

Economics from the Top Down

new ideas in economics and the social sciences

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MAY 10, 2021 BLAIR FIX

Once More Into the Fire of Academia

Some exciting personal news. In July, I will be starting a postdoctoral fellowship at York University. I'll be studying the hierarchical origins of income inequality.

Some of you might be asking — what's a 'postdoc'? Well, it's a position that universities invented in the 1970s to give PhD graduates a job while they waited for professorial positions. Since then, the postdoc workforce has ballooned to become the underbelly of the academic research system. When a tenured professor gets a big grant, they don't hire other tenured professors to do the lab work. They hire an army of postdocs.

A 'postdoc' is often sold as a stepping stone to a job as a professor. The reality, though, is that most postdoc workers never land a tenured gig.¹ So for them, the position is a low-paid stepping stone to a career outside academia. Meanwhile, principal investigators reap the scientific reward from the work done by their peons.

To political economists (like me), this is a familiar setup. Wherever hierarchy exists, those at the top reap the reward from the hard work done by those at the bottom. In the private sector, the reward is lavish pay. In universities, the reward is prestige. Thus, you'll find prestigious researchers who are actually just slapping their name on the work done by their postdoc army. That's how some 'scientists' (read *administrators*) manage to 'write' a paper [every 5 days](#).

Because of this dark underbelly of the academic hierarchy, I've so far avoided doing a postdoc. For the last 3 years, I've made ends meet by substitute teaching (and recently, with helpful contributions by [patrons](#)). The pay is modest. The prestige is nil. But subbing gives me two things: *free time* and *independence*. In science, these things are golden. (Read my reflections on substitute teaching [here](#) and [here](#).)

Having criticized the postdoc system, I'm about to enter it. Why? Well, not all postdocs are created equal. Many postdoc positions pay you to do the principal investigator's research. But *some* positions pay you to do your *own* research. These positions are golden tickets. As such, they're hard to get. (Every other aspiring academic wants the same job.) I've applied unsuccessfully for many of these golden postdocs. Now (finally) success! In July, I start a postdoc that pays me to do the research I love.

What's humorous is that in practical terms, little will change. As always, I will sit at my computer and research/write about political economy. Except now this work will be my 'job', and I'll get paid to do it. (To neoclassical economists, my income means that I will suddenly become 'productive'. When I did the same work for free, I apparently contributed nothing to society.)

The York position is particularly meaningful to me, as I'm going to be working with Jonathan Nitzan. If you read this blog regularly, you'll know that Jonathan's work (with Shimshon Bichler) on 'capital as power' plays a big role in my own research. Even without the postdoc, I'd be working with Jonathan. Now I'll get paid to do it.

The postdoc will last for one year, with the possibility of a second year. During that time, I'm going to look at hierarchy's role in shaping income. (I've attached the gory details below.)

The basic idea of my research is that there is a disconnect between our working lives and how political economists understand the distribution of income. In our working lives, we have jobs within hierarchies and get paid according to our status. Everyone knows that's how it works ... at least implicitly. But when political economists model the resulting distribution of income, they somehow forget about these hierarchies. Odd, right?

I'm trying to build a theory of income distribution that doesn't forget about the hierarchical facts of life. Stay tuned for the interesting results to come. As always, you'll read about them first on this blog.

Here's my postdoc proposal. A big thanks to Jonathan Nitzan, who helped me tweak it. To fellow researchers, a disclaimer: I've written many similar proposals that were *not* funded. A major part of the proposal game is finding a hiring committee with a sympathetic ear.

Does Hierarchy Drive Income Inequality?

Project Synopsis

Income inequality has, over the last 4 decades, increased dramatically in the United States and Canada [\[1–5\]](#). It is a concerning trend. Not only is inequality objectionable ethically, it also seems to be corrosive to human welfare. As inequality grows, human well-being worsens [\[6–8\]](#). But while the extent and effects of inequality are well-studied, the *cause(s)* of growing inequality remains poorly understood. My research attempts to address this deficiency.

I propose that *hierarchy* — the rank ordering of individuals within a chain of command — is central to how humans distribute resources [\[9\]](#). The idea is that individuals within a hierarchy tend to use their power to accumulate resources. The result is that income tends to grow with hierarchical rank.

I have assembled a variety of evidence that confirms (at static points in time) this hierarchy-income hypothesis [10–13]. My post-doctoral research will attempt to extend the evidence to understand how hierarchy relates to the *growth* of inequality. I propose that the recent growth of top incomes (in the United States and Canada) has been caused by a hierarchical redistribution of income. The idea is that income has been taken from those at the bottom of the corporate hierarchy and given to those at the top.

To investigate this hypothesis, I will extend a large-scale numerical model developed during my PhD studies [14]. This model is the first (to my knowledge) to rigorously connect the distribution of income at the macro-level to the fine-scale, hierarchical structure of firms. I have previously found that this model accurately predicts key features of the US distribution of income [11,13]. In my post-doctoral research, I will extend the model to study income *redistribution* — changes in income distribution over time.

By studying how growing income inequality (in the US and Canada) relates to the hierarchical structure within firms, I hope to illuminate new ways to combat inequality.

Project Description

OVERALL GOALS

The goal of my post-doctoral research is to investigate how income redistribution relates to the hierarchical structure of firms. This research is driven by the following research question and specific aims:

- **Research Question:** How does the recent growth of macro-level income inequality (in the United States and Canada) relate to the fine-scale, hierarchical structure of firms?
- **Aim 1:** Extend a large-scale computational model (developed during my PhD) to simulate how the redistribution of income relates to the hierarchical structure of US and Canadian firms. (Months: 0–4)
- **Aim 2:** Test this model against the available empirical evidence in the United States and Canada. (Months: 5–8)
- **Aim 3:** Use the model to infer if/how a hierarchical redistribution of income has driven the growth of inequality. (Months: 9–12)
- **Aim 4:** Use the model (in tandem with empirical evidence) to study potential policy for reducing inequality. (Months: 13–24. This is proposed research for a second year of postdoctoral study, if the position is renewed.)

Research Background

“Man is born free,” Jean-Jacques Rousseau famously proclaimed, and yet “he is everywhere in chains” [15]. Since these words were written (in 1755), they have haunted generations of social scientists. In nearly all modern societies, we live with systemic income inequality. Why?

One idea (dating back at least to John Locke [16]) is that income inequalities stem from differences in *productivity*. Those who earn more income, the theory contends, do so because they are more productive. In the 19th century, Francis Galton proposed that these productivity differences are genetically inherited [17]. Modern human capital theory, in contrast, argues that productivity differences are acquired through training [18–21]. Regardless of the source of ability, ‘productivist’ theories argue that income differences stem from differences in productivity.

A problem with this approach is that it is inconsistent with the facts of personal income distribution. In most societies, the distribution of income is highly skewed, with a few individuals earning hundreds (sometimes thousands) of times more than the

average [22–28]. Yet when workers' productivity is measured independently of income, such extreme differences are absent [29,30]. If individuals' productivity is relatively equally distributed, how can it explain the extremes of income inequality? Furthermore, why does the distribution of income *change* with time? Does growing inequality mean that top earners are becoming more productive? Some researchers think so [31,32]. Other social scientists (myself included) are skeptical.

The primary alternative to the 'productivist' approach is the idea that income differences stem from inequalities in our *social relations* [33–50]. Individuals with power, the thinking goes, tend to use it to accumulate resources. Given humanity's evolutionary heritage, I find this social theory of income more plausible than the 'productivist' approach. Virtually all social mammals form dominance hierarchies [51–56], within which higher social status allows greater access to resources, particularly sexual mates [57–62]. Unsurprisingly, humans seem to exhibit similar behavior [63–67].

If income inequality does stem from asymmetries in our social relations, then the main task of inequality research should be to understand and model these relations. With that in mind, my research seeks to understand how income relates to rank within *employment hierarchies* — the chain of command inside firms and governments.

The relation between hierarchical rank and income was first modeled by Herbert Simon in 1957 [68]. Simon sought to explain a surprising fact: CEO pay grows with firm size [69]. This pay trend, Simon showed, could result from the hierarchical organization within firms. If individual income grows with hierarchical rank, then the pay of the top-ranked employee would be proportional to the firm's size. A few years later, H.F. Lydall [70] demonstrated that the same model of hierarchy could explain a ubiquitous feature of income — the power-law distribution of top incomes [22–28].

Despite its promise, this hierarchy model of income distribution has received little attention. One reason is that the model clashes with the dominant view (in economics) that income stems from productivity [71,72]. As Simon put it, "only an improbable coincidence would bring about equality between salaries determined by [hierarchical rank] ... and salaries determined by the marginal productivity mechanism" [68].

Another challenge is that data on the structure of firm hierarchies is scarce. In the last few decades, however, researchers have begun to quantify this hierarchical structure and its relation to individuals' income [73–88]. Although this data is still limited, when used in tandem with a model, it is sufficient to start exploring how firm hierarchies affect the distribution (and redistribution) of income.

Methods

My PhD thesis — entitled *Economics from the Top Down: Does Hierarchy Unify Economic Theory?* — examined how seemingly disparate phenomena such as energy consumption and income inequality can be tied to hierarchical organization [14]. As part of this research, I developed a large-scale numerical model of how hierarchical rank relates to income [89]. The first of its kind (to my knowledge), this model extrapolates the available case studies of firm hierarchy to simulate the hierarchical structure of an entire society. The model consists of a population of firms, each of which is hierarchically organized. Inside each firm, individual income is a (partial) function of hierarchical rank.

I have so far used this model to study the income effects of hierarchy at static points in time. The model suggests that hierarchy may play a key role in shaping the power-law distribution of top incomes [11]. The model also suggests that hierarchical rank (within firms) may be the strongest determinant of personal income [12]. More recently, I have found that hierarchical rank strongly relates to the class-based (i.e. capitalist-vs-labor) composition of income [13].

A key next step is to study how hierarchy within firms relates to income *redistribution*. Over the last 4 decades, income inequality in Canada and the United States has grown steadily, with the steepest gains going to top earners [5,90]. As part of this income

redistribution, we know that CEO pay has increased dramatically [91–93]. But other than for top-ranked executives, we understand little about how pay practices within firm hierarchies have changed. A key challenge is that evidence relating income to hierarchical rank remains scarce.

A feasible way to solve this problem is to use my numerical model of hierarchy to draw inferences from the available empirical data. My first step will be to model the path-breaking data recently released by Song et al. [94]. The first study of its kind, Song et al. used Social Security data to study how the growth of US income inequality relates to the pay structure between and within firms. They find that the growth of top incomes can be attributed mostly to growing inequality *within* firms. Importantly, their data is resolved down to individual employees — a key piece of information that, in combination with my numerical model, can be used to infer the effect that hierarchy has on the redistribution of income.

I hypothesize that over the last 40 years, US and Canadian firms have systemically redistributed income from the bottom to the top of their hierarchies. To test this hypothesis, I will first ‘tune’ my hierarchy model to reproduce macro-level trends in inequality (i.e. the growth of the Gini index and top 1% income share). This ‘tuning’ consists of constraining a single parameter — the rate at which individual income increases with hierarchical rank.

I will then use the model to hindcast trends (provided by Song et al.) in individual-level pay within firms. This modelling effort represents the first attempt to mathematically connect macro-level trends in inequality to remuneration trends within firm hierarchies. If successful, it will create a new tool for studying inequality.

After first working with US data, I will attempt to generalize the method to study the hierarchical redistribution of income in Canada. The Canadian [Workplace and Employee Survey](#) details income by occupation. Using methods developed by Wright [50], I will use occupation as a proxy for hierarchical rank within firms. I will then use my numerical model to test if/how income has been redistributed within the hierarchies of Canadian firms.

Finally, if my postdoctoral research is extended for a second year, I will explore how different policies affect the pay structure within firm hierarchies. Evidence suggests that government oversight tends to reduce CEO pay [95,96]. We know little, however, about how such policy affects income *redistribution* within firms. I hope to shed light on this issue.

Research Alignment

My research builds on and extends the pioneering work of my proposed supervisor, Jonathan Nitzan, and his collaborator Shimshon Bichler. Together they have developed path-breaking techniques for studying the power underpinnings of capitalism [42,97–104]. To date, most of this work has been done at the macro level, using national statistics. My research on hierarchy provides a new dimension to Nitzan and Bichler’s study of power. It opens a much-needed link between the analysis of power and inequality at the societal level, and the fine-scale, hierarchical structure of this power within firms.

More broadly, York University is an ideal place to pursue this postdoctoral research. I will make ample use of York’s subscriptions to statistical databases, including Compustat, Execucomp, and Global Financial Data. And I look forward to using York’s Open Access Fund to publish my postdoctoral research in open-access journals. While at York, I hope also to foster a collaboration with Kean Birch and his postdoctoral colleague Troy Cochrane, who are studying the concept of rentiership in modern capitalism (SSHRC Insight Grant “From entrepreneurship to rentiership: The changing dynamics of innovation in technoscientific capitalism”)[105].

Finally, my research on the link between hierarchy and inequality aligns with York’s priority for ‘Living Well Together’. It also fits synergistically with the university’s sustainable-development goals for ‘no poverty’ and ‘peace, justice, and strong institutions’.

Research Significance

Although hierarchical organization is ubiquitous, we know little about how it relates to income inequality. If, as I hypothesize, hierarchy is a major driver of inequality, then it is imperative that we understand the mechanisms at work. My postdoctoral research represents the first attempt to rigorously connect macro-level inequality to the fine-scale, hierarchical structure of firms. My hope is that this research will open a new window for studying how inequality relates to remuneration policies within firms. And ultimately, my goal is to use this understanding to develop policy tools that can ameliorate income inequality and its accompanying toxic social effects.

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Notes

1. *Science* has a [nice write up](#) about the so-called 'expectation gap' among postdoctoral researchers:

One of the most persistent trends over the last three postdoc surveys is the gap in the numbers of postdocs who expect to obtain tenure-track positions and the numbers who actually land those positions. Consistently, about 56% of current postdocs expect a tenure-track position. However, in reality, only 30% of former postdocs ended up as professors in 2008, 37% in 2010, and a mere 21% in 2012.



[Cover image: [moein moradi](#)]

References

- [1] Atkinson AB, Piketty T. Top incomes: A global perspective. New York: Oxford University Press; 2010.
- [2] Alvaredo F, Atkinson AB, Piketty T, Saez E. The top 1 percent in international and historical perspective. *The Journal of Economic Perspectives* 2013; 27: 3–20.
- [3] Piketty T, Saez E. Income inequality in the United States, 1913-1998 (series updated to 2000 available). National Bureau of Economic Research; 2001.
- [4] Piketty T, Saez E. The evolution of top incomes: A historical and international perspective. National Bureau of Economic Research; 2006.
- [5] Piketty T. Capital in the twenty-first century. Cambridge: Harvard University Press; 2014.
- [6] Wilkinson RG. Mind the gap: Hierarchies, health and human evolution. Yale University Press; 2001.
- [7] Wilkinson RG. Unhealthy societies: The afflictions of inequality. Routledge; 2002.
- [8] Wilkinson RG, Pickett K. The spirit level: Why more equal societies almost always do better. New York: Penguin Books; 2009.
- [9] Fix B. An evolutionary theory of resource distribution. *Real-World Economics Review* 2019; 65–97.
- [10] Fix B. The trouble with human capital theory. *Real-World Economics Review* 2018; 86: 15–32.
- [11] Fix B. Hierarchy and the power-law income distribution tail. *Journal of Computational Social Science* 2018; 1: 471–91.
- [12] Fix B. Personal income and hierarchical power. *Journal of Economic Issues* 2019; 53: 928–45.
- [13] Fix B. How the rich are different: Hierarchical power as the basis of income size and class. *Journal of Computational Social Science* 2020: 1–52.
- [14] Fix B. Economics from the top down: Does hierarchy unify economic theory? 2018. <https://doi.org/10.31237/osf.io/7uqw9>.
- [15] Rousseau J-J. Discourse on the origin of inequality. Hackett Publishing; 1992.
- [16] Locke J. Second treatise of government: An essay concerning the true original, extent and end of civil government. John Wiley & Sons; 1689.
- [17] Galton F. Hereditary genius: An inquiry into its laws and consequences. vol. 27. Macmillan; 1869.
- [18] Becker GS. Investment in human capital: A theoretical analysis. *Journal of Political Economy* 1962; 70: 9–49.
- [19] Mincer J. Investment in human capital and personal income distribution. *The Journal of Political Economy* 1958; 66: 281–302.
- [20] Mincer J. Progress in human capital analysis of the distribution of earnings. National Bureau of Economic Research

Cambridge, Mass., USA; 1974.

[21] Schultz TW. Investment in human capital. *The American Economic Review* 1961; 51: 1–17.

[22] Atkinson AB. Pareto and the upper tail of the income distribution in the UK: 1799 to the present. *Economica* 2017; 84: 129–56.

[23] Clementi F, Gallegati M. Power law tails in the Italian personal income distribution. *Physica A: Statistical Mechanics and Its Applications* 2005; 350: 427–38.

[24] Coelho R, Richmond P, Barry J, Hutzler S. Double power laws in income and wealth distributions. *Physica A: Statistical Mechanics and Its Applications* 2008; 387: 3847–51.

[25] Hegyi G, Neda Z, Santos MA. Wealth distribution and Pareto's law in the Hungarian medieval society. *Physica A: Statistical Mechanics and Its Applications* 2007; 380: 271–7.

[26] Klass OS, Biham O, Levy M, Malcai O, Solomon S. The Forbes 400 and the Pareto wealth distribution. *Economics Letters* 2006; 90: 290–5. <https://doi.org/10.1016/j.econlet.2005.08.020>.

[27] Pareto V. *Cours d'economie politique*. vol. 1. Librairie Droz; 1897.

[28] Toda AA. The double power law in income distribution: Explanations and evidence. *Journal of Economic Behavior & Organization* 2012; 84: 364–81.

[29] Hunter JE, Schmidt FL, Judiesch MK. Individual differences in output variability as a function of job complexity. *Journal of Applied Psychology* 1990; 75: 28.

[30] Beck JW, Beatty AS, Sackett PR. On the distribution of job performance: The role of measurement characteristics in observed departures from normality. *Personnel Psychology* 2014; 67: 531–66.

[31] Gabaix X, Landier A. Why has CEO pay increased so much? *The Quarterly Journal of Economics* 2008; 123: 49–100.

[32] Edmans A, Gabaix X, Landier A. A multiplicative model of optimal CEO incentives in market equilibrium. *The Review of Financial Studies* 2009; 22: 4881–917.

[33] Berle AA, Means GC. *The modern corporation and private property*. London: Transaction Books; 1932.

[34] Brown C. Income distribution in an institutional world. In: Mangum G, Philips P, editors. *Three worlds of labor economics*, vol. 51, Armonk, N.y.: M.E. Sharpe; 1988, pp. 515–30.

[35] Commons JR. *Legal foundations of capitalism*. London: Transaction Publishers; 1924.

[36] Dugger WM. *Corporate hegemony*. vol. 97. Praeger Pub Text; 1989.

[37] Galbraith JK. *The anatomy of power*. Boston, Mass.: Houghton Mifflin Co. 1985.

[38] Huber E, Huo J, Stephens JD. Power, policy, and top income shares. *Socio-Economic Review* 2017; 0: 1–23. <https://doi.org/10.1093/ser/mwx027>.

- [39] Lenski GE. Power and privilege: A theory of social stratification. Chapel Hill: UNC Press Books; 1966.
- [40] Mills CW. The power elite. Oxford: Oxford University Press; 1956.
- [41] Munkirs JR. The transformation of American capitalism: From competitive market structures to centralized private sector planning. Armonk, N.y.: ME Sharpe Inc; 1985.
- [42] Nitzan J, Bichler S. Capital as power: A study of order and creorder. New York: Routledge; 2009.
- [43] Peach JT. Distribution and economic progress. Journal of Economic Issues 1987; 21: 1495–529.
- [44] Sidanius J, Pratto F. Social dominance: An intergroup theory of social hierarchy and oppression. Cambridge University Press; 2001.
- [45] Tool MR, Samuels WJ. The economy as a system of power. New Brunswick, NJ: Transaction Books; 1989.
- [46] Tool M. The discretionary economy: A normative theory of political economy. New York: Routledge; 2017.
- [47] Veblen T. The theory of business enterprise. New York: Martino Fine Books; 1904.
- [48] Veblen T. Absentee ownership: Business enterprise in recent times: The case of America. Transaction Pub; 1923.
- [49] Weber M. Economy and society: An outline of interpretive sociology. Univ of California Press; 1978.
- [50] Wright EO. Class structure and income determination. vol. 2. Academic Press New York; 1979.
- [51] Barroso FG, Alados CL, Boza J. Social hierarchy in the domestic goat: Effect on food habits and production. Applied Animal Behaviour Science 2000; 69: 35–53.
- [52] Guhl AM, Collias NE, Allee WC. Mating behavior and the social hierarchy in small flocks of white leghorns. Physiological Zoology 1945; 18: 365–90.
- [53] Kondo S, Hurnik JF. Stabilization of social hierarchy in dairy cows. Applied Animal Behaviour Science 1990; 27: 287–97.
- [54] Meese GB, Ewbank R. The establishment and nature of the dominance hierarchy in the domesticated pig. Animal Behaviour 1973; 21: 326–34.
- [55] Sapolsky RM. The influence of social hierarchy on primate health. Science 2005; 308: 648–52.
- [56] Uhrich J. The social hierarchy in albino mice. Journal of Comparative Psychology 1938; 25: 373.
- [57] Bradley BJ, Robbins MM, Williamson EA, Steklis HD, Steklis NG, Eckhardt N, et al. Mountain gorilla tug-of-war: Silverbacks have limited control over reproduction in multimale groups. Proceedings of the National Academy of Sciences of the United States of America 2005; 102: 9418–23.
- [58] Cowlshaw G, Dunbar RI. Dominance rank and mating success in male primates. Animal Behaviour 1991; 41: 1045–56.
- [59] Haley MP, Deutsch CJ, Le Boeuf BJ. Size, dominance and copulatory success in male northern elephant seals, *mirounga angustirostris*. Animal Behaviour 1994; 48: 1249–60.

- [60] Girman DJ, Mills MGL, Geffen E, Wayne RK. A molecular genetic analysis of social structure, dispersal, and interpack relationships of the African wild dog (*lycaon pictus*). *Behavioral Ecology and Sociobiology* 1997; 40: 187–98.
- [61] Gerloff U, Hartung B, Fruth B, Hohmann G, Tautz D. Intracommunity relationships, dispersal pattern and paternity success in a wild living community of bonobos (*pan paniscus*) determined from DNA analysis of faecal samples. *Proceedings of the Royal Society of London B: Biological Sciences* 1999; 266: 1189–95.
- [62] Wroblewski EE, Murray CM, Keele BF, Schumacher-Stankey JC, Hahn BH, Pusey AE. Male dominance rank and reproductive success in chimpanzees, *pan troglodytes schweinfurthii*. *Animal Behaviour* 2009; 77: 873–85.
- [63] Betzig LL. Despotism and differential reproduction: A cross-cultural correlation of conflict asymmetry, hierarchy, and degree of polygyny. *Ethology and Sociobiology* 1982; 3: 209–21.
- [64] Betzig L. Means, variances, and ranges in reproductive success: Comparative evidence. *Evolution and Human Behavior* 2012; 33: 309–17.
- [65] Betzig LL. Despotism, social evolution, and differential reproduction. Routledge; 2018.
- [66] Cronk L. Wealth, status, and reproductive success among the mukogodo of Kenya. *American Anthropologist* 1991; 93: 345–60.
- [67] Mealey L. The relationship between social status and biological success: A case study of the Mormon religious hierarchy. *Ethology and Sociobiology* 1985; 6: 249–57.
- [68] Simon HA. The compensation of executives. *Sociometry* 1957; 20: 32–5.
- [69] Roberts DR. A general theory of executive compensation based on statistically tested propositions. *The Quarterly Journal of Economics* 1956; 70: 270–94.
- [70] Lydall HF. The distribution of employment incomes. *Econometrica: Journal of the Econometric Society* 1959; 27: 110–5.
- [71] Clark JB. The distribution of wealth. New York: Macmillan; 1899.
- [72] Wicksteed PH. An essay on the co-ordination of the laws of distribution (1932 edition). London: London School of Economics; 1894.
- [73] Ariga K, Brunello G, Ohkusa Y, Nishiyama Y. Corporate hierarchy, promotion, and firm growth: Japanese internal labor market in transition. *Journal of the Japanese and International Economies* 1992; 6: 440–71.
- [74] Audas R, Barmby T, Treble J. Luck, effort, and reward in an organizational hierarchy. *Journal of Labor Economics* 2004; 22: 379–95.
- [75] Baker G, Gibbs M, Holmstrom B. Hierarchies and compensation: A case study. *European Economic Review* 1993; 37: 366–78.
- [76] Bell B, Van Reenen J. Firm performance and wages: Evidence from across the corporate hierarchy. CEP Discussion Paper 2012; 1088.

- [77] Dohmen TJ, Kriechele B, Pfann GA. Monkey bars and ladders: The importance of lateral and vertical job mobility in internal labor market careers. *Journal of Population Economics* 2004; 17: 193–228.
- [78] Eriksson T. Executive compensation and tournament theory: Empirical tests on Danish data. *Journal of Labor Economics* 1999; 17: 262–80.
- [79] Grund C. The wage policy of firms: Comparative evidence for the US and Germany from personnel data. *The International Journal of Human Resource Management* 2005; 16: 104–19.
- [80] Heyman F. Pay inequality and firm performance: Evidence from matched employer–employee data. *Applied Economics* 2005; 37: 1313–27.
- [81] Leonard JS. Executive pay and firm performance. *Industrial and Labor Relations Review* 1990; 43: 13–28.
- [82] Lima F. Internal labor markets: A case study. FEUNL Working Paper 2000; 378.
- [83] Main BG, O'Reilly III CA, Wade J. Top executive pay: Tournament or teamwork? *Journal of Labor Economics* 1993; 11: 606–28.
- [84] Morais F, Kakabadse NK. The corporate Gini index (cgi) determinants and advantages: Lessons from a multinational retail company case study. *International Journal of Disclosure and Governance* 2014; 11: 380–97.
- [85] Mueller HM, Ouimet PP, Simintzi E. Within-firm pay inequality. SSRN Working Paper 2016.
- [86] Rajan RG, Wulf J. The flattening firm: Evidence from panel data on the changing nature of corporate hierarchies. *The Review of Economics and Statistics* 2006; 88: 759–73.
- [87] Tao H-L, Chen I-T. The level of technology employed and the internal hierarchical wage structure. *Applied Economics Letters* 2009; 16: 739–44.
- [88] Treble J, Van Gameren E, Bridges S, Barmby T. The internal economics of the firm: Further evidence from personnel data. *Labour Economics* 2001; 8: 531–52.
- [89] Fix B. A hierarchy model of income distribution. SocArXiv 2018. <https://doi.org/10.31235/osf.io/s3y2m>.
- [90] Brennan J. The power underpinnings, and some distributional consequences, of trade and investment liberalisation in Canada. *New Political Economy* 2013; 18: 715–47. <https://doi.org/10.1080/13563467.2013.736955>.
- [91] Mishel L, Sabadish N. CEO pay and the top 1%. *Economic Policy Institute Issue Brief* 2012; 331: 1–7.
- [92] Mishel L, Davis A. CEO pay continues to rise as typical workers are paid less. *Issue Brief* 2014; 380.
- [93] Hopkins M, Lazonick W. The mismeasure of mammon: Uses and abuses of executive pay data. *Institute for New Economic Thinking* 2016; Working Paper No. 49: 1–60.
- [94] Song J, Price DJ, Guvenen F, Bloom N, Von Wachter T. Firming up inequality. *The Quarterly Journal of Economics* 2019; 134: 1–50.

- [95] Joskow P, Rose N, Shepard A, Meyer JR, Peltzman S. Regulatory constraints on CEO compensation. *Brookings Papers on Economic Activity Microeconomics* 1993; 1993: 1–72.
- [96] Joskow PL, Rose NL, Wolfram CD. Political constraints on executive compensation: Evidence from the electric utility industry. *The RAND Journal of Economics* 1996: 165–82.
- [97] Bichler S, Nitzan J. The asymptotes of power. *Real-World Economics Review* 2012; 60: 18–53.
- [98] Bichler S, Nitzan J. Can capitalists afford recovery? Economic policy when capital is power. *Working Papers on Capital as Power* 2013.
- [99] Bichler S, Nitzan J. Capital as power: Toward a new cosmology of capitalism. *Real-World Economics Review* 2012: 65–84.
- [100] Bichler S, Nitzan J. A CasP model of the stock market. *Real-World Economics Review* 2016: 119–54.
- [101] Bichler S, Nitzan J. Growing through sabotage: Energizing hierarchical power. *Review of Capital as Power* 2020; 1: 1–78.
- [102] Nitzan J, Bichler S. Capital accumulation: Breaking the dualism of “economics” and “politics”. In: Palan R, editor. *Global political economy: Contemporary theories*, New York: Routledge; 2000.
- [103] Nitzan J. Inflation as restructuring. a theoretical and empirical account of the US experience. PhD thesis. McGill University, 1992.
- [104] Nitzan J, Bichler S. New imperialism or new capitalism? *Review (Fernand Braudel Center)* 2006: 1–86.
- [105] Birch K. Technoscience rent: Toward a theory of rentiership for technoscientific capitalism. *Science, Technology, & Human Values* 2020; 45: 3–33.

MODELS

✦ ACADEMIA ✦ CAPITAL AS POWER ✦ HIERARCHICAL POWER ✦ HIERARCHY ✦ HIERARCHY MODEL OF INCOME ✦ INCOME DISTRIBUTION
✦ POSTDOC ✦ POSTDOCTORAL FELLOWSHIP ✦ RESEARCH PROPOSAL



Published by Blair Fix

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11 comments



Carrie Snyder

MAY 10, 2021 AT 10:09 AM

Congratulations!

>

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REPLY



Blair Fix

MAY 10, 2021 AT 10:10 AM

Thanks!

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REPLY



Andrew Sudmant

MAY 10, 2021 AT 11:56 AM

Congratulations on the awesome postdoc! Very cool!

Andrew

On Mon, May 10, 2021 at 3:08 PM Economics from the Top Down wrote:

> Blair Fix posted: "Some exciting personal news. In July, I will be > starting a postdoctoral fellowship at York University. I'll be studying the > hierarchical origins of income inequality. Some of you might be asking — > what's a 'postdoc'? Well, it's a position that universiti"

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REPLY



Jim Berger

MAY 10, 2021 AT 2:05 PM

Please examine the impact of monetary expansion on income inequality.

Loading...

REPLY



granitica

MAY 11, 2021 AT 12:11 AM

Well done and enjoy the new 'job'. From a reader who is a gardener in Oz

regards, *Brian *

On Tue, 11 May 2021 at 00:08, Economics from the Top Down wrote:

> Blair Fix posted: "Some exciting personal news. In July, I will be > starting a postdoctoral fellowship at York University. I'll be studying the > hierarchical origins of income inequality. Some of you might be asking — > what's a 'postdoc'? Well, it's a position that universiti" >

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REPLY



cactusneedle

JUNE 7, 2021 AT 12:57 AM

Have you ever read these 2 books?

Against the Grain: A deep history of the earliest states.

Against his-story, against leviathan.

You will probably like them. Its all about the history of hiercharchy, civilizations, and power.

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REPLY



Blair Fix

JUNE 7, 2021 AT 8:22 AM

I've read *Against the Grain*. I haven't read the second one, but it looks interesting. Thanks.

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REPLY



markbul

APRIL 23, 2022 AT 8:54 AM

Almost a year old now, but "As inequality grows, human well-being worsens" Is this true? As it happens, I have a very small income. I am not aware of any worsening of my well-being over the last years as billionaires have become ten-billionaires and ten-billionaires have become hundred-billionaires. It the rich get richer, and the poor stay the same, does human well-being worsen? Never mind what Queen Victoria would have thought of the ability of 'poor' inner city children to be provided with pocket-sized computer/movie camera/telephones with instantaneous international access (should she be able to comprehend it. It seems to me that inequality could only worsen if wealth were a zero sum game, and if gains at the high end could only come at the

expense of the low end. While I may, in fact, helped to pay for Bill Gates' superyacht, I also got the use of Microsoft software packaged on my computer, and if I thought it would impoverish me, I wouldn't have bought it at the time.

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REPLY



Blair Fix

APRIL 23, 2022 AT 9:09 AM

The link between welfare and inequality is statistical, so says little about individual experience. The relevant evidence is in this book: [https://en.wikipedia.org/wiki/The_Spirit_Level_\(book\)](https://en.wikipedia.org/wiki/The_Spirit_Level_(book))

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REPLY



markbul

MAY 6, 2022 AT 3:02 PM

Good God! First: I was taught long ago that correlation is not causation – has that changed? Second: The criticism section of that Wiki hardly supports your position. And finally: the 'individual experience' I referred to is the experience of ALL people across the population. What is the logical argument that we in the lower half of the income distribution could be caused to suffer when people we don't know and never see gain a greater income themselves? A statistical argument unmoored from any causal chain is empty of meaning.

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A Blind Leap – Economics from the Top Down

JUNE 18, 2023 AT 7:31 AM

[...] up a bit, for the last two years I've had a wonderful research position at York University supervised by political economist Jonathan Nitzan. It was the rare kind of [...]

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REPLY

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