the federal minimum wage of $7.25 an hour has not been increased since July 2009, many individual states have made increases. Twenty-nine states have higher rates, ranging from $8.25 in Illinois to $12 in Washington (state), and the cities of Seattle and San Francisco have minimum wage levels of $15 an hour. Using the city or state changes as natural experiments, many studies have by now used methods akin to those pioneered by Card and Krueger.[13] My reading is that these mostly replicate Card and Krueger's findings. There has also been extensive experience with (relatively high) minimum wages in Britain, where there is a raft of studies—none of which finds a reduction in employment.

Even so, the defenders of textbook orthodoxy have not given up. About seven out of ten Americans think the federal minimum wage should be raised, and the failure of Congress to pass such legislation is a testament to the power of lobbying in Washington—in this case by the fast-food industry. The industry also continues to commission studies that buttress the conservative position that trying to help people in this way can only hurt them. The EPI continues its battle; the lead story on its website in the spring of 2023 was titled "Businesses are closing because of the fight for $15" ($15 being the current target for those pressing for a higher minimum wage).

My friend Anthony Appiah, who writes the Ethicist column in the *New York Times*, is a philosopher who thinks about and comments on public policy, as well as the private affairs of his correspondents. He recently asked me, with some irritation, why economists *still* had not managed to settle what seemed like a straightforward question. But perhaps Appiah's question cannot be answered, or at least not in general. Why do we economists—as well as noneconomists—suppose that the effect of a policy change should always be the same, or even act in the same direction? Even water runs uphill when in a pipe with sufficient pressure behind it, apples float up in a tub of water, and no one claims that the law of gravity has been repealed.

Recent work has gone back to theory and asked whether there might be circumstances under which increasing the minimum wage will not decrease employment. Those conditions were laid out in Card and Krueger's book *Myth and Measurement* and had been understood for many years, though often seen as an odd case that was unlikely to apply in the real world. If hamburger flippers or cashiers have limited opportunities to find other work, their employers can exploit the situation. They can pay them less than they contribute to the firm's bottom line, behavior that takes money out of the workers' pay and adds it to the restauranteur's profits. Raising the minimum wage, if the increase is not too large, will reduce this transfer from the worker to the employer, but the employer will not fire the worker, because the employer still makes a profit from each worker, just a little less than before. In this situation, in economics language, the employer has "market power" over the worker; the firm is a "monopsonist," a term coined in 1933 by the formidable British economist Joan Robinson.[14] Such an account also explains the fast-food industry's fierce opposition to higher minimum wages. In many cases, higher wages come straight out of profits, and there is a zero-sum game between capital and labor.

In the 1990s, monopsony in the labor market, particularly the fast-food industry, was generally dismissed. I remember trying to use the monopsony story to defend Card and Krueger's original results and being told "no one believes *that*." But the past decade has seen a revival of interest in the idea, particularly in places with a low population density and relatively few employers—a few fast-food places, a chicken processing plant, or a state prison. Geographical mobility has fallen in America, in part because of the high cost of housing in successful cities, and people may find it difficult to move as a family when several family members are working and must do so to get by. In such a world, it is not unlikely that fast-food restaurants have market power and would use it to keep wages low in at least some places. Such behavior is consistent with practices like noncompete clauses, which limit the ability of workers to find other work.[15]

A charge frequently leveled against Card and Krueger's original work was its neglect of theory. While this charge could reasonably be leveled against much empirical work that uses natural or actual experiments, it cannot be leveled against *Myth and Measurement*. There is vindication today as not only the results but the theory are being taken seriously as part of the current reevaluation of the role of market power in the American economy. Monopoly is one example of market power, where producers can artificially raise prices above their free market level, while monopsony is another, where employers can artificially lower wages. This is not just water flowing uphill but a different world altogether, one in which parts of the economy are not well described by competitive markets in which no one has power, but are more like a class struggle in which capital and labor fight over the surplus. If workers have difficulty moving, they are open to predation by powerful employers. Such an economy is one in which working people have good reason to mourn the decline of unions. The intense political reactions to Card and Krueger's work from deeply interested parties, especially the fast-food industry, and indeed the EPI, would not have been a surprise to Adam Smith when he wrote about the harm done by "the clamour of our merchants and manufacturers . . . for the support of their own absurd and oppressive monopolies."[16]

In December 2021, the Nobel Prize in Economics was divided, one half to David Card "for his empirical contributions to labour economics" and the other half divided between

Joshua Angrist and Guido Imbens "for their methodological contributions to the analysis of causal relations."[17] The citation listed the work on minimum wages as part of Card's contribution, and the Nobel Foundation's website contains a detailed and nicely illustrated description of the New Jersey and Pennsylvania study.[18] Alan Krueger could not be included because the Nobel Prize can only be awarded to living recipients.

The minimum wage work has come a long way from its pariah status in 1996, even if only half of the profession is currently convinced, among whom were presumably the members of the Nobel Prize committee. Card, a very serious man who grew up milking cows in Canada, was seen to smile when receiving his medal, not in Stockholm (because of the pandemic) but in Irvine, California, a sad substitute for the magnificent ceremonies in Sweden. Alan Krueger would, I believe, have been much more expressive.

I will return to Nobel Prizes in chapter 9. But what I like most about this story, and the way that it has developed over the years, is that it moved from name-calling (no doubt entertaining) to serious science in the public interest. Instead of dismissing a finding because it contradicts what we think should happen, we need to check whether the contradiction happens elsewhere, then go back to work to think about why it might happen, not necessarily universally, but under what circumstances. This is what led to the work on monopsony, an account that, in turn, still requires more testing and more debate. It also gives one answer to Appiah's question, because it identifies circumstances where we would expect higher minimum wages not to hurt employment. When might an apple float up, or when might water run uphill? Today, when it is often hard for people to move to a new place, and where the courts have rarely prosecuted monopsony—even though it is illegal—the idea that some employers could be keeping wages artificially low could well be one of the reasons for the long-term decline in living standards of less educated working-class Americans.

Card and Krueger's original paper has become one of the flagships of the natural experiment movement. Despite its iconic status and the fact that it is so easy to explain (see, for example, the nice map of New Jersey and Pennsylvania on the Nobel Prize website), it is hardly definitive. Some of the restaurants in the two states are many miles from one another, and there is a lot going on besides a change in the minimum wages. It was New Jersey that raised its wage, not Pennsylvania, so the conventional wisdom is that employment should have fallen in New Jersey relative to Pennsylvania. That wisdom was contradicted, not by what happened or did not happen in *New Jersey*, where there was a small increase in employment, but by the fact that employment fell substantially in *Pennsylvania*. The argument is that the two states are similar enough that whatever caused the fall in Pennsylvania would have caused a parallel fall in New Jersey had the minimum there not increased. That, of course, is a strong assumption about a counterfactual on which there is no direct evidence.

What makes the work so important is not the original study by itself but the many subsequent replications together with a credible story in terms of the market power of at least some employers in the industry. Replications by themselves are never enough, because we can never know whether the next one might be different; remember when it was thought that all swans were white? But replication together with an understanding of what is going on provides a scientific basis for predicting when minimum wages will or will not reduce employment. For example, employers will have market power where there are few other job opportunities or in poor areas where many employees find it difficult to move because they have family members who must work to make ends meet.

As to the politics, most of the name-calling came from the side of the employers, either their own trade group or politicians and economists beholden to them. Their outrage comes not because their interests were being threatened but because economists, as well as economic theory, were supposed to be on their side and had long been so. The minimum wage work was not just wrong, not just bad science ("cold fusion"), but a betrayal. Of course, there have always been economists on the side of labor as well as on the side of capital. But at least some of the recent criticism of economics has been that so much of its conventional wisdom, and its textbook material, is weighted toward capital and against labor, that it takes efficiency much more seriously than it takes equity, that power differentials are ignored, and that economics' widespread acceptance bears some responsibility for the diminishing fortunes of workers.

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