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Understanding Income Inequality in the United States

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Understanding Inequality

A Dissertation Presented

by

MARK STELZNER

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

SEPTEMBER 2014

Economics

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A Dissertation Presented

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ABSTRACT
UNDERSTANDING INEQUALITY
SEPTEMBER 2014
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Directed by: Professor Gerald Friedman

In a democracy where the median income is substantially less than the mean, why does the poor majority not implement a significant level of redistribution? Despite fears that democracy would empower the poor majority to such ends, constituents of below average income have a mixed record of utilizing democracy to ameliorate economic inequality in the United States. How do we understand this puzzle? Why does the poor majority not maintain a constant level of redistribution in a democracy? In the first part of my dissertation, I provide a game theoretic answer based on historical research which is in accord with the broad trend in both policy and economic inequality in the United States. In the second part of my dissertation, I present new income tax data for New York City and Philadelphia for the 1860s. Despite limitations, this data offers a glimpse at the income shares of the top 1, 0.1, and 0.01 percent of the population in the two premier US cities during an important period in our economic history – a glimpse previously not possible. As we shall see, the income shares of top one percent in New York City in the 1860s and mid-2000s are comparable. This combined with recent data and our knowledge of US history highlights new questions.

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INTRODUCTION

“Across the developed world,” remarked President Barak Obama in a speech given in late 2013, “inequality has increased.” “[T]his increasing inequality,” continued the President, “is most pronounced in our country, and it challenges the very essence of who we are as a people.” Many have made similar statements. “While the income of a minority is increasing exponentially,” explained Pope Francis in an address to the new Vatican ambassadors in 2013, “that of the majority is crumbling.” Even the conservative House Speaker, John Boehner agrees. “We do have an issue of income inequality in America,” explained Boehner in an interview with the *Texas Tribune* in May 2014. Americans agree. A recent Gallup Poll found that 75 percent of all Democrats and 54 percent of all Republicans are dissatisfied with the level of income inequality at present. But how unequal is income inequality in the United States? And for how long and by how much has it increased? Analyzing our current experience with income inequality in more detail is the first step in ultimately answering questions of why inequality has increased and how such unequal outcomes are possible inside a political system that is based on equality. In this introductory chapter, we will examine US income inequality, explore some potential explanations, and outline the trajectory of the rest of this dissertation which seeks to provide answers to some of the deeper questions about income inequality in the United States.

Income inequality – our current experience

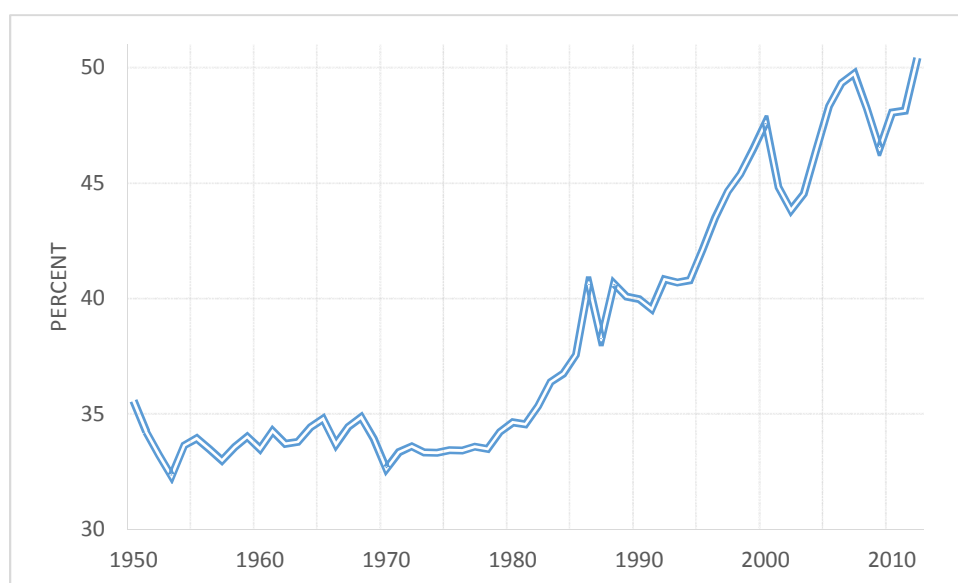
Using income tax data, we can organize the adult population of the United States based on each individual’s total yearly earnings from all sources (wages, bonuses, dividends, interest, capital gains, etc.), with the individual receiving the lowest remuneration on the far left, the individual earning the most on far right, and each individual in between arranged such that earnings descend steadily from right to left. We can then take the top ten percent of the population, the ten percent of the population lined up on the far right, and track its total income as a percent of national income. In figure 1.1, I display this data for the 1950s through 2012.¹ As we can see, the US went

¹ Unless specified otherwise, all figures and income inequality statistics quote here include capital gains – income from the increase in the price of an asset.

from a relative low level of income inequality during the three decades following the Second World War to an extremely high level at present.

From the 1950s through the 1970s, the share of total income accruing to the top ten percent of all adults stayed between 32 and 36 percent. What does this mean? Roughly, one out of every three dollars generated by the economic activities of all US citizens accrued to the top ten percent of the population. The remaining two out of every three dollars went to the rest of the population (the bottom 90 percent). This was a relatively equal distribution, and it remained more or less that way in the three decades following World War II. Thus John F. Kennedy could rightly say in 1963 that “a rising tide lifts all boats.” The large growth in national income between the 1950s and the 1970s benefited income groups equally, with the average yearly income for the bottom 90 percent of the population keeping pace with productivity growth increasing from less than \$20,000 in 1950 to almost \$35,000 in the late 1970s.²

Figure i.1: Income Share of Top Ten Percent in the United States



Source: Piketty, Thomas and Saez, Emmanuel (2003), “Income Inequality in the United States, 1913 – 1998”, *The Quarterly Journal of Economics*, Vol. 118, No. 1, pp. 1-39. For data up to 2012, see <http://elsa.berkeley.edu/~saez/#income>.

This changed in the 1980s. Income inequality began to increase rapidly during the decade of Ronald Regan and George Bush Senior, and, except for short term fluctuations, has continued to

² These figures and all other figures referenced in this paper are in 2012 US Dollars, unless specified otherwise, allowing for comparison across time without distortion from changes in the price level.

increase since. By the end of the 1980s, the income share of the top ten percent had increased by more than six percentage points from its value in 1979. In 1988, it reached 40.63 percent of all income. This increase meant that slightly more than four out of every ten dollars generated by economic activity in the United States accrued to the top ten percent of the population, leaving less than six out of every ten dollars for the bottom 90 percent of the population. However, it did not stop there. By the late 1990s, the income share of the top ten percent surpassed 45 percent. And in 2012, the last year for which we have data, the top ten percent of the population earned an equivalent of 50.42 percent of national income. This means that more than half of all income generated by US citizens went to the top ten percent in 2012, and less than half was left for the bottom 90 percent of the population.

Income inequality has increased so rapidly over the last three decades that Kennedy's heartwarming metaphor is no longer true. Despite average yearly growth in output per worker of around two percent in the United States, the average real income of the bottom 90 percent of the US population has stagnated. In 1979, the average yearly income of the bottom 90 percent was almost \$34,000. Since then, the average income of the bottom 90 percent has fluctuated between \$30,000 and \$37,000. However, the average over the entire period is barely more than \$33,000. Indeed, during the first three years of the current decade, the average income of the bottom 90 percent was less still – barely surpassing \$31,000. As a first approximation, we can conclude that income growth in the United States since the 1980s has exclusively benefited the top ten percent of the population.

These outcomes are incredible. Indeed, the income share of the top ten percent of the population in 2012 is the highest we have on record in the United States. In 1917, the first year we have data for this group, the income share of the top 10 percent represented 40.51 percent of national income. During the 1920s, the share of total income accruing to the top ten percent increased rapidly. However, by 1928, the climax of the roaring twenties, it had only reached 49.29 percent of total income – more than a percentage point less than in 2012.

A peculiar characteristic of the current increase in income inequality in the United States is that it was driven by an increase in inequality among wage incomes. What does this mean? Income can be separated into two groups: wage and capital income. Wage income comes from working and takes the form of wages, salaries, bonuses, and other payments to employees. This category includes every kind of worker, from janitors and secretaries, to managers and chief financial officers (CFOs). Capital income comes from owning financial and real assets, and takes the form of profits,

dividends, interest, rents, capital gains, royalties, and any other income stream from the ownership of an asset. The increase in the income share of the top ten percent from between 33 and 35 percent in the late 1970s to more than 50 percent in 2012 is the result of an increase in both inequality of financial and real estate ownership and thus an increase in inequality from capital incomes, as well as an increase in inequality of wages. However, inequality of wages accounts for approximately two-thirds of the increase of the top ten percent's share in total income over the last three and a half decades.

Skill biased technological change?

Explaining these dramatic increases in income inequality in the United States has become a hot topic in the media, in political circles, and among academics. The explanation that has received the most support from economists and politicians, at least until recently, is skill biased technological change (SBTC). The story goes as follows: since the 1980s, technological change has been concentrated in capital goods utilized by skilled workers.³ A common example of this type of technological change is the computer and the internet. Utilization of these technologies requires a high skill level. Thus the increase in productivity from computers, the internet, and other similar technologies is exclusively captured by high skilled workers. As a result, business has increased its demand for high skilled workers, and because the supply of high skilled workers hasn't increased fast enough, their wages have been bided up relative to low skilled workers.

The difference between wages for high and low skilled workers has increased since the 1970s. Controlling for education and experience, the average hourly wage for male high school graduates in 1973 was \$16.16. By 2001, it had fallen to \$10.34. On the other hand, the average hourly wage for male college graduates was \$22.29 in 1973. By 2001, it had risen to \$25.71.⁴ If we look at the change in terms of the high-low skilled wage ratio (W_H/W_L), which is the practice in economics, we see that there was a ratio of 1.38 in 1973 and 2.49 in 2001. From this light, skill biased technological change seems to explain the rapid increase in wage inequality.

The policy prescription for such a dynamic is simple: increase education for low skilled workers in order to increase the number of individuals who benefit from this technological change. As Claudia Goldin and Lawrence Katz explain in their recent book, *The Race between Education and*

³ Skilled workers usually refer to college graduates while unskilled workers refers to high school graduates.

⁴ All figures are in 2001 dollars.

Technology, wage income inequality depends on the relative progress of education and technology. If the technology that accompanies high skilled workers improves faster than low skilled workers can be educated and pass into the ranks of high skilled workers, wage inequality increases. And if low skilled workers can be educated more rapidly, diminishing the relative size of the low skilled worker pool, wage inequality decreases. Any minimum wage for low skilled workers or wage ceiling for high skilled workers would have deleterious effects on employment, growth, and education.

Although presented in a more sophisticated mathematical dress, the idea behind SBTC is not new. Speaking about the Gilded Age which spanned from the 1870s to the turn of the twentieth century—a period of increasing income inequality similar to that in which we are living today—Andrew Carnegie argued, “Individualism, Private Property, the Law of Accumulation of Wealth, and the Law of Competition are the highest results of human experience, the soil in which society so far has produced the best fruit. Unequally and unjustly, perhaps, as these laws sometimes operate,” continued Carnegie, “and imperfect as they appear to the Idealist, they are nevertheless, like the highest type of man, the best and most valuable of all that humanity has yet accomplished.”⁵ For Carnegie and many of his contemporaries, the dramatic increase in income inequality during the Gilded Age represented the proper functioning of the market – the ascendance of great entrepreneurs uniquely able to organize men and machines and mold their activities so as to produce immense wealth for all. These men had skills that were extremely valuable in the context of the technological change that took place during the Gilded Age. As a result of the value and scarcity of these skills, their incomes skyrocketed relative to those of the average worker.

One main difference between SBTC today and ideas like those expressed by Carnegie and his contemporaries is that the latter was often tinged in a much more racist and sexist tone. Past theories similar to SBTC often went hand in hand with the theory of social Darwinism promulgated by English philosopher Herbert Spencer, and were used to justify eugenics, the manipulation of fertility through sterilization such to reduce certain populations, and restrictions on immigration from undesirable countries. In its current form, SBTC is not presented in the same tone. However, in the construction of data used to give support to the SBTC theory, the large wage differences between African Americans and whites, and men and women, with similar experience and education levels are assumed to be the result of differences in productivity rather than institutionalized racism

⁵ Andrew Carnegie, “The Gospel of Wealth,” *The North American Review*, Vol. 183, No. 599 (Sept. 21, 1906), Pp. 528-30.

and sexism. To the degree that this is incorrect, there are racial and sexist undertones that parallel the more overt expression of the past.

SBTC is a powerful theory; explaining the astronomical increase in wage inequality as the result of individuals skills and preferences coupled with technological change helps to depoliticize the topic. It removes individuals from society and explains the large variation in outcomes based on differences in the characteristics of individuals. Laws and institutions have little role, if any, in these developments except maybe to further complicate the issue. Increasing inequality is not the result of reducing taxes on those at the upper reaches of the income ladder. Nor is it the result of the declining power of unions in the private sector and politics. Rather, it is the result of the changing productivity, the changing social utility, of certain groups, and the political system would be ill advised to interfere in the process by any other means than increasing access to education for the less fortunate. Such a justification is immensely important in a society where the political system is democratic. Although never perfect in practice, democracy is based on the theory of equality of representation. The existence of inequality in a democracy begs the question: how can an economic system that yields such unequal results co-exist inside a political system based on equality? The power of SBTC is that it justifies an extremely unequal economic system in a democratic society.

The debate since the 1970s has assumed that inequality is a natural and necessary result of growth, and thus, the economic system does not fundamentally conflict with the political system. “This mixture of equality and inequality sometimes smacks of inconsistency and even insincerity,” concluded Arthur Okun in his classic book “Equality and Efficiency: the Big Tradeoff.” “Yet I believe that, in many cases,” Okun continued, “the institutional arrangements represent uneasy compromises rather than fundamental inconsistencies.”⁶ For Okun, who set the debate in economic and political circles for the last four decades, society faces a tradeoff between equality and growth and must decide to what degree it wants to “compromise” growth for equality. The political system is the realm which humanizes the sometimes rough, yet always efficient economy. This debate did not stem from SBTC. Instead, SBTC was the natural explanation of wage inequality inside the context of the school of thought from which Okun was speaking.

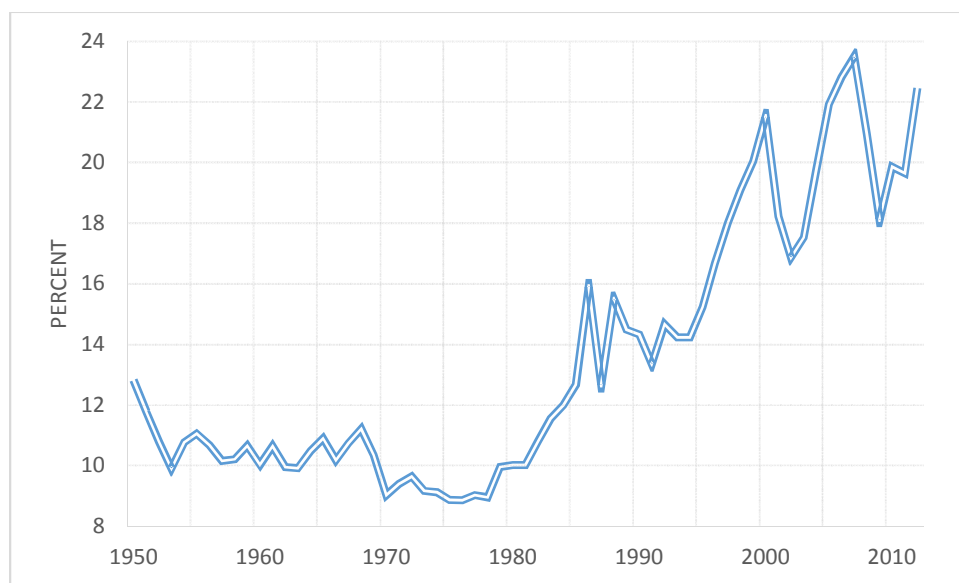
Why is it important that the economic and political system represent a compromise and not a conflict? If SBTC or some other merit-based theory fails to explain the increase in income inequality in the United States, and thus extreme inequality is not justified on efficiency and merit, then the need for explanation multiplies. Aside from explaining the increase in income inequality in

⁶ Okun, A. M. (1975). *Equality and efficiency, the big tradeoff*. Washington: Brookings Institution.

economic terms, one would have to explain why and how such an unequal outcome could persist, and indeed worsen over a period of three and a half decades, in a democracy. Such a discussion is messier than explaining outcomes as the result of relative social worth. For some, including neocons like Rick Santorum, who wants to ban the word “middle class,” it is a discussion that is best avoided. However, it seems more important now than ever to have this discussion. Why? Because SBTC is not as convincing once we more critically analyze income inequality and technological change in the United States and abroad.

To only look at the income share of the top ten percent would miss a central aspect of income inequality in the US. Why? Because the majority of the increase in income inequality in the United States has taken place at the upper reaches of the income ladder – not the top ten percent of the population, but the top one percent, the top 0.1 percent and higher. In figure 1.2, I display the income share of the top one percent of the population from the 1950s to present. As we can see, it stayed between eight and thirteen percent of all income from the 1950s through the 1970s. Roughly one of every ten dollars generated from economic activity accrued to the top one percent of the population during this period.

Figure i.2: Income Share of Top One Percent in the United States

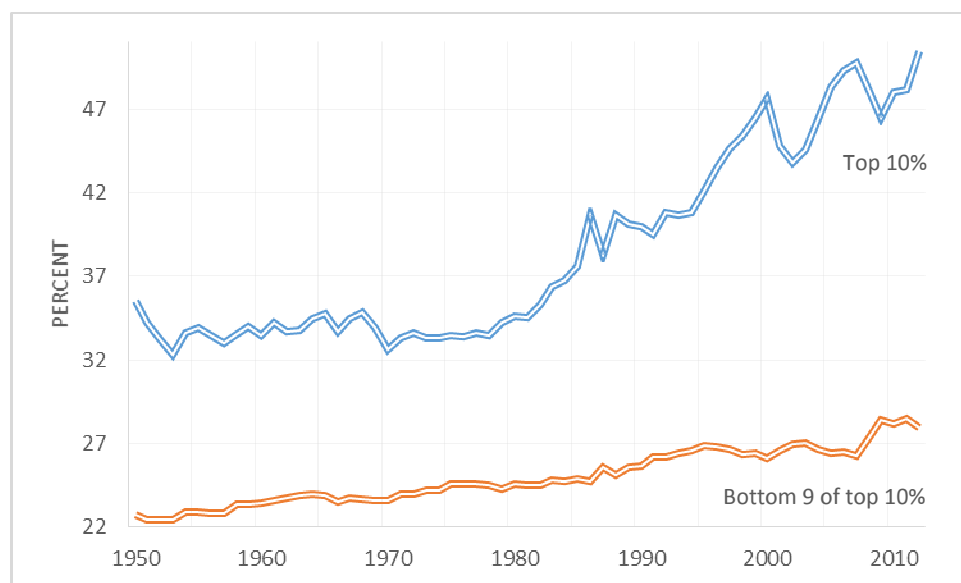


Source: Piketty, Thomas and Saez, Emmanuel (2003), “Income Inequality in the United States, 1913 – 1998”, *The Quarterly Journal of Economics*, Vol. 118, No. 1, pp. 1-39. For data up to 2012, see <http://elsa.berkeley.edu/~saez/#income>.

There was even a significant downward trend. During the 1950s, the average yearly share of the top one percent was just shy of 11 percent of all income. By the 1970s, this figure had fallen almost two percentage points, averaging just over nine percent of all income during the 1970s. Like with the share of the top ten percent during this period, these values represent a relatively low level of income inequality. However, this changed dramatically in the 1980s. The income share of the top one percent began to increase, and it did so more rapidly than that of the top ten percent. By 2012, it had reached 22.46 percent of all income, representing an increase of 144 percent since the 1970s.

What does this mean? If you look at the bottom nine percent of the top ten percent group, that is the top ten percent excluding the top one percent, its experience has differed significantly from that of the top ten percent as a whole. In figure 1.3, I display the income share of these two overlapping income groups. As we can see, the share of the bottom nine percent of the top ten percent increased from around 24 percent in the 1970s to around 28 percent currently – a 15 percent increase.

Figure i.3: Income Share of Top Ten and Bottom Nine Percent in the United States



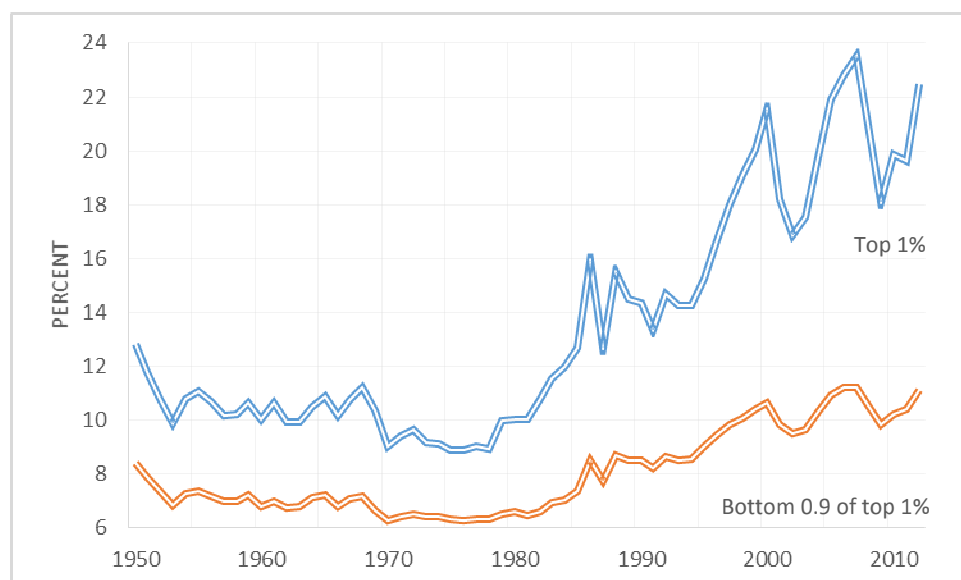
Source: Piketty, Thomas and Saez, Emmanuel (2003), “Income Inequality in the United States, 1913 – 1998”, *The Quarterly Journal of Economics*, Vol. 118, No. 1, pp. 1-39. For data up to 2012, see <http://elsa.berkeley.edu/~saez/#income>.

This is a significant change relative to the bottom 90 percent of the population who saw their share of total income fall dramatically. However, it is miniscule compared to the astronomical

increase in the income share of the top one percent. Indeed, the growth of the income share of the top one percent was so large over the past three decades that it is responsible for 78 percent of the growth of the income share of the top ten percent. The divergence between the top one percent and the rest of the top ten percent can be seen visually in figure 1.3. The growing gap between the two series in figure 1.3 represents the increase in the share of total income going exclusively to the top one percent.

The unbelievable aspect of this story is that it does not stop there. The income share of the top 0.1 percent of the population, the top ten percent of the top one percent, went from 2.83 percent of all income in the 1970s to 11.33 percent in 2012. Let's take a minute to let this sink in. Over the last thirty years, the income accruing to this group has increased so rapidly relative to that accruing to the rest of the population that its share of total income has quadrupled. Despite the exclusiveness of this elite group, the increase in its income share was so spectacular that it accounted for 56 percent of the growth in the income share of the top ten percent, and 72 percent of the growth in the income share of the top one percent over the last three decades. To illustrate this point, in figure 1.4, I display the income share of the top one percent and of the bottom 0.9 percent of the same group.

Figure i.4: Income Share of Top One and Bottom 0.9 Percent in the United States



Source: Piketty, Thomas and Saez, Emmanuel (2003), "Income Inequality in the United States, 1913 – 1998", *The Quarterly Journal of Economics*, Vol. 118, No. 1, pp. 1-39. For data up to 2012, see <http://elsa.berkeley.edu/~saez/#income>.

As we can see by the growing gap between the two series, the vast majority of the top one percent did not share in the astronomical gains made by the top one percent as a whole. This discrepancy represents the increase in the share of total income going exclusively to the top 0.1 percent.

If we explain the increase in inequality as a result of the relative increase in rewards to high skilled workers, how do we explain such different outcomes between the different groups inside of the top ten percent? Everyone inside the top ten percent group are high skilled workers; the ranks of the bottom nine percent of the top ten percent include lawyers, doctors, business owners, professors, managers, engineers, etc. Why did technological change benefit the top one percent and not the rest of the top ten percent? Furthermore, why did technological change so disproportionately benefit the top 0.1 percent and not the rest of the top one percent or the top ten percent? Has technological change been so biased as to reward only a tiny fraction of high skilled workers? Using SBTC to explain such developments – which are central to our experience with income inequality – seems simplistic and reaching.

As Thomas Piketty explains in his recent book, *Capital in the Twenty-First Century*, the extreme increase in inequality in the United States over the past three decades is a direct result of the rise of supermanagers in the financial and nonfinancial sectors of the economy. One recent study found that executives at nonfinancial firms make up 43 percent of the top 0.1 percent group; executives from financial firms made up 18 percent; and lawyers and real estate owners made up 12 percent. Not surprisingly, we can see the same trend in income inequality inside big firms as we can see for the nation as a whole. For example, the compensation of chief executive officers (CEOs) of Standard and Poor's (S&P) 500 companies has increased astronomically relative to their average worker. In 1983, the compensation of S&P 500 CEO averaged 46 times that of their workers. In 1993, it reached 195, and, in 2013, the compensation of S&P 500 CEO averaged 331 times that of their workers. CEO pay is determined by the board of directors of the company. However, CEOs appoint and set the salaries for board members and thus have considerable leverage in the determination of their own remuneration. Explaining the evolution of CEO remuneration is central to understanding the increase in income inequality in the United States. However, SBTC does not offer a convincing explanation.

Another flaw with the SBTC theory is that income inequality in many developed countries has not followed the same trend. For example, in France from the 1950s to the present, the income share of the top ten percent of the population has fluctuated between 30 and 37 percent of all

income; between the 1990s and today, its share has been stable between 33 and 34 percent of all income. By this measure, there have been no long-term secular increases in income inequality since the 1980s. At present, income inequality in France is of the same general level as it was in the three decades following World War II in the United States. If we look at the income share of the top one percent in France, we see the same story. The share of this elite group has fluctuated between seven and ten percent of all income from the 1950s to today. Currently, roughly nine percent of all income accrues to the top one percent in France, representing an increase since 1980. However, it is only on the order of one percentage point as opposed to more than 13 percentage points in the United States.

Why is this important? If SBTC is the reason for the increase in wage inequality in the United States, why is it not working in France? France is also a developed country at the cusp of the world technology frontier. High skilled workers there utilized improvements in computers, the internet, and other technological advances. Why do we not see the same trend in France?

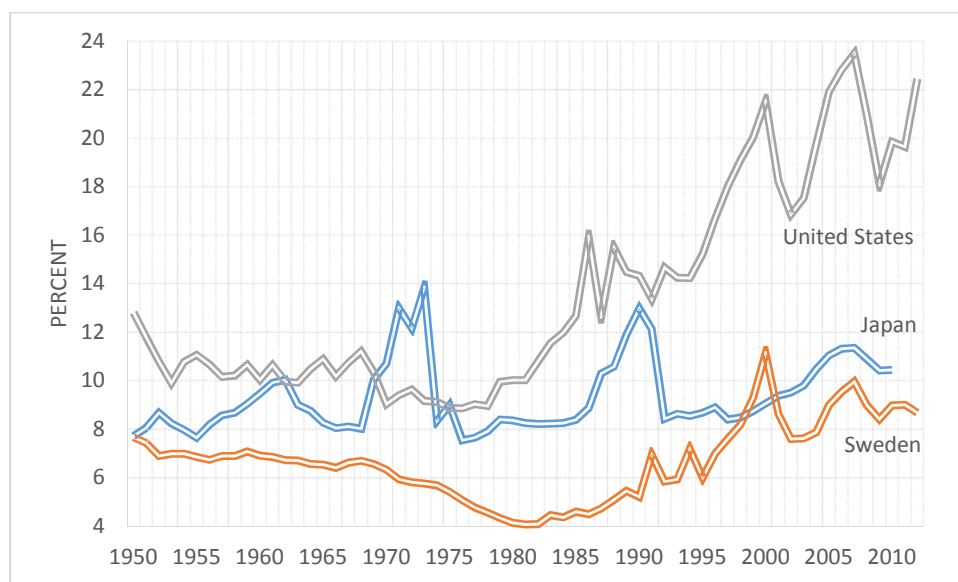
One might be inclined to dismiss France as an aberrant. However, it is not the only nation that has escaped dramatic increases in income inequality since the 1980s. As Piketty so thoroughly illustrates, France is actually representative of continental Europe and Japan, as well. To illustrate this point, in figure 1.5, I display the income share of the top one percent in Japan, Sweden, and the United States. As we can see, in Sweden, the income share of the top one percent has increased since the 1980s. However, it was around four percent in 1980 and is only seven percent now – still significantly below that of the United States during the 1950s, 1960s, and 1970s.

In Japan, the income share of the top one percent has remained between seven and ten percent of all income since the 1950s. Save small differences in levels, this story is the same Germany, Denmark, Italy, Spain, and continental Europe in general. Thus, we can ask again, but this time more broadly, if SBTC is the reason for the increase in wage inequality in the United States, why is it not producing similar outcomes in other advanced industrial economies where technological change is the same? Curiously, the only other countries that have had similar, although not as dramatic, experiences with income inequality since the 1980s are the other English speaking advanced industrial nations – Britain, Canada, and Australia. This peculiarity suggests other explanations based on shared norms and political systems.

Another problem with the SBTC argument is that technology has been constantly evolving throughout the history of the United States. However, outcomes in income inequality have followed radically different trajectories during different periods in US history. For example, the newspapers

in the 1950s, 1960s, and 1970s were full of concern that contemporary technological change would lead to the elimination of jobs and increasing inequality.

Figure i.5: Income Share of Top One Percent



Source: the World Top Income Databases

However, as we have seen, the income share of the top ten percent of the population in the United States remained stable at a relative low level, and the income share of the top one percent actually decreased throughout this period. Why is the technological change at present different from the past? Curiously, in academic papers building cases for SBTC, the issue of technology is casually assumed – there is generally no real data to support the biased nature of productivity growth except for increasing income inequality itself. However, it is not obvious that technological change since the 1980s has been generally skilled biased. For example, it seems that computer programs that check medical symptoms with databases of diseases and output diagnoses would negatively affect doctors by allowing individuals with less education to take over parts of their responsibilities. If so, this type of technological change would be biased to the detriment, not the benefit, of skilled workers.

What then is driving income inequality?

SBTC is laden with many holes, and thus seems to be a poor explanation for the rise in income inequality in the United States since the 1980s. What then is driving the increase in income

inequality? In *Capital in the Twenty-First Century*, Thomas Piketty provides another explanation for the increase in income inequality: when the return on capital is higher than growth, which he shows is typically the case, the stock of wealth grows relative to the economy. Because income from capital is more unequal than income from wages, the growing importance of wealth means that income inequality is increasing. Piketty also shows that wealth inequality and the inheritance of wealth, versus savings over the life cycle, has increased reducing the importance of merit. All of these developments bring us closer to the “patrimonial capitalism” of the 19th century. While the importance of the mechanism he introduces, his meticulous documentation of historical economic series, and the clarity in which he presents the issues makes his work a classic, Piketty’s main findings, as he admits, does not explain the majority of the increase in income inequality in the United States. As mentioned earlier, a peculiar, yet central aspect of the US experience is that increase in wage inequality accounts for two thirds of the increase in income inequality over the last three and a half decades. Yet, the main thrust of Piketty’s book is about capital holding and capital incomes.

As a result, the questions that we posit earlier resurface. What is driving the extreme increase in inequality in the United States? Is it possibly the result of non-meritorious forces? Why has it persisted for so long? To put our current experience in context and hopefully understand it better, we can ask additional questions: have we had similar experiences in the past? If so, how were they similar? How were they different? Finally, more questions surface if we find that social worth and efficiency don’t explain the extreme rise in income inequality. We must ask: how has inequality coexisted in a democratic society?

My dissertation contributes to this debate three ways. Each contribution represents a different chapter. In the first chapter, I develop a game theoretic model which explains the evolution of income inequality in the United States from the 1870s to present as the result of the orientation of laws and institutions which change as different groups in society capture policy control. A group’s success at projecting itself into the political arena and taking control of policy depends on its relative ability to overcome its free rider problem and act collectively. This is because political action for a group good is a public goods game. Individuals have both selfish and group regarding preferences. Selfish preferences lead to free riding. Group regarding preference activate individuals and spur them to engage in political action. The more individuals judge laws and institutions unfair in regards to their group the more successfully the group is in organizing and taking control of the political arena. I model the dynamics assuming two groups, rich and poor, and

finds that conservative cycles result. Government policy oscillates between pro-poor and pro-rich. As the poor take control of the agenda, they gradually tilt laws and institutions in their favor. Inequality decreases. However, this very development leads elites to mobilize. Mobilization eventually leads to elites gaining control of politics and tilting gains from economic activity back in their favor. Inequality increases. The extension of these policies and increase in inequality motivates the poor to mobilize and eventually retake control of the government.

In the second chapter, I uncover data from Civil War income tax, the first income tax in the history of the United States. From which, I calculate both national and city level statistics for the income share of the top one percent in the 1860s. These figures are comparable to figures for the 20th and 21st century. As we shall see, while income inequality in New York City and Philadelphia was extremely high during the Civil War decade, the share of national income accruing to the top one percent of the population in the late 1860s represents a low in US history comparable to the late 1960s and early 1970s. Thus, I show in this chapter that the Kuznets curve in the United States already completed its famed upside down ‘U’ trajectory, although abruptly, during the Civil War decade and began to double back on itself during the Gilded Age.

In the third chapter, I develop a series for the orientation of laws and institutions from the 1870s through the 1920s in the United States and compare it to our experience with income inequality. As we shall see, laws and institutions moved in unison with income inequality. As the income share of the top one percent increased throughout the end of the 19th century and into the first decade of the 20th century, laws and institutions were oriented more and more to benefit those at the top of the income ladder. When the income share of the top one percent fell during Woodrow Wilson’s second term as president, laws and institutions were, relative to the Gilded Age, oriented to empower broader portions of the population. And again in the 1920s, when the income share of the top one percent sky rocketed, laws and institutions were again slanted in the favor of those at the top of the income ladder. Thus, in this chapter, I show that, if not a product of, government policy embraced developments in income inequality from the 1870s through the 1920s.

CHAPTER 1

POLITICAL CONTEST, POLICY CONTROL, AND INEQUALITY IN THE UNITED STATES

The Paradox

In a democracy where the median income is substantially less than the average, why does the poor majority not implement a significant level of redistribution? Fears that democracy would empower the poor majority to do exactly that have haunted political economists at every step in the development of suffrage in the history of the United States.

Shaken by the events of the 1780s, James Madison became convinced that universal suffrage threatened property and, as a result, that democracy must be controlled to protect property.⁷ “There are particular moments in public affairs when the people,” explained Madison in *The Federalist*, “may call for measures which they themselves will afterwards be the most ready to lament and to condemn... Liberty may be endangered by the abuses of liberty as well as by the abuses of power.” That is, political liberty, in the form of popular self-government, could threaten personal liberties, namely, property. And, “the former [popular self-government], rather than the latter [power],” continued Madison, “are apparently most to be apprehended by the United States.”⁸ This view was widely shared. “Remember, democracy [that is, a true, decentralized self-government by the people] never lasts long,” warned John Adams, “It soon wastes, exhausts and murders itself.”⁹ Thus the perceived threat of universal suffrage and significant inequality prompted Federalists to advocate “restriction of popular democracy and the centralization of sovereignty in the national supreme government.”¹⁰

Almost a century later, in the final days of the Civil War, opinions had changed. Most Republicans would have agreed with Sinclair Tousey, president of the American News Company and fellow Republican, when he stated that there is no reason to fear “placing too much power in the hands of the Federal Government” if it was of the people. However, in the late 1860s, radical

⁷ Foner, E. (1998). *The story of American freedom*. New York: W.W. Norton. p. 22.

⁸ In Cooke, J. E. (1961). *The Federalist*. Middletown, Conn: Wesleyan University Press. p. 428.

⁹ Adams, J. (1814). "Defense of the Constitutions of Government of the United States of America," Letter to John Taylor, April, 15, 1814, Works, vol. IV, pp. 489-490; vol. VI, p. 484.

¹⁰ Greenfeld, L. (1992). *Nationalism: Five roads to modernity*. Cambridge, Mass: Harvard University Press. p. 429.

reconstruction of the South and the eight hour movement and its utilization of politics to achieve results alarmed many Americans in the same way the 1780s had Madison and other federalists. “[T]he passionate pursuit of equality of conditions on which the multitude seems now entering, and the elevation of equality of conditions into the rank of the highest political good,” exclaimed Edwin Godkin, editor of *The Nation* and key figure in the Liberal movement, “will eventually prove fatal to art, to science, to literature, and to law; and that, after having gone down into barbarism, and witnessed the decay and destruction of all the great monuments of our epoch, we shall have to begin again the old and toilsome ascent made by our forefathers under the lash of hunger and the brute rule of force.”¹¹ Like Madison, Godkin was not alone. “It became only too apparent that a whole people, swept by a flood of excitement,” explained Washington Gladden, member of the Republican party, “may go hopelessly wrong.” These convictions did not lead Godkin and other liberals to advocate limitations of universal suffrage. Instead, they worked to limit the domain of democratic legislation to prevent attacks on personal liberties.¹² At the same time, many felt, as Gladden expounded that salvation lay “in the rise of a class of leaders who have the courage to resist the mob.”¹³

Despite such prevalent and reoccurring fears, constituents of below average income have a mixed record of utilizing democracy to ameliorate economic inequality. Indeed, from the late-1970s to present, economic inequality increased more or less continuously. And, from 1870 to 1929, while data is sparse and has problems of comparability, it seems that inequality was also increasing.¹⁴ These trends were not in spite of efforts to arrest or reduce inequality. On the contrary, the orientation of laws and institutions during these two periods embraced inequality by balancing taxation on regressive sources, reducing redistribution, and empowering minority groups in the economic realm at the expense of the majority. From the 1870s to the mid-1930s, federal taxation

¹¹ Foner, E. (1988). *Reconstruction: America's unfinished revolution, 1863-1877*. New York: Harper & Row. Montgomery, D. (1967). *Beyond equality: Labor and the radical Republicans, 1862-1872*. New York: Knopf. Quote from Godkin on page 148 in Montgomery.

¹² Montgomery, D. (1967). *Beyond equality: Labor and the radical Republicans, 1862-1872*. New York: Knopf. P. 340.

¹³ Gladden, W., & Shapiro Bruce Rogers Collection (Library of Congress). (1909). *Recollections*. Boston: Houghton Mifflin Co. p. 156.

¹⁴ If we look at figures for 1870 and 1929, which are the most comparable for the period, the percent of total wealth held by the wealthiest one and ten percent of the population increased significantly. However, both income and wealth data show that inequality decreased in the end of 1910s but increased again during the 1920s. For the 19th century, see Margo, R. A. (2000). *Wages and labor markets in the United States, 1820-1860*. Chicago: University of Chicago Press. P. 157. For the 19th century and early 20th century, see Williamson, J. G., & Lindert, P. H. (1977). For 1913 to present, see Piketty, Thomas and Saez, Emmanuel (2003), “Income Inequality in the United States, 1913 – 1998”, *The Quarterly Journal of Economics*, Vol. 118, No. 1, pp. 1-39.

was almost entirely in the form of tariffs on imports and excise taxes – both of which were regressive.¹⁵ Likewise, since the late 1970s, income taxes on those at the upper reaches of the income ladder have been dramatically reduced rebalancing the burden on those at the bottom. Average federal tax rates for the top one percent of income earners fell from just below 49 percent in 1970 to around 30 percent in 2004. For the top 0.1 percent, average federal tax rates dropped from around 65 percent to below 35 percent. And, for the top 0.01 percent, average tax rate fell from above 75 percent to below 35 percent. As a result, from 1980 to 2003, the degree to which taxation reduced inequality in the United States fell by more than 25 percent.¹⁶

Government's attitude towards labor has been similar during the two periods although arguably more extreme in the early period. The end of the 19th century saw the beginning of rule by injunction and the empowerment of the National Guard and federal government to act as a strike breaker.¹⁷ In 1895, the Supreme Court gave its official stamp on developments ruling that the Sherman Anti-Trust Act excluded manufacturing (*United States v. E.C. Knight Co.*) but maintained that the Act's trust busting powers pertained to labor unions (*Debs*).¹⁸ Thus, heralded as an answer to the unrelenting concentration of industry and the increase in economic inequality, the Sherman Anti-Trust Act of 1890 was turned against those that it purported to help. Likewise, during the latter period of sustained increase in economic inequality, the National Labor Relations Act (NLRA), a hallmark of the New Deal created to protect labor's prerogative to bargain collectively, was systematically dismantled through a reduction in funds to the National Labor Relations Board (NLRB), appointment of board members unsympathetic to labor, and re-interpretation of the NLRA.¹⁹ "Collective bargaining frequently means labor monopoly, the destruction of individual freedom and the destruction of the marketplace as the mechanism for determining the value of labor," explained Donald Dotson a few years before Reagan appointed him to chair the NLRB. Moving with the winds of political change, Dotson and the other appointees rapidly reoriented the NLRB in the early 1980s. "In only 150 days the new majority has reversed at least eight major precedents," reported *Business Week* in 1984. "By some estimates, it has already recast nearly 40 percent of the decisions made since the mid-1970s that the conservatives found objectionable." In

¹⁵ Ratner, S. (1942). *American taxation: Its history as a social force in democracy*. New York: W.W. Norton & Company, inc.

¹⁶ Hacker, J. S., & Pierson, P. (2010). *Winner-take-all politics: How Washington made the rich richer-and turned its back on the middle class*. New York: Simon & Schuster. pp. 48 & 52.

¹⁷ Lindsey, A. (1964). *The Pullman strike: The story of a unique experiment and of a great labor upheaval*. Chicago: University of Chicago Press.

¹⁸ Friedman, G. (1999). *State-making and labor movements: France and the United States, 1876-1914*. p. 176.

¹⁹ Vogel, D. (1989). *Fluctuating fortunes: The political power of business in America*. New York: Basic Books. P.270

response to one such reversal which allowed a unionized plant to move operations to a nonunion facility while its contract with the union was still in effect, Dotson explained that the NLRA “is still sound... [Instead] one of the problems in the past has been the way previous boards have interpreted it. Of course, the board can change those interpretations without having to urge Congress to change the law.”²⁰

Contrary to its original purpose, the NLRB became more of a hindrance to collective action than a facilitator of it. “The act and the National Labor Relations Board,” explained Philip Sipser, a political activist and labor lawyer, “have become a millstone around labor’s neck and create a dangerous illusion that workers, unions and the institutions of collective bargaining are protected. Nothing could be further from the truth.”²¹

The impression from the brief examination of the two periods of secular increase in economic inequality might lead one to believe that our democratic system does not work. In which case, the paradox posited above is not a paradox. Instead, significant inequality exists because the seeming empowerment of the masses is only a clever subterfuge. However, there are times when our democracy does seem to work. For example, beginning in the mid-1930s and accelerating during World War II, economic inequality dramatically decreased and remained relatively low until the mid-1970s.²² This decrease in inequality was coincident with reconfiguration of laws and institutions which worked actively to stem the growth of and even reduce economic inequality. For example, the National Labor Relations Act, mentioned above, which gave labor the right to bargain collectively, was signed into law in 1935. The Fair Labor Standards Act, which created a minimum wage, a maximum work week, and abolished child labor, was signed into law in 1938. Likewise, federal income surtax rates on the upper reaches of the income ladder were increase in the 1930s. In 1934, the surtax on net incomes over \$1 million was increased from 55 to 59 percent, and, in 1935, it was increase to 73 percent.²³

There are exceptions to the trend in any of the three periods. Some of these exceptions are not well explained in the stylized model presented below. Others can be explained by the addition of a little nuance. An example of the latter, the Taft Hartley Act of June, 1947 moved in the

²⁰ “NLRB Ruling That Are Inflaming Labor Relations,” *Business Week*, 11 June 1984, p. 122.

²¹ *The New York Times*, July 1, 1985, pg. A14.

²² Piketty, Thomas and Saez, Emmanuel (2003), “Income Inequality in the United States, 1913 – 1998”, *The Quarterly Journal of Economics*, Vol. 118, No. 1, pp. 1-39.

²³ Ratner, S. (1942). *American taxation: Its history as a social force in democracy*. New York: W.W. Norton & Company, inc. p. 467.

opposite direction of New Deal legislation by prohibiting certain union actions. Another exception which can be explained through the addition of a little nuance is the liberal tendencies during the Progressive Era, especially Woodrow Wilson's two terms as President, and the dramatic shift back to the right during the 1920s. However, for now, let us set these exceptions aside and focus on explaining the general trends during the three periods outlined above.²⁴ After, we will return to these examples. Thus overall there seems to be times when laws and institutions are set up to reduce inequality and times where they are set up to embrace it. How do we explain this? Why doesn't the poor majority maintain a constant level of redistribution in a democracy where they are seemingly empowered?

A Possible Answer

A potential answer to this puzzle is that political action²⁵ for a group good is a public goods game, and individuals exhibit both selfish and group regarding tendencies. Selfish preferences in a public goods game result in individuals not contributing – i.e. free riding. At the same time, group regarding preferences motivate individuals to contribute to political action. However, they are conditional on perceptions of the fairness of the system in regards to the group and thus vary with changes in laws and institutions. As a result, sometimes selfish preferences dominate and other times group regarding preferences dominate. When selfish preferences dominate, groups are plagued by inaction – no matter their size. On the other hand, when group regarding preferences dominate, a group is able to act collectively.

Let us set aside group regarding preferences for now and focus on selfish preferences and actions that result from them. Four characteristics are necessary and sufficient for political action to be defined as a public goods game. One, individuals seeking the same end in the political arena cannot create complete contracts permissible in court to bind each other's actions. Two, contributing to the group good entails direct personal sacrifices. Three, for a given individual, the contributions of all other individuals engaged in like political action increase his payoff. Four, the

²⁴ This analysis should not be confused with the business cycle. Whereas the business cycle describes fluctuations in growth, the cycles described here are in regards to economic inequality and government policy.

²⁵ By political action, I mean any activity at any stage in the political process that contributes to moving closer to the sought after goal.

marginal cost of engaging in political action is greater than the marginal benefit.²⁶ In equation (1), I formalize the general payoff facing a selfish individual engaging in a public goods game:

$$\pi_i = -X_i + \alpha \sum_{j=1}^N X_j \quad (1)$$

π_i is the payoff for the i th individual. X_i is the cost of contributing incurred by the i th individual, and $\sum_{j=1}^N X_j$ is the summation of the contributions of all N individuals engaging in the public goods game. Some proportion, α , of these contributions accrue to the i th individual. For the game to be a public goods game, α has to be less than one. If this is the case, the best response for the i th individual is to contribute nothing.

In terms of political action, the cost of contributing can take many forms. It can be as simple as the amount one donates to a campaign or as risky as participating in a protest or strike which faces repression by private or public authorities. At the same time, the cost of contributing can be the potential loss of one's job in the case that engaging in the political contest runs counter to the employer's interest. I will explore this topic in more depth below. The benefit from engaging in a political contest is legislation, change in administration of existing institutions, or interpretation of existing laws. This could take the form of a change in tax or labor laws or a change in the amount or redistributive nature of government spending.

As stated above, for a selfish individual engaging in a public goods game, the best response is to contribute nothing – i.e. to free ride. However, while individuals exhibit selfish tendencies, they also exhibit group regarding preferences, behaviors motivated by their perceptions of their group's condition in society. One type of group regarding preference is the strong group fairness motive, where an individual's action is driven by his assessment of the condition of his group relative to what he perceives as fair. The action confers a benefit on members of the group while inflicting a cost on the individual. Thus, if an individual exhibits the strong group fairness motive and perceives the policies of a particular political system as unfair in regards to his group, he will act on the group's behalf even though it is not individually beneficial in a strictly monetary sense. In equation (2), I formalize the above argument for an individual that perceives taxation to be unfair:

²⁶ For information on a public goods game, see: Bowles, S. (2004). *Microeconomics: Behavior, institutions, and evolution*. New York: Russell Sage.

$$\pi_i = -X_i + \alpha \sum_{j=1}^N X_j + \beta T X_i \quad (2)$$

Equation (2) is the same as equation (1) except for the last term, $\beta T X_i$. T represents the rate of taxation. X_i is the contribution of the individual, and β is some constant proportion. For a non-zero value of taxation, i.e. $T > 0$, the individual receives a payoff proportional to his contribution from engaging in the political contest. This payoff, encompassed in $\beta T X_i$, should be thought of as a moral or social payoff as opposed to a monetary payoff. Thus, if taxation is high enough, if $T > \frac{1-\alpha}{\beta}$, the best response for the individual, taking into account both monetary, moral, and social payoffs, is to contribute to the political contest.

For a group composed of individuals whose payoffs from engaging in political action can be described by equation (2), the more intruding policy is towards the group or the more individuals expect from policy in regards to their group, the greater the total contribution is to the political struggle. Thus, if two groups are fighting over control of the political agenda, all else equal, the group that judges laws and institutions to be more unfair will muster more resources for political action and, as a result, win control the political agenda.

Taking from Acemoglu and Robinson (2001), in the model formalized below, I assume that individuals form two groups: rich and poor.²⁷ I also assume that perceptions of fairness, although different for each group, are exogenously given and constant.²⁸ Inequality is both what each group is trying to control and what spurs individuals to political action. As we shall see, the above dynamics lead to conservative cycles. Government policy oscillates between pro-rich and pro-poor. As the poor take control of the agenda, they gradually tilt more and more of the gains from economic activity in their favor. Inequality decreases. However, at some point, the socioeconomic developments ushered in by the pro-poor government lead elites to mobilize. Mobilization eventually leads to elites gaining control of politics and tilting gains from economic activity back in their favor. Inequality increases. As before, the extension of these policies and increase in inequality motivates the poor to mobilize. Eventually, socioeconomic pressures reach a boiling point, and the poor retake control of the government.

²⁷ Acemoglu, Daron and Robinson, James A. (2001), "A Theory of Political Transitions", *The American Economic Review*, Vol. 91, No. 4, 938-963.

²⁸ Indeed, there is solid empirical evidence that the rich and poor do not share common notions of fairness. I will not deal with this explicitly. In the modeling sections, advantages and disadvantages of each group are collapsed into an implicit function.

From this understanding, the answer to the original paradox is that change is gradual, and control in a democracy is not as simple as pure numbers. Before a vote can occur, interest groups have to mobilize to formulate the issues, provide information, encourage turnout, etc. However, this process suffers from the free rider problem. Motivation to overcome the free rider problem derives from activation of group regarding preferences which are conditional on one's perception of the fairness of the system. As a result, control of the agenda and thus positive policy outcomes eventually lead to loss of control. Change in laws and institutions to correct or embrace inequality lead to mobilization of the opposing group and, eventually, its ascendance.

Cost of Political Action

The cost of political action can take many forms. In some instances it takes the form of a campaign donation. For example, in the campaign of 1896, in efforts to combat the radical threat then embodied in the Democratic Party, business and banking interests poured money into Republican coffers. Standard Oil and J.P. Morgan each donated \$250,000. The four largest meat-packing houses of Chicago gave \$400,000 in total. New York Life Insurance gave "large portions of their clients' premiums." Officially, Republican campaign funds for the election reached \$3.5 million. However, counting unofficial contributions their war chest was somewhere between \$10 and \$16.5 million.²⁹ In contrast, the Democrats had a "campaign chest of only \$650,000".³⁰ These donations contributed to McKinley's victory. From them, the Republican Party was able to print "120,000,000 copies of 275 different pamphlets in English, German, Italian, Polish, Yiddish, Greek, Swedish, and other languages," and broadcast to millions the speeches of McKinley and those of other prominent party members.³¹

From the late 1970s to the late 1980s, campaign donations were again a very visible cost of political action. Business poured money into political action committees (PACs) – a legal entity created to enable labor unions and corporations to contribute to political campaigns. Within a decade, total contributions to PACs created to further business's interests in congress increased by nearly five hundred percent. While unions also utilized PACs to further their political struggle, total

²⁹ Josephson, M. (1938). *The politicians, 1865-1896*. New York: Harcourt, Brace and Co., p. 699.

³⁰ Sundquist, J. L. (1983). *Dynamics of the party system: Alignment and realignment of political parties in the United States*. p. 156-7.

³¹ Josephson, M. (1938). *The politicians, 1865-1896*. New York: Harcourt, Brace and Co., p. 699.

contributions to labor PACs only increased by fifty percent over the same period. As a result, by 1980, corporate PAC donations to political campaigns outpaced union PAC donations.³²

The cost of political action can take other forms. For example, among laboring groups, it often takes the form of donating time and even risking injury or arrest by active participation in a protest. The history of the United States is riveted with such instances. For example, on March 6, 1930, international unemployment day, jobless workers in cities across the nation took to the streets to protest their suffering and government inaction. Some of these protests were peacefully received by local authorities. For example, in San Francisco, more than 2,000 unemployed protested without problems. Likewise, in Chicago, over 4,000 unemployed protested peacefully. However, in many cases, authorities were hostile to unemployment demonstrations. In Cleveland, the unemployment protest, which drew 10,000 jobless workers, ended in chaos when a “battle” broke out between the thousands of unemployed and several hundred police officers. The *New York Times* explains that “Scores of men and women were trampled by the charging horses of the police, and more than 100 were injured by flying police clubs during the melee.” In New York, 35,000 unemployed gathered in Union Square to protest. The rally quickly fell to violence as the demonstrators decided to march on City Hall. The *Times* explains that “an army of 1,000 police, mounted and on foot, supported by scores of detectives, motorcycle men... swinging nightsticks, blackjacks and bare fists, rushed into the crowd, hitting out at all with whom they came in contact... from all parts of the scene of battle came the screams of women and cries of men with bloody heads and faces. A score of men were sprawled over the square, with policemen pummeling them.”³³

Both campaign contributions and participation in a protest represent a cost of political action. In terms of the former, the person or entity that donates incurs a cost – the donation. In terms of the latter, the person that engages in a protest sacrifices her time and potentially much more. While donating and engaging in a protest are very different, exploring the differences between the two forms of political action would take us too far afield. As a result, for purposes here, it suffices to make a somewhat crude assumption that different types of costs of engaging in political action span a one dimensional axis which differentiates between magnitudes.

A Public Goods Game

³² Ibid. p. 121.

³³ The *New York Times*, March 7, 1930, p. 3.

In order to model the payoff function of individuals as we have above, it is essential that political action can be characterized as a public goods game. For this to be the case, political action must be non-cooperative, non-excludable to members of the same group, and the marginal cost of political action must be greater than the marginal benefit.

Both campaign contributions and participation in a protest only bring benefits in the case that a candidate that represents the movement's cause wins. Also, the benefits are not contractual and not excludable. The act of forging a voting base for a political candidate through protest or donations in hopes that he will carry forward some beneficial legislation or block some harmful legislation is not written down in an explicit contract which is permissible in court. Thus the benefits of group action are not binding, and the interaction represents a non-cooperative game. At the same, the benefits of legislation are not excludable to members of the group that did not support the political fight. Evaluating whether the marginal cost of political action is greater than the marginal benefit is more difficult. However, imagine the benefit created by one person staying an hour longer at a protest. In terms of increasing the probability of success of the cause the protest is supporting, the marginal benefit is probably very low. At the same time, because the donation of one hour of time is concentrated in that one person, the cost is much larger. While this brief exploration is not conclusive, I will assume that the marginal cost is larger than the marginal benefit. Thus, political action for a group good is a public goods game, and as a result the best response for *selfish individuals* is to contribute nothing – i.e. to free ride.

Mobilization

As explained above, individuals are not only characterized by selfish tendencies. Many individuals, if not all, exhibit strong group fairness motives. Indeed, I would argue that most of the actions described above, whether campaign contributions or participating in protests, are motivated by such preferences. In the example of international unemployment day, it seems more obvious that the actions of protestors could be described as a response to perceptions that the system was unfair in regards to a specific group – unemployed workers or more generally workers. However, it is also the case with elites.

In 1971, Lewis Powell, a Richmond lawyer, former president of the American Bar Association, member of the board of directors of several large corporations, and soon to be Supreme Court Justice, wrote a confidential memorandum to the Chamber of Commerce. In this memo, Powell seems to be calling on businessmen to act collectively because of the unfairness of

the system in regards to business. He starts by rebuking the individualistic attitude of businessmen in the past and spurs them to act collectively and retake control of politics. “[A]s every business executive knows,” explained Powel, “few elements of American society today have as little influence in government as the American businessman, the corporation, or even the millions of corporate stockholders... the American business executive is truly the “forgotten man.” While business was not without power at the time Powell was writing his memo, it was indeed suffering from a series of legislative defeats.³⁴ “Business must learn the lesson,” continued Powell, “that political power is necessary; that such power must be assiduously cultivated; and that when necessary, it must be used aggressively and with determination – without embarrassment and without the reluctance which has been so characteristic of American business.”³⁵

The strong group fairness motive provides a way for a group to overcome the free rider problem and mobilize collectively. All else equal, the more intruding policy is towards a group or the more individuals expect from policy in regards to their group, the more effective a group can mobilize collectively and contest political control. Thus, if two groups are fighting over control of the political agenda, the group that judges laws and institutions to be relatively more unfair in regards to his group will muster more resources for political action and, as a result, win control the political agenda.

The mid-1970s provides an example of an increase in the perceived unfairness of legislation and business’s resulting move to collective action. A leading political scientist on the period, David Vogel explains that “from 1969 to 1972, virtually the entire American business community experienced a series of political setbacks without parallel in the postwar period.”³⁶ In December 1969, Congress passed the National Environmental Protection Act (NEPA) which declared “the improvement of the quality of the environment to be a major priority.”³⁷ The aim of NEPA, and the following array of environmental legislation, was to force businesses to internalize some of their externalities. Six months later, the Nixon administration established the Environmental Protection Agency (EPA) in order to administer the new regulation and to take over a number of other state regulatory functions. A year later, Congress passed the 1970 Clean Air Act which was a major

³⁴ Vogel, D. (1989). *Fluctuating fortunes: The political power of business in America*. New York: Basic Books. P. 59.

³⁵ Powell, L. (1971). “Confidential Memorandum: Attack on the Free Enterprise System,” Aug. 23, 1971, Powell-Sydnor Correspondence, Powell Papers, pp. 24-5. For a more extensive examination of the growth of the conservative movement in the 20th century, see: Phillips-Fein, K. (2009). *Invisible hands: The making of the conservative movement from the New Deal to Reagan*. New York: W. W. Norton & Company.

³⁶ Vogel, D. (1989). *Fluctuating fortunes: The political power of business in America*. New York: Basic Books. P. 59.

³⁷ Ibid. p. 67.

change from the 1967 Clean Air Act. It contained firm legislative time times for pollution abatement of stationary plants and required car companies to reduce vehicular emissions of hydrocarbons and carbon monoxide by 90 percent by 1976. And, two years later, Congress passed the Federal Water Pollution Control Amendments and the Federal Environmental Pesticide Control Act of 1972.

The legislation flowing out of Congress in the late 1960s and early 1970s dramatically increased government regulation of business. “Between 1970 and 1975,” explains Vogel, “expenditures by federal social regulatory agencies increased from \$1.5 to \$4.3 billion.”³⁸ As mentioned above, the aim of that regulation was to force business to internalize costs that it had previously placed on the general public. Between 1970 and 1974, real business spending on air pollution controls increased by over 150 percent. The total spending on air- and water-pollution in 1974 amounted to 7.7 percent of all capital formation by manufacturing firms. In contrast, in 1969, total spending on air- and water-pollution controls *and occupational safety equipment* only amounted to 4 percent of capital formation.³⁹

Concurrent with the new environmental regulation, Congress passed, and Nixon signed into law, the Tax Reform Act of 1969. The legislation increased the “maximum tax on capital gains, limited real estate depreciation schedules, eliminated the tax credit for investment, and reduced the depletion allowance for a number of natural substances, including oil and gas. At the same time, it provided a modest amount of tax relief for the middle class and the poor.”⁴⁰ All and all, the tax reform dramatically shifted the burden of taxation onto business. Indeed, the elimination of the tax credit alone increased the corporate tax burden by almost \$3 billion.⁴¹ *The New Republic* exclaimed that the 1969 Tax Reform Act “is far and away the most ‘anti-rich’ tax reform proposal ever proposed by a Republican President in the 56 years of the existence of the income tax.”⁴²

The reaction of business was intense. A survey of 1,844 Harvard Business Review readers conducted in 1975 revealed that nearly three-quarters were extremely pessimistic about the survival of America’s commitment to private property and limited government over the next decade. In a survey of Fortune 500 CEO’s conducted by Fortune in 1976, 28 percent responded that “government” was the most serious problem faced by their companies and 35 percent stated that

³⁸ Ibid. p. 146.

³⁹ Ibid. p. 146.

⁴⁰ Ibid. p. 64.

⁴¹ Ibid. p. 62.

⁴² Edwin L. Dale, Jr., “It’s Not Perfect, But It’s the Best Yet,” *The New Republic*, May 3, 1969, p. 10.

“government” was the most serious problem faced by business in general.”⁴³ Indeed, one executive explained that “the American capitalist system is confronting its darkest hour.”⁴⁴

The political losses from 1969 through the mid-1970s motivated business to overcome its free rider problem and organize to fight against the encroachments of labor and environmentalists in the political realm. Organize they did. Corporations opened offices in Washington and exponentially expanded their lobbying activities.⁴⁵ Additionally, businesses created and expanded operations in already existing organizations to push collective issues. The Chamber of Commerce was one of these outlets. Between 1974 and 1980, the Chamber’s membership doubled, and its budget tripled. The National Federation of Independent Business was another outlet utilized by business, and, between 1970 and 1979, its membership doubled.⁴⁶ The Heritage Foundation served a similar purpose: it was created in 1973 with the intent of “shifting public opinion and policy in a conservative direction.” The budget of the Heritage Foundation was pumped up through business donations, and in the early 1980s it was equal in size to that of Brookings Institute.⁴⁷ In 1972, the Business Roundtable, an exclusive organization whose membership was only extended to top CEOs, was created with the purpose of mobilizing “high-level CEOs as a collective force to lobby for the advancement of shared interests.” By 1977, it “had enlisted 113 of the top Fortune 200 companies, accounting for nearly half the economy.”⁴⁸ The Business Roundtable incorporated numerous advantages. For example, members, who were by requirement CEOs, could utilize company resources to fulfill taskforce roles delegated to them. More importantly, their members had special access to government. Thomas Murphy, chairman of GM, Irving Shapiro, chairman of du Pont, Reginald Jones, chairman of GE, and Clifton Garvin Jr., chairman of the Exxon Corporation were regular visitors of Jimmy Carter.

Thus business had changed by the mid-1970s. Its individualistic actions of the past had given way to collective action to promote the group good. “Most of us went our own individual ways [politically], and when we had problems we addressed them ourselves,” Thomas Murphy explained of past decades. “I can remember the days when General Motors didn’t have any

⁴³ Ibid. p. 145.

⁴⁴ Silk, L. S., & Vogel, D. (1976). *Ethics and profits: The crisis of confidence in American business*. New York: Simon and Schuster. P. 71.

⁴⁵ Hacker, J. S., & Pierson, P. (2010). *Winner-take-all politics: How Washington made the rich richer-and turned its back on the middle class*. New York: Simon & Schuster. p. 118.

⁴⁶ Ibid. p. 119.

⁴⁷ Ibid. p. 123.

⁴⁸ Ibid. p. 120.

Washington activities at all. But because of changing circumstances such as Government regulations and other Government activities impacting on our business, we find ourselves increasingly involved.”⁴⁹

The brief history above highlights the wave of environmental and tax legislation in the late 1960s and early 1970s. The theoretical explanation formalized below assumes that two groups, the rich and the poor, fight for policy control. The 1969 Nixon Tax Reform Act fits nicely into the theory. Business and high income earners saw their average tax rates increase and the middle and lower classes saw their rates decrease. However, did the NEPA and the other environmental legislation of this period create benefits and costs that homogenously affected business and lower income groups? Indeed, auto unions allied with car manufacturers to fight environmental legislation in the mid-1970s. In spite of this, I would argue that a business’s ability or inability to degrade the environment during the production process fits with the theory formulated below although in a nuanced manor. Degrading the environment during the production process forces a cost on the community. At the same time, it creates a benefit for the business that pollutes – a reduction in the cost of production. The total cost of polluting incurred by all community members might be more than the benefit enjoyed by the business. Indeed, it often is. However, the total cost the business incurs from polluting is less than the benefit it enjoys. What essentially is taking place is redistribution from the community to the polluting business. It is like business is receiving a subsidy from the government which funded through a tax on the community. While there is the nuance of low income community members whose jobs *might* depend on a low cost of production, regulation of business’s ability to pollute seems to fits with the theoretical explanation formalized below. Indeed, the creation of regulations that force business to reduce pollutants is like the reduction or termination of a subsidy for business and the reduction or elimination of the tax on the community to fund it, all at the same time.

Formalization of Results

Taking from Acemoglu and Robinson (2001), I assume that individuals form two homogenous groups: rich and poor.⁵⁰ N_R is the number of rich individuals, and N_P is the number of poor individuals. Thus the percent of the population that is rich is:

⁴⁹ “Big Business on the Offensive”, *New York Times*, December 9, 1979, p. SM34

⁵⁰ Acemoglu, Daron and Robinson, James A. (2001), “A Theory of Political Transitions”, *The American Economic Review*, Vol. 91, No. 4, 938-963.

$$\frac{N_R}{N_P + N_R}$$

The percent of the population that is poor is:

$$\frac{N_P}{N_P + N_R}$$

Y_R is the before tax income share of the rich, and $(1 - Y_R)$ is the before tax income share of the poor. Both the number of individuals in each income group and their before tax income shares are assumed to be constant.

There are two state variables: the tax rate, T , and the frequency of poor individuals engaging in political action relative to frequency of rich individuals, θ . As explained above, individuals engage in political action because they act on their strong group fairness motive. θ is an accounting term of the relative ability of the poor to overcome their free rider problem. The tax rate is the same for all citizens, rich and poor, and ranges from zero to one (i.e. (0,1)). Once collected, taxes are redistributed evenly among all citizens. Thus the after tax income share of the rich, τ_R , is:

$$\tau_R = \left((1 - T)Y_R + \frac{N_R T}{N_P + N_R} \right) \quad (3)$$

The first term is income minus taxes due. The second term is the amount of redistribution per person, $\frac{T}{N_P + N_R}$, times the number of rich people, N_R , which gives the total amount redistributed to the rich as a group. The after tax income share of the poor, τ_P , is:

$$\tau_P = \left((1 - T)(1 - Y_R) + \frac{N_P T}{N_P + N_R} \right) \quad (4)$$

The first term is income minus taxes due. The second term is the amount of redistribution per person, $\frac{T}{N_P + N_R}$, times the number of poor people, N_P , which gives the total amount redistributed to the poor as a group.

Laws and institutions that affect inequality take place at different points in the production process. Some laws strengthen employers or employees' hand before economic activity takes place and thus affect wages and profits. Other laws and institutions redistribute gains from economic activity after income has already been distributed. This construction collapses all laws and institutions that influence distribution, whether or not they operate before or after production, into one policy, taxation, which impacts distribution after economic activity has taken place. The reason for this simplification is mathematical tractability. Thus, a tax rate of zero, $T = 0$, is shorthand for the specific configuration of laws and institutions that best slants gains from economic activity to the rich. A tax rate of one hundred percent, $T = 1$, which equalizes after tax income between all citizens, is meant to represent the specific configuration of laws and institutions that most empower the poor.

I assume that the change in the tax rate, \dot{T} , is only a function of θ :

$$\dot{T} = f(\theta) \quad (5)$$

The relative frequency of poor individuals engaging in political action is positively related to \dot{T} (i.e. $\frac{\partial \dot{T}}{\partial \theta} > 0$). This is because an increase in θ increases the relative amount of resources the poor dedicate to political action thus shifting the forces mustered in the poor's favor.

I assume that the change in relative frequency of poor individuals engaging in political action, $\dot{\theta}$, is only a function of the level of redistribution, T :

$$\dot{\theta} = g(T) \quad (6)$$

The tax rate, T , is negatively related to $\dot{\theta}$ (i.e. $\frac{\partial \dot{\theta}}{\partial T} < 0$). This is because an increase in the tax rate will increase the frequency of rich individuals engaging in political action and decrease it among the poor. This will decrease θ . Likewise, a decrease in the tax rate will decrease solidarity among the rich and increase it among the poor. This will increase relative solidarity of the poor.

Solving the model

Because of its symmetry, the model can be solved explicitly.⁵¹ Figure 2.1 shows the results of equation (5) and (6) and assumptions $\frac{\partial \dot{\theta}}{\partial T} < 0$ and $\frac{\partial \dot{T}}{\partial \theta} > 0$ in the (θ, T) plane. Starting in the upper right quadrant of the graph, the high and increasing level of redistribution threatens the rich and motivates them to mobilize. The familiar problems of free riding and public goods dynamics are swept aside and the resources gathered by the rich for political contestation surge. The horizontal arrow in the upper right quadrant of the graph represents the mobilization of the rich relative to the poor. Otherwise said, it shows that θ is decreasing in this quadrant (i.e. that $\dot{\theta} < 0$). Once $\theta = \theta^*$ (this occurs along the $\dot{T} = 0$ locus), the resources mobilized by each group for the political fight lead to a stalemate. Redistribution doesn't change.

⁵¹ Algebraic manipulation of equations (5) and (6) yield:

$$g(T) \frac{dT}{dt} = f(\theta) \frac{d\theta}{dt} \quad (7)$$

All of the terms in equation (7) are functions of time, t . Thus, we can integrate both sides of the equation over time. Doing so, followed by a change of variables, yields:

$$\int g(T) dT = \int f(\theta) d\theta \quad (8)$$

Equation (8) can be explicitly solved. Now let us define $H(T, \theta)$:

$$H(T, \theta) = G(T) - F(\theta) \quad (9)$$

$G(T)$ is equal to the integration of $g(T)$ over T . Likewise, $F(\theta)$ is equal to the integration of $f(\theta)$ over θ . C is equal to B minus A and thus is also constant. The properties below follow from the definition of $H(T, \theta)$:

$$\frac{\partial H(T, \theta)}{\partial T} = \frac{dG}{dT} = g(T) \quad (10)$$

$$\frac{\partial H(T, \theta)}{\partial \theta} = -\frac{dF}{d\theta} = -f(\theta) \quad (11)$$

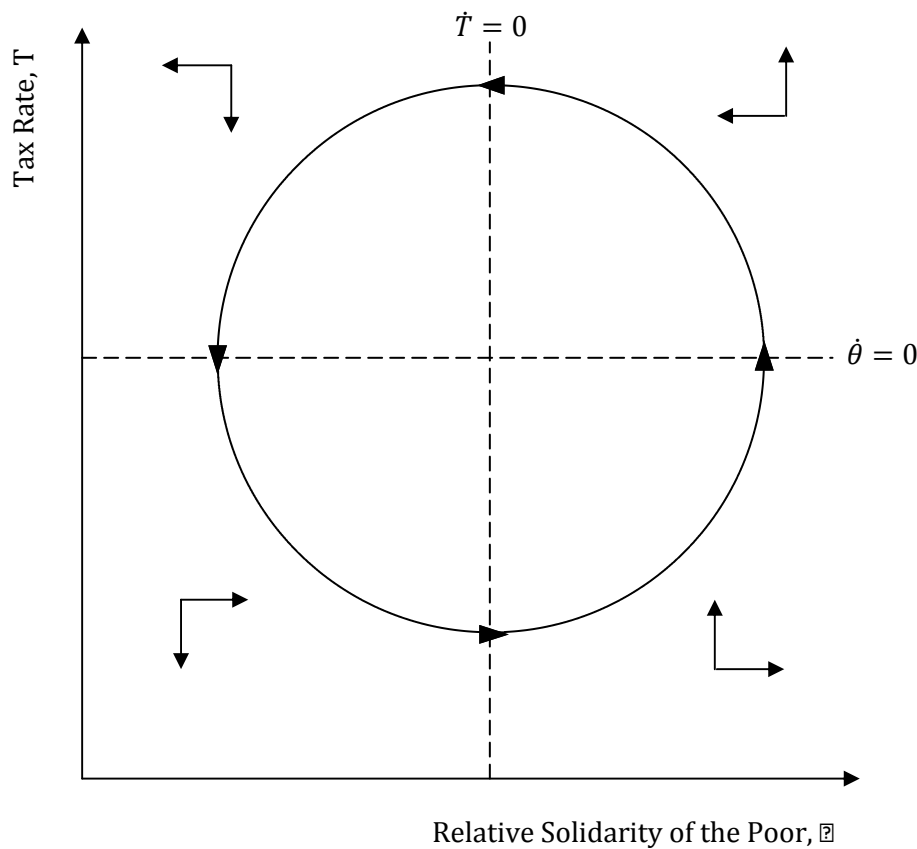
$$\frac{\partial^2 H(T, \theta)}{\partial T^2} = \frac{dg(T)}{dT} < 0 \quad (12)$$

$$\frac{\partial^2 H(T, \theta)}{\partial \theta^2} = -\frac{df(\theta)}{d\theta} < 0 \quad (13)$$

As a result of (10) through (13), it follows that:

- $H(T, \theta)$ is convex
- $H(T, \theta)$ has a global minimum in the stationary equilibrium and that $H_T = H_\theta = 0$ holds at equilibrium
- Starting from some initial point other than the equilibrium, the path of (T, θ) will follow level curves corresponding to the constant C (which is determined by the initial values of T_0 and θ_0).

Figure 1.1 – The evolution of solidarity and political control



Although not changing, the tax rate is still high enough to mobilize the rich relative to the poor (i.e. θ is still decreasing). This development pushes θ into the upper left quadrant of the graph. In this quadrant, the relative mobilization of the rich is such that they are able to capture the political system and gradually shift laws and institutions in their favor. The vertical arrow in the upper left quadrant shows that the level of redistribution is decreasing (i.e. $\dot{T} < 0$). As the rich continue to decrease T , and, as inequality grows, the relative position of the poor is undercut again and again. These dynamics push the system into the bottom left quadrant of the graph.

In this quadrant things are completely reversed from what they were in the upper right quadrant. The low level of redistribution and thus high degree of economic inequality threaten the poor and motivate them to mobilize. The familiar problems of free riding and public goods dynamics are swept aside and the resources gathered by the poor for political contestation surge. The horizontal arrow in the lower left quadrant of the graph represents the mobilization of the poor

relative to the rich. Otherwise said, it shows that θ is increasing in this quadrant. Once $\theta = \theta^*$, the resources mobilized by each group for the political fight lead to a stalemate. The level of redistribution doesn't change.

As before, although not changing, the tax rate is low enough to mobilize the poor relative to the rich, i.e. θ continues to increase. This development pushes θ into the lower right quadrant of the graph. In this quadrant, the poor are relatively more mobilized than the rich and thus are able to take control of the political system and slant laws more and more in their favor. The vertical arrow in the lower right quadrant shows that the level of redistribution is increasing (i.e. $\dot{T} > 0$). As these developments continue, the system is pushed back into the upper right quadrant, and the cycle begins anew. Figure 2 breaks down the results explained above and graphs the relative frequency of poor individuals engaging in political action, the tax rate, and the income share of the rich over time.

Conclusion

Thus the answer to the paradox presented in the beginning of the paper is that our democratic system is more complicated than just voting. In order for a group to successfully push its cause in the political area, it needs to act collectively. However, political action for a group good is plagued by the free-rider problem. To overcome the free-rider problem, individuals must act on their group regarding preferences. However, the actions that result from the group regarding preferences of one group lead to the activation of the very same preferences among individuals in the other group and their political ascendance. As a result, government policy oscillates between pro-rich and pro-poor. In turn, inequality oscillates from relatively high to relatively low when policy is pro-rich and pro-poor, respectively.

It should be reiterated that this model only seeks to explain the general trend in economic inequality and the orientation of laws in institutions in the United States and thus leaves out many important issues. For example, race and sectional issues are not examined. This is a serious omission when talking about politics, laws and institutions, and inequality. Indeed, the political realignments starting in the late 1860s and those of the 1960s involved huge racial components. In the early period, the banner of white supremacy played a large role in goading poor white southerners, many of which originally supported the Radical Republican party, into the Democratic party's conservative embrace. In the latter period, the federal government's reaction to the race

question in the South played a role in activating new Republicanism.⁵² Thus, one should not forget that the model is a stylized version of history, and in the process of making such a stylized presentation possible certain factors are left out.

However, some historical developments which might seem incongruent with the model can be explained with a little nuance. The Progressive and the New Era are the best example of such. From 1900 to 1920, Progressives pushed through an impressive number of liberal laws. Indeed, the current income tax was passed in 1913 via amendment to the Constitution over the Supreme Court's 1895 decision, and in 1916, 1917, and 1919 surtax rates on those at the upper reaches of the income ladder were increased.⁵³ During the New Era which spanned the 1920s, the many arms of government worked tirelessly to slant the playing fields back in big business's favor. "Never before," explained the *Wall Street Journal* in 1925, "here or anywhere else has a government been so completely fused with business." And the President himself was not shy in agreeing: "This is a business country," explained Calvin Coolidge, "and it wants a business government."⁵⁴ Thus, at first glance, the shift in laws and institutions to benefit middle and low income groups during the Progressive Era and then abrupt shift back during the New Era doesn't fit well with the conservative nature of cycles which result from the model presented above.

However, the Progressive impulse was exactly the political activation of liberal individuals stemming from group regarding preferences explained in the paper. Indeed, one of the leading historians on the Progressive Era, Richard Hofstadter explains the movement as resulting from the change in distribution of wealth and power that took place in the end of the 19th century. "In a strictly economic sense," explains Hofstadter, "these men [the Progressives] were not growing poorer as a class, but their wealth and power were being dwarfed by comparison with the new eminences of wealth and power." The Progressives saw this as a result of government policy and sought to right it by changing laws and institutions.⁵⁵ The abrupt shift back in the 1920s seems to

⁵² For the racial component of the Redemption movement, see Foner, E. (1988). *Reconstruction: America's unfinished revolution, 1863-1877*. New York: Harper & Row. For the racial component of the shift in 1960s politics, see Black, E., & Black, M. (2002). *The rise of Southern Republicans*. Cambridge, Mass: Harvard University Press.

⁵³ *Report of the Secretary of the Treasury*, 1940, pp. 466-79 & 530-33.

⁵⁴ For Wall Street Journal and Coolidge quotes, see Schlesinger, A. M. (1957). *The age of Roosevelt*. Boston: Houghton Mifflin.

⁵⁵ Hofstadter, R. (1955). *The age of reform: From Bryan to F.D.R.* New York: Knopf. Pp. 135-47. Explaining the abrupt end to reform after World War One and the complete reorientation of laws and institutions to favor big business during the 1920s will take us too far afield here. However, it suffices to say that President Woodrow Wilson's policy of draconically suppressing liberal thought on the war shredded his Progressive political base. In our model, we could look at this as an exogenous increase in the cost of liberal political action and thus a reduction

be a result of the extreme repression of liberal thought during and directly after World War I and the nature of the Progressives themselves. A middle class movement, the Progressives never completely embraced labor. While they distrusted the very rich, they also did not completely trust those below them. Thus, when President Woodrow Wilson needed support for his war policies, he leaned to the right instead of the left and destroyed the very liberal base that was holding him in power. Indeed, in 1920, Progressive Senator Hiram Johnson of California explained to the press that “The war has set back the people for a generation. They have bowed to a hundred repressive acts... They are docile; and they will not recover from being so for many years. The interests which control the Republican Party will make the most of their docility.”⁵⁶ And they did during the 1920s. This dynamic is not inconsistent with the model presented above. Indeed, it can be explained in a less colorful manner as an exogenous increase in the perceived cost of political action for liberal groups.

A similar nuance can explain the Taft-Hartley Act. Becoming law in 1947 during a period of relative labor empowerment, Taft-Hartley moved in the opposite direction of New Deal legislation by prohibiting certain union actions. However, it seems that the act was a result of the growing external pressure stemming from the Cold War. “[T]he Reds, phonies and 'parlor pinks' seem to be banded together,” wrote President Harry Truman in his diary in September 1946, “and are becoming a national danger. I am afraid they are a sabotage front for Uncle Joe Stalin.” At the same time, the nature of the Taft-Hartley Act should not be exaggerated. While it curbed communist influence in labor organizations and politics, it did not roll back the Wagner Act or shunt labor’s position in government.⁵⁷

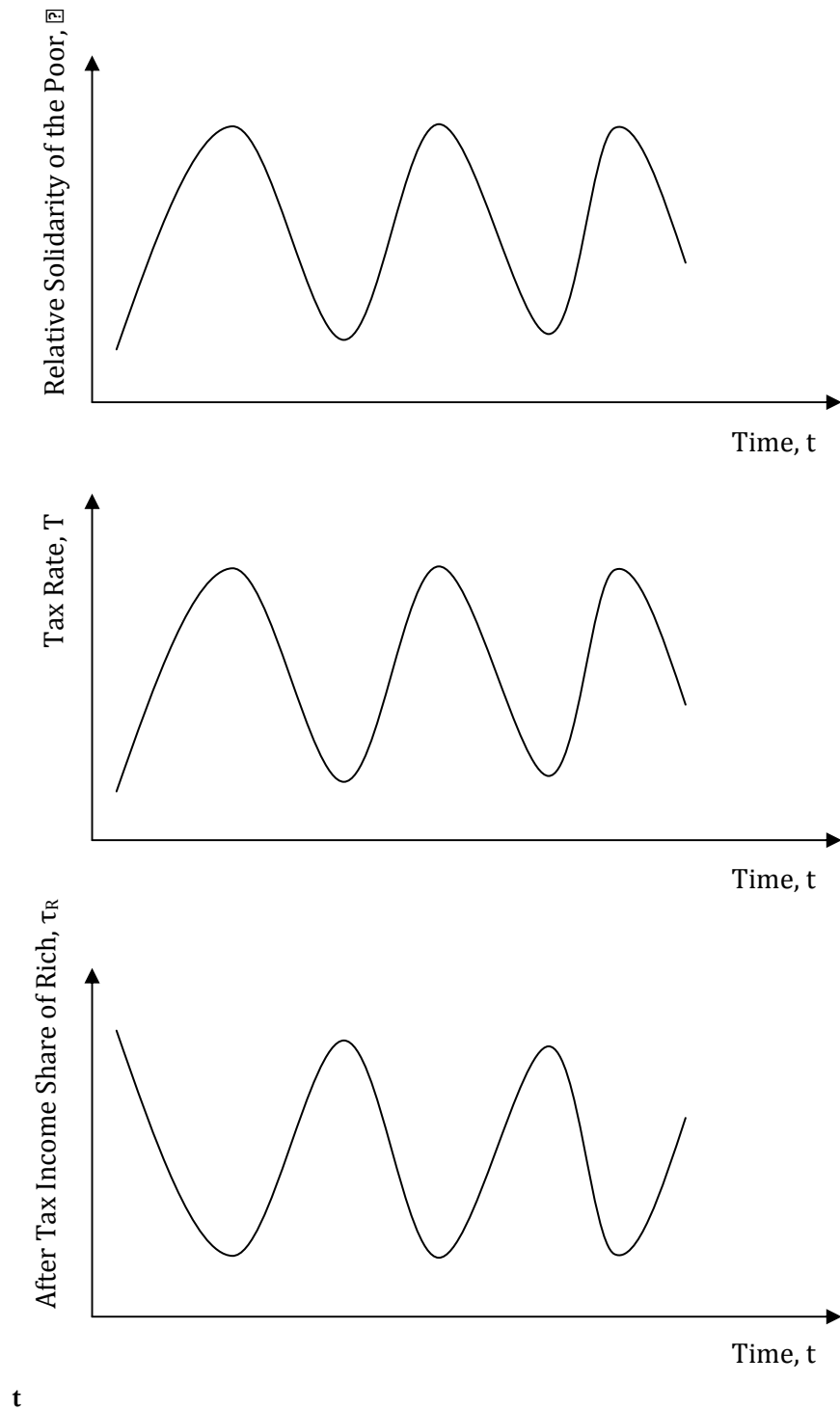
Thus despite what is left out and the need to add nuance to explain certain historical developments, this explanation is in general accord with the evolution of both economic inequality and the orientation of laws and institutions in the United States. Indeed, it is in much better harmony with US experience than other explanations that take aim at similar questions.

in ②. This development is explained by Robert Goldstein. See Goldstein, R. J. (1978). *Political repression in modern America from 1870 to the present*. Boston: G.K. Hall. P. 107.

⁵⁶ For Johnson quote, see Goldstein, R. J. (1978). *Political repression in modern America from 1870 to the present*. Boston: G.K. Hall. P. 167.

⁵⁷ “Many of the provisions of Taft-Hartley were clearly repressive,” explains Justin Goldstien in his book on political repression in the United States, “but the overall intent was to curb labor abuses rather than to destroy the labor movement or roll back the Wagner Act, much as the intent of anti-trust legislation was to curb business abuses rather than destroy capitalism. Labor’s overall acceptance by the American polity was not reversed by the Taft-Hartley Act, but the acceptance of communist influence in labor was ruled out completely.” For Goldstein’s discussion see same text, pp. 291-8. For Truman quote, see Goldstein, R. J. (1978). *Political repression in modern America from 1870 to the present*. Boston: G.K. Hall. P. 298.

Figure 1.2: \bar{z} , T , and τ_R over time,



For example, in their 2001 paper, “A Theory of Political Transitions,” Daron Acemoglu and James Robinson predict that in a consolidated democracy, which presumably includes the United States, the rich and the poor settle into a stable Pareto optimal outcome and, as a result, are able to

avoid political oscillations, changes in laws and institutions, and fluctuations in economic inequality.⁵⁸ Instead, we know that inequality, political control, and laws and institutions have fluctuated inside a “consolidated democracy.”

To be sure, the explanation presented here is in accord with a large body of historical work. For example, in their book *Winner-Take-All Politics*, Jacob Hacker and Paul Pierson explain the secular increase in economic inequality since the late 1970s as the result of those at the upper reaches of the income ladder capturing policy control. Another example of historical work which supports the arguments in this paper is Kim Phillips-Fein’s book, *Invisible Hands*. In the book, Phillips-Fein meticulously documents the growth in conservative movements from the beginning of the New Deal to Ronald Reagan’s Presidency. In the model presented above, this is the same as an increase in the activation of group regarding preferences among the rich and thus an increase in solidarity between them. As hypothesized here, this development took place during a period where, in general, laws and institutions favored the rich less and less. At the same time, Phillips-Fein’s work highlights how difficult it would be to calculate actual values for β over time. Indeed, even calculating values for T would be difficult. First of all, as has been mentioned above, the adjudication of laws and management of institutions changes over time. Thus there could be no changes in laws passed by Congress but a complete change in the orientation of preexisting laws and institutions. The major development in labor law from 1877 to the end of the 1920s was completely juridical in nature. Probably more of a barrier to measurement, the redistributive nature, or lack thereof, of many laws and institutions is difficult to quantify. At the same time, although T and β might be difficult to measure numerically, the theory can be tested against history.

Thus what should one take from this paper? There are two main things. First, this paper is not meant to exclude the possibility of other mechanisms like skill biased technological change (SBTC) or power biased technological change (PBTC).⁵⁹

Instead its purpose is to construct a case for another mechanism. Testing the importance of the different theories is a job for the future. Second, this paper highlights a dynamic which doesn’t seem to be as marked or even existent in other developed democracies from the mid-20th century to

⁵⁸ Acemoglu, Daron and Robinson, James A. (2001), “A Theory of Political Transitions”, *The American Economic Review*, Vol. 91, No. 4 (Sep., 2001), pp. 938-963.

⁵⁹ On SBTC, see Noah, T. (2012). *The great divergence: America's growing inequality crisis and what we can do about it*. New York, NY: Bloomsbury; or Autor, D. Katz, L. and Kearney, M. (2008). “Trends in U.S. Wage Inequality: Revising the Revisionists,” *The Review of Economics and Statistics*, May 2008, 90(2): 300–323. On PBTC, see Guy, F. and Skott, P. (2008). “Information and communications technologies, coordination and control, and the distribution of income,” Working paper.

present.⁶⁰ Thus it opens up questions about the comparative nature of our democratic system: How is the US political system different from political systems in other developed democratic countries? How does this difference enable the dynamic outlined in this paper in the United States and mute or eliminate it in other developed democracies?

⁶⁰ For 20th and 21st century experience with economic inequality in developed democratic countries, see Piketty, T., & Saez, E. (2006). *The evolution of top incomes: a historical and international perspective* (No. w11955). National Bureau of Economic Research.

CHAPTER 2

INCOME INEQUALITY IN THE UNITED STATES DURING THE LATE 1860S

Introduction

Understanding income inequality is a central issue in economics and politics. However, there are still many questions left open. Is income inequality driven by different rates of change in technology that accompanies high and low skilled labor? Is inequality a result of changing institutions that frame the economic playing field? In order to answer any of these questions, it is important to develop data to test these and other theories. Much work has been done with data from the current income tax. However, data from the Civil War income tax, the first income tax in the history of the United States, which spanned from 1862 to 1871 has been underutilized. Creating national and city level statistics for this period would be valuable for extending our understanding of income inequality in the United States and potentially shining some light on the bigger questions highlighted above.

Lee Soltow is the exception to the statement above. He uses Civil War income tax data on the frequency of self-reported incomes within five different income groups (\$1,001+, \$1,401+, \$2,001+, \$3,001+, and \$11,001+) to estimate the inverse-Pareto curve for the income distribution of the whole country.⁶¹ Soltow then compares his calculations for the late 1860s and early 1870s with similar statistics from the current income tax and concludes that inequality was greater during the Civil War decade than during the decade encompassing World War I. However, his analysis is problematic. To estimate the inverse-Pareto curve, Soltow uses five data points. Thus, Soltow is assuming that these handful of data points, which only comprise about two percentiles of the income distribution, are characteristic of the rest. It is entirely possible that uncovering new data could yield a much flatter Pareto slope and completely change his conclusions. In this paper, I

⁶¹ Soltow seems to be the only author that uses Civil War income tax data to try to calculate income inequality statistics. See Soltow, L. C. (June 01, 1969). Evidence on Income Inequality in the United States, 1866-1965. *Journal of Economic History*, 29, 2.) For more information on inverse Pareto curves, see Soltow, L. (April 01, 1968). Long-Run Changes in British Income Inequality. *The Economic History Review*, 21, 1.) The curve Soltow estimates takes the form:

$$X = aL_x^{-b}$$

X is the income variate, and L_x is the number of individuals that have income greater than X . a is the explicit lower limit, and b is the inverse Pareto slope. A larger Pareto slope corresponds to greater income inequality.

reexamine the data Soltow used to calculate the inverse-Pareto curve and bring in other data from the Reports of the Commissioner of Internal Revenue for the Civil War income tax to calculate the income share of the top one percent of tax units in 1866, 1867, and 1868. As we shall see, my calculations leads to completely different conclusions than those found by Soltow opening up questions about how we understand the relationship between income inequality and the orientation of laws and institutions.

In addition, I analyze new income tax data from newspaper and other private publications to calculate the share of total income accruing to the top 1, 0.1, and 0.01 percent of the population in New York City and Philadelphia for 1863 and 1868 and 1864 to 1866, respectively. As we shall see, in accordance with Kuznets' findings, income inequality in two of the United States' premier urban centers was much higher than it was at the national level. Interestingly, the shares of the top one percent in New York City in the 1860s and right before the Great Recession are comparably high. Furthermore, analysis of city level data also supports the theory that income inequality fell dramatically during the 1860s.

The paper is laid out as follows: in the first section of the paper, I provide a brief history of the Civil War income tax. In the second section, I go through the calculation of the income share of the top one percent of tax units at the national level and explicitly describe the different assumption made due to data problems. In the third section, I talk about the reliability of the data gleamed from newspaper publications. In the fourth and fifth sections, I explore the taxable income data for New York City and Philadelphia for 1863 and 1868 and 1864 to 1866, respectively. In the six section, I estimate incomes for non-income tax paying head of household residents to allow the calculation of income shares for those at the upper reaches of the income ladder in section six. In the seventh section, I look at tax fraud to establish the comparability of the statistics calculated here and those for the 20th and 21st century, and, in the last section, I compare the statistics with those from the current income tax and talk about the importance of the findings.

A short history of the Civil War income tax

On July 1, 1862, President Lincoln signed the Internal Revenue Act of the same year which instituted a tax on individuals' incomes – the first ever put into operation by the federal government

of the United States.⁶² The tax was levied on all “gains, profits, or income of every person residing in the United States, whether derived from any kind of property, rents, interest, dividends, salaries, or from any profession, trade, employment, or vocation carried on in the United States or elsewhere, or from any other source whatever.” Income greater than \$600 and less than or equal to \$10,000 was taxed at three percent, and income over \$10,000 was taxed at five percent.⁶³

The tax was collected in different ways for different types of employment and different sources of income. For civil, military, and naval personnel, taxes were deducted before income was disbursed to the individual.⁶⁴ This was also the case for all income derived from interest, coupons, and dividends from all banks, trust companies, savings institutions, insurance companies, and railroads. And, in 1864, canal, turnpike, canal navigation, and slack water companies were added to this list. For non-governmental salaries and income not derived from dividends, interest, and coupons of the above mentioned sources, individuals were responsible for reporting income lists to the internal revenue officer of their collection district. As not to tax individuals twice, self-reporting taxpayers were allowed to deduct incomes that were taxed by different portions of the same law. Thus incomes from interest, dividends, and coupons of the above mentioned sources were not re-taxed when individuals self-reported. At the same time, the amendatory act of 1863 enabled individuals to deduct the amount paid for rent from taxable income, and the revenue act of 1864 extended this provision to allow homeowners to estimate what rent would be and deduct it from their taxable income.⁶⁵

Calculation of National Statistic

We can use data from the Civil War income tax and from other sources to calculate the percent of total income accruing to the top one percent of tax units in 1866, 1867, and 1868. The formula is as follows:

⁶² In 1861, an income tax was passed. However, “No incomes were assessed under that law... Secretary [of the Treasury, Salmon] Chase took no steps toward the collection of the tax” (p. 68) in Ratner, S. (1942). *American taxation: Its history as a social force in democracy*. New York: W.W. Norton & Company, inc. P. 72.

⁶³ Act of July 1, 1862, 12 U.S. Stat. at Large, 469-70. The amount of income that went untaxed changed twice (to \$1,000 and then to \$2,000) before the life of the Civil War income tax was expired in 1872.

⁶⁴ This innovation was first utilized by the British Government in 1803. The British had first implemented an income tax in 1798 under William Pitt in order to meet the financial burden of the war with France.

⁶⁵ Joseph A. Hill (1894). “The Civil War Income Tax,” *The Quarterly Journal of Economics*, Vol. 8, No. 4 (Jul., 1894). Pp. 432-3.

$$\text{Income share of top 1\%} = \frac{\text{Total income of top 1\% of tax units}}{\text{Total income of all individuals}} \quad (1)$$

While the mathematics are simple, there are some data problems. As a result, there are a number of assumptions that have to be made to calculate the statistic. Thus, in this section, I will explain them explicitly. As we will see, the statistics that results should be viewed as an upper bound estimation of the income share of the top one percent of tax units.

Let's start by looking at the numerator. During the Civil War income tax, adult males, defined as twenty years or more of age, were required to report their income and that earned by dependent children and spouse. Thus a tax unit represented an adult male and all of his dependents. We can calculate the number of tax units that make up the top one percent by estimating the adult male population. There are census figures for the adult male population in 1860 and 1870.⁶⁶ However, there are no statistics for the years in between. I estimate these values by stringing together a linear trend between the data points for 1860 and 1870. This is an approximation of reality. Most likely the linear trend overestimates the number of adult males during the middle of the decade due to war casualties and the decrease in immigration. To the degree that the linear estimation does overestimate the size of the adult male population during the years in question, the statistics for the number of tax units in the top one percent would be upwardly biased thus attributing more income to the group. As a result, the income share statistic would also be biased upwards.

Once we establish the number of tax units that make up the top one percent, we need to calculate their total income. As mentioned above, collection of income tax was separated into two groups depending on the source of income and types of employment. For some incomes, taxes were collected at the source like those deriving from dividends, interest, and coupons from banks, railroads, and insurance, canal, turnpike, canal navigation, and slack water companies. For other sources, income was self-reported and paid by the individual. In terms of self-reported income, we have aggregate data on the total amount of revenue collected for income in 1866 through 1868. This data can be easily manipulated to give the total amount returned for assessment during the different calendar years by dividing by the tax rate.⁶⁷ However, these figures approximately

⁶⁶ United States. (1975). *Historical statistics of the United States: Colonial times to 1970*. Washington: U.S. Dept. of Commerce, Bureau of the Census.

⁶⁷ See Hill, J. A. (July 01, 1894). THE CIVIL WAR INCOME TAX. *Quarterly Journal of Economics*, 8, 4.) Appendix. The figure for 1868 is approximated.

represent the total self-reported income of the top three percent of the adult male population – the percent of all US adult males that paid income tax during this period.⁶⁸ In order to calculate the total self-reported income of the top one percent of tax units, we need to subtract out the 97th and 98th percentile from the aggregate figures. There is some data, but very little, on the number of individual in different income groups. Luckily, of the little data that exists, the Commissioner of Internal Revenue of the Civil War income tax compiled figures which nicely delineate the 97th and 98th percentile from the 99th percentile for 1866, 1867, and 1868.⁶⁹ We can use this data to manipulate aggregate figures such that they only include the total self-reported income of the top one percent of adult males.⁷⁰ This series is displayed in the first row of table 1. As we can see, the total self-reported nominal income of the top one percent of tax units fell in 1867 and increase in 1868 but not by enough to make up for the previous year. On average, it hovered around \$542 million (in current dollars).

In terms of income from dividends, interest, and coupons from banks, railroads, insurance companies, and other transportation companies there is aggregate data for the total amount collected during the different fiscal years.⁷¹ Because of the non-synchronization of collection after the act of 1867, the total amount collected during a given fiscal year represents part of income reported for assessment in the previous calendar year and part of the income reported for assessment in the same calendar year. Unlike the case of self-reported income data, there are not exact figures for the total revenue collected from income for different calendar years. If we assume a given fiscal year represents the corresponding calendar year, we could under or over represent the amount of income accruing to the top one percent from this source and thus downwardly or upwardly bias the income share statistic for that year. At the same time, the degree to which making

⁶⁸ The percent of all adult males paying income tax fluctuated between 2.93, 2.75, 2.89, and 2.87 percent in 1866, 1867, 1868, and 1869 respectively.

⁶⁹ For data on number of individuals with incomes in the 97th, 98th, and 99th, see United States. (1868-70). *Report of the Commissioner of Internal Revenue on the operations of the Internal Revenue system for the year ending*. Washington: G.P.O. or see Hill, J. A. (July 01, 1894). THE CIVIL WAR INCOME TAX. *Quarterly Journal of Economics*, 8, 4.) Appendix P. 494. Adult males with income over \$2,000 represented the top 1.06, 1.06, 1.01, and 0.98 percent of the adult male population in 1866, 1867, 1868, and 1869 respectively.

⁷⁰ This is done by subtracting the middle income from two income ranges which make up the 97th and 98th percentiles and multiplying those by the total number of adult males which populate each range. From this, one small correction is needed. Each tax unit was allowed to deduct \$1,000 in 1866 through 1869. Thus, in order to estimate their total income instead of their total taxable income, \$1,000 has to be added for each tax unit.

⁷¹ For data on number of income deriving from dividends, interest, and coupons from banks, railroads, and insurance companies, see United States. (1868-72). *Report of the Commissioner of Internal Revenue on the operations of the Internal Revenue system for the year ending*. Washington: G.P.O. or see Hill, J. A. (July 01, 1894). THE CIVIL WAR INCOME TAX. *Quarterly Journal of Economics*, 8, 4.) Appendix Pp. 491-2.

such an assumption would bias one statistic, it would have the opposite effect on the statistic for an adjacent year. Any income that was falsely attributed to one year would have to come from one of the adjacent years. Consequently, the income share statistic for the adjacent year would then be biased in the opposite direction. The average over a number of years would somewhat self correct. As a result, let us assume that a given fiscal year represents the corresponding calendar year. As we can see from table 1, this assumption leads to very similar income share statistics for the three years. Thus it seems that the amount of income missing from a given fiscal year that should be attributed to the corresponding calendar year is offset by a similar amount of income included from the following calendar year.

There is one more problem with dividend, interest, and coupon income. Unlike self-reported statistics, there is no way to identify what part of that income accrues to the top one percent and what part belongs to the bottom 99 percent. In order to calculate a first approximation, we can assume that all income deriving from dividends, interest, and coupons from banks, railroads, insurance companies, and other transportation companies accrued to the top one percent of tax units. This clearly overestimates the total income of the top one percent and thus biases income share statistic upwards. Thus we should take final statistics for the income share of the top one percent of tax units as an upper bound. The result is displayed in second row in table 1. As we can see, the amount of income from dividends, interest, and coupons increased steadily from \$168 million in 1866 to \$191 million in 1868.

We can now calculate the numerator which is just the sum of the total amount of self-reported income and income collected at the source accruing to the top one percent. This series is displayed in the third row from the top in table 1. As we can see, total nominal income of the top one percent fell from \$738 million in 1866 to \$684 million in 1867. However, in 1868, the total income of the top one percent increased sufficiently to bring it just about to where it was in 1866.

In order to calculate the denominator, we need a statistics for nominal gross domestic product (GDP). GDP was not explicitly calculated by the government before the 1930s. However, Louis Johnston and Samuel Williamson have constructed nominal GDP figures for the 1860s.⁷² Johnston and Williamson use interpolation between Robert Gallman's figures for 1859 and 1869 to

⁷² Indeed, they have even constructed figure for GDP for as far back as 1790. See Samuel H. Williamson, 'What Was the U.S. GDP Then?' MeasuringWorth, August 2013. <http://www.measuringworth.com/datasets/usgdp/result.php>. These figures are for the census year. However, for the same reasoning with source income, we can make the assumption that they represent the calendar year.

calculate figures for 1866, 1867, and 1868.⁷³ Their results are shown in the fourth row in table 1. As we can see, nominal GDP decreased between 1866 and 1868. This was a result of deflation. Indeed, during this period, real GDP increased by 5.7 percent.⁷⁴

Table 2.1: Construction of income share of top 1% of tax units (current dollars)

	1866	1867	1868
Self-reported income + \$1,000 deduction (millions)	\$570	\$500	\$544
Income from dividends, interest, and coupons (millions)	\$168	\$184	\$191
Total income (millions)	\$738	\$684	\$735
GDP (millions)	\$9,081	\$8,424	\$8,224
Income share of top 1%	8.13%	8.12%	8.93%

Source: see text.

The income share of the top one percent of tax units was 8.13 percent of total income in 1866 and 8.12 percent in 1867. In 1869, the income share increased marginally to 8.93 percent of total income. During the three years, the average income share of the top one percent was 8.39 percent of total income.

Before we can compare the statistics calculate here to Thomas Piketty and Emmanuel Saez's data on income shares of top earners during the 20th and 21st century, three small points have to be made. Also, we have to talk about tax fraud. First, salaries of federal government employees are not included in the statistics calculated here. They were collected at the source and thus not included in self-reported incomes. At the same time, there is no data on the distribution of the incomes of such individuals. The inability to include federal government employees in the calculation doesn't seem to be a significant problem. The federal government was *much* smaller during this period, and the increase in federal employment due to the Civil War had been largely reverted by the end of 1865. Indeed, in 1865, federal employment decreased so dramatically such that total federal wages fell by at least 72 percent.⁷⁵ Furthermore, it is unlikely that federal wages made up a significant portion of

⁷³ The figures for 1859 and 1869 are taken from Robert E. Gallman (1966) "Gross National Product in the United States, 1834-1909" In *Output, Employment, and Productivity in the United States after 18000*, Dorothy S. Brady, editor, 3-76. New York: Columbia University Press (for NBER), 1966.

⁷⁴ See Samuel H. Williamson, 'What Was the U.S. GDP Then?' MeasuringWorth, August 2013.

⁷⁵ Calculation made by author using collections data. See United States. (1868-72). *Report of the Commissioner of Internal Revenue on the operations of the Internal Revenue system for the year ending*. Washington: G.P.O. or see Hill, J. A. (July 01, 1894). THE CIVIL WAR INCOME TAX. *Quarterly Journal of Economics*, 8, 4.) Appendix Pp. 491-2.

income for the top one percent. To the extent that they represented part of the income accruing to the bottom 99 percent, they are included in the GDP statistics. Second, only capital gains from assets held less than three years are included in self-assessments. Thus this series is awkwardly in the middle of Piketty and Saez's data which neatly includes and excludes capital gains. Third, individuals who owned their house were allowed to estimate what rent would be and deduct it from their income. This factor definitely downwardly biases the statistics. However, it is likely that the upward biases talked about above are larger. Thus these three points are small and likely do not significantly reduce comparability with Piketty and Saez's statistics. More important is the relative level of tax fraud during the Civil War income tax. However, before we talk about tax fraud, let's look at income inequality in New York City and Philadelphia during the 1860s.

Reliability of data for New York City and Philadelphia

Besides the aggregate data from the Reports of the Commissioner of Internal Revenue, there is also a plethora of data for reported taxable income for tax units in a number of cities. Newspapers and other private venues literally published pages of lists with individuals' names and their reported taxable income. I have uncovered and coded data for New York City and Philadelphia residents for 1863 and 1868 and 1864 to 1866, respectively. However, one must ask if this data is reliable? Did data published in newspapers and other private venues accurately represent data collected by the Internal Revenue Service? To answer this question, let us explore contemporary commentary to understand why income lists were published in private venues.

"One curious feature of Federal experience with ... [the income] tax," explained David Wells, who Congress appointed in 1865 to a commission of three to investigate the federal tax system, "was, that the returns made under it were thrown open to the public." This was not legislated by Congress, but instead was decided by the Commissioner of Internal Revenue in the absence of legislation prohibiting such actions. Indeed, "one commissioner of internal revenue instructed his officials to have [returns]... published in the pages of local papers."⁷⁶ These actions were defended on the grounds that they helped detect fraud. "The publication of the income lists, although it has raised a great deal of indignation," argued the *New York Times* in 1865, "is yet approved by the mass of all upright loyal men who do not desire to see their Government, now in

⁷⁶ Wells, D. A. (1874). *The Theory and practice of local taxation in the United States: A new chapter of progress*. Boston?: s.n.

its day of trouble, defrauded of great.”⁷⁷ “The object of the law,” explained Commissioner Joseph Lewis in 1865, “seems to have been to afford every tax-payer an opportunity of ascertaining what returns his neighbors have made.” “He is interested in these returns,” Lewis explained, “because the burden of the national duties is a common one, and every person should be required to pay his due proportion of it.”⁷⁸ Publication of incomes reduced fraud through two mechanisms. First, it enlisted the masses to act as internal revenue police. Second, it created social pressure to conform to the law by opening up those who underreported to public shaming. “Why shun the light if there be nothing that dreads it?” asked the *New York Tribune*, “And if there be men living at the rate of five to ten thousand a year who swear their incomes down to \$1,000 or \$1,500, why not let the world see and scorn their unpatriotic knavery?”⁷⁹ Indeed, those who fraudulently reported income were often called out in the press. “One man, who was supposed to have an income of over \$100,000 from unencumbered real estate,” commented the *Evening Post*, “lives like an English nobleman on about \$2,800 per year, and another supports a luxurious town house and country place on the prodigious income of \$98.02, from which is to be deducted the sum of \$2.94 for his bleeding country.” “Such thrift and executive capacity,” the *Post* added, “are unsurpassed in ancient or modern times; and they place many of our fellow-citizens high above that celebrated individual of antiquity who was flaying a parasite for his oleaginous deposit and cuticle.”⁸⁰ This practice continued until it was explicitly prohibited by Congress in 1870.⁸¹

While unusual compared to current practices, publication of reported taxable income was a feature of the Civil War income tax. Thus it seems that we can reasonably assume that income lists published by private venues accurately represented those lists compiled by the Bureau of Internal Revenue. Indeed, as David Wells describes, the bureau officers themselves sometimes saw to it that reported taxable income lists were published in private venues.

New York City 1863 and 1868

⁷⁷ New York Times, “Our Internal Revenue,” July 8th, 1865. P. 5.

⁷⁸ Quoted in Joe Thorndike (2001). “An Army of Officials,” Working paper, p. 16.

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=294824

⁷⁹ New York Tribune, “Publishing Incomes,” January 21st, 1865. P. 4.

⁸⁰ Quoted in the New York Times, “The Internal Revenue Law – Telling Other People’s Secrets,” December 29th, 1864. P. 4.

⁸¹ Joseph A. Hill (1894). “The Civil War Income Tax,” *The Quarterly Journal of Economics*, Vol. 8, No. 4 (Jul., 1894). P. 436.

In 1865, the *American News Company* published a list of the reported taxable income for “every resident of New York [City]” for the year of 1863; and, in 1869, the *New York Tribune* published the same list but for the year of 1868. In both cases, the data was taken from the archives of the Bureau of Internal Revenue. During these years, New York City made up the fourth, fifth, sixth, seventh, eighth, ninth, and thirty second collection districts of the state of New York. In table two, I compile the data from these two sources and report the number of individuals in nine different income categories for each year. In 1863, reported taxable incomes range from \$1 dollars to \$1,843,637. The latter income was that of Alexander T. Stewart – owner of the largest dry good store in the United States. William B. Astor reported an income of \$838,525. Cornelius Vanderbilt reported a taxable income of \$680,728, and Moses Taylor reported a taxable income of \$573,494. The mean taxable income was a little more than \$4,000. The median taxable income was a little less than \$1,000, and the total taxable income was just over \$82 million. 17,936 people reported a taxable income of around 160,000 head of household New Yorkers.⁸² Thus those that fell under the income tax in 1863 roughly represented the top 11 percent of all head of household New York City residents.

In 1868, taxable incomes range from \$1 dollars to \$3,019,281. The latter income is that of Alexander T. Stewart which represents a 63.8 percent increase on his reported taxable income in 1863. William B. Astor reported a taxable income of \$1,079,212 which represents a 28.7 percent increase from 1863. In 1868, the mean taxable income was a little less than \$5,000.⁸³ The median taxable income was greater than \$1,000, and the total taxable income was slightly more than \$88 million. 17,991 people reported a taxable income of around 180,000 head of household New Yorkers.⁸⁴ Thus those that fell under the income tax in 1868 roughly represented the top 10 percent of all head of household New York City residents. As mentioned above, only the top three percent of adult males paid the income tax at the national level in 1868. Thus, New York City already represented a disproportion concentration of upper incomes.

From 1863 to 1868, the mean and median taxable income increased slightly although median taxable income increased more. Because of the increase in exemptions, this increase underrepresents the total increase in mean and median income for those paying the income tax.

⁸² The number of people who reported a taxable income in the *American News Company publication* is 18,034. The difference comes from over calculation of the number of people in certain upper income brackets.

⁸³ Remember that income under \$1,000 was not taxable in 1868 as compared to \$600 in 1863.

⁸⁴ The number of people who reported a taxable income in the *American News Company publication* is 18,034. The difference comes from over calculation of the number of people in certain upper income brackets.

Total taxable income increased by seven percent between 1863 and 1868. As with mean and median income, this figure understates the change in total income for New Yorkers paying income tax as a result of the increase in income exempted from the income tax. Also, while total taxable income in 1868 represents a smaller percentage of all head of household New Yorker City residents, there were a larger absolute number of people paying the income tax.

Table 2.2: Number of New Yorkers with Taxable Incomes

	1863	1868
Below \$1,000	9765	8610
Over \$1,000 and less than \$5,000	5490	5701
Over \$5,000 and less than \$10,000	1245	1885
Over \$10,000 and less than \$20,000	692	1005
Over \$20,000 and less than \$50,000	477	531
Over \$50,000 and less than \$100,000	191	194
Over \$100,000 and less than \$500,000	71	62
Over \$500,000 and less than \$1,000,000	4	0
Over \$1,000,000	1	2
Total	17936	17990

Source: see text

Philadelphia 1864 through 1866

In 1865, a John Trenwith circulated a list of the reported taxable income for “the rich men of Philadelphia” for the year of 1864;⁸⁵ and, in 1867, he published a list for the year of 1865 and 1866. In both cases, the data was taken from the archives of the Bureau of Internal Revenue. During these years, Philadelphia made up the first through fifth district of the state of Pennsylvania. In table three, I compile the data for the three years and report the number of individuals in nine different income categories for each year. In 1864, reported taxable incomes range from \$1 dollars to \$616,817. The latter income was that of Simon W. Arnold. The next two largest incomes after Arnold’s were those of J. Gillingham Fell and George F. Tyler reporting a taxable income of \$398,550 and \$359,400, respectively. The interesting aspect of this data is the difference between Philadelphia’s largest earners and New York City’s. It points to a significant regional inequality

⁸⁵ For 1864, data was also published for Bucks County. However, the data presented here only looks at Philadelphia.

between New York City and Philadelphia and potentially the rest of the country. However, for now, we will leave this issue aside. The mean taxable income was about \$3,500. The median taxable income was a little less than \$1,000, and the total taxable income was almost \$69 million. 19,116 people reported a taxable income of around 152,000 head of household Philadelphia residents.⁸⁶ Thus those that fell under the income tax in 1864 roughly represented the top 12.5 percent of all head of household residents.

In 1865, taxable incomes range from \$5 dollars to \$274,080. The latter income is that of J. Gillingham Fell which represents a 45.4 percent decrease on his reported taxable income in 1864. The second highest income was that of Clayton French who reported an income of \$187,139,⁸⁷ and the third largest income was that of William Sellers who reported a taxable income of \$162,390. Seller also reported a decrease in income between 1864 and 1865. However, his income only fell by 9.6 percent. The mean taxable income was a little more than \$4,000. The median taxable income was around \$1,500, and the total taxable income was slightly more than \$32 million. Only 8,029 people reported a taxable income of around 155,000 head of household Philadelphia residents. Thus those that fell under the income tax in Philadelphia in 1865 represented a little more than five percent of all head of household residents.

In 1866, taxable incomes range from \$1 dollars to \$208,276. The latter income is that of J. Gillingham Fell which represents a 24 percent decrease on his reported taxable income in 1865. The second highest income was that of H.C. Gibson who reported an income of \$166,840 which represented a 61.2 percent increase on his reported taxable income in 1865. As in 1865, the third largest was that of William Sellers who reported a taxable income of \$151,989. Seller's taxable income fell slightly in 1866 but only by 6.4 percent. The mean taxable income was a little less than \$3,000. The median taxable income was almost \$1,000, and the total taxable income was slightly more than \$36 million. 12,377 people reported a taxable income of around 158,000 head of household Philadelphia residents. Thus those that fell under the income tax in 1866 represented almost eight percent of all head of household residents. As a result, Philadelphia also represented a city which had a concentration of high incomes – but not to the same extent as New York City.

Table 2.3: Number of Philadelphia Residents with Taxable Incomes

⁸⁶ The number of people who reported a taxable income is in the *American News Company publication* is 18,034. The difference comes from over calculation of the number of people in certain upper income brackets.

⁸⁷ French did not report an income in Philadelphia in 1864.

	1864	1865	1866
Below \$1,000	10576	2921	6513
Over \$1,000 and less than \$5,000	5973	3661	4162
Over \$5,000 and less than \$10,000	1289	780	971
Over \$10,000 and less than \$20,000	696	411	475
Over \$20,000 and less than \$50,000	439	189	198
Over \$50,000 and less than \$100,000	107	47	58
Over \$100,000 and less than \$500,000	35	20	10
Over \$500,000 and less than \$1,000,000	0	0	0
Over \$1,000,000	1	0	0
Total	19116	8029	12387

Source: see text

Average income of non-income tax paying New York City and Philadelphia Residents

Only a small portion of the population paid the Civil War income tax. Thus, we cannot calculate income shares for New York City and Philadelphia in the 1860s unless we estimate the average yearly income of head of household residents that did not pay income tax. To do this, I will utilize the “The House of Representatives Report on the Statistics of Wages in Manufacturing Industries” compiled by Joseph D. Weeks – more commonly known as the Weeks report.⁸⁸ This report was created as a part of the 1880 census. It contains data on nominal wages by industry, job, and city which go back to 1840. It is important to note that Weeks data has well-known and documented problems like geographical bias, lack of specific information on worker, and small sample size before 1850.⁸⁹ However, a good number of these issues do not matter for this study. Indeed, the oversampling of New York City, Philadelphia, and the Northeast in general allow for a more accurate picture of the two cities in question here. Furthermore, because we are interested in the average income of those that did not make enough to pay income tax, firm level averages of daily wages are just as good as individual specific wages. Finally, the small sample size before 1850 is not important for the current study because we are interested in the 1860s.

At the same time, the Weeks report only includes data on the manufacturing sector and thus misses a significant part of both New York City and Philadelphia’s economy. For New York City

⁸⁸ Other sources like the Aldrich report and data for Erie Canal workers do not contain data for New York City and Philadelphia specifically and thus will not be used in creating estimates.

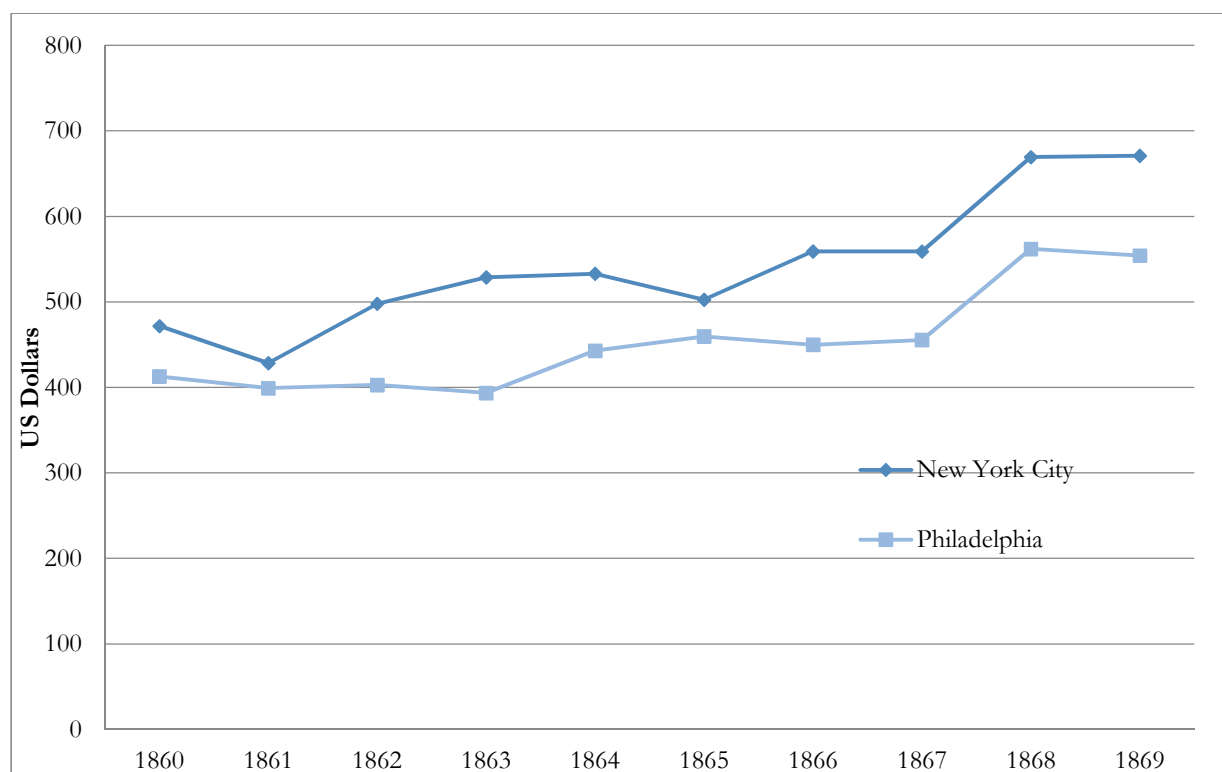
⁸⁹ Margo Robert (1999), "The History of Wage Inequality in America, 1820 to 1970," Working Paper No. 286

during the 1860s, the Weeks report includes data on low income jobs in the cigars and tobacco, furniture, pianos and organs, and carriage and wagon works sectors. These sectors include such jobs as stripper, laborer, varnisher, finisher, upholsterer, cabinet-maker, packer, case-maker, body-maker, engineer, trimmer, machinist, and painter. For Philadelphia during the 1860s, the Weeks report includes data on low income jobs in the stove foundery, carpets, cotton manufacture, hats, furniture, car-works, brick-making, and glass industries. These industries include such jobs as stove-backer, sheet-iron worker, cleaner, engineer, laborer, melter, molder, carder, folder, picker, grinder, weaver, trimmer, varnisher, packer, carter, driver, and watchman. Without a doubt, these were not the only jobs occupied by those at the bottom rungs of the income ladder. Because we want to construct an average income series for those that did not pay income tax, this represents a limitation. However, this limitation is not as large as it may initially seem. The wages paid to those in the lowest rung of manufacturing jobs were most likely similar to the wages paid to those in the lowest rung of other industries. In both sectors, these jobs would have required little or no skill and thus were most likely interchangeable. Indeed, it is probable that wages for the lowest rung in different industries were comparable.

Keeping these limitations in mind, I compile a city specific series for the average yearly income of head of household non-income tax paying residents in New York City and Philadelphia using the Weeks report. The results are depicted in figure 1. Each series only includes data from jobs that received such a low remuneration as to exempt the individuals from paying the income tax.⁹⁰ I assume that the average work year is 312 days per year. This represents working six days a week for 52 weeks and is clearly an upper bound. Work years were often less than 52 full weeks for a number of reasons. In times of economic downturn or because of seasonality of work, laborers could be thrown out of work for a number of weeks. Additionally, the length of the workday and physical nature of work in the lowest class often forced workers to take time off because of exhaustion. Thus, in the following section, I will analyze the sensitivity of income shares to variation in the work year of those that did not pay income tax.

Figure 2.1: Average Yearly Income of Non-Income Tax Paying Head of Household Residents

⁹⁰ These are the jobs listed above.



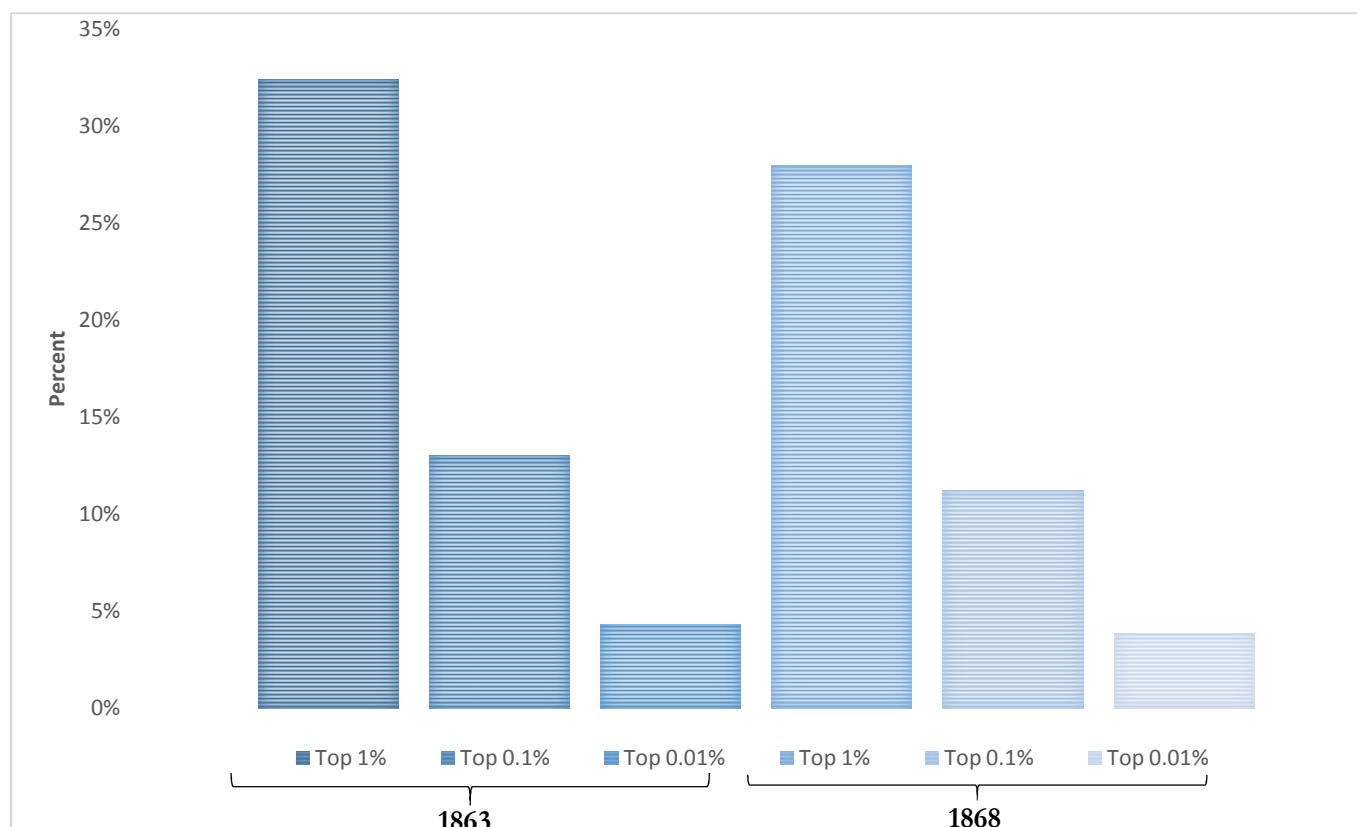
Source: see text.

As we can see, average yearly nominal income of non-income tax paying head of household New York City and Philadelphia residents ticked upward as the decade progressed. However, this should be taken in the context of a very large increase in the price level. Indeed, in 1869, the *New York Times* carried out a study on prices in the city and concluded that the price level had increased by 90 percent since 1860.⁹¹ And, in a study utilizing price data from the Weeks report, Philip Coelho and James Shepherd (1976) find similar results for the entire Northeast.⁹² At the same time, it should be kept in mind that these series are defined by workers that did not pay income tax. Because the minimum exemption changed over time, movements in the average incomes series in figure 1 represent changes in both jobs included in the series and changes in the remuneration of specific jobs. In regards to the former, in 1868 the minimum exemption increased from \$600 to \$1,000 thus increasing the number of jobs with such a low remuneration as to exempt individuals in such jobs from paying the income tax.

⁹¹ *The New York Times*, "Our Working Classes," Feb. 24, 1869, p. 2.

⁹² Coelho, Philip and Shepherd, James (1976). "Regional Differences in Real Wages: The United States, 1851 – 1880," *Explorations in Economic History*, 13, 203-230.

Figure 2.2 - Income Shares of the top 1, 0.1, and 0.01 percent in New York City in 1863 and 1868



Source: see text

Income Shares of Top Earners

In figure 2, I display income shares for the top 1, 0.1, and 0.01 percent of New York City head of householders for 1863 and 1868. As we can see, in 1863, the top 1 percent in New York City received 32.4 percent of total income. The top 0.1 percent received 13 percent of total income, and the top 0.01 percent, the 16 individuals with the largest incomes in New York City, received 4.4 percent of total income. As noted above, the assumption that those not paying income tax labored for 312 days per year is an upper bound for the work year. Weakening the assumption would decrease the income of those at the bottom and thus increase the shares of those at the top. For example, assuming an average work year of 290 days would increase the shares of the top 1, 0.1, and 0.01 percent in New York City by 1.1, 0.5, and 0.1 percentage points, respectively. Furthermore, it should be kept in mind that this data does not include dividends, interest, and coupons from certain

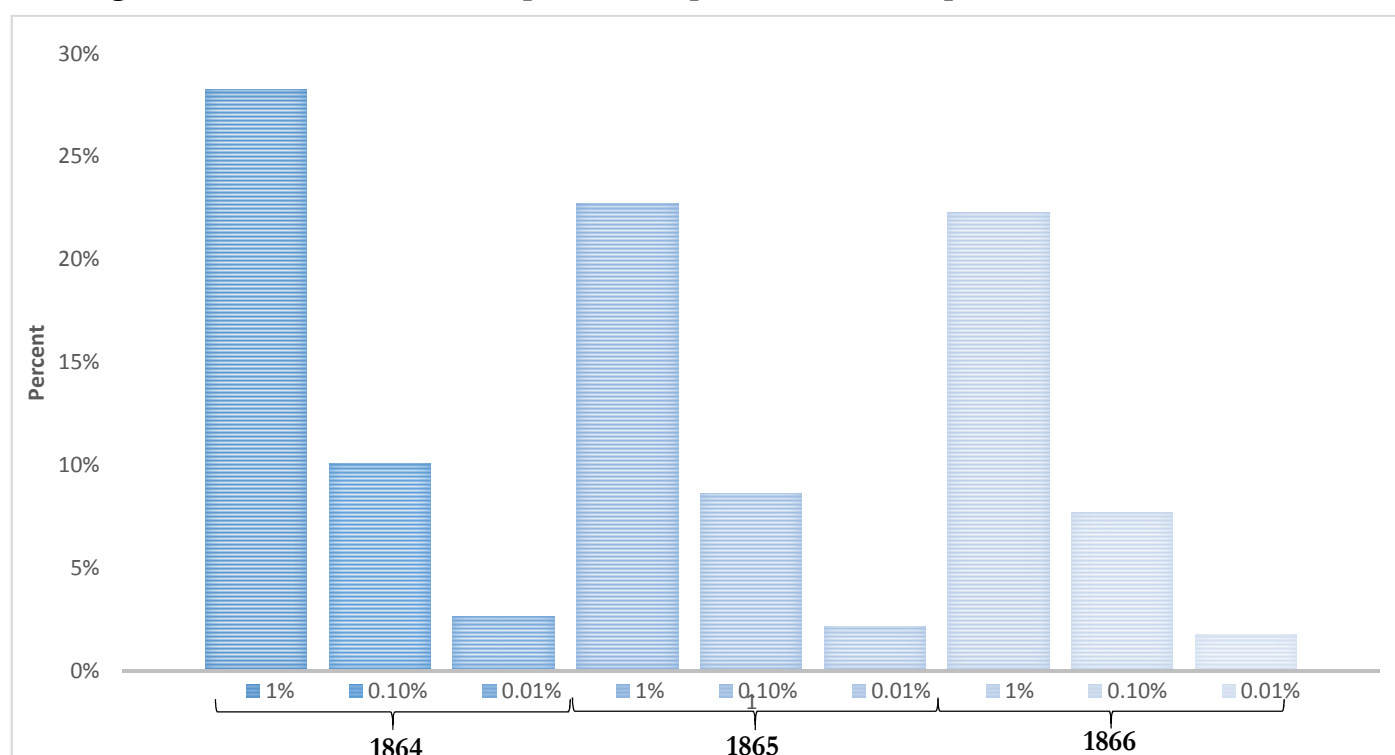
sources.⁹³ If we assume that 80 percent of the New York City income stemming from dividends, interest and coupons accrued to the top one percent of the population, the income share of the top one percent would be as high as 44.4 percent in 1863. A lower percent share is in order for New York City compared to the nation as a whole. The top one percent of income earners in NYC refers to a higher earning group than the top one percent one percent for the nation. Thus it is more likely that a larger portion of New York City income from dividends, interest, and coupons accrued to income groups outside of the top one percent.

In 1868, the top 1 percent of all New York City residents received 28 percent of all income. The top 0.1 percent received 11.2 percent of all income, and the top 0.01 percent received 3.9 percent of all income. As before, weakening the assumption about the number of days worked per year for individuals that did not pay income tax would increase the shares of those at the top. Assuming an average work year of 290 days would increase the share of the top 1, 0.1, and 0.01 percent of New York City head of household residents in 1868 by 1, 0.4, and 0.1 percentage points, respectively. If we assume that 80 percent of the New York City income stemming from dividends, interest and coupons accrued to the top one percent of the population, the income share of the top one percent would be as high 35.8 percent in 1868.

In figure 3, I display income shares for the top 1, 0.1, and 0.01 percent of Philadelphia head of household residents from 1864 to 1866. In 1864, the top 1 percent in Philadelphia received 28.3 percent of total income. The top 0.1 percent received 10.1 percent of total income, and the top 0.01 percent, the 15 individuals with the largest incomes in Philadelphia, received 2.7 percent of total income. Weakening the assumption about the number of days worked per year for individuals that did not pay income tax would increase the shares of those at the top. Assuming an average work year of 290 days would increase the shares of the top 1 and 0.1 percent of Philadelphia head of household residents in 1864 by 0.8 and 0.3 percentage points, respectively. As with New York City, these figures do not include income from dividends, interest and coupons. If we assume that 80 percent of the Philadelphia income stemming from dividends, interest and coupons accrued to the top one percent of the population, the income share of the top one percent would be as high 39.4 percent in 1864. Thus income inequality in Philadelphia in 1864 was high but not as high as in New York City in 1863.

⁹³ See pages 11-2 for more discussion on this topic.

Figure 2.3 - Income shares of Top 1, 0.1, 0.01 percent in Philadelphia from 1864 to 1866



Source: see text

In 1866, the top 1 percent of all Philadelphia head of household residents received 22.3 percent of total income. The top 0.1 percent received 7.7 percent of total income, and the top 0.01 percent received 1.8 percent of total income. Assuming an average work year of 290 days would increase the share of the top 1, 0.1, and 0.01 percent of Philadelphia head of household residents in 1866 by 1, 0.4, and 0.1 percentage points, respectively. If we assume that 80 percent of the Philadelphia income stemming from dividends, interest and coupons accrued to the top one percent of the population, the income share of the top one percent would be as high 29.5 percent in 1866.

Thus there are two interesting conclusions from examination of the city data. First, we see a measured fall in income inequality in Philadelphia and New York City during the 1860s. Second, income inequality in New York City and Philadelphia was much higher than in the United States as a whole. This is in accord with Kuznets' findings for the 20th century who also found the income inequality was more concentrated in urban centers.⁹⁴

⁹⁴ See Kuznets, S. (March 01, 1955). Economic Growth and Income Inequality. *The American Economic Review*, 45, 1, 1-28.

Tax Fraud

To this point, I have presented national and city level statistics for the income shares of top income groups. However, I have not talked about tax fraud. To the degree that the top one percent (and the top 0.1 and 0.01 for New York City and Philadelphia) under reported their incomes, the total income of the group would be less and thus our calculations for the percent of total income accruing to the top one percent of tax units would be downwardly biased. Undoubtedly, this is the case to some degree. However, what is important here is the relative level of tax fraud during the 1860s compared to present. If there was significantly more tax fraud during the Civil War income tax as compared to the present income tax, then difference between statistics for 1860s and for the 20th and 21st century would at least partially be a result of fraud and not actual differences in income inequality. Ideally, one would undertake a complete investigation of the relative degree of fraud during the Civil War and current income tax. However, this would be an enormous task and necessitate much more space than is available in this paper. As a result, I will confine myself to refuting arguments that income tax fraud was exceptional during the 1860s.

Some contemporaries to the Civil War income tax identified fraud and evasion as a significant problem. “Complaints continue to be received at this office that many persons liable to income tax fail to make full returns,” explained Joseph Lewis, commissioner of the Bureau of Internal Revenue, in a Treasury department circular in early 1865. “Those complaints have become so general,” he continued, “that I deem it a duty I owe to the public service to call the attention of assessors to the subject, that they may exert the necessary diligence to remove, if possible, the cause.”⁹⁵ Furthermore, many contemporaries argued that the degree of fraud increased in the later part of the 1860s. “Those only who were officially and intimately connected at this time with the Internal Revenue Department of the United States Treasury,” argued David Wells, who Congress appointed in 1865 to a commission of three to investigate the federal tax system, “can form any adequate idea of the amount of perjury and fraud that characterized and pervaded the country, during the years 1867 to 1872.” “American ingenuity was never more strikingly illustrated - not even by the exhibits of the patent office,” insisted Wells, “than it was at that time in devising and successfully carrying out methods for evading the taxes on income and distilled spirits.”⁹⁶ And others had similar opinions “For years, it has been perfectly well understood by all familiar with the

⁹⁵ Quoted in the *New York Times*, “The Special Income Tax,” Jan. 29, 1865, p. 2.

⁹⁶ Wells, D. A. (1874). *The Theory and practice of local taxation in the United States: A new chapter of progress*. Boston.

subject,” explained the *New York Times* in 1869, “that the Government loses enormous sums annually through the failure of citizens to comply with the law in making their income returns.” “It is not doubted that five per cent. on all the incomes of this country,” the *Times* continued, “if correctly assessed and faithfully collected, would realize sixty millions of dollars annually, instead of the thirty-four or thirty five millions now received from this source.”⁹⁷

For the 1860s, where evidence was presented, contemporaries who insisted that fraud was exception, like David Wells, based their conclusion on a falling nominal value of the amount individuals self-reported. Likewise, of the few non-contemporary academics who wrote on income tax fraud during the Civil War, those who argued that it was exceptional in the late 1860s based their thesis on falling nominal values of self-reported income.⁹⁸ Total self-reported income did decrease almost every year after 1864 (except in 1868 and 1869). Some of this decrease was a result of an increase in the minimum amount exempted. \$600 was exempted from taxation of income earned in 1865 and before. The amount exempted was increased to \$1,000 for income earned in 1866 where it stayed until the final two years of the Civil War income tax. This undeniably decreased the amount of self-reported income during 1866, 1867 and 1868. However, the story goes that the decrease in returns cannot be fully explained by the change in exemptions in the latter part of the 1860s. While initially enticing, this explanation does not fully take into account the fall in the price level and the increase in income derived from dividends, interest and coupons.

Let’s first look at the price level. During the first five years of the 1860s, the price level jumped by 77 percent due to increase in demand, the inability of supply to completely respond, and the diversion of large amounts of the factors of production to the war effort. However, with the war over, prices reversed course. Indeed, between 1866 and 1868, the price level fell on average 6.5 percent per year.⁹⁹ Thus nominal self-reported income would be expected to decrease unless one assumes a sufficiently large increase in the income share of top earners. What is the real trend in self-reported income for the later part of the decade? Could it be that fall in the nominal value of self-reported income was just a result of a falling price level? In table 4, I display the value of self-reported income of the top one percent of tax units in 1866 dollars. As we can see, in 1867, there is still a fall in the total amount of income self-reported by the top one percent. However, it is much

⁹⁷ *New York Times*, “Income Tax Frauds” 1869, November 10th, p. 4.

⁹⁸ For example, see Joseph A. Hill (1894). “The Civil War Income Tax,” *The Quarterly Journal of Economics*, Vol. 8, No. 4 (Jul., 1894), Pp. 444-9.

⁹⁹ See Samuel H. Williamson, ‘What Was the U.S. GDP Then?’ MeasuringWorth, August 2013. <http://www.measuringworth.com/datasets/usgdp/result.php>.

smaller than the nominal decrease displayed in table 1, and the real increase in 1868 more than makes up for the decrease during the previous year.

Furthermore, this story fails to take into account the increase in income deriving from dividends, interest, and coupons from banks, railroads, insurance companies, and other transportation companies. Indeed, as can be seen in table 4, during these three years, there is a significant increase in the real value of such income. It is so large such that the nominal trend also shows a marked increase.¹⁰⁰ Thus, if we take these two factors together and look at the total real income of the top one percent of tax units, we see that it increased in 1867, and even more dramatically in 1868. Indeed, it was increasing faster than real GDP such that the income share of the top one percent increased in 1867 and, even more so in 1868. As a result, the basis for Wells and others who argued that income tax fraud was exceptional during the late 1860s doesn't stand up once we contextualize their story with developments in the economy and take into account all sources of income.¹⁰¹

Table 2.4: Real income of top 1% of tax units (1866 dollars, millions)

	1866	1867	1868
Self-reported income	\$570	\$545	\$621
Dividends, interest, and coupons	\$168	\$200	\$218
Income of top 1%	\$738	\$745	\$840
GDP	\$9,081	\$9,169	\$9,403

Source: see text.

To be sure, some contemporaries thought that tax fraud was minimal. “[T]he most signal pecuniary success has attended the operations of the bureau” to stamp out income tax fraud, explained the *New York Times* in 1865.¹⁰² Others held similar views. “In England, it is estimated by an able writer on taxation that the government is defrauded of full one third of the taxes due it,” explains the *American News Company* publisher in his preface to the list of New Yorkers’ reported taxable income in 1863, “We do think that in this county it will amount to no more than one tenth and much of that results from ignorance rather than a desire to defraud.”

¹⁰⁰ See table 1.

¹⁰¹ Note: there is evidence that tax fraud increased in 1870 and 1870. See Joseph A. Hill (1894). “The Civil War Income Tax,” *The Quarterly Journal of Economics*, Vol. 8, No. 4 (Jul., 1894).

¹⁰² *Ibid.*, p. 1.

Indeed, laws were changed over the decade such to empower the Bureau of Internal Revenue to fight income tax fraud. Under the revenue act of 1862, if an individual's list of income was thought to be incomplete, internal revenue officers were allowed to increase it. However, the taxpayer could nullify changes if he took an oath that his income did not exceed the reported amount.¹⁰³ This changed under the revenue act of 1865. To prevent fraud, especially among high income earners, the assistant assessor was given the power to increase any individual's self-reported income, even if the individual had taken an oath as to the verity of the amount reported. If such an action was taken by the assistant assessor and the individual was dissatisfied with the result, he had the right to appeal his case to the assessor and Commissioner of Internal Revenue. However, there were no guarantees that his assessed income would be changed back.¹⁰⁴

Furthermore, the Revenue Act of 1865, created fines for non-compliance with the law. For failure to file a return, tax payers were charged a penalty of 25 percent of taxes due. Under the revenue act of 1867, the penalty for failure to file a return was increased to 50 percent of taxes due.¹⁰⁵ For false returns, tax payers were charged 100 percent of taxes due.¹⁰⁶ In the task of detecting fraudulent returns, revenue agents and inspectors were given considerable power. "The law of Congress gives to the Revenue Agent and his inspectors," explained the *New York Times* in 1865, "the right to enter premises, take books, examine accounts, shut up shops, swear witnesses, send for persons and papers and exact fines through the medium of the courts."¹⁰⁷ The ability of the Bureau of Internal Revenue to detect fraud increased in 1865 with the creation of a small group of officers empowered to act as internal revenue police: "And be it further enacted," read the said act, "that the Secretary of the Treasury may appoint not exceeding ten revenue agents, whose duties shall be, under the direction of the Secretary of the Treasury, to aid in the prevention, detection and punishment of frauds upon the internal revenue, and in the enforcement of the collection thereof."¹⁰⁸ These ten revenue agents essentially acted as "chiefs of detective police in their several departments," explained the *New York Times*.¹⁰⁹

¹⁰³ Ratner, S. (1942). *American taxation: Its history as a social force in democracy*. New York: W.W. Norton & Company, inc. P. 76.

¹⁰⁴ *Ibid.*, P. 98.

¹⁰⁵ *Ibid.*, P. 116.

¹⁰⁶ *Ibid.*, P. 98.

¹⁰⁷ *New York Times*, "Insufficiency of the Returns" 1865, June 26th, p. 1.

¹⁰⁸ Section 4 of the Revenue Act of 1865 is quoted in *New York Times*, "Insufficiency of the Returns" 1865, June 26th, p. 1.

¹⁰⁹ *New York Times*, "Insufficiency of the Returns" 1865, June 26th, p. 1

One might then ask, if it seems that fraud was taken seriously by the Bureau of Internal Revenue and there is no substantial evidence that it was exceptional in the late 1860s, why were some contemporaries so prone to associating the income tax with an exceptional level of fraud? This question is hard to answer with any certainty. It could have been that individuals failed to understand developments (i.e. falling prices and the multisource nature of income). However, further examination of contemporary debate reveals a motive for disseminating such a story. Among the many indictments anti-income tax politicians used to fight for its repeal, a prominent argument was that income tax fraud was high and that it was a result of the “perjury-provoking” nature of the income tax.¹¹⁰ In essence, the tax itself was a corrupting influence. The supposed tax fraud was evidence of it, and, to preserve the good nature of Americans, the income tax had to be abolished. However curious, this logic might explain why such a story got so much traction despite evidence to the contrary. Whatever the case, it seems that tax fraud was not exceptional in the late 1860s and that the income share statistics calculated using Civil War income tax data are comparable to Thomas Piketty and Emmanuel Saez’s series on income inequality for the 20th and 21st century.¹¹¹

Comparison with current data

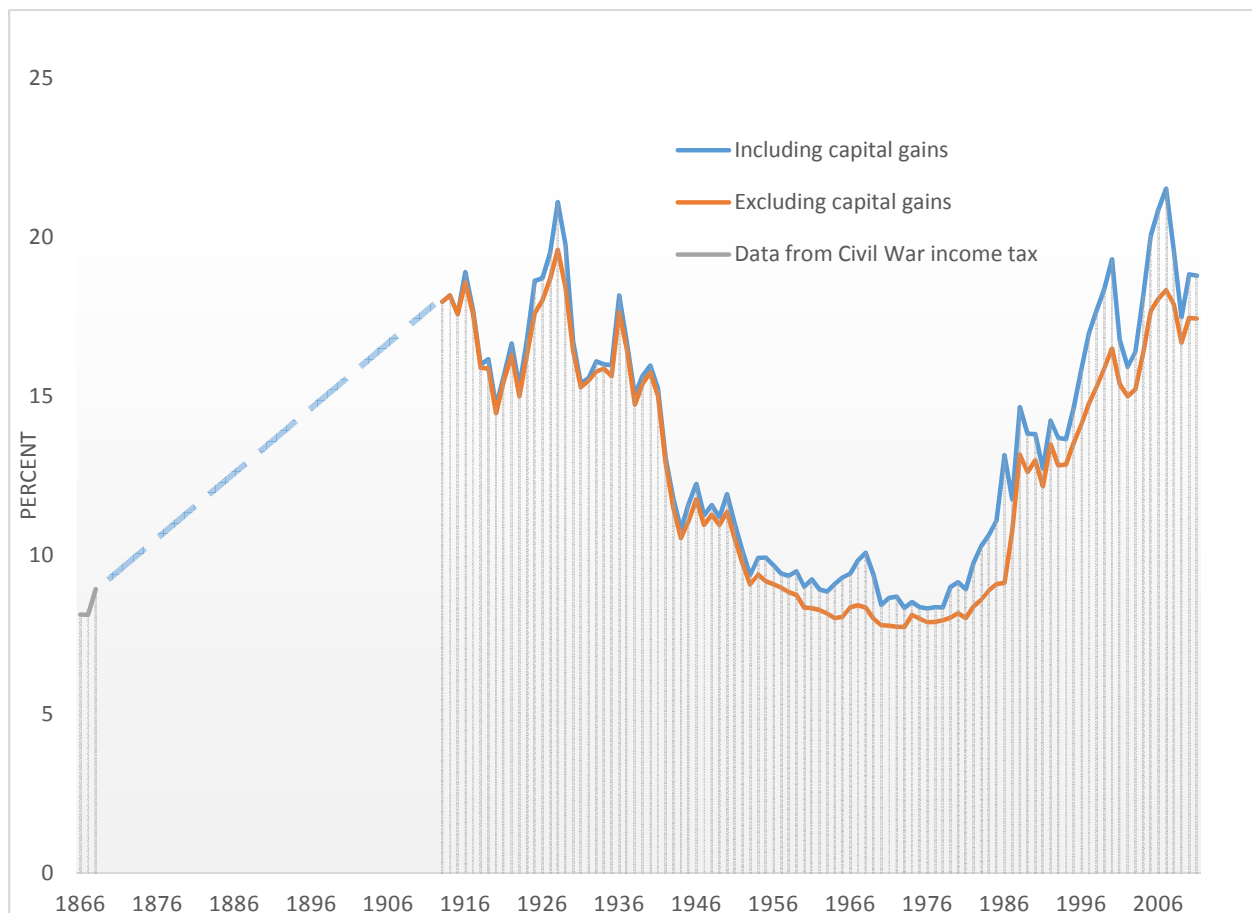
In figure 4, I display Piketty and Saez’s data for the income share of the top one percent between 1913 and 2012 with the statistics calculated here. The red line represents Piketty and Saez’s series which excludes capital gains and the blue line represents their series which includes capital gains.¹¹² What looks like a small check mark on the left edge of the graph is the statistics for the income share of the top one percent of tax units in 1866 through 1868. The dotted line connecting the data from the Civil War income tax to the current income tax is the required average trend line for the two series to meet. As we can see, the income share of the top one percent of tax units during the late 1860s was significantly lower than it was during the decade encompassing World War I. Indeed, it represents a low in US history comparable to the late 1960s and early 1970s.

¹¹⁰ See Joseph A. Hill (1894). “The Civil War Income Tax,” *The Quarterly Journal of Economics*, Vol. 8, No. 4 (Jul., 1894), Pp. 437-8.

¹¹¹ Piketty, Thomas and Saez, Emmanuel (2003), “Income Inequality in the United States, 1913 – 1998”, *The Quarterly Journal of Economics*, Vol. 118, No. 1, pp. 1-39. For data up to 2012, see <http://elsa.berkeley.edu/~saez/#income>.

¹¹² Piketty, Thomas and Saez, Emmanuel (2003), “Income Inequality in the United States, 1913 – 1998”, *The Quarterly Journal of Economics*, Vol. 118, No. 1, pp. 1-39. For data up to 2012, see <http://elsa.berkeley.edu/~saez/#income>.

Figure 2.4: Income share of top 1% of tax units



Source: see text.

While counter to Lee Soltow's conclusion, this result makes sense given current understanding of the nature of income inequality and developments during the Civil War decade. A number of recent studies on income inequality in the 20th and 21st centuries have shown that economic turmoil, recession and, even more so, depression cause high incomes to fall disproportionately and thus reduce income inequality, at least in the years immediately after a crisis. For example, Piketty and Saez (2003) find that "most of the decline [in income inequality] from 1927 to 1960 took place during the four years of World War II." The Social Security Administration and

Claudia Goldin and Robert Margo (1992) find similar results.¹¹³ Likewise, the New York City Comptroller's office has shown that income inequality in NYC fell after the Great Recession.¹¹⁴

The year after the Civil War ended was plagued by recession. Real gross domestic product fell by 4.6% between 1865 and 1866. Not until 1868 did real GDP surpass its 1865 peak. Even before the recession set in, prices began to plummet and didn't stabilize until 1872. Between 1864 and 1868, the price level fell 18.2 percent.¹¹⁵ If we look through the lens of current studies, we might expect these developments to lead to low levels of income inequality.

More importantly, the Civil War, although maybe not initially, became a vehicle for the destruction of slavery – a system that represented economic inequality in its extreme. Its success can be seen by examination of wealth statistics. In 1860, southern men made up 59 percent of the wealthiest one percent of adult males in the United States. Ten years later, southern men only accounted for 18 percent of the same group. Average real wealth of white southern males decreased from \$3,978 in 1860 to \$1,440 in 1870.¹¹⁶ The slave-owning, planter class in the South was decimated by the destruction wrought on Southern land, animals, and liberation of its most prized asset, slaves. To the degree that bondage was destroyed and African Americans experienced an increase in economic freedom, income inequality would have changed.¹¹⁷ Indeed, in 1866, Congress abrogated the nascent Presidential Reconstruction system which allowed White southerners significant freedom in resubjugating the newly freed slaves. In its place, Congress empowered African Americans through the Freedman's Bureau and other institutions. The result was unheard of economic freedom for African Americans. Laws were put in place to shifted risk from fluctuation in crop yields to creditors and landlords, to allow farmers to sell crops to the highest bidder, and much more.¹¹⁸ At the same time, a number of states in the North passed legislation

¹¹³ Thomas Piketty and Emmanuel Saez, (2003). "Income Inequality in the United States, 1913 – 1998," *The Quarterly Journal of Economics*, Vol. CXVIII, February 2003, Issue 1, pp. 2-40. Their conclusion is extended through 2011 in <http://elsa.berkeley.edu/~saez/TabFig2011prel.xls>.

¹¹⁴ New York City Comptroller Office, "Income Inequality in New York City," 2012.

¹¹⁵ See Samuel H. Williamson, 'What Was the U.S. GDP Then?' MeasuringWorth, August 2013. <http://www.measuringworth.com/datasets/usgdp/result.php>.

¹¹⁶ For more information, see Gallman, R. E., & Soltow, L. (December 01, 1976). Men and Wealth in the United States, 1850-1870. *The American Historical Review*, 81, 5. Pp. 65, 99-100, and 195 (footnote 6).

¹¹⁷ Note about the change in wealth inequality.

¹¹⁸ This gains were again clawed back by White Southerners with Redemption which, for the most part, began in the 1870s. For more information, see Foner, E. (1988). *Reconstruction: America's unfinished revolution, 1863-1877*. New York: Harper & Row.

limiting the work day to eight hours.¹¹⁹ All of these institutions, especially those in the South, dramatically affected the pre-tax distribution of income.

Moreover, during the 1860s, the federal government was taxing the rich more than ever before. In 1862, as we already know, individuals had to pay a federal tax on income earned for first time in US history. Dividends, interest, and coupons were taxed. In the same year, the federal government passed a tax on inheritance. Even business gross revenue was taxed. Indeed, there is ample evidence that these laws were adopted with the intent to equitably distribute the tax burden.¹²⁰ Given all of these developments, it seems natural that income inequality reached such relatively low numbers in 1866, 1867, and 1868.

Why is this important? Thomas Piketty and Emmanuel Saez showed that the Kuznets curve started to doubled back on itself in the late 1970s.¹²¹ The conclusion here shows that the Kuznets

¹¹⁹ These eight hour laws had freedom of contract clauses written into them. However, they reflect the general atmosphere in creating institutions which were more equitable. For more information, see Montgomery, D. (1967). *Beyond equality: Labor and the radical Republicans, 1862-1872*. New York: Knopf. Pp. 302-21.

¹²⁰ The original revenue bill considered in the House in 1861 relied on a direct tax on real property. As required by the Constitution, direct taxes had to be apportioned between the states by their relative population. However, this immediately created uproar. "[T]his bill is so framed," argued John McClernand, House representative of Illinois, "that it must fall very heavy, if not to ruinous effect, upon the great agricultural States of the West and Southwest. Their population is large, yet their capital and wealth are comparatively small." Two states with a similar population would have had to pay a similar amount of the direct tax. However, if one of these two states had less wealth per person, the rate of taxation in that state would be more onerous than in the other. Since the last implementation of the direct tax in 1816, the population of the West and Southwest had increased relative to the rest of the country. However, wealth had become more concentrated in the Northeast. Also at issue was the type of wealth to be taxed – land, physical property, financial assets, etc. The original bill was framed around real property such that financial assets were not taxed. This too created heated debates. "The very reasons that induced England to put a land tax on should induce us to put on an income tax," explained James Simmons, senator from Rhode Island. "When England taxes land, she taxes the wealth of the nation," he continued, "her land is all held by lords; it is not scattered about in ten-acre lots. When they tax land they tax wealth; but when we tax land, we tax poverty." Many in Congress held similar views. "Why should the agriculturist be taxed for his quarter section of land," asked John McClernand, "when the man holding merchandise or bank property of equal value is not taxed for it?" House speaker representative of Indiana and later Vice President, Schuyler Colfax bluntly stated, "There is no stress of weather which can induce me to vote for the bill as it now stands. I cannot go home, and tell my constituents that I voted for a bill that would allow a man, a millionaire, who has put his entire property into stock, to be exempt from taxation, while a farmer who lives by his side must pay a tax." Sidney Edgerton, House representative of Ohio, asked, are "the farmers of the country... to have their lands pledged as security for the payment of this debt while the great stockholders, the money lenders, and the merchant princes of Wall street, and all the great capitalist, are to go free, and bear none of these burdens?" As we know, an income tax was eventually passed in the Senate and House. It had strong support from congressmen of those states whose constituents would have felt the relative burden of the direct tax. See *Congressional Globe*, (37/1), Pp. 248, 282, 306, 314; and Joseph A. Hill (1894). "The Civil War Income Tax," *The Quarterly Journal of Economics*, Vol. 8, No. 4 (Jul., 1894).1894).

¹²¹ Kuznets' influential theory was that income inequality follows an inverse-U shaped trajectory "along the development process, first rising with industrialization and then declining, as more and more workers join the high-productivity sectors of the economy" became the dominate understanding in the mid to late-20th century.

curve might have already completed its famed upside down ‘U’ trajectory, although abruptly, during the Civil War decade and began to double back on itself during the Gilded Age. This statement is obviously dependent on high income inequality before the war. Sadly, we don’t have national statistics for the income share of the top one percent of tax units during this period. However, all evidence we do have for the late ante-bellum period points to a very high level of inequality.¹²² Indeed, we have seen that income inequality fell in New York City and Philadelphia over the 1860s. Most likely, the fall in income inequality would have been more dramatic in the South because of the reasons mentioned above.

If the Kuznets curve already completed its trajectory during Reconstruction and was doubling back on itself during the Gilded Age, it would shine some light on the importance of different mechanism in understanding inequality. Namely, it would be hard to describe the decrease in inequality during the 1860s as the result of the change in rewards for skilled labor relative to unskilled labor or other purely economic explanations. Instead, the change in inequality most likely came from the destruction of slavery and other parallel changes in laws and institutions. Indeed, Simon Kuznets himself argued that “legislative interference and political decisions” are important in understanding the evolution of income inequality in a democracy. The result of increases in income inequality “would be an increasing pressure of legal and political decisions on upper-income shares,” explained Kuznets, “increasing as a country moves to higher economic levels.” Thus Kuznets attributed at least some of the decrease in income inequality during the 1930s and 1940s in the United States to increasing political pressures. From the data present here and our understanding of the Civil War and Reconstruction, we can extend Kuznets’ speculation. It seems that the legislative pressure Kuznets talks about were also important in reducing inequality during the Civil War decade. Indeed, we could even go so far as to speculate that the United States has experienced cycles in income inequality and that “legislative interference and political decisions” are important in understanding both the ups and downs in the cycles.¹²³ This is obviously only a preliminary hypothesis. However, as Kuznets colorfully explained, “speculation is an effective way to present a

See Thomas Piketty and Emmanuel Saez, (2003). “Income Inequality in the United States, 1913 – 1998,” *The Quarterly Journal of Economics*, Vol. CXVIII, February 2003, Issue 1, pp. 2-40.

¹²² See Williamson, J. G., & Lindert, P. H. (1980). *American inequality: A macroeconomic history*. New York: Academic Press. Or Gallman, R. E., & Soltow, L. (December 01, 1976). Men and Wealth in the United States, 1850-1870. *The American Historical Review*, 81, 5.) Or Margo, R. A. (2000). *Wages and labor markets in the United States, 1820-1860*. Chicago: University of Chicago Press.

¹²³ For a formalization of this idea, see Mark Stelzner (2014). “Political Contest, Policy Control, and Inequality in the United States,” *Review of Keynesian Economics*, July.

broad view of the field; and that so long as it is recognized as a collection of hunches calling for further investigation rather than a set of fully tested conclusions, little harm and much good may result.”¹²⁴

¹²⁴ See Kuznets, S. (March 01, 1955). Economic Growth and Income Inequality. *The American Economic Review*, 45, 1, 1-28.

CHAPTER 3

THE ECONOMIC PLAYING FIELD FROM THE 1870S THROUGH THE 1920S

Introduction

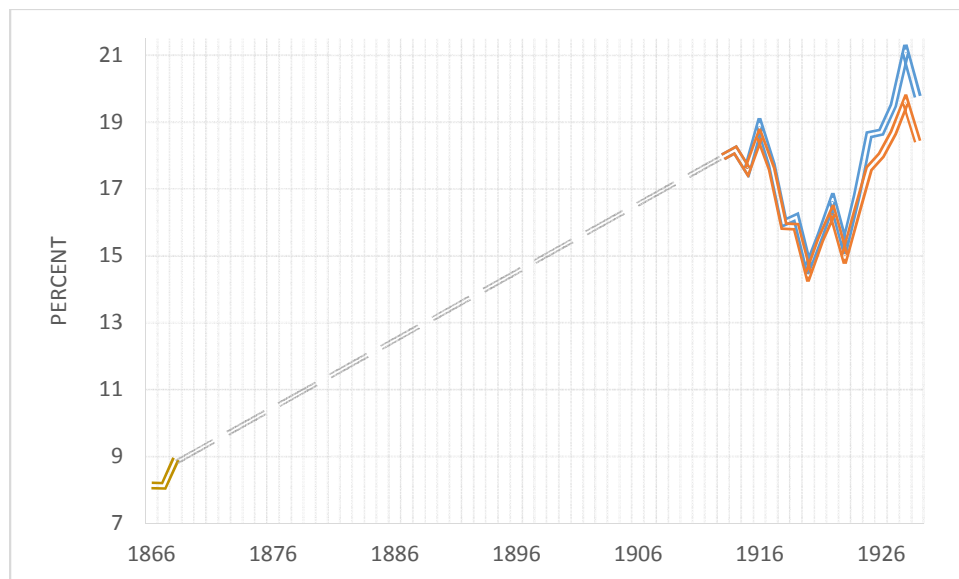
How did the orientation of laws and institutions change in relation to income inequality between the 1870s and 1920s? Were laws and institutions set up to empower broad sections of the population and thus maintain some level of equality in society? Or were laws and institutions set up to embrace income inequality by empowering narrow groups in the economic realm? To be sure, the period was the birth place of many laws which were held up to the population as bastions of equality. For example, created to reduce price discrimination and monopoly power, the Interstate Commerce Act and the famed Sherman Anti-Trust Act were made law in the middle of this period. Thus it might seem that laws represents a compromise to the inequalities of the economy. However, as any keen observer of politics from any period will admit, de facto implementation of a law does not always correspond to the statements which clothe it in political debates. The purpose of this paper is to analyze the evolution of the orientation of laws and institutions in the United States compared to income inequality from the 1870s through the 1920s, by immersing ourselves in the history.

In the first section, I review the evolution of the income share of the top one percent of the population between the 1870s and 1920s using data presented in the previous chapter. In the second section, I begin my analysis of the evolution of laws and institutions by examining state legislation. In the third section, because of the growing aggressiveness of state and federal courts after the mid-1880s, I turn to the history of the labor injunction to understand the evolution of de facto law from the mid-1880s through the 1920s. In the fourth section, building on the history of the injunction, I put forward a series which can be used as a proxy for the general trend for the orientation of laws and institutions in the United States during the period in question. In the final section, I analyze the relation between this trend and that of income inequality presented in the first section. As we shall see, laws and institutions moved in unison with inequality. As the years passed, laws and institutions were oriented more and more to benefit narrow groups in the population.

Income inequality between the 1870s and 1920s

In figure 1, I display the income share of the top one percent of all US Americans between 1866 and 1929. The red line represents Thomas Piketty and Emmanuel Saez's series which excludes capital gains and the blue line represents their series which includes capital gains.¹²⁵ What looks like a small check mark on the left edge of the graph is the statistics for the income share of the top one percent of tax units in 1866, 1867, and 1868 calculated in the previous chapter. Unfortunately, there is no data on the income share of the top one percent between the Civil War income tax and the current income tax. The Civil War income tax was allowed to expire in 1872, and, besides the short, half year of the 1894 income tax, there was no other federal income tax and thus no national data until the current income tax was initiated in 1913. Thus we can only estimate an average trend for the missing years. The dotted line connecting the 19th century data to the 20th century data represents the required average trend line for the two series to meet.

Figure 3.1: Income share of top one percent of tax units in the United States



Source: see text.

As we can see, income inequality increased from the late 1860s through 1916. In the late 1860s, the income share of the top one percent averaged 8.39 percent of total income. By the time

¹²⁵ Piketty, Thomas and Saez, Emmanuel (2003), "Income Inequality in the United States, 1913 – 1998", *The Quarterly Journal of Economics*, Vol. 118, No. 1, pp. 1-39. For data up to 2012, see <http://elsa.berkeley.edu/~saez/#income>.

the current income tax was implemented in 1913, the income share of the top one percent had increased to almost 18 percent of total income, and, by 1916, it had almost reached 19 percent of all income. During the late 1910s, the income share of the top one percent decreased reaching 14.45 percent of total income in 1920. However, in the 1920s, income inequality shot up once again. By 1928, the income share (including capital gains) of the top one percent of the population surpassed 21 percent of all income. Thus with the exception of part of the 1910s, income inequality was rising between the 1870s and 1920s. One must then ask, what was the orientation of laws and institutions during this period? To begin to answer this question, let us first analyze the state laws.

The orientation of laws and institutions – the state level

Most of the legislation passed between the 1870s and 1920s was done at the state level. For example, laws that attempted to curb monopoly pricing and price discrimination by stipulating maximum rates railroads could charge passengers and for transporting freight and maximum rates grain warehouses could charge for storage were purely a state endeavor in the 1870s. In 1871, state legislatures in Illinois and Minnesota both passed maximum rate laws. In 1874, Wisconsin and Iowa followed suit.¹²⁶ Likewise, state legislatures in Illinois, Indiana, Missouri, New Jersey, Pennsylvania, and Ohio formed bureaus of labor in their states in the 1870s.¹²⁷ And, in the first half of the 1880s, state legislatures in California, Iowa, Michigan, New York, Tennessee, Wisconsin, and Kansas also passed legislation for labor boards. Rules regulating factory inspection were first adopted at the state level. In 1878, New Jersey's state legislature adopted the first laws mandating factory inspection, and in the next six years, five other states did the same.¹²⁸ Indeed, states legislatures passed an impressive body of laws between the 1870s and 1920s regarding such issues as maximum hours employee were allowed to work, child labor, weighing of coal for the determination of miner remuneration, payment in script, tenement labor, injunctions, and many other issues pertinent to labor. However, the de facto orientation of laws and institutions is much more complicated than merely tracking the chronological history of when legislation was passed.¹²⁹ To get a better

¹²⁶ See Fairman, C. (July 01, 1953). The So-Called Granger Cases, Lord Hale, and Justice Bradley. *Stanford Law Review*, 5, 4, 587-679.

¹²⁷ Massachusetts pioneered this trend forming a labor bureau in 1869.

¹²⁸ See Fishback, P. V., Holmes, R., & Allen, S. (January 01, 2009). Lifting the curse of dimensionality: measures of the states' labor legislation climate in the United States during the progressive era. *Labor History*, 50, 3.)

¹²⁹ Fishback, Holmes, and Allen created an index for state level labor laws during this same period using a chronology of laws passed and their length in pages. See *Ibid*.

understand of state level developments, it is best to break up the larger period into two: 1870s to mid-1880s and mid-1880s to 1920s.

During the first period, some state laws were successful. For example, Minnesota's regulation of railroad fares was effective for the first four years after passing the law in 1871. The state set up a railroad commissioner to administer its maximum rate law. Railroads that failed to comply were subject to forfeiture of charter or a fine of up to \$1,000 for each violation. While the roads did not exactly comply with rates laid out by the state, they did reduce their fares after enactment of the law. "[N]otwithstanding the imperfections of the law, and the fact that the companies have professed to disregard it," reported Governor of Minnesota, Horace Austin in 1872, "I am convinced that it has in no small degree, modified their charges and saved the people no inconsiderable sum, in the aggregate."¹³⁰ Other state level labor legislation saw success. Massachusetts state legislature passed a law in 1874 prohibiting women working in mills from laboring more than eight hours a day. "Because few mills, if any, could function long after the women had gone home," explains labor historian David Montgomery, "the law effectively established a new standard for [men and women in] textiles."¹³¹

However, as mentioned above, the success or failure of a law was never as simple as getting it passed. In some instances, effective laws were replaced by ineffective laws as a result of lobbying strategies employed by those the laws sought to regulate. For example, in 1875, Minnesota's state legislature repealed its laws regulating rates for railroads and public store houses. In 1876, Wisconsin's legislature did the same. Thus, in 1877 when the Supreme Court ruled in *Munn v. Illinois* that the state had the power to regulate business when it affected a public good, many of the states which had initiated legislation which led to *Munn v. Illinois* had already repealed the laws under scrutiny. "[T]he question now definitely settled by the Court [in *Munn v. Illinois*] has, for the most part, become of little practical moment," concluded the president of the Chicago & North Western Railroad, in his annual report for 1877, "the States whose acts gave rise to this legislation having repealed their onerous laws, excepting the State of Iowa, were biennial sessions of its Legislature have no doubt longer delayed similar action." As predicted, Iowa state legislature repealed its rate laws the very next year. In its place, the legislature enacted a commission to "give advice" to the

¹³⁰ See Fairman, C. (July 01, 1953). The So-Called Granger Cases, Lord Hale, and Justice Bradley. *Stanford Law Review*, 5, 4, 587-679.

¹³¹ Montgomery, D. (1987). *The fall of the house of labor: The workplace, the state, and American labor activism, 1865-1925*. Cambridge [Cambridgeshire: Cambridge University Press. P. 165.

railroads in regards to rates. However, the railroads did not have to follow the advice and the commission's salaries were paid by the railroads.¹³²

At the same time, many state labor laws were ineffective. Labor historian Henry David makes this point. Before 1886 with "one or two exceptions, none [of the state bureau of labors were]... equipped either in funds or personnel to function properly." In terms of child labor legislation for the same period, "It can safely be said that the age levels were so low, the means of escaping the restriction so numerous, the penalties for violation so mild, and the machinery for administration so inadequate," argues David, "that this legislation did not prevent the employment of young children in industry." Indeed, David even goes on to conclude: in general, before the mid-1880s, state laws "were seriously lacking in proper administrative provisions. There were many loopholes for escape, the inspectors were few and generally lax, and the penalties for violations were too mild. Thus, the law may give a more favorable picture of industrial conditions than was actually the case."¹³³

Hence the de facto orientation of laws and institutions from the 1870s to the mid-1880s is not as easily ascertained as listing the chronology of labor legislation. Indeed, the de facto trend is not completely clear. It doesn't seem overwhelmingly positive for labor as some have maintained. Nor were laws being enacted and adjudicated aggressively to the detriment of labor as they were later in the century. Instead, it seems that there was not much active change in either direction. Instead, it seems that laws and institutions were allowed to drift behind economic developments between the 1870s and mid-1880s.

In this early period in the South, the picture was much different. After redeeming their states from Republican control,¹³⁴ Southern Democrats remade laws and institutions so as to assert white control over black labor. "Broad new vagrancy laws allowed the arrest of virtually any person without a job," explains historian Eric Foner, "and 'antienticement' laws made it a criminal offence to offer employment to an individual already under contract, or to leave a job before a contract had expired." Laws were also put in place which banned the sale of unginned cotton and other farm products during the night. Although not explicitly stated, all these laws were meant for African Americans. "[A] single instance of punishment of whites under these acts has never occurred,"

¹³² See Fairman, C. (July 01, 1953). The So-Called Granger Cases, tat Hale, and Justice Bradley. *Stanford Law Review*, 5, 4, 587-679.

¹³³ See David, H. (1958). *The history of the Haymarket affair: A study in the American social-revolutionary and labor movements*. New York: Russell & Russell. Pp. 30-6.

¹³⁴ Redemption timeline.

noted a Tennessee black convention, “and is not expected.” At the same time, punishment for petty theft was severely increased. In North Carolina and Virginia, “they send [a man] to the penitentiary if he steals a chicken,” charged a black spokesman. If not the intent, the result was to enable the prolific growth of the convict labor system. “Within two months of Redemption,” explains Foner, “South Carolina’s legislature authorized the hiring out of virtually every convict in the state, as did Florida after dismantling its penitentiary.” “Railroads, mining and lumber companies, and planters vied for access to this new form of involuntary labor, the vast majority of whom were blacks imprisoned for petty crimes.” This process also took place on a more informal level during this early period. As a result, while “the region’s new upper class of planters, merchants, and industrialists prospered,” concludes Foner, “the majority of Southerners of both races sank deeper and deeper into poverty.”¹³⁵ Thus, when one takes into account the South, the overall picture changes. The lack of change in the North and Midwest seems to be outdone by aggressive changes taking place in the South.

After the mid-1880s, things changed outside the South. State and federal courts became much more aggressive and were able to stymie most state level legislation that seriously interfered with business. For example, in 1884, New York state legislature passed a law prohibiting the manufacture of cigars in tenement housing.¹³⁶ One year later, the New York Court of Appeals struck down the law in *In re Jacobs* arguing that it infringed on labor’s constitutional liberty.¹³⁷ This decision marked a revolutionary change in the court’s understanding of due process of the law, liberty, and property. Until *Jacobs*, due process was understood as a procedural guarantee. As mentioned in the declaration of independence, liberty referred to freedom from restraint, and property denoted the static right to ownership and use. *Jacobs* was the first step in completely reinterpreting these terms and the legislature’s place in society. Liberty was reconstrued to mean the right to following one’s lawful calling. The definition of property was expanded to include such intangibles as earning potential, and due process was reinterpreted to signify a guarantee to protection against “arbitrary” legislation which infringed on one’s liberties and property.¹³⁸ This reinterpretation from *Munn v. Illinois* which

¹³⁵ See Foner, E. (1988). *Reconstruction: America’s unfinished revolution, 1863-1877*. New York: Harper & Row. Pp. 593-6. Also see Woodward, C. V. (1951). *Origins of the new South, 1877-1913*. Baton Rouge: Louisiana State University Press. And Blackmon, D. A. (2008). *Slavery by another name: The re-enslavement of Black Americans from the Civil War to World War II*. New York: Doubleday.

¹³⁶ See 98 N.Y. at 115

¹³⁷ See 98 N.Y. 98 (1885)

¹³⁸ Fine, S. (1956). *Laissez faire and the general-welfare state: A study of conflict in American thought, 1865-1901*. Ann Arbor: University of Michigan Press. P. 141.

became more and more entrenched after *Jacobs* justified court intervention to invalidate legislation, and prevent labor activity, when it infringed on citizens' newly defined liberties and property rights. Intervene they did. "During the 1880s and 1890s," explains labor historian William Forbath, "courts were far more likely than not to strike down the very laws that labor sought most avidly." Indeed, "by 1920," continues Forbath, "courts had struck down roughly three hundred labor laws."¹³⁹

Because the overall effect of state labor laws was ambiguous outside the South before the mid-1880s and because state labor laws came under increasingly aggressive attack after 1885 from the courts, it seems more revealing to look at how law played out on the ground by analyzing the most important development of the period – the labor injunction. The injunction did not develop through the legislative branch – although many of the late 19th century statutes were used to increase its reach. It developed through the judiciary, and the legislature was either unwilling or unable (due to gridlock or inability to match the court's resolve) to resist. The injunction was most successfully and aggressively applied to strikes that utilized broad base support, sought to obtain more than just monetary gains (like a closed shop), and utilized secondary boycotts and "don't patronize" lists.¹⁴⁰ To a large degree, the injunction was a trump on local developments. It represented law which could be used over labor friendly local authorities to the benefit of business. To its history, we now turn.

A brief history of the labor injunction

On June 1, 1877, the Pennsylvania Railroad cut employees' wages by ten percent. One by one, other railroads followed suit. In mid-July, in reaction to these cuts and a number of other grievances, railway workers went on strike in Illinois and Indiana. These strikes set off others strikes and mob activity in cities and towns throughout the country. At its climax, the scale of the Great Strike of 1877, as it came to be called, was immense. About 50,000 miles of the nation's 75,000 miles of track were located in areas affected by the strike, and, in a number of cities including Chicago, general strikes paralyzed all activity.¹⁴¹

¹³⁹ See Forbath, W. E. (1991). *Law and the shaping of the American labor movement*. Cambridge, Mass: Harvard University Press. Pp. 37-39, Appendix A. Also, see Paul, A. M. (1960). *Conservative crisis and the rule of law: Attitudes of bar and bench, 1887-1895*. Ithaca, N.Y: Published for the American Historical Association [by] Cornell University Press.

¹⁴⁰ See Forbath, W. E. (1991). *Law and the shaping of the American labor movement*. Cambridge, Mass: Harvard University Press.

¹⁴¹ See Bruce, R. V. (1959). *1877: Year of violence*. Indianapolis: Bobbs-Merrill.

The strike pitted the collective organization and wills of workers against those of the railroads.¹⁴² During this spatter of contests, a development in law took place which tilted the playing field, for some railroads, to the disadvantage of labor. Some of the struck line, like the Erie, were in receivership – the roads had failed and were in the custody of the courts. Circuit Judge Thomas Drummond of Chicago and Judge Samuel Treat of a district in Southern Illinois issued “writs of assistance” – orders to US marshals to protect the property in the custody of the court and to arrest anyone who tried to damage or interfere with its functioning. Offenders did not have to be specifically named in the writ, nor served notice of its existence, and could be punished for contempt of court without the trouble of a trial by jury.¹⁴³

While “writs of assistance” only played a minor role during the Great Strike of 1877, solvent railway companies couldn’t help but notice how effective they were for trains in receivership. “[A]s our recent experience has shown,” explained Thomas Scott, President of the Pennsylvania Railroad, “the only roads which could procure prompt protection and immunity from interference [during the Great Strike] were those whose misfortune had made them bankrupt and place them in direct custody and receivers appointed by the United States courts.” “To the aid of these roads the United States Marshal could call United States troops,” explained Scott, “and no rioter dared to resist the power represented by the small but admirably disciplined detachments quartered near the scenes of the recent troubles.”¹⁴⁴ Worker contention swept aside, employers on these lines were more able to impose their will and reduce wages tilting the distribution of income inside the firm in their and the owners’ favor.

¹⁴² Learning from the successful strategy employed by the Reading Railroad in an earlier strike, trunk lines agreed to pooling arrangement for westbound traffic. Indeed, there is evidence they had secrete agreements for eastbound traffic. These arrangements insured members of their share of revenue in the case of a strike. As a result, roads could one by one reduce wages without the risk associated with the same strategy if carried out individually. See Bruce, R. V. (1959). *1877: Year of violence*. Indianapolis: Bobbs-Merrill. Pp. 41-2.

¹⁴³ Judge Gresham of Indianapolis participated indirectly in the issuance of “writs of assistance.” During the strike, he helped organize a vigilance committee and thus excused himself from directly ruling on cases pertaining to the strike. However, he asked his good friend Judge Drummond to take his place, and sat beside him on the bench whispering in his ear when necessary. See Friedman, G. (1998). *State-making and labor movements: France and the United States, 1876-1914*. Ithaca: Cornell University Press. P. 175; Bruce, R. V. (1959). *1877: Year of violence*. Indianapolis: Bobbs-Merrill. Pp. 308-9.

¹⁴⁴ Some strikes did resist, and as a result a number of arrested and convictions took place. As the labor historian William Forbath explains, “[T]heir convictions marked a signal turning point in the history of equity practice. They were the first contempt sanctions exercised against persons neither parties nor named by court orders.” See Forbath, W. E. (1991). *Law and the shaping of the American labor movement*. Cambridge, Mass: Harvard University Press. P. 67. For Thomas Scott quote, see Scott, T. A. (September 01, 1877). The Recent Strikes. *The North American Review*, 125, 258, 351-362.

As time passed, the labor injunction was developed to extend the advantages enjoyed by trains in receivership to solvent roads, other parts of the economy, and to repress different types of labor activity. Like the “writs of assistance”, the effect of the injunction was to tilt the playing field in the favor of big business thus enabling it to take a larger share of revenue. And, as injunctions hemmed in more and more of labor activity, the share of those at the top grew larger and larger. The pages below recount these developments.

In 1886, strikes broke out on the Lake Shore and Michigan Southern. Upon request from Lake Shore attorneys, injunctions were issued by state and United States courts. These first injunctions were similar to the “writs of assistance” used during the Great Strike.¹⁴⁵ They allowed for the arrest of any striker interfering with the railroad’s right to do business, and offenders could be punished for contempt of court without the trouble of a trial by jury. However, there were some differences between these first injunctions and their predecessor. On the one hand, the first injunctions still followed the traditional principal of specifically naming the individuals to be enjoined and directly serving them notice of the enjoinder – a much more restricted and cumbersome process than with the “writs” issued during the Great Strike of 1877. On the other hand, the injunction opened up a much broader possibility of usage. “Writs of assistance” were only applicable to strikes occurring on property in receivership. While injunctions were traditionally considered “an extraordinary remedy to be invoked only in an emergency characterized by immediate irreparable damage to physical property,” they could be used, if the courts allowed, to protect any kind of property. In order to expand the potential of the injunction, where in many cases physical property was not strictly threatened, judges had to develop a much broader idea of property – one that included the abstract right to do business. As we have seen, this development was already taking place in other juridical spheres. The injunctions used during the Lake Shore and Michigan Southern strike represent one of the first usages of this more liberal definition of property as defined in *Jacobs*.

The developments in 1886 were not without a tinge of irony. The issuer of the injunction from the United State court, Judge Gresham based his authority to enjoin striking railway workers on the Enforcement Act – a Reconstruction statue created to protect African Americans from the Ku Klux Klan. This very same law had been emasculated by the Supreme Court in 1876, under the

¹⁴⁵ Some injunctions were also issued during the Great Southwest Strike of the same year. “Writs of assistance” were also prominent. See McMurry, Donald L. (1961). “The Legal Ancestry of the Pullman Strike Injunctions,” *Industrial and Labor Relations Review*, Vol. 14, No. 2 (Jan., 1961), pp. 235-256. And Forbath, W. E. (1991). *Law and the shaping of the American labor movement*. Cambridge, Mass: Harvard University Press. And

guise of states' rights, giving a "green light to acts of terror [against African Americans] where local officials either could not or would not enforce the law." Indeed, this decision was a key part in the re-enslavement of African Americans in the decades after the Civil War. Now, Judge Gresham was reviving it to empower the federal court to protect the railroads.¹⁴⁶

In 1888, the injunction evolved again. A strike broke on the whole Burlington system. To support the strikers, Brotherhood of Locomotive Engineers working other lines refused to handle Burlington cars. Upon the railroad's attorney's request, District Judge Elmer Dundy issued a temporary injunction binding Brotherhood workers from boycotting the Burlington line. "We therefore... do strictly command you," declared Dundy, "under penalty of --- dollars, to be levied upon you land, goods, and chattels to our use, that you do absolutely desist... from meddling or interfering... [with the railroad's] property [and business]... and from doing any other act or thing... in carrying out your unlawful, unjust, and wicked purposes through your unlawful, unjust, and wicked combination, connivance, and conspiracy, either as individuals or as members of the Brotherhood."¹⁴⁷

Dundy based his decision, which was later made permanent, on the Interstate Commerce Act of 1887 – which was supposedly created to prevent railroads from discriminating against small farmers and manufactures in isolated localities. Judge Dundy's decisions and the decisions of two other judges deciding on cases resulting from the same strike but in different localities broadened the list of illegal and enjoined activities to include secondary boycotts. The importance of secondary boycotts to pressure employers for an increase in wage (or better working conditions) and thus manipulate the distribution of revenue inside a firm should not be underestimated. Indeed, the Burlington strikers believed that they would have won their fight against the railroad in 1888 if the Brotherhood's boycott had continued.¹⁴⁸

The Burlington decision also expanded the legal sphere of the injunction in another way. While Judge Dundy named specific persons and parties to be enjoined, he broadened its scope by adding "their unknown confederates, whose names when discovered [were] to be inserted." This

¹⁴⁶ For the Lake Shore Strikes, see McMurry, Donald L. (1961). "The Legal Ancestry of the Pullman Strike Injunctions," *Industrial and Labor Relations Review*, Vol. 14, No. 2 (Jan., 1961), pp. 235-256. For the 1876 Supreme Court decision, see Foner, E. (1988). *Reconstruction: America's unfinished revolution, 1863-1877*. New York: Harper & Row. P. 531. For more on the re-enslavement of African Americans after the Civil War, see Blackmon, D. A. (2008). *Slavery by another name: The re-enslavement of Black Americans from the Civil War to World War II*. New York: Doubleday.

¹⁴⁷ Chicago Daily Tribune, "Must Haul the 'Q' Cars," March 10, 1888, p. 3.

¹⁴⁸ Forbath, W. E. (1991). *Law and the shaping of the American labor movement*. Cambridge, Mass: Harvard University Press. Pp. 70, 197-8.

began the processes of merging one aspect of the “writ of assistance” to the injunction. However, individuals were still served notice. As the *Chicago Tribune* reported, “officers of the United States Court left the Government building with a large basket filled with injunction papers against individual engineers and are serving them as fast as possible.” Two days after the injunction was issued, court officials were still racing around looking for boycotting railroad engineers and firemen to give them notice of the injunction.¹⁴⁹

Labor law was again changed in 1893. Brotherhood railway workers on the Ann Arbor and North Michigan road went on strike. In support, Brotherhood members on other lines boycotted the Ann Arbor line. District Judge Augustus J. Ricks issued an injunction against railroad employees from quitting work with the intent to interfere with commerce. Labor was incensed. “Judge Ricks’ interpretation of the law is outrageous,” declared James P. Archibald, a delegate from the Paper Hangers’ Union. “His decision simply means that railroad employers have no right to strike.” While workers still had the right to quit, Judge Ricks’ decision, and Judge Dundy’s previous decision, reduced the realm in which it was okay for an employee to quit. A worker could still quit individually for the purpose of taking another job. However, Ricks’ and Dundy’s decision made quitting with the intent to affect the price of labor enjoinable. This further bound labor’s hands reducing its ability to obtain a more equitable share of revenue from their employers.¹⁵⁰

Furthermore, instead of issuing an injunction for a specific road and its employees like in the Burlington case, Judge Ricks broadened the scope of the injunction by issuing it against eight railroads and their employees. He did away with the cumbersome process of serving each individual and instead published the injunction. Still not satisfied with events, officials of the Ann Arbor road filed for an injunction against the Grand Chief of the Brotherhood of Locomotive Engineers for ordering the boycott. The receiver of the claim and future President of the United States, Judge William Taft complied issuing an injunction against the head of the Brotherhood of Locomotive Engineers – once more extending the scope of the injunction for the benefit of big business.

In 1894, labor law again evolved. Pullman railroad workers went on strike due to a reduction in wages without a similar reduction in rents in the company owned town of Pullman, Illinois. To support the Pullman workers’ strike, the American Railway Union (ARU) called for all members of the union to boycott Pullman cars. Upon request by the U.S. District Attorneys, Judge

¹⁴⁹ McMurry, Donald L. (1961). “The Legal Ancestry of the Pullman Strike Injunctions,” *Industrial and Labor Relations Review*, Vol. 14, No. 2 (Jan., 1961), pp. 235-256; and David, H. (1958); and *Chicago Tribune*, March 11, 1888.

¹⁵⁰ New York Tribune, “Labor Men Excited,” March 20, 1893, p. 1.

Woods and Judge Grosscup issued an injunction against the ARU and its members for boycotting Pullman cars. The *New York Times* described their injunction as “A Gatling gun on paper... a veritable dragnet...one of those peculiar instruments that punishes an individual for doing a certain thing, and is equally merciless if he does not do it.” The injunction was based on the Sherman Anti-Trust Act of 1890 – ostensibly created to curtail the unrelenting concentration of industry and the increase in economic inequality. Thus, once again, a statute purported to ameliorate the condition of oppressed groups was used to help big business by broadening the nature of the labor injunction. This was not a surprise to some. The Sherman Anti-Trust Act, explained Senator Orville Platt shortly after its passage, was just the realization of a desire “to get some bill headed: ‘A Bill to Punish Trusts’ with which to go to the country.”¹⁵¹

The Pullman decisions increased the power of the labor injunction. During the Ann Arber case, Judge Ricks had issued an injunction against eight railroads and their employees. This precedent was greatly expanded during the Pullman strike. Judge Woods and Judge Grosscup issued their injunction against workers on twenty-two Chicago railroads and served this vast body of workers by means of publications. The *New York Times* explained that “Under this interpretation thousands of strikers might be arrested day after day and be arraigned and summarily dealt with for contempt of court, and this is precisely the policy, according to the reports at the Government Building to-night.” The effect was great. “[T]he strike was broken up... not by the army,” explained Eugen V. Debs, president of the United Railway Workers, “but simply and solely by the action of the United States Courts.” Others agreed with Debs’ conclusion of the effectiveness of the injunction. “The rapid fire injunction is a great improvement on the gatling gun,” explained George Perkins, the conservative president of the Cigar Makers International Union. “Nothing can get beyond its range and it never misses fire.”¹⁵²

The application of “writs of assistance” in the 1870s and 1880s and then the first labor injunctions in railroad disputes in the second half of the 1880s and early 1890s followed earlier

¹⁵¹ See Lindsey, A. (1964). *The Pullman strike: The story of a unique experiment and of a great labor upheaval*. Chicago: University of Chicago Press; McMurry, Donald L. (1961). “The Legal Ancestry of the Pullman Strike Injunctions,” *Industrial and Labor Relations Review*, Vol. 14, No. 2 (Jan., 1961), pp. 235-256; and David, H. (1958); and Goldstein, R. J. (1978). *Political repression in modern America from 1870 to the present*. Boston: G.K. Hall. P. 59. The *New York Times*, “Cars must not be stopped,” July 3, 1894, P. 1. These developments omit more positive and negative decisions. For example, in 1893, Judge Jenkins held strikes in general to be enjoined because their nature was always evil. However, the cases explained above represent the general trend. For Senator Platt’s comment, see Hofstadter, R. (1955). *The age of reform: From Bryan to F.D.R.* New York: Knopf. Pp. 243-4.

¹⁵² Quoted from Friedman, G. (1998). *State-making and labor movements: France and the United States, 1876-1914*. Ithaca: Cornell University Press. P. 180 footnote 93.

precedents of government involvement in railroads. The lines had always been quasi-public in nature. Indeed, in the case of “writs of assistance”, failed roads were in the care of the court before the Great Strike. Thus it makes sense that the courts would get involved in one way or another. At the same time, the path which became increasingly entrenched, especially in the 1890s, was by no means the logical conclusion of government and railroads’ close relationship. Indeed, on the eve of the Pullman Strike there were still a number of judicial precedents, although a minority, which dealt with railroad strikes in ways more advantageous to labor.¹⁵³ However, the Pullman Strike solidified the trend of using courts of equity to defend the rights of employers against the collective strategies of labor. And, in 1895, the Supreme Court, the highest court in the United States, gave its official stamp on Judge Woods and Judge Grosscup’s decision in *Debs v. United States* – asserting that secondary boycotts in the restraint of trade could be enjoined under the Sherman Anti-Trust Act. Ironically, in the same year, the Supreme Court decided in *United States v. E.C. Knight Co.* that a manufacturing company, even if it controlled 90 percent of sugar refining as did the defendant of the case in question, was excluded from the Sherman Anti-Trust Act because the statute was written to pertain to commerce monopolies – not manufacturing.¹⁵⁴

The extension of the labor injunction to other sectors of the economy had less obvious grounds. Indeed, as late as the mid-1880s, the validity of labor injunction outside of the railroads was still uncertain. In the end, it didn’t matter. Judges were able to use the broadening definition of property rights developing in other spheres or no justification at all to grant injunctions against labor activity outside the roads. For example, in an 1886 strike for a closed shop at a lumber mill in Illinois, Judge Garnett issued an injunction against the Furniture Makers Union arguing that the several defects in the basis of the injunction were “merely formalities” and that “the court will not search for technicalities or fine spun theories upon which to support a refusal of relief.”¹⁵⁵

The usage of the labor injunction outside railroads continued and developed as time passed. In 1892 during a New Orleans strike, Judge Edward Billings and Judge Pardee issued injunctions

¹⁵³ Forbath, W. E. (1991). *Law and the shaping of the American labor movement*. Cambridge, Mass: Harvard University Press. Pp. 80-1.

¹⁵⁴ See Friedman, G. (1999). *State-making and labor movements: France and the United States, 1876-1914*. p. 176; Lindsey, A. (1964). *The Pullman strike: The story of a unique experiment and of a great labor upheaval*. Chicago: University of Chicago Press; McMurry, Donald L. (1961). “The Legal Ancestry of the Pullman Strike Injunctions,” *Industrial and Labor Relations Review*, Vol. 14, No. 2 (Jan., 1961), pp. 235-256; and David, H. (1958); and Goldstein, R. J. (1978). *Political repression in modern America from 1870 to the present*. Boston: G.K. Hall. P. 59.

¹⁵⁵ See Chicago Daily Tribune, “Law for Intimidation,” May 21, 1886 p. 2. And Hurvitz, H. (January 01, 1986). American labor law and the doctrine of entrepreneurial property rights: boycotts, courts, and the juridical reorientation of 1886-1895. *Industrial Relations Law Journal*, 8, 3, 307-361.

against the Workingmen's Amalgamated Council – a trade union which represented all ninety five unions in New Orleans and their twenty thousand members. The Council had called a general strike in support of a teamster, packer, and scaleman strike already underway. In what was actually the first of such a precedent, Judge Billings and Judge Pardee based the injunctions on the Sherman Anti-Trust Act. The Interstate Commerce Act of 1887 narrowly applied to discrimination and restraint of trade involving railroads and thus provided a limited authority to issue injunctions.¹⁵⁶ On the other hand, the Sherman Anti-Trust Act pertained to any “contract, combination in the form of a trust or otherwise, or conspiracy, [which resulted] in restraint of trade or commerce” and thus was much more pliable. The U.S. Attorney was able to win the injunction against the Workingmen's Amalgamated Council based on the argument that the striking unions were “a gigantic... combination... for the purpose of restraining the commerce of several states and with foreign countries.”¹⁵⁷ As with the Burlington Strike, the Pullman Strike, and many others, the injunction abruptly ended efforts by the Workingmen's Amalgamated Council. “The filing of the suit,” explained the *New York Times*, “broke the backbone of the strike.”¹⁵⁸

With the injunction closing off more and more collective strategies, labor had to find other options to press its causes. In the last decade of the 19th century and the beginning of the 20th, labor looked to put pressure on employers unfriendly to its cause through dissemination of “Don't Patronize” lists. These strategies were incredibly successful for a time.¹⁵⁹ However, in the beginning of the 20th century the injunction was again used to eliminate them a viable strategies.

In 1902, the American Federation of Labor (AFL) placed a Connecticut hat manufacturer on the “Don't Patronize” list. The AFL was reacting to the destruction of the hatters union in this Connecticut plant through firing of union workers and hiring of non-union men. Suffering from a lack of sales, the owner sought refuge in the courts. In 1908, the Supreme Court, in *Loewe v. Lamlor*, decided on the case. It upheld a previous injunction against the boycott awarded by a lesser court and awarded the owner three times the assessed value of abstract damages resulting from the boycott which he claimed amounted to \$240,000. Members of the hatter's union were ordered to

¹⁵⁶ At the same time, the Sherman Anti-Trust Act was passed before the creativity of the court could be tested. Thus, to some degree, its importance in this development will never be completely known.

¹⁵⁷ See *United States v. Workingmen's Amalgamation Council*, 54 F. 994, 995 (C.C.E.D. La.), *aff'd*, 57 F. 85 (5th Cir. 1893).

¹⁵⁸ The *New York Times* “An important labor lawsuit,” Feb 25, 1893 p. 5

¹⁵⁹ See Forbath, W. E. (1991). *Law and the shaping of the American labor movement*. Cambridge, Mass: Harvard University Press. Pp. 90-1.

pay.¹⁶⁰ The court based its decision of both the illegality of the boycott and the award of treble damages on the Sherman Anti-Trust Act. In 1911, the Supreme Court, in *Gompers v. Bucks Stove & Range Co.*, ruled once more on the legality of using injunctions to thwart unions from publishing lists of ‘unfair’ companies. As a result of these two discussion, this once successful practice gradually disappeared.¹⁶¹

Another development which received the support of the courts via decisions and use of the injunction was the legality of yellow dog contracts.¹⁶² A yellow dog contract is a signed agreement by an employee stating that he will not join a union. These contracts were almost always signed from a position of vulnerability and gave the employer power over the employee by abridging his basic constitutional rights. From the 1880s until the early 1930s, almost every state law passed to outlaw yellow dog contracts was struck down.¹⁶³ In 1908, the Supreme Court, in *Adair v. United States*, gave its official endorsement of the trend holding that federal and state legislation prohibiting yellow-dog contracts were unconstitutional because these laws restrained individuals’ personal liberty and property. Thus the Supreme Court made it illegal to prohibit contracts that abridged certain fundamental rights.¹⁶⁴

In 1917, the Supreme Court, in *Hitchman Coal & Coke Co. v. Mitchell*, approved Judge Dayton’s injunction against United Mine Workers’ (UMW) efforts to unionize miners at the Hitchman Coal and Coke Company. Judge Dayton prohibited UMW from using “argument, reason and persuasion” with Hitchman workers and even forbade the union from “talking to” the miners. This incredible abridgment of basic rights was based on the specious grounds that workers at Hitchman had signed yellow dog contracts, and thus even the peaceful efforts of the UMW constituted “conspiracy to induce breach of contract.” Employers reacted enthusiastically to the Supreme Court’s decision. By the end of the 1920s, companies had cajoled an estimated 1.25 million workers into signing yellow-dog contracts. This development was not without the support

¹⁶⁰ The manufacturer-plaintiff lawyer, Walter Merritt was able to obtain information on which of the union members had homes or bank accounts from which the enormous sum could be paid. See *Lawlor v. Loewe*, 235 U.S. 522, 536-37 (1915), pp. 202-03.

¹⁶¹ See Forbath, W. E. (1991). *Law and the shaping of the American labor movement*. Cambridge, Mass: Harvard University Press. P. 94.

¹⁶² In the 1870s and 1880s, yellow dog contracts were called “iron clad” contracts.

¹⁶³ See Forbath, W. E. (1991). *Law and the shaping of the American labor movement*. Cambridge, Mass: Harvard University Press. P. 114 footnote 65.

¹⁶⁴ See Leuchtenburg, W. E. (1958). *The perils of prosperity, 1914-32*. Chicago: University of Chicago Press. P. 199-200; and Bernstein, I. (1960). *The lean years: A history of the American worker, 1920-1933*. Boston: Houghton Mifflin.

of the courts. Indeed, injunctions were used more than sixty times during the period to uphold the sanctity of such contracts.¹⁶⁵

In 1921, the Supreme Court, in *American Steel Foundries v. Tri-city Central Trades Council*, approved of Judge [?]'s usage of the injunction to stymie the Tri-City Trades Council's efforts to picket the American Steel Foundries. Having passed from the United States Court to President of the United States and then to Chief Justice of the Supreme Court, William Taft ruled that the methods of the Tri-City Trades Council while "lawful in their announced purpose inevitably lead to intimidation and violence." "The court then limited the number of pickets to one at each gate. The Tri-City decision determined the federal law of picketing, and virtually all the state courts followed the precedent. Henceforth it was virtually impossible for a union legally to man an effective picket line." This precedent was further reinforced in 1921, when the Supreme Court, in *Truax v. Corrigan*, ruled that Arizona's law which outlawed the usage of injunctions against peaceful picketing went counter to the Fourteenth Amendment and was thus unconstitutional.¹⁶⁶

In 1925, the Supreme Court, in *Coronado Coal Co. v. United Mine Workers*, held that "unions which struck for the purpose of organizing the unorganized segments of an industry, would, by obstructing production, violate the Sherman Act." Resting his authority on the *Coronado* decision, in 1927, Judge John J. Parker issued an injunction against union efforts to organize non-union miners in West Virginia. This development made it impossible "for any union to attempt to achieve a nationwide closed shop for the purpose of protecting union standards."¹⁶⁷

Thus, as time passed, the injunction was developed to cover more and more aspects of employee-employer relations. Indeed, by the 1920s, judges had so skillfully adjudicated laws and transformed the idea of property as to stretch the injunction to apply to unionizing workers who had signed anti-union contracts, secondary boycotts, picketing, the calling of strikes by union leaders, unionizing of un-unionized sectors of the economy, and the printing of lists of businesses thought to be unfair towards labor. In the mid-1890s after the Supreme Court gave its official approval to

¹⁶⁵ For Supreme Court decisions, see Roche, J. P. (January 01, 1963). Entrepreneurial liberty and the fourteenth amendment. *Labor History*, 4, 1, 3-31; and Bernstein, I. (1960). *The lean years: A history of the American worker, 1920-1933*. Boston: Houghton Mifflin. For application of the injunction, see Witte, E. E. (1969). *The Government in labor disputes*. New York: Arno. For Judge Jenkin's decision, see McMurry, Donald L. (1961). "The Legal Ancestry of the Pullman Strike Injunctions," *Industrial and Labor Relations Review*, Vol. 14, No. 2 (Jan., 1961), pp. 235-256.

¹⁶⁶ Taft's logic was similar to Judges Jenkin's notorious decision in the 1893 Northern Pacific Strike that unions, while legal, inevitably lead to intimidation and violence and thus "no court should encourage such a dangerous combination." *The lean years: A history of the American worker, 1920-1933*. Boston: Houghton Mifflin. For application of the injunction, see Witte, E. E. (1969). *The Government in labor disputes*. New York: Arno.

¹⁶⁷ See Bernstein, I. (1960). *The lean years: A history of the American worker, 1920-1933*. Boston: Houghton Mifflin. Pp. 184, 210-11.

the use of injunctions against secondary boycotts, Governor Altgeld of Illinois contended that “Under this new order of things a federal judge becomes at once a legislator, court and executioner.” “A federal judge could now issue an order at the behest of some corporation attorney,” explained Altgeld, “prohibiting most anything, including that which the law did not forbid. Thus could the judge legislate and, having done so, proceed to arrest people and, without a trial, to imprison them, not for disobeying any statute but on the pretext that they had violated his injunction.”¹⁶⁸ Curiously, the system that became more and more entrenched as time passed was very similar to that proposed by Tom Scott after the Great Strike of 1877. From that early period, Scott was already arguing to extend the power embodied in the “writs of assistance” to protect all trains. “The laws which give the Federal courts the summary process of injunction to restrain so comparatively trifling a wrong as an infringement of a patent-right,” implored Scott, “certainly it must have been intended or ought to give the United States authority to prevent a wrong-doing which not only destroys a particular road, but also paralyzes the entire commerce of the country and wastes the national wealth.”¹⁶⁹

General trend

As time passed, rule by injunction became ever more entrenched. The application of the labor injunction became both increasingly effective and was applied more and more to regulate labor affairs. In figure 2, I present data on the usage of injunctions as a percent of secondary strikes from the 1870s through the 1920s.¹⁷⁰ This trend provides a more realistic approximation of the de facto orientation of laws and institutions from the 1870s through the 1920s than purely indexing state and federal labor legislation. As we can see, the usage of the injunction in secondary strikes became increasingly common throughout the final decades of the 19th century and into the first decade of the 20th century. In the 1880s, at least ten percent of secondary strikes were enjoined. In the 1890s, the percentage of secondary strikes enjoined reached at least 15 percent. The usage of injunctions against secondary boycotts accelerated in the 1900s during which period at least 29 percent of secondary strikes were enjoined.

Figure 3.2: Usage of injunctions against secondary strikes

¹⁶⁸ For Altgeld quote, see Lindsey, A. (1964). *The Pullman strike: The story of a unique experiment and of a great labor upheaval*. Chicago: University of Chicago Press. P. 299.

¹⁶⁹ Scott, T. A. (September 01, 1877). The Recent Strikes. *The North American Review*, 125, 258, 351-362.

¹⁷⁰ Data comes from Forbath. *Ibid.*, (See appendix B). In terms of secondary strikes, only injunctions used against such activities are considered in the statistic.



Source: see text.

The successive slanting of laws and institutions to favor business was not missed by contemporaries. During the 1912 presidential campaign, Woodrow Wilson insisted that the federal government be utilized to restore market competition and local self-governance “by strengthening anti-trust laws, protecting the right of workers to unionize, and actively encouraging small entrepreneurs.” For Wilson and many others, the late 19th century was not a time of free competition but of government subservience to big business.¹⁷¹ The growth of the injunction as a means of regulating labor and state and federal governments’ growing role in enforcing injunctions was the major driver of that trend. In terms of latter, the National Guard was developed from a point of almost extinction after the Civil War to a staple institutions of the United States because of the strikebreaking role it took on. Of the instances where the National Guard was called into active duty between 1877 and 1892, strikebreaking accounted for 30 percent of the total at the very minimum. However, this statistic does not include the many colorful euphemisms often used by commanding officers to log the National Guard’s participation in labor incidents. If included, which most likely gives a more accurate picture, strikebreaking accounted for well over half of militia activity. At the same time, on average these instances of active service involved more guardsmen and for a longer time than other types of active duty.¹⁷²

¹⁷¹ Foner, E. (1998). *The story of American freedom*. New York: W.W. Norton. Pp. 121-2.

¹⁷² Generals often described instances for active duty as “riots” or “preservation of order.” Riker shows from a random sample of such instances that these descriptions were euphemisms for strikebreaking. See Riker, W. H.

During the Progressive Era, which lasted from the 1900s to the end of Wilson's presidency in 1920, laws and institutions were oriented more and more to the benefit of broader groups. Indeed, we can see from figure 2 that the application of injunctions to secondary strikes decreased in the second decade of the 20th century. The percent of secondary strikes enjoined fell six percentage points between the 1900s and 1910. However, the Progressive Era was much more than just a reduction in the usage of the injunction in secondary strikes. From 1900 to the First World War, the Progressives pushed through Congress a number of liberal laws. For example, in 1906, the Hepburn Act became law – representing the first sincere effort to regulate the railroads. Also, the current income tax was a product of the Progressive movement.

Through the passage of the Sixteenth Amendment and the Revenue Act of 1913, the income tax was successfully reestablished over the Supreme Court's 1895 decision against its constitutionality and tariff duties on goods consumed by lowering income groups were significantly reduced.¹⁷³ In terms of the latter, average ad valorem rate for tariff duties were reduce from 40.12 percent under the previous revenue law to around 28 percent under the 1913 act. The income tax of 1913 taxed income above \$4,000 for married individuals and income above \$3,000 for single individuals at two percent. An additional tax, a surtax, which ranged from one to six percent, was added to all income over \$20,000. The surtax rates and the amount of income subject to the surtaxes were increased multiple times throughout the remainder of the Progressive Era. The Revenue Act of 1916 increased the maximum surtax to 13 percent and slightly increased the amount of income subject to the highest surtax. The Revenue Act of October 3rd, 1917 dramatically increased both the maximum surtax rate and the amount of income subject to the highest surtax such that all incomes above \$7,500 were subject to a surtax of 63 percent. The Revenue Act of 1918, which was passed in February 1919, increased the maximum surtax by two more percentage points pushing the rate to its highest point in the period.¹⁷⁴

At the same time, many of the laws passed by the Progressives either did not attempt to reverse the orientation of previous laws or, if they did, they met the same fate as their 19th century

(1979). *Soldiers of the States* / William H. Riker. New York : Arno Press, 1979, c1957. And Goldstein, R. J. (1978). *Political repression in modern America from 1870 to the present*. Boston: G.K. Hall. P. 41. Hacker, B.C. (1969). "The United States Army as a National Police Force: the Federal Policing of Labor Disputes, 1877-1898," *Military Affairs*, 33(1), 255-264.

¹⁷³ On the 1895 Supreme Court decision, see Goldstein, R. J. (1978). *Political repression in modern America from 1870 to the present*. Boston: G.K. Hall. P. 59.

¹⁷⁴ For specifics on income tax, see *Report of the Secretary of the Treasury*, 1940, pp. 466-79 & 530-33. For specifics on tariff, see Ratner, S. (1980). *Taxation and democracy in America*. New York: Octagon Books. Pp. 323-4.

predecessors. For example, the Clayton Act and the Federal Trade Commission (FTC) did not conflict with any of the Supreme Court's detrimental decisions on the Interstate Commerce Act and the Sherman Anti-Trust Act. Furthermore, President Woodrow Wilson both understaffed the FTC and appointed people that were unsympathetic to reform. Indeed, Louis Brandeis who helped to create the FTC later described its management under President Wilson as "a stupid administration." At the same time, some legislative gains during this period met the same fate as the Sherman Anti-Trust Act. For example, the Child Labor Act of 1916 prohibited the interstate sale of goods which were produced by laborers under the age of fourteen. However, only two years after it became law, in *Hammer v. Dagenhart*, the Supreme Court declared it unconstitutional, "on the grounds that Congress could not use its commerce powers to regulate labor conditions."¹⁷⁵

During the 1920s, Progressive impulses floundered and government was taken over by those with big business's interests at heart. The American businessman is "the most influential person in the nation," exclaimed the organ of the Chamber of Commerce, *Nation's Business*, in 1925. It now occupies "a position of leadership which the businessman has never held before." We can see part of this reversal in the aggressive increase in usage of the injunction against secondary strikes depicted in figure 2. Indeed, in the 1920s, the court enjoined at least 46 percent of all secondary strikes. We also saw this trend in the string of Supreme Court's decisions (*Coronado Coal Co. v. United Mine Workers*, *American Steel Foundries v. Tri-city Central Trades Council*, *Truax v. Corrigan*) detrimental to labor. At the same time, the reversals of the 1920s spilled into other spheres.

For example, the Revenue Act of 1921 reduced the maximum surtax to 50 percent and the amount of income subject to it. In addition, the act repealed the excess-profits tax which had been a large source of government revenue during the war and the focus of much of business's odium. The Revenue Act of 1924 reduced the maximum surtax to 40 percent and again reduced the amount of income subject to the surtax. And the Revenue Act of 1926 cut the maximum surtax of 1924 in half leaving it at 20 percent of incomes over \$14,000. These dramatic decreases in the maximum surtax rate were not counterbalanced with equal decreases in tax rates for lower income groups. Indeed, the gains from changes in tax laws during the 1920s went almost exclusively to those at the upper reaches of the income ladder. For example, between 1923 and 1929, an individual earning \$5,000

¹⁷⁵ On inheritance tax, see Ratner, S. (1980). *Taxation and democracy in America*. New York: Octagon Books. Pp. 234-7, 243-4, 247-9. On Hepburn Act, see Hofstadter, R. (1955). *The age of reform: From Bryan to F.D.R.* New York: Knopf. P. 252. For Federal Trade Commission and Clayton Act, see Hofstadter *ibid.* Pp. 249-50. For Court decisions, see Leuchtenburg, W. E. (1958). *The perils of prosperity, 1914-32*. Chicago: University of Chicago Press. Pp. 99-100.

before taxes would have seen his disposable yearly income increased by one percent after the multiple reductions in taxes during the 1920s. On the other hand, an individual earning one million dollars before taxes would have seen his disposable yearly income increased by 31 percent as a result of the reductions in surtax rates and the amount of income subject to the different surtaxes. While these legislated changes in tax were large, they were not the whole story. The Secretary of Treasurer from 1920 to 1932 and one of the richest men in the United States, Andrew Mellon was found to have dispensed large refunds, credits, and abatements to those in the upper reaches of the income ladder. What taxes Treasurer Mellon “could not reduce [through legislation], he could often refund - a process which had the advantage of taking place behind closed doors,” explains historian Arthur Schlesinger in his book on the 1920s. “In the first eight years at the Treasury, the Secretary dispensed \$3.5 billion in the shape of cash refunds, credits, and abatements. The size of these disbursements mounted steadily during the period, except in 1927 and 1930, when congressional grumbling forced the Treasury to hold back.”¹⁷⁶

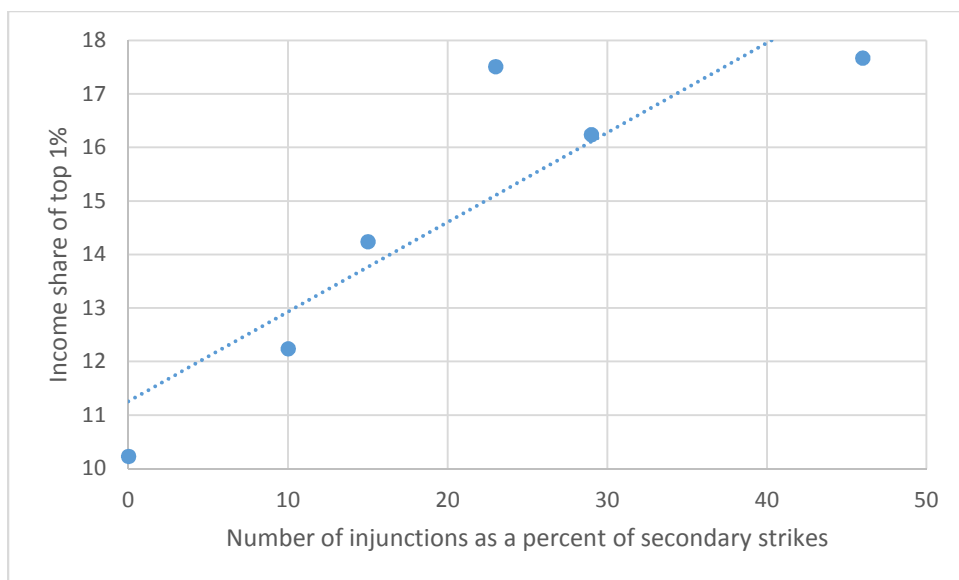
Coincidence of laws and institutions and inequality and conclusions

To get an idea of the relationship between the evolution of de facto laws and institutions and income inequality, in figure 3, I graph the percentage of secondary strikes that were enjoined by decade against the income share of the top one percent of tax units.¹⁷⁷ As we can see, there is a strong positive relationship between income inequality and the orientation of laws and institutions. Decades where the labor injunction was more vigorously enforced against secondary strikes are coincident with a higher average income shares for the top one percent of tax units. Decades where the labor injunction was less vigorously enforced against secondary strikes are coincident with lower average income shares for the top one percent of tax units.

Figure 3.3: Coincidence of change in laws and institutions and income inequality

¹⁷⁶ On change in taxation, see *Report of the Secretary of the Treasury*, 1940, pp. 466-79 & 530-33; Soule, G. H. (1947). *Prosperity decade: From war to depression: 1917-1929*. New York: Rinehart. Pp. 317-8; and Leuchtenburg, W. E. (1958). *The perils of prosperity, 1914-32*. Chicago: University of Chicago Press. P. 98. On Mellon, see Schlesinger, A. M. (1957). *The age of Roosevelt*. Boston: Houghton Mifflin. Pp. 62-3.

¹⁷⁷ Income share data is taken from chapter 2. I create decade averaged based on the average trend and using data from the current income tax when applicable.



Source: see text

The application of the labor injunction empowered executives and business owners in their struggle with workers over the distribution of a firm's revenue. For example, George Pullman, president and founder of the Pullman Palace Car Company was able to maintain the wage reductions that sparked the infamous strike of his name. These reductions ranged from 17.5 for painters to 41 percent for freight-car builders. On average, Pullman employees saw their wages decrease by 25 percent in the year before the strike. At the same time, the salaries of foremen, superintendents, and other Pullman officials were not reduced during this period. The total amount paid out in dividends increased from the previous year. And, on top payment of dividends, the Pullman Company was still able to pull in over \$2 million dollars in profits in 1894 – an incredible amount for the period.¹⁷⁸ As maintained by Eugene Debs and others, the blanket injunction on the secondary strike which was called to support the plight of Pullman workers was enormously effective in deciding the outcome of that struggle. If the injunction was less effective, less forcefully pursued, or not called at all, the outcome likely would have been much different and the distribution of income inside the Pullman Company for that year and years to come would have been different also. This battle was played out again and again throughout the United States between the 1870s and the 1920s. The aggregate effect was not just the income distribution of one firm but the income distribution for the country as a whole.

¹⁷⁸ See Lindsey, A. (1964). *The Pullman strike: The story of a unique experiment and of a great labor upheaval*. Chicago: University of Chicago Press. Pp. 26-27 and 98-100.

The trend for the percent of secondary strikes enjoined is meant to represent the general orientation of law and institutions in the United States between the 1870s and 1920s. While there might be some laws and institutions which followed divergent trends and thus show completely a completely different relationship with income inequality, the same positive relationship should hold with at least some other laws. Indeed, this is the case. For example, we can see the same positive relationship between federal income surtaxes and the income share of the top one percent. Controlling for Andrew Mellows term as Secretary of Treasurer, variation in the income share of the top one percent between 1913 and 1928 is positively correlated with over sixty percent of the variation in top surtax rates. Thus surtax rate followed a remarkably similar trend as that of the application of the labor injunction to secondary strikes and possessed a similar relationship to income inequality.

We can now answer the question posited in the beginning of the paper. While all branches of government were not acting in harmony, the general trend in the de facto orientation of laws and institutions moved in the same direction as the income share of the top one percent of tax units between the 1870s and the 1920s. When laws and institutions were oriented to the benefit of those at the top of the income ladder, as they increasing were between the 1870s and 1920s with the brief exception during the Progressive era, income inequality was increasing. When laws and institutions were oriented to benefit broader portions of the population, as they were during the Progressive era, income inequality was decreasing. Thus, if not a product of, in general government policy embraced developments in income inequality during this period. Acts purported to reduce inequality through trust busting or through other avenues often turned out to be mere platitudes.

CONCLUSION

Alexis De Tocqueville contended that democracy was “an irresistible fact, against which it would be neither desirable nor prudent to contend.” He predicted that political and social forces would eliminate all differences, producing a society of equals.¹⁷⁹ As we have seen in chapter two, there is no clear long run trend towards equality of income in the United States. Instead, it seems that income inequality in the United States has oscillated over time. Furthermore, in terms of moving to a more equal or unequal society, the political system is not one directional. At times, democracy works as contended by De Tocqueville and others. Laws and institutions are tilted in the direction of equality. However, as we have seen in chapter three, during other times, like the 1870s through the 1920s with the exception of the Progressive Era, laws and institutions can be made to embrace inequality. While we did not explore in chapter three why this happens, the explanation from chapter one is that during some periods, certain groups are better able overcome their free rider problem and take control of policy. Thus, while it might not be desirable for the population as a whole to disrupt the equalizing power of democracy, we have seen that it is both possible, desirable, and prudent for certain groups to do so in the United States.

There are some logical questions that follow from the topics and finding of this dissertation. First, has the dynamic examined in this paper been present in other advanced democracies? As mentioned at the end of chapter one, income inequality has not followed the same trend in other advanced democracies.¹⁸⁰ This difference in outcomes begs comparative analysis. Is it that the US political system is different from the political systems in other developed democratic countries? If so, has this difference enabled the cyclical dynamic of laws and institutions and income inequality in the United States and muted or eliminated it in other developed democracies? Robert Dahl argues that the US political system is unique among advanced democracies. Our political system “is among the most opaque, complex, confusing, and difficult to understand,” explains Dahl. “If it fails to ensure the fairness promised by the proportional vision, it also fails to provide the clear accountability promised by the majoritarian vision.”¹⁸¹ Of the elements that make our political

¹⁷⁹ See Tocqueville, A. . (1956). *Democracy in America*. New York: New American Library.

¹⁸⁰ For 20th and 21st century experience with economic inequality in developed democratic countries, see Piketty, T., & Saez, E. (2006). *The evolution of top incomes: a historical and international perspective* (No. w11955). National Bureau of Economic Research.

¹⁸¹ See Dahl, R. A. (1998). *On democracy*. New Haven: Yale University Press. Many others have made this same point. For example, see Friedman, G. (January 01, 2002). Success and Failure in Third-Party Politics: The Knights of

system comparatively undemocratic, Dahl explains that the strong bicameral legislature which protects state rights through the upper chamber of Congress and the Supreme Court's ability to overturn legislation are two of the most important. As an example of the former, "[b]etween 1800 and 1860 eight anti-slavery measures passed the House," explains Dahl, "and all were killed in the Senate." "Nor did the Southern veto end with the Civil War," he continues. "After the Civil War, Senators from elsewhere were compelled to accommodate to the Southern veto in order to secure the adoption of their own policies." Indeed, this point has been made by Ira Katznelson in understanding the dark side of the New Deal.¹⁸² In terms of the latter, we have seen in chapter three the important role the courts, especially the Supreme Court, played from the 1870s through the 1920s in determining de facto law. These elements of our political system which differentiate it from other advanced democracies might explain why the dynamics explained here are unique to the United States. They might create a political system that is just enough undemocratic such that narrow groups can take control of policy if they are better able to overcome their free riding problem than contending groups.

A second question that results from the findings of this dissertation is: if we want a stable low level of inequality, what type of intervention is needed? This is a difficult question. A first response might be that we need to make our political system more democratic by moving it towards the pole of one person one vote. That could be accomplished by reducing the power of the judicial branch, eliminating the upper chamber of Congress, making representation based on proportion and not first past the post, and a number of other interventions. However, in terms of change within our political system, these changes might not be possible. Because the dynamics described in this dissertation take place inside both the economic and political system, any policy prescription internal to one of the two spheres would likely fall victim to the very same dynamics outlined in this paper. As a result, without any exogenous change, we could be eternally trapped in a world where the orientation of laws and institutions and inequality cycle between embracing and equal and narrow and unequal.

Labor and the Union Labor Coalition in Massachusetts, 1884-1888. *International Labor and Working-Class History*, 62, 1, 164-188.

¹⁸² See Katznelson, I. (2013). *Fear itself: The New Deal and the origins of our time*.

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