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Land Rent and Housing Policy: A Case Study of the San Francisco Bay Area Rental Housing Market—*Stephen E. Barton* 845

Simon Patten on Public Infrastructure and Economic Rent Capture—*Michael Hudson* 874

Henry George and the Intellectual Foundations of the Open Source Movement—*Neil B. Niman* 904

Open Source Software Production, Spontaneous Input, and Organizational Learning—*Giampaolo Garzarelli and Riccardo Fontanella* 928

TRAP Abortion Laws and Partisan Political Party Control of State Government—*Marshall H. Medoff and Christopher Dennis*. 951

Legitimating Inequality: Fooling Most of the People All of the Time—*Jon D. Wisman with James F. Smith*. 974

Moral Capitalism: A Biblical Perspective—*Hershey H. Friedman and William D. Adler*. 1014

The Political Uses of Some Economic Ideas: The Trade-Off Between Efficiency and Equality—*María Jiménez-Buedo* 1029

Does the Lack of a Profit Motive Affect Hiring in Academe? Evidence from the Market for Lawyers—*Rex J. Pjesky and Daniel Sutter* 1053

Acknowledgments 1085

101-104_ajes_v70_i4_journal_pr.iiv iv 9/1/2011 3:02:47 PM

Land Rent and Housing Policy: A Case Study of the San Francisco Bay Area Rental Housing Market

By Stephen E. Barton*

Abstract. In the San Francisco Bay Area, where residential rent is among the highest in the United States, an analysis of data from several sources demonstrates that high rent cannot be accounted for by higher quality, higher operating costs, or higher construction costs. At least one-third of the total rent paid is land rent. Despite increases in real incomes, very-low-income tenants in the Bay Area today have less income remaining after payment of rent than tenants did in 1960. High land rent is a long-term feature of the Bay Area rental market that results mostly from its geography, the density of its urban centers, and a strong economy, rather than from regulatory barriers to new multifamily construction. Deregulation is not a sufficient response to the effects of land rent on low-income tenants. Government should subsidize non-profit housing organizations, particularly land trusts that remove residential land from the market. Taxes on land rent would be a particularly appropriate funding source.

Land Rent

The people who live and work together in urban areas collectively generate economic, cultural, and social benefits. This is partly done through the government, the institution we use to provide public

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safety, transportation, education, and other systems that sustain urban life. It is partly through the simple fact that urban areas generate dense networks of human interaction that advance knowledge and creativity in every field and endeavor, whether it is the arts, the sciences, business, government, or ways of life. Locations within and near these areas become valuable because space is limited. Land for development is most easily available away from the central area, and in the areas that are closely connected to the urban core by transportation systems. More housing can be built within or nearby the central area only by building up (vertically), which increases construction costs, especially when it involves the demolition and replacement of lower-density buildings that are already in place.

The investors who own the land in which there are high concentrations of desirable human interactions and activities profit from this increased value even when they have contributed little or nothing to that increase. This disconnect between creation of land value and profit from land value results in a cruel irony for people who do not own real estate. They contribute to making the city they live in a better and more interesting place, and in doing so, they increase land values, which increase the rent they have to pay to continue to live there. A well-known example of this is the common pattern in which artists who live in a low-rent neighborhood are forced out by rising rent when the neighborhood is "discovered" by higher-income people.

Residential real estate is a form of property that combines buildings and the land that the buildings sit on. When people buy a home, part of what they pay for is the building, and a part is for the land it sits on. When people rent an apartment, part of their rent payment supports construction, operation, and maintenance of the building (building rent), and part of the payment is for access to that location (land rent). When people cannot afford to pay enough rent to cover the costs of operating and maintaining a decent apartment building, they have an income problem. But when people have enough money to cover those costs and still cannot find affordable decent quality housing, then housing affordability is not just an income problem, it is a problem of land rent. The presence of land rent has important implications for housing policies intended to assist low-income tenants. In the following pages, this essay will present evidence that

land rent is a major and long-term aspect of the San Francisco Bay Area rental housing market. This article will then briefly discuss its implications for housing policy.

Land Rent in the San Francisco Bay Area Rental Housing Market

After the Hurricane Katrina disaster in New Orleans in 2005, thousands of newly homeless families spread out across the United States. Some came to a Bay Area city where a non-profit housing developer had nearly completed renovation of an apartment building and had several vacant units that could be made available to displaced families at rent far below market. The staff worked overtime to finish the job quickly, private citizens donated household furnishings and goods, and the Executive Director of the housing group proudly showed the first available apartment to a family from New Orleans. The head of the family walked through the unit and said: "This is a dump. For the same rent in New Orleans we had our own house with a yard and a swimming pool." Just prior to the hurricane, in 2004, the median contract rent in New Orleans was $473, less than half of the $1,052 median rent for an apartment in the San Francisco Bay Area that year. (U.S. Census Bureau, American Community Survey 2004.)

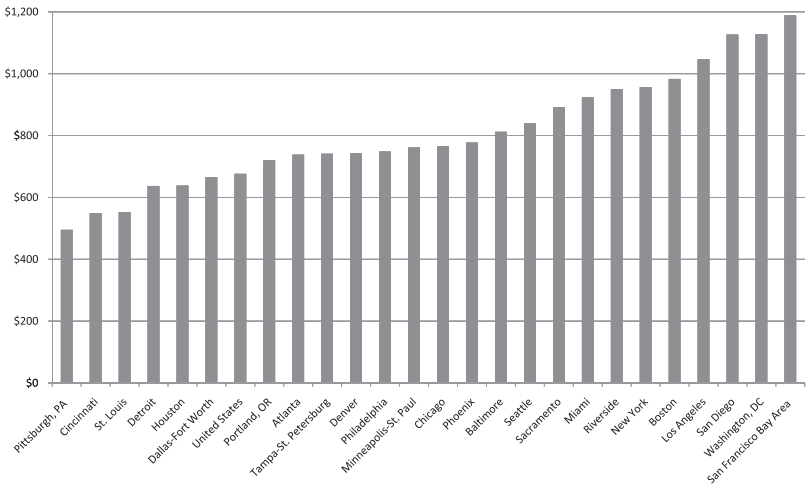
Figure 1 shows the 2008 median monthly rent for the 25 largest U.S. metropolitan areas, plus the median for all U.S. cities (U.S. Census Bureau, American Community Survey 2006–2008). The median rent for all U.S. cities is towards the lower end because the U.S. cities' average includes all the smaller metropolitan areas, which tend to have lower densities and lower housing costs.

The San Francisco Bay Area has the highest rent of any major metropolitan area in the U.S. The median rent in all of the U.S. metropolitan areas is 43 percent lower than the Bay Area rent. Even the 25th percentile monthly rent in the Bay Area of $882 is higher than the median rent in most other major metropolitan areas (Table 1 in the Appendix shows rent by quartile). The other metropolitan areas of coastal California, San Diego, and Los Angeles are not far behind, surpassed only by the Washington D.C. area.

The sources of land rent in the Bay Area rental housing market are a combination of the demand factors that make the Bay Area a

Figure 1

Median Monthly Contract Rent, 25 Largest Metropolitan Areas and All U.S. Cities



desirable place to live, and the supply factors that severely constrain the availability of land that can be developed with multifamily housing. The Bay Area has a strong economy led by Silicon Valley and biotechnology firms, high-quality infrastructure created by public investment in world-class universities, highways, mass transit, and parks. The Bay Area also has a beautiful environment featuring the Bay and the California coast, and an open, diverse regional culture that is highly attractive to creative people. At the same time, it features extraordinary barriers to housing development, including difficult geography, with a coast, a bay, and hilly areas with steep slopes, highly developed local government land use regulations, and a central area that is already relatively dense by U.S. standards, which makes increases in density more costly because they often require redevelopment of sites already built on and more costly forms of high-rise construction.

There are excellent estimates of the magnitude of land values in the single-family housing market. Davis and Palumbo (2006) used data on

single-family home prices to separate the value of buildings and land in the homeownership market in the 46 largest metropolitan areas of the United States. They found that in the largest 46 metropolitan areas in 1984 the land value averaged 32 percent of the value of a single-family home, a figure that ranged from 11 percent in the Midwest to 55 percent on the West Coast, with the value in land reaching 61 percent in the Oakland area and 75 percent in the San Francisco area. By 2004, near the high point of the 1998–2007 "housing bubble," a nationwide average of 51 percent of the value of a single-family home in the 46 largest metropolitan areas could be attributed to the land, and the proportion ranged from 36 percent of total value in the Midwest to 74 percent in the West Coast states. In the Oakland and San Francisco areas, 78 percent and 89 percent of the value (respectively) of the average single-family home was in the land by 2004, the highest ratio among the major metropolitan areas. While the collapse of the housing bubble may return the U.S. to something closer to the 1984 price structure, land values clearly constitute a major component of ownership housing prices in many metropolitan areas, and are particularly high in the San Francisco Bay Area.

Similar studies of rental housing are not available, and far less data is available on rental housing. I will use some readily available data sources to produce rough estimates of the magnitude of land rent in the Bay Area rental housing market. In order to do so, this study needs to correct for three possible alternative explanations for the Bay Area's higher rent: (1) higher housing quality, (2) higher operating costs, and (3) higher construction costs.

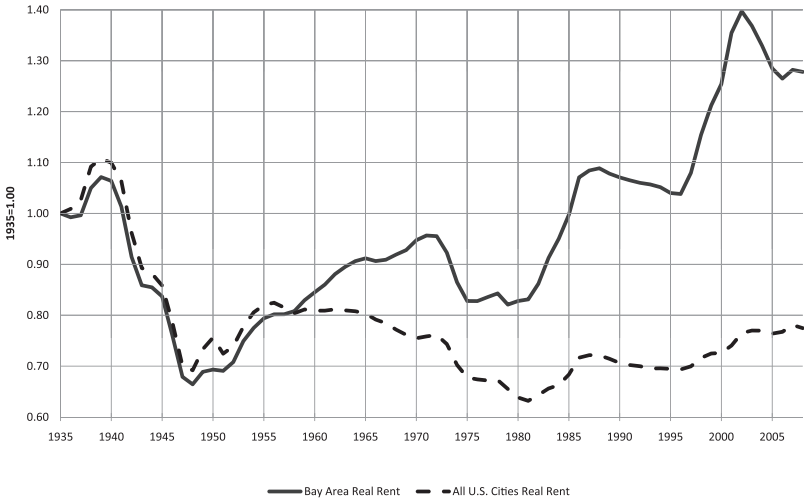
This article will examine these possibilities and provide estimates of the extent to which each of these may explain the Bay Area's higher rent. The remaining unexplained differential provides a rough measure of the extent of land rent in the Bay Area's rental housing market.

Alternative Explanation: Housing Quality

There is an excellent source of data on residential rent that corrects for changes in quality—the Bureau of Labor Statistics' Consumer Price Index (CPI) residential rent component. The CPI housing sample takes into account changes in the quality of the housing stock, making

Figure 2

Bay Area & U.S. Real Rents, 1935–2008 (CPI-R/CPI-Less Shelter)

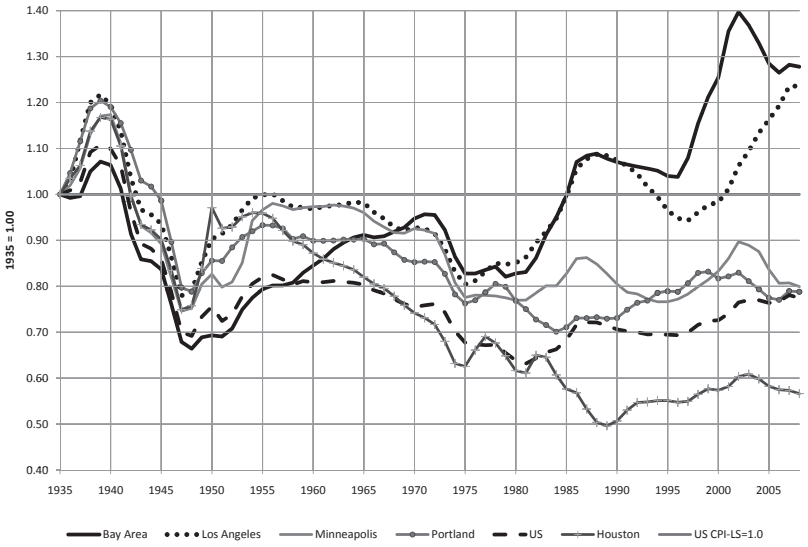


adjustments for changes in size and amenities such as the number of bedrooms, bathrooms, and other rooms. This ensures that the increases measured by the rent component of the CPI reflect actual price increases for goods of the same quality (Henderson and Berenson 1990). CPI data is available nationally, for all U.S. cities, and separately for the largest metropolitan areas, including the San Francisco Bay Area. This CPI data allows comparisons between changes in quality-adjusted rent over time.

Figure 2 shows the trend in Bay Area and U.S. rent measured against the change in the CPI-all items less shelter since 1935, which is when the less shelter index first became available.[1] The U.S. and Bay Area real rent follow each other closely until the late 1950s. After that point the U.S. rent remains largely stable, while the Bay Area rent increases. Taking the 10-year post-war period of 1946 to 1955 as a base-line, by 2008 the Bay Area rent was 69 percent higher than it would have been if it had changed in the same proportion as the U.S. average rent. In other words, if the Bay Area rent had followed the trend of the average U.S. cities' rent, it would have been 41 percent

Figure 3

Change in Real Rent, Selected Metropolitan Areas, 1935–2008



lower and it would be comparable to rent in the Portland, Oregon area. (There is reason to believe that the historical CPI data underestimates increases in rent, with the result indicating that the quality-adjusted gap between the Bay Area and the rest of the U.S. could be even greater than it appears.[2])

Figure 3 compares changes in real rent since 1935 for the Bay Area and Los Angeles area, as well as several major metropolitan areas with more balanced housing markets including: Portland, Oregon, Minneapolis-St. Paul, and Houston, Texas. The trend for Los Angeles has been somewhat different from the Bay Area's, but they have diverged nearly as much from the trend for the U.S. as a whole.

Portland is a successful, growing West Coast metropolitan area well known for the high quality of its urban life. Minneapolis-St. Paul is a Midwestern area also known for its high quality of life. These metropolitan areas, along with San Francisco, San Jose, and Oakland, are among the top 10 in Richard Florida's urban "creativity index," metro-

politan areas that score highly on "technology, talent, and tolerance" (2005: 283–284). Florida comments that "The greater Minneapolis region combines a strong creative economy with low rates of poverty, affordable housing and a balanced income distribution" (2005: 262). In the Houston area, land values and land rent are at a minimum. Houston is widely known as the only major city in America without zoning and weaker land use regulations (Saiz 2010; Siegan 1972).

The comparison between the Bay Area and the U.S. as a whole is a conservative way to estimate land rent. There is an element of land rent in virtually every local housing market, so any comparison of the Bay Area with other cities will simply show how much more land rent is to be found in the Bay Area rather than the total amount of land rent throughout the U.S. For example, even in the Portland area, with a much more balanced housing market and much lower rent, a study found that between 1992 to 2002 "increased population, coupled with an essentially fixed supply of land" caused real increases in apartment rent in the center and at major transportation nodes, and "resulted in a wealth transfer from renters to owners" (Wilson and Frew 2007: 214). The comparison with Houston also suggests that the average U.S. rent already includes a significant amount of land rent.

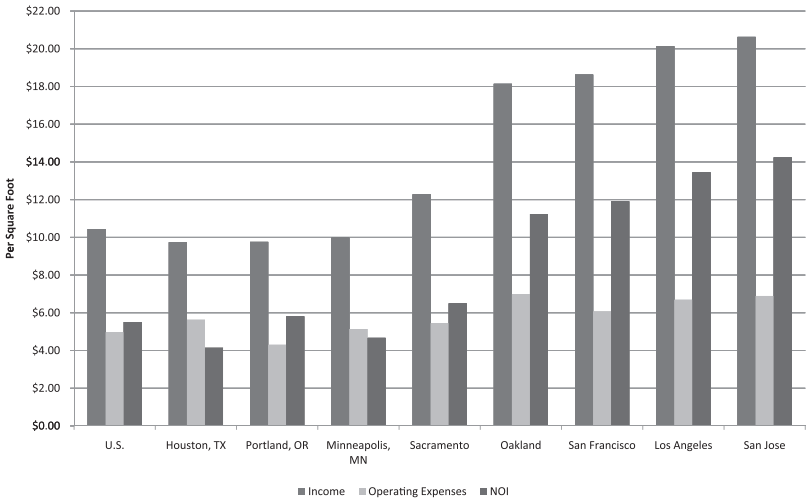
Alternative Explanation: Operating Expenses

We can look at whether the Bay Area's higher rent can be explained by higher operating and maintenance expenses by using data from the Institute for Real Estate Management (IREM). The Institute publishes an annual "Income/Expense Analysis" with data on operating expenses, rent collections, and net operating income from a survey of its membership broken down by metropolitan areas, so it is possible to make the necessary comparisons. Operating expenses, as tracked in the survey and commonly understood in the industry, include taxes but do not include mortgage and other financing expenses. Debt service is considered to be an investment expense that is paid out of the net operating income, rather than as an operating expense.

Figure 4 shows the median rental income, operating expenses, and net operating income per square foot for the U.S., the Bay Area, and other selected cities as reported to IREM for garden apartment build-

Figure 4

Rental Income, Operating Expenses, NOI for Selected Metropolitan Areas, 2007



ings for 2007.[3] (Garden apartment buildings are low-rise rentals with associated green space, the largest group in the IREM sample and the only type that can provide a comparison with all areas.) The comparison cities are those previously shown in the section that examined the changes in the CPI rent component.

The median rent for garden apartments in the central Bay Area, which includes the metropolitan areas of Oakland (Alameda and Contra Costa Counties), San Jose (Santa Clara County), and San Francisco (Marin, San Francisco, and San Mateo Counties), are from 74 percent to 98 percent higher than the median rent nationwide. The variation in net operating income (NOI) is substantially greater than the variation in operating expenses. The median operating expenses in the Bay Area are from 22 percent to 40 percent above the U.S. median, while the NOI in the Bay Area is from 104 percent to 158 percent higher than the U.S. median. The higher expenses in both the Bay Area and the Los Angeles area average out to 9 percent of the U.S. average rent (see Table 2 in Appendix).

With the median NOI in the Bay Area so much higher than the nationwide average, a typical rental property in the central Bay Area will have more than twice the value per square foot of similar rental properties in many other parts of the U.S. The result of higher property values is that, even with California's property tax limitation, over half of the difference between average operating expenses in the U.S. and the Bay Area and the Los Angeles area is the result of higher property taxes (see Table 3 in Appendix). In effect, this creates a small tax on land rent in the Bay Area and the actual adjustment for higher operating expenses drops to about 4 percent of the rent in the Bay Area. However, if we include the public services paid for through real estate taxes as an essential aspect of housing, then the higher operating cost differential is the appropriate comparison. Higher operating expenses appear to explain from 4 to 9 percent of the 40 percent gap between the Bay Area and the average U.S. rent.

Alternative Explanation: Construction Costs

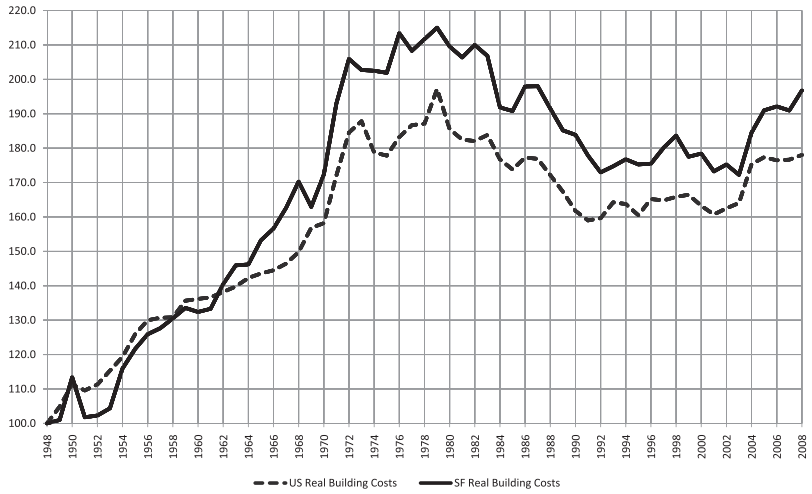
The San Francisco Bay Area has among the highest construction costs in the United States, but this has been true for quite a long time. In order to compare Bay Area construction costs with other cities, we can refer to ENR, the former Engineering News Record, which maintains a general purpose building cost index based on the cost of a fixed quantity of skilled and unskilled labor and materials from 22 different urban areas.[4]

Figure 5 shows the change in the ENR building cost index from 1948 to 2008 adjusted by the change in the CPI-Less Shelter.

Figure 5 shows that both the U.S. and Bay Area building costs increased rapidly from 1948 to 1972 and then flattened out for a decade, and have declined since 1979. Bay Area building costs increased faster than the U.S. average costs from 1962 to 1976, but have actually declined slightly more than average U.S. costs since then. On average, since 1962 the Bay Area's real costs have been 9.5 percent higher than U.S. real costs. Construction costs are paid for out of the NOI, which often reaches two-thirds of the rent in newly constructed buildings, so a 9.5 percent increase in NOI would increase rent by 6.4 percent in buildings built since 1962. The 2008 American

Figure 5

Change in Real Building Costs, 1948–2008 (Adjust by CPI-Less Shelter)



Community Survey indicates that 60 percent of Bay Area rental housing was built after 1960 so that would mean higher construction costs potentially increased Bay Area rent by 3.8 percent.

Furthermore, while housing is a good that requires a major initial capital investment, the subsequent cost of operation, maintenance, and periodic renovations is much lower. Indeed, if newer construction is higher quality it may be less costly to operate and maintain over the life of the building, with lower utility costs due to better insulation, for example. If there is sufficient continuing production of new housing, which is usually directed towards higher-income tenants, then as time passes there will be a continuous stream of additional older housing that will compete for tenants with existing older housing and this competition will reduce rent to an amount that is closer to the actual ongoing costs.[5] Since construction costs are amortized over time, a reasonable argument can be made that the effects of higher construction costs should only apply to buildings still in their amortization period. The standard depreciation period of 27.5 years would take us back to 1980. The American Community Survey (2006–2008)

indicates that 27 percent of Bay Area rental housing was built since 1980, which would mean that higher construction costs are responsible for only 1.7 percent of the Bay Area rent.

Construction costs are substantially lower in the Los Angeles and San Diego areas, even though rent is nearly as high, which further casts doubt on the idea that construction costs are the driving force behind high rent in coastal California.[6]

Estimate of Land Rent in the Bay Area

Drawing together this analysis of data on rent adjusted by quality, operating costs, and construction costs, we arrive at the following rough estimate of the proportion of land rent in the Bay Area rental housing market.

Difference between Bay Area and U.S. median rent, 2008	43%	
Quality-adjusted gap between Bay Area and U.S. rent: Based on change in CPI-R/CPI-LS, 1946/1955–2008	41%	
Correction for higher operating expenses (OE):	–9%	
Alternative OE correction excepting real estate taxes: Based on IREM 2007 data		–4%
Correction for higher construction costs: Based on ENR index, 1948–2008	–2%	
Estimated land rent:	**30%**	**35%**

This estimate is necessarily very approximate given the limitations of the data used. It serves to give a general sense of how much tenants in the Bay Area pay in pure land rent, over and above the rent that is actually necessary to support their rental housing.

The Impact of Land Rent on Bay Area Tenants

Based on the ideal of a fully open and competitive rental housing market in which land rent is held to a minimum, rent in the Bay Area should be at least 30 percent below current levels, with a median rent

around $832 (close to the median for the Seattle area), and likely as much as 35 percent lower, with a median rent of around $772 (close to the median for the Minneapolis-St. Paul area). According to the Census Bureau American Community Survey for 2008 there were 1,064,000 tenant households in the 11-county San Jose-San Francisco-Oakland Consolidated Metropolitan Statistical Area, with a median contract rent of $1,188 and together they paid an aggregate monthly contract rent of $1.3 billion, for a total of $15.6 billion annually.[7] If the land rent is 30 to 35 percent of the current rent, then it amounts to $4.5 to $5.5 billion annually in the Bay Area. In sum, Bay Area tenants are paying around $5 billion more annually than is necessary in order to profitably operate and maintain the housing they live in.

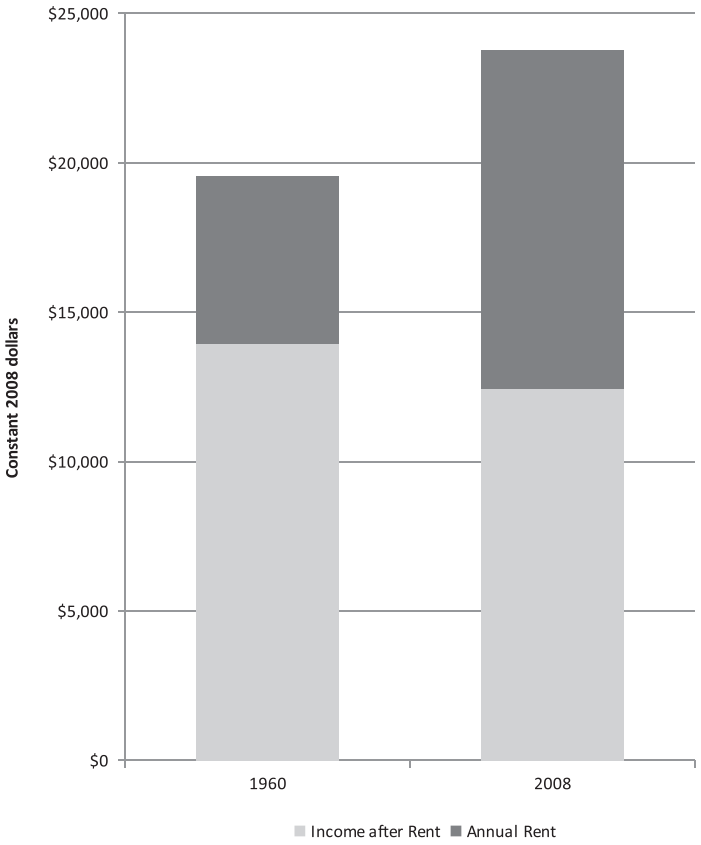
One-third of Bay Area tenants (340,000 households) pay more than 40 percent of their income in gross rent and one-quarter (250,000 households) pay over half of their income. These tenants with high rent burdens are mostly very-low-income tenants with incomes below 50 percent of the area median. All federal and state housing subsidies for low-income people living in the Bay Area together add up to between $1.0 billion to $1.25 billion annually.[8] Total subsidies to very-low-income tenants amount to no more than one-fourth of the amount that all the tenants together pay in land rent, and are likely less than the amount that the very-low-income tenants alone pay in land rent.

The impact of land rent is particularly clear when we look at the lowest income tenants. In 1960, the Bay Area rent was just beginning to increase faster than rent nationwide. Bay Area tenants with incomes at the 25th percentile in 1960 had incomes of $19,550 a year (adjusted to 2008 dollars using the CPI-Less Shelter). The 1960 Census data shows that in the Bay Area the ratio of the 25th percentile gross rent to the 25th percentile tenant income was 29 percent, while for the median rent and tenant income, the ratio was 20 percent. In other words, the supply of rental units was such that three-quarters of all tenants could probably find housing that would cost them less than 30 percent of their income and half of all tenants could spend only 20 percent of income for housing.

As Figure 6 shows, by 2008 the picture was very different. Bay Area tenants with incomes at the 25th percentile in 2008 had incomes of

Figure 6

Bay Area Tenant Income & Rent at the 25th Percentile, 1960 & 2008



$23,750 a year, 21 percent higher than in 1960, but now they need to spend 48 percent of their income for the unit with a gross rent at the 25th percentile. Rent even at the low end increased so much that despite a somewhat higher real income, the 2008 very-low-income tenant had less buying power remaining after paying housing costs than the 1960 tenant. The median Bay Area tenant income has increased substantially since 1960, but the majority of that increase is required to pay the increased median rent (see Table 4 in Appendix).

It is often argued that housing affordability is really an income problem, not a housing problem, but land rent makes these difficulties more severe for very-low-income tenants, and many more tenants have difficulty affording their housing because land rent increases their housing costs. If the Bay Area's lower quartile gross rent was similar to the gross rent in the Minneapolis and Portland areas, in the range of $650 to $675 a month, then the gross rent would be only 34 percent of the lower quartile tenant income, and many more tenants could afford housing without a subsidy. Even for those who need additional income or ongoing rental assistance of some kind, the cost of providing this assistance would be much lower if it did not include payment of land rent in addition to the payment necessary to provide the unit itself.

In addition, the lowest-income tenants have little bargaining power in constrained markets that give rise to high levels of land rent. As a result, they are often forced to take substandard housing with health and safety risks. Standard economic models portray substandard housing as an income problem, the result of incomes so low that tenants cannot afford to pay rent high enough to properly maintain the housing. In the Bay Area and other parts of coastal California, however, tenants in substandard units are often paying rent that is higher than the median rent in many other American cities.[9] This rent is quite sufficient to maintain the property, but when landlords that serve low-income tenants can earn nearly as much money for poorly maintained units as they would for well-maintained units there is little economic incentive to invest in maintenance (Mayer 1984: 320–321). The Bay Area's constrained rental housing market generates a high level of land rent that exacerbates housing affordability by increasing the cost of housing far beyond what is necessary to produce and maintain it, and it exacerbates housing maintenance problems by weakening the bargaining power of lower-income tenants.

When land rent rises so does the value of rental properties. As a result, no matter how high rent gets, the next buyer or the owner who refinances to take out accumulated equity will likely use most of the net operating income to make debt service payments. This creates a situation that can lead to under-maintenance and deterioration of rental housing if their expectations for future rent increases are not met. Debt service payments may be so high that there is not enough

cash flow left to make needed repairs. Or the investor may simply desire to lower maintenance in order to get the net operating income up to what was expected.

Figure 3 shows that the Los Angeles area has had among the largest rent increases in the U.S. during the previous 10 years. In the City of Los Angeles, the median contract rent went from $612 in 2000 to $933 in 2008 according to the U.S. Census Bureau. Yet in a major survey of rental property owners in the City of Los Angeles, conducted in early 2008 before the financial crisis had fully developed, less than one-third reported that they were making a profit on their property (Economic Roundtable 2009: 196). It is not surprising, then, that nearly half of L.A. rental property owners reported that they were postponing needed maintenance, and nearly one-quarter reported that they had postponed dealing with major problems (Economic Roundtable 2009: 192). This neglect is taking place with rent and NOI that are among the highest in major American cities, and it reflects the role of land rent as a volatile and speculative element in the investment market for rental housing.

Land Rent and Affordable Housing Policy

Of the three sources of constraint on the production of rental housing in the Bay Area—the environment, central area density, and regulation—most analysts focus entirely on land use regulation as the cause of high housing costs (Dowall 1984; Friedan 1981). Many suburban communities have extensive restrictions on development of multifamily housing that can only be considered discriminatory. Indeed, a growth cap established by the City of Pleasanton was recently overturned on the grounds that it was contrary to state law requiring each city to provide for its "fair share" of projected growth.[10] However, the effect of restrictive land use regulations is typically limited to scattered suburban cities, allowing development to spill over to nearby substitutes, and it results in little effect at a regional level (Landis 1992: 498). Furthermore, many forms of land use regulation have little or no effect on housing supply, as when an urban growth boundary, such as the one surrounding Portland, is accompanied by increases in density limits within the boundary (Nelson et al. 2002; Pendall 2000).

Saiz (2010) has argued for the importance of geography and pointed out that San Francisco is one of the most geographically constrained housing markets in the U.S. Nearly three-quarters of the area within a 50-mile radius around downtown San Francisco is undevelopable due to water and steep slopes. There was a serious proposal in the 1950s to fill in most of the San Francisco Bay for development, adding hundreds of square miles of new land in the heart of the Bay Area. This would have held down land values and land rent both by increasing the supply of land and by reducing the attractiveness of the surrounding land when the Bay was removed as an aesthetic and recreational amenity. It was precisely this dystopian vision that led to the creation of the Save the Bay movement in the 1960s, and then the establishment of the Bay Conservation and Development Commission, to protect the Bay and regulate shoreline development.

The standard response to high housing costs due to a constrained market is to call for the elimination of regulatory barriers to new construction (Quigley and Raphael 2004).[11] It is certainly true that a reduction of regulatory barriers to housing development at higher densities will increase supply and lower land values and land rent to some degree, but as we saw in Figure 2, rent in the Bay Area has increased at a rate surpassing the U.S. average for over 50 years. At least within the densely developed central Bay Area, it seems unlikely that regulatory barriers are the sole, or perhaps even the major, source of land rent. The removal of suburban land use regulations that discriminate against the lower-income people who need multifamily housing is extremely important; if people are good enough to work in a community, they should be able to live there as well. But even if the removal of regulatory barriers might eventually be sufficient to greatly reduce land rent in the Bay Area at some point in the distant future—until land rent is actually reduced, the tenants of the Bay Area are paying the price, and it is clear that they will continue to do so for many years to come.

If we accept that land rent is a long-term and even permanent feature of the rental housing market in the Bay Area and much of coastal California, a realistic public policy must take it into account. This may take surprising directions. For example, rent control is widely disapproved of by economists on the grounds that price

regulations will reduce the quality and quantity of the controlled housing stock. However, Friedman (2002:537) has demonstrated that in the presence of substantial land rent, the economic models of the effects of rent controls become indeterminate, and "perfect rent control could, in theory, affect only economic rents and cause no supply inefficiency even in the long run." Olsen (1988) and Mayer (1984) have argued that well-designed rent controls could improve maintenance.

The most widely supported affordable housing program for renters is the Section 8 Housing Choice Voucher program, which largely replaced supply-oriented housing subsidies. Susin (2002) has argued that this program increases rent for those low-income tenants who do not receive assistance by as much as it reduces housing costs for those in the program, a finding that seems especially likely in highly constrained housing markets. In such areas, investment in development of additional non-profit housing may be a better use of housing subsidies. Rental housing subsidies are essential for the many people whose incomes are so low they cannot afford to pay enough rent to cover the costs of properly operating and maintaining the housing they live in. Subsidies beyond that level, however, are simply paying land rent. Vouchers, a demand subsidy, have largely replaced supply subsidies, but even some of their strongest proponents agree that there is an important place for supply subsidies in areas with tight housing markets and a severe shortage of units affordable to low-income tenants (Winnick 1995: 117).

Supply-side efforts to increase the quantity of new rental housing will not be enough in areas where high land rent is a structural feature of the housing market. Subsidies to for-profit developers in the 1960s and 1970s were given with provisions to maintain certain levels of affordability for 20 to 40 years. As the period of affordability restrictions expired, owners in high rent areas began to opt out of the program. In such areas, supply subsidies need to be accompanied by creation of forms of ownership that permanently remove the subsidized housing from the market. "Social" housing can take such different forms as ownership by non-profit housing corporations or by individuals who buy a house or apartment but lease the underlying land from a land trust, or by a resident-owned corporation as a

limited-equity cooperative. In high-cost areas that remain high cost over a long period of time, such housing can be a more cost-effective means of assisting low-income people than the apparently lower cost voucher program, as Barton (1996) demonstrated for Berkeley and Deng (2005) for San Jose, California.

Taxing Land Rent

In addition to consideration of how the presence of constrained markets with high levels of land rent may affect the debate over existing housing policies, we should revisit the Henry George tradition and consider the value of taxing land rent as an affordable housing policy. The potential value of a shift in property taxes to the land value is well known. Taxes on land do not discourage production of housing or distort the market (Gaffney 1982). They do encourage denser and more compact development, reduce sprawl, and reduce holding land vacant or under-utilized over long periods of time, which is likely to increase the production of multifamily housing (Gaffney 1964). We should also look at ways to tax land rent and use all or part of the revenue to mitigate the harm that it does to low-income tenants.

Discussions of affordable housing policies largely neglect land taxes. Calavita and Mallach (2009) discuss the use of inclusionary zoning and density bonuses as forms of "land value recapture," an implicit tax on the increase in the value of land that is being developed to higher intensity uses. Valuable as these programs are, they miss the extraordinary unearned increases in land value and land rent that are generated in the already-existing rental housing stock, not only in the Bay Area but throughout coastal California.

Taxes on land rent in residential rental property would serve multiple purposes. The revenue could be used to fund development of below-market rate housing under various forms of alternative ownership, such as land trusts and non-profit housing corporations that remove land from the market. It could be used to assist individual tenants, especially those whose incomes are too low to pay rent equal to the necessary operating and maintenance costs of their housing. The tax would help reduce investors' willingness to speculate on continued increases in land rent and help focus the rental housing

market on its actual purpose, operation and maintenance of rental housing. Such a tax might slightly increase the incentive to switch housing from rental to home ownership, but most major California cities already restrict conversion of rental properties to condominiums in response to home prices that are even more inflated by rising land values than rent, so it seems unlikely that a tax on land rent would have such an effect.

Currently the total annual rent paid in the State of California is approximately $66 billion (American Community Survey 2006–2008). Three-quarters of this is paid by tenants in the high rent areas of coastal California; the Bay Area ($15.6 billion), the Los Angeles area ($26.6 billion), and the San Diego area ($6.3 billion). At least one-quarter and probably one-third of this amount is land rent, a "private tax" of $12 to $15 billion a year on the tenants of coastal California.

California's land rent is a resource that is hard to tap because under the California constitution, increases in property taxes and "special taxes," meaning taxes with a specified purpose, all require a vote of the people by a two-thirds super-majority. The voters recently approved an amendment to reduce the requirement to 55 percent for taxes for bond measures supporting education. Further amendments may open the way to greater use of taxes on land as long as they do not affect the majority of voters who are homeowners. Taxes on the unearned revenue from land rent would provide an equitable and economically efficient means for the state and local governments to support housing programs to assist low-income tenants. One such tax that should be considered for an increase is the business license tax on gross rent that many local governments charge at a minimal level.[12]

A system that allocates urban housing entirely based on who can afford to pay the most money creates severe hardships for many of the diverse people who make cities into centers of creativity. Perhaps we can find ways of managing the urban economy that more fully value the contributions of the writers, researchers, artists, craftspeople, teachers, nurses, attendants to the disabled and elderly, gardeners, people who work in neighborhood restaurants and shops, and the many others who are only sometimes "successful" in

monetary terms but who together make cities great. One of the ways to do this is to find ways to recapture land rent, which is a privatized form of our socially created wealth, and reinvest those resources in making housing decent and affordable for all the diverse people of urban America. As Henry George wrote in *Progress and Poverty* in 1879, "(land) rent, the creation of the whole community, necessarily belongs to the whole community" (George [1879] (1992): 366).

Notes

1. The use of the CPI-All Items to measure increases in rent in the Bay Area would run into a problem of circularity. When rent goes up faster than the cost of other consumer goods, as it has in the Bay Area, this increases the CPI-All Items. Using a measure that includes rent increases to measure the rent increases will mask part of the increase. The use of the CPI index for all items less shelter allows us to measure changes in rent without this source of distortion.

The CPI- Less Shelter index is available from 1935 to the present for all U.S. cities, but only from 1976 to the present for the San Francisco Bay Area, so for changes in Bay Area rent in relation to CPI-LS, this study used the national index. The CPI-Less Shelter index increased at virtually the same rate in the Bay Area and in all U.S. cities between 1976 and 2008, which suggests that the Bay Area's larger increase in the CPI-All Items is mostly the result of the Bay Area's more rapidly increasing housing costs.

2. Between 1953 and 1994 the Bureau of Labor Statistics made a number of improvements in the way it gathers data on rent. Crone, Nakamura, and Voith (2008) have closely analyzed these changes and generated estimates of what the CPI-Rent data would have shown if the changes had applied all along. Dr. Leonard Nakamura generously provided me with the spreadsheet they used to calculate correction factors for the U.S. as a whole, and applying it to both U.S. and Bay Area rent suggests that if Bay Area rent had followed the same pattern as U.S. rent, it would have been as much as 47 percent lower in 2008.

3. IREM Institute of Real Estate Management, "Income/Expense Analysis: Conventional Apartments," 2008.

4. McGraw-Hill, *ENR.com*, http://enr.construction.com. The cost index is for all forms of construction, not specifically for residential construction.

5. Land rent can result from regulatory or inherent limitations on new construction and from insufficient competition among older buildings where rental income only needs to cover operating, maintenance, and renovation costs.

6. Alex Carrick, "RSMeans' Dollars-per-Square Foot Construction Costs: Four Accommodation Type Structures," July 6, 2009. Apartment building, 4–7 stories, S.F. $197; L.A. $173; San Diego $168.

7. The SJ-SF-O Consolidated Statistical Area is made up of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, Sonoma, Napa, Solano, Santa Cruz, and San Benito Counties.

8. Housing Authorities in the Bay Area assist approximately 72,000 households through the Section 8 voucher, certificate and mod rehab programs, or public housing. Assuming an average annual subsidy amount of $10,000 per household, this is a total annual subsidy of $720,000,000. In addition, affordable housing projects in the Bay Area receive 10-year allocations of federal and state Low Income Housing Tax Credits. In 2008, the Bay Area received its highest total of annual tax credit commitments, about $340,000,000, but the 2008 financial crisis greatly reduced the market for tax credits and not all of that is being used. The Bay Area also benefits from other sources of subsidy, such as state housing bond money, but these amounts vary depending on whether the voters have recently approved such a bond measure.

9. This is based on comments from knowledgeable people from Los Angeles, Sacramento, and Alameda County at the April 28, 2009 Housing California Conference session on "Advancing Effective Strategies to Reduce the Health Burden of Substandard Housing."

10. Urban Habitat v. City of Pleasanton, March 12, 2010.

11. Quigley and Raphael's excellent article also notes that part of rising housing costs "surely reflects urbanization and increased competition for land" (2004: 207).

12. The City of Berkeley charges the highest rate in the state of California at 1.08 percent.

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Appendix: Supporting Tables

Table 1

Contract Rent in the 25 Largest Metropolitan Areas and All U.S. Cities, 2008

	Lower quartile	Median	Upper quartile
San Jose-San Francisco-Oakland, CA (CSA)	$882	$1,188	$1,623
Washington DC-Arlington, VA-MD-WV	$850	$1,127	$1,484
San Diego-Carlsbad-San Marcos, CA	$861	$1,126	$1,524
Los Angeles-Long Beach-Santa Ana, CA	$790	$1,046	$1,420
Boston-Cambridge-Quincy, MA-NH	$653	$983	$1,323
New York-N. New Jersey-Long Is., NY-NJ-PA	$678	$956	$1,295
Riverside-San Bernardino-Ontario, CA	$709	$950	$1,247
Miami-Fort Lauderdale-Pompano Beach, FL	$702	$923	$1,219
Sacramento–Arden-Arcade–Roseville, CA	$707	$892	$1,184
Seattle-Tacoma-Bellevue, WA	$656	$839	$1,125
Baltimore-Towson, MD	$601	$812	$1,094
Phoenix-Mesa-Scottsdale, AZ	$607	$777	$1,015
Chicago-Naperville-Joliet, IL-IN-WI	$602	$766	$978
Minneapolis-St. Paul-Bloomington, MN-WI	$606	$761	$969
Philadelphia-Camden-Wilm., PA-NJ-DE-MD	$561	$748	$960
Denver-Aurora, CO	$578	$743	$979

Table 1 *Continued*

	Lower quartile	Median	Upper quartile
Tampa-St. Petersburg-Clearwater, FL	$588	$741	$948
Atlanta-Sandy Springs-Marietta, GA	$588	$738	$905
Portland-Vancouver-Beaverton, OR-WA	$596	$720	$913
New Orleans-Metairie-Kenner, LA (46th)	$546	$719	$930
Fresno, CA (54th)	$512	$679	$882
United States	**$466**	**$676**	**$965**
Dallas-Fort Worth-Arlington, TX	$531	$665	$848
Houston-Sugar Land-Baytown, TX	$507	$638	$827
Detroit-Warren-Livonia, MI	$497	$637	$810
Cincinnati-Middletown, OH-KY-IN	$423	$549	$708
Pittsburgh, PA	$362	$495	$643

Source: U.S. Census Bureau, American Community Survey 2006–2008.
Note: All areas are standard Metropolitan Statistical Areas (MSA) except the San Francisco Bay Area, an 11-county Consolidated Statistical Area (CSA) that includes six MSAs: San Francisco-Oakland, San Jose, Santa Rosa, Vallejo, Napa, and Santa Cruz-Watsonville. MSAs not in the top 25 have their rank in parentheses.

Table 2

2007 Median Rental Income and Expenses per Square Foot for Garden Apartment Buildings in Selected Metropolitan Areas

	Income	Operating Expenses	OE as % Income	NOI	NOI as % Income
U.S.	$10.44	$4.97	48%	$5.51	53%
Houston, TX	$9.74	$5.63	58%	$4.14	43%
Portland, OR	$9.76	$4.30	44%	$5.81	60%
Minneapolis, MN	$10.00	$5.14	51%	$4.67	47%
Sacramento	$12.28	$5.45	44%	$6.50	53%
Oakland	$18.14	$6.99	39%	$11.23	62%
San Francisco	$18.63	$6.07	33%	$11.91	64%
Los Angeles	$20.13	$6.69	33%	$13.45	67%
San Jose	$20.63	$6.89	33%	$14.24	69%

Source: IREM Institute of Real Estate Management, "Income/Expense Analysis: Conventional Apartments," 2008, and author's calculations.
Note: Note that due to use of medians, expenses and NOI will not add up to exact rental income.

Table 3

U.S. and Bay Area Operating Expenses per Square Foot, 2007

	Income	Operating Expenses	OE-US OE	Difference as % of Income	Real Estate Taxes
U.S.	$10.44	$4.97	$0.00	$0.00	$0.89
Houston, TX	$9.74	$5.63	$0.66	6.78%	$1.03
Portland, OR	$9.76	$4.30	–$0.67	–6.86%	$0.82
Minneapolis, MN	$10.00	$5.14	$0.17	1.70%	$0.89
Sacramento	$12.28	$5.45	$0.48	3.91%	$0.85
Los Angeles	$20.13	$6.69	$1.72	8.54%	$1.54
Oakland	$18.14	$6.99	$2.02	11.14%	$1.46
San Francisco	$18.63	$6.07	$1.10	5.90%	$2.31
San Jose	$20.63	$6.89	$1.92	9.31%	$1.76

Source: IREM Institute of Real Estate Management, "Income/Expense Analysis: Conventional Apartments," 2008, and author's calculations.
Note: The 2007 IREM data is based on 3,100 units in the Oakland area, 2,297 units in the San Francisco area, and 3,782 units in the San Jose area. Note that due to use of medians, expenses and NOI will not add up to exact rental income.

Table 4

Incomes and Gross Rent, 1960 and 2008 (Constant 2008 Dollars)

	1960	2008	1960	2008
Bay Area	25th percentile	25th percentile	Median (50th percentile)	Median (50th percentile)
Tenant Income	$19,550	$23,750	$36,840	$50,090
Rent	$467	$943	$623	$1,273
Rent/Income	29%	48%	20%	31%
Income-Rent	$13,940	$12,434	$29,365	$34,815
% of BA households	10.8%	10.20%	21.5%	20.3%

Source: 1960 Census, 2006–2008 American Community Survey, Bureau of Labor Statistics, author's calculations.

Note: In the Bay Area tenant households in the 25th percentile and the 50th percentile income levels made up nearly the same proportion of the same percentile households in 2008 (41 percent) as they did in 1960 (43 percent), so these results are not caused by a substantial decline in the proportion of tenants.

Simon Patten on Public Infrastructure and Economic Rent Capture

By Michael Hudson, UMKC*

Abstract. Reflecting the Progressive Era's reform agenda Simon Patten (1852–1922) argued that freeing markets from one source of economic rent (by taxing land rent) would merely leave the surplus to be taken by other monopolists and rent extractors (railroads, Wall Street trusts, and basic privatized utilities). To prevent unearned income (economic rent) from adding to the economy's cost of living and doing business, potentially rent-yielding infrastructure should be kept in the public domain as a "fourth factor of production." Instead of *rentiers* making a profit by charging access fees and user fees, the return to public investment should take the form of reducing the economy's overall price structure.

Along with Edmund James and Richard T. Ely, Simon Patten studied in Germany in the late 1870s. As in America, Germany's national interest called for an alternative economic policy—and hence, a supportive body of economic theory—from that of British free-trade orthodoxy, which left public-sector investment out of account. "I became imbued with the German view," he wrote, "and came home hoping to help in the transformation of American civilization from an English to a German basis" (Patten 1912, in 1924: 273). The German Historical School's focus on national differences in political and economic institutions reflected its concern with state leadership in protecting industry and pioneering social welfare policy by enacting labor laws such as old-age pensions. Patten saw Germany's creation of a public railroad network in particular as increasing its competitive industrial power along similar lines to those that protectionists in the United States were following. National price structures were being shaped not merely by wages, profit, and interest rates, but also by public spending and tax policies.

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Returning to the United States, Patten saw a mixed economy shaped by public investment in transportation, education and other infrastructure, protective tariffs, and subsidies. His friend James was appointed senior professor at America's first business school, the Wharton School of Finance and Economy at the University of Pennsylvania, in 1883, a year after it started classes. In 1885, James, Ely, and Patten took the lead in founding the American Economic Association. Three years later James helped bring Patten onto the Wharton faculty as its first professor of economics, a chair Patten held until 1917. (I summarize Patten's life and major writings in Hudson 2010.)

From his defense of protectionist trade policy to his advocacy of social reform, Patten recognized that national economies were at different stages. America differed from England, as did Germany and other countries confronting British industrial competition. Free-trade policy was not appropriate for conditions that called for steering economic evolution along the most productive lines. And what British economists treated as universal actually reflected its class structure, especially its hereditary groundrent stemming from the Norman invasion.

Free-trade economists attributed America's high wage levels to the nation's vast backwoods of available land on which to settle as an alternative to working in factories. Like other protectionists, Patten found this explanation insufficient. American industrial labor had to be sufficiently productive to sustain higher living standards. This required investment in capital, which in turn required protective tariffs and public infrastructure investment. Patten recognized that rising productivity, public investment, and wage levels went together. That is what enabled well-fed, well-trained, and well-housed American labor to undersell "pauper labor."

American free traders who followed the lead of British economists in urging governments to stand aside bought the idea that market forces by themselves would produce the most efficient outcomes. But what are markets, reformers asked, if not carefully constructed arrangements shaped by tax laws, land and property tenure, government subsidies and price regulation, educational systems, and infrastructure? Would not a market without regulation or public services become "free" for predators?

The institutional and sociological economists who emerged from the American protectionist tradition and German Historical School were almost alone in retaining from classical political economic thought the concept of economic rent (the excess of market price over intrinsic cost-value) as unearned income. Defenders of property and opponents of tax reform found this focus on *rentier* revenue disturbing, above all its application to land ownership, and the monopolies and trusts created by Wall Street. These vested interests applauded the free-market marginalists who took property relations for granted, and especially endorsed John Bates Clark's rationalization of property income as "earned."

While extending economic analysis along lines that later would be called institutional, Patten retained the classical definition of rent as unearned income—the excess of market price over intrinsic cost. Economic rent taken by landlords, monopolists, and financial institutions has no counterpart in the technological requirements of production, but stems from legal and historical privileges that privatize the free gifts of nature or permit monopolistic power to charge access fees over cost for the use of basic infrastructure. Patten believed that economies should minimize the cost of living and doing business by becoming as rent-free as possible, socializing monopolies outright, or at least taxing land, mining, and other natural resources, and regulating prices to minimize unnecessary *rentier* charges.

Rent Theory and the Crisis of Classical Political Economy

Patten recalled that the generation of American economists who studied in Germany in the 1870s was taught that John Stuart Mill's 1848 *Principles of Political Economy* was the high-water mark of classical thought. But Mill's reformist philosophy had been overtaken by more activist schools, and turned out to be "not a goal but a half-way house" between classical laissez faire and the emerging epoch of class conflict. Mill was "a thinker becoming a socialist without seeing what the change really meant," Patten concluded: "The Nineteenth Century epoch ends not with the theories of Mill but with the more logical systems of Karl Marx and Henry George (Patten 1912, in 1924: 274; also see Patten 1899: 339).

The rise of socialist reformers in the wake of Europe's 1848 revolutions defined labor/capital relations as exploitative and called for nationalization of the means of production. As Patten observed, "If this new group of thinkers called themselves sociologists or historians they might be disregarded." But the social reformers "openly claim to be economists, and the worst of the matter is, they have . . . the mass of the older economists on their side. Nothing pleases a socialist or a single taxer better than to quote authorities and to use the well-known economic theories to prove his case (Patten 1908a, in 1924: 219). Meanwhile, the analysis of economic rent paid to owners of land, mineral resources, and natural monopolies—using the labor theory of value to isolate such rent as "empty" pricing that did not reflect production cost—flowered into a political movement to tax or nationalize and socialize land and monopolies outright. The vested property interests felt duly threatened. The new generation of economists, friendlier to the vested interests, "soon realized that their favorite authors were not so perfect as they supposed, and that economic doctrine must be recast" to exclude logic that implied an exploitative character of the "unearned increment" that landowners obtained in the form of rent and rising property prices, and even industrial profit as surplus value (employing labor to sell its products at as large a markup as possible).

Reacting to the policies of Marx and Henry George that urged nationalization or full taxation of land and natural resources, a post-classical orthodoxy arose to divert attention away from the analysis of economic rent as unearned income (prices and income without cost value). Clark in America and a marginal utility school in Europe tried to base their view of the economic system on consumer psychology, while treating all income as reflecting—by definition—the recipient's contribution to production. The result was a circular reasoning to confirm their desired outcome and starting viewpont: If all income was "earned," there was no such thing as a free lunch.

Wages were rising, paid out of productivity gains. Describing America as reflecting the dynamic of future evolution to a "pleasure-surplus" economy, Patten showed how a growing surplus was available not just to landlords and owners of capital as in Ricardian theory, but also to workers in the form of rising wages and living

standards. This means that *rentier* income is taken at the expense of labor's high wage levels as well as industrial profits. David Ricardo juxtaposed "profits and wages, or profits and rent, but never rent and wages. If he had broken away from his concrete thinking enough to contrast wages and rent, he would have forestalled Henry George, since the latter writer has nothing new of theoretical importance except this contrast neglected by Ricardo and his followers" (Patten 1892, in 1924: 153).

To Ricardo, writing at a time and place when it seemed natural to assume subsistence wage levels, the major class conflict was between landlords and industrial employers. Ricardo described economic rent as rising for owners of the most fertile soils as diminishing returns pushed up crop prices at the margin of cultivation where land was least fertile. This forced up subsistence wages. The higher cost of living was paid to landlords, whose income rose at the expense of industrial profits. To avoid rising food prices, Ricardo argued that Britain should import cheaper grain from abroad—and indeed it repealed its protectionist Corn Laws in 1846.

"Ricardian socialists" from James Mill and John Stuart Mill to Ferdinand Lassalle in Germany and Henry George in America radicalized the analysis of groundrent. Land prices and rents rose not because of efforts made by landowners themselves, but because of economy-wide forces (general prosperity) and public investment that increased site values. This became the socialist argument for nationalizing the land, or at least its rental income.

Arguing that not all market prices and incomes were earned fairly or reflected social use value, "institutional" economists such as John Commons and Thorstein Veblen emerged around the turn of the 20th century to analyze "unearned" wealth, especially that of the emerging monopolies and trusts. Social and fiscal reforms were needed to steer prices and the distribution of income to maximize economic welfare. Combining evolutionary analysis with the evangelism of economic reform, they advocated public policies to promote a more productive and fairer economic future for everyone. The guiding idea of economic fairness—and also of competitive power—was to minimize unearned income, that is, income without a counterpart in technologically necessary costs of production.

The Democratization of Land Rent—On Credit, with Increasing Debt Leveraging

Rentier income was a class phenomenon in Britain and other European countries. Most groundrent was still monopolized by the landed aristocracy, the heirs to the Norman conquerors. Economists from Ricardo through Mill analyzed how economic rent and land prices rose at the expense of industrial employers. In the years before the word "socialism" took on Marxist connotations dealing mainly with labor and with the outright nationalization of property, "Ricardian socialists" described groundrent and rising land prices as accruing to landlords in the form of what Mill termed an "unearned increment"—unearned because the gain occurred without property owners having to expend any effort of their own.[1] Higher prices for food, minerals, and the products of natural or artificial monopolies threatened to increase labor's cost of living (and hence, subsistence wage levels), eating into industrial profits and bringing investment and economic growth to a halt—all to benefit an idle landlord class.

In contrast to Europe's hereditary landed aristocracies, land rent and interest recipients were not a specific class in the United States. Railroads and other monopolies were a more pressing concern. Their extortionate pricing prompted the government to enact the Sherman Anti-Trust Act and create the Interstate Commerce Commission to regulate railroad charges.

Patten wrote about economic rent in his critique of Ricardo in his 1890 *Economic Basis of Protection*, and provided a critique of Clark and George the following year. The thrust of his analysis was that minimizing economic rent would benefit labor, farmers, and small business as well as capitalists. Rather than each type of income being associated with a distinct political class as in Britain (groundrent with a hereditary aristocracy), property ownership was becoming so widespread a phenomenon that most Americans received the economic rental value of their homes or farms, and most received interest as savers, as well as profits made by the emerging middle class of businessmen.

> The older thought assumed that for each kind of income there was a social class which was interested in its defense. The social condition of England

> at the time economic theory was formulated favored this concept. The aristocracy held the land, the so-called middle or industrial class owned the capital, while the great mass of unskilled and politically unprotected laborers did the work. The essence of the Ricardian economics was an opposition to the aristocratic landlords, and it succeeded so well that an imputation of being unearned was put up on their income. In America, however, while we have rent, we have no landlord class. The income from rent and interest is so diffused that all income-receivers form one class. . . . Profit holders blend with the holders of rent and interest and think of themselves as a social unit. All get profits, rent and interest in their income . . . . (Patten 1908a, in 1924: 219)

Industrial protectionism, trade unionism, and bank credit enabled families to obtain farms or homes in cities with good public school systems. This led to a growing economy in which, "when families get $1,000 a year their income is derived more from monopoly, rent and interest than from mere wage-earning power. They own houses, they receive special rents from the position of local advantage they hold, they enjoy monopolies through their trade unions, and they derive great advantage from the municipal expenditures that give them water, health, sanitation and education. Their income is thus not pure wages, but a diffused income derived from many sources" (Patten 1908a, in 1924: 221). This is why land taxation never was as popular in the United States as in Britain.

Land remains the major asset in every economy today, followed by natural monopolies and subsoil minerals and fuels, and property ownership has been the major force shaping fiscal policy as well as politics. There is indeed a power elite composed of what Veblen called vested interests, but land ownership—especially housing—has been democratized. This has enabled absentee owners and speculators to represent their interests as synonymous with that of small homeowners in campaigning for property tax relief. And behind them stand the bankers—some 70 percent of bank loans are mortgages, absorbing a rising share of property's income via interest charges.

The Objective of Minimizing Economic Rent Across the Board

Classical economists from John Locke through Adam Smith, Ricardo, and Mill defined value ultimately in terms of the expenditure of labor

(including that embodied in the production of capital goods and other inputs). To them, bidding up property prices on credit did not reflect underlying value. Nor did stock watering, which occurred when financiers and other insiders issued bonds to themselves, counting the interest charges on these securities as part of the cost of production. Classical economists described interest payments in general as an element of market price in excess of intrinsic value, a financial form of *rentier* overhead. The Progressive reform movement in America accordingly aimed to bring prices in line with production costs to reflect this intrinsic value. This meant developing a policy to minimize economic rent and "fictitious" or "watered costs" imposed by monopolies and finance—charges that, as Patten put it, entered into prices beyond "the doctrine of physical valuation," his term for the labor theory of value.

Although Ricardo (followed by George) warned that groundrent threatened to absorb the entire economic surplus, Patten pointed out that other monopolies also vied for it, headed by the railroads seeking to appropriate agricultural rents. Frank Norris's novel *The Octopus* (1901) told how the railroad monopoly exploited farmers, and Gustavus Myers' *History of the Great American Fortunes* (1907–1909) exposed its political insider dealings. To regulate railroad rates "so that the cost of production shall fix prices" (Patten 1908b, in 1924: 253), the Interstate Commerce Commission was founded to prevent railroads from exploiting farmers, consumers, and industrialists by incorporating unnecessary financial and kindred *rentier* costs into their transport charges.

> It is, therefore, a popular error to suppose that the rent of land absorbs the whole of this surplus. According to the Ricardian theory of distribution, this would be so, but this theory gives an undue emphasis to land . . . the surplus, however, may be absorbed in many ways . . . Our railroads are now getting a large share of this surplus. As the owners of farms are separated from the market of their produce by long distances, they must make use of our railroad system to transport their grain. Any increase in the rates of transportation, therefore, will act as a reduction of rent, and if the railroad system of our country has its stock largely watered, it will reduce the value and rent of lands, and in this way a large portion of the surplus will go to the owners of railroads, rather than to the owners of land. (Patten 1891: 361)

To move against just one monopoly, such as land ownership, was not enough for Patten. "It is often said that the way to avoid socialism is to control particular prices such as railroad rates or tariff schedules; but this control will not help the public so long as other forms of monopoly remain undisturbed"[2] (Patten 1908b, in 1924: 255). Revenue freed from one monopoly is available for others to take.

> The application of the principle of physical valuation to railroads does not mean any advantage to the public so long as the same principle is not applied to farms and city lots. Low railroad rates mean a high value of western farms with higher rents and more congestion of population in eastern cities. Should the value of western farms go up to $150 an acre because of lower rates, it does not mean that western farm laborers will get more wages, or that farm produce will sell at a lower price in eastern cities. Higher land values will push the pressure of population into cities more rapidly than before and the pressure to lower wages will be strengthened. These conditions will make apparent the advantage of extending to land the same principle of physical valuation that landholders now want to have applied to railroad property and to protected industries. (Patten 1908b, in 1924: 254)

Patten criticized George's Single Tax for leaving monopolies besides land intact. Unless economic rent were taxed across the board, the rent rescued from one party's grasp would be taken by others: "a limited application of the [land tax] principle . . . merely lowers the value of one form of monopoly and raises that of some other. Farms go down in value as railroad rates go up. Land values in cities go up as tariffs go down" (Patten 1908b, in 1924: 255). Further, taxing the land's rental value "would cause the watered costs of the farms and city property to shrink to a lower point than would the values of railroads" (Patten 1908b, in 1924: 254).

Patten thought that George was shortsighted by supposing "that we can secure all the surplus if we would only seize the rent of land. We might in this way get only a small portion of it. The rent of farm land seems to decrease, relatively at least, with the advance in civilization, and hence a larger portion of the surplus is absorbed in other ways" (Patten 1891: 362; Patten also made this critique in his "Principles of Rational Taxation"). Whereas George wanted to tax groundrent at market rates, Patten wanted to minimize economic rent. "We want a low price of food and not a large public revenue from land." The aim

was to minimize rent and prices, not tax the maximum that could be extracted. The government should be a rent minimizer, not a rent maximizer that allows landlords (or itself as infrastructure operator) charging as much as the market would bear.

Patten recognized that soil differences would diminish as agriculture became industrialized, and that rising farm productivity would make food prices "so low that the unearned increment will be unworthy of notice, and no one will care to disturb land-tenures to secure so small a sum" (Patten 1891: 369). Transportation investment would lower the rent-of-location, which was more important than soil fertility, given America's large land mass. To be sure, taxing the land's groundrent would leave less for railroads to siphon off. Every trust, or combination, therefore tends to transfer a considerable share of the surplus or unearned increment from the owners of land to the owners of other monopolies.

Patten proposed that the way to prevent rent seeking was to apply "the doctrine of cost prices, the physical valuation of property and the control of prices by the state" across the board, under the principle of eminent domain. Partial cures would be ineffective because to permit the state "to control [only] some prices is to give it the power to favor special interests." (Patten 1908b, in 1924: 255).

Minimizing economic rent by controlling all prices was implicitly socialist, Patten recognized. Progressive reform should start with land and transportation infrastructure, followed by the mining trusts. "The kinds of property that are in the fewest hands will be those to which this principle will be first applied, and each other kind of property will be attacked in turn until the application of the principle is general" (Patten 1908b, in 1924: 255).

The Vested Interests Fight Back

Recipients of economic rent—the vested interests—sought to narrow the scope of economics so as not to go down this path, by promoting their own economic perspective. Instead of focusing on economic and social structures, the marginalist mainstream emerging in opposition to Progressive Era (and especially to socialist) reforms took the status quo for granted in their economic arguments, as a way of defending

and promoting their conservative point of view without calling attention to their conservative position.

Clark led the break from the classical treatment of *rentier* income as overhead. In a series of papers on land rent and interest in 1890–1891 culminating in his 1899 *Distribution of Wealth*, he extended his earlier attack on socialist claims that labor was exploited. Everybody earned what they deserved, he argued, in proportion to their contribution to production. Hence, no exploitation existed. "It is the purpose of this work," he wrote in his introduction (Clark 1899: v), "to show that the distribution of the income of society is controlled by a natural law, and this law, if it worked without friction, would give to every agent of production the amount of wealth which that agent creates." Whatever income or wealth was "unearned" was held to result from "market imperfections," subsequently called "imperfect competition." By definition these imperfections were political and institutional, and their study was exiled to what became the academic subbasement of sociology.

John Henry (1983, 1995: 84) traces the inspiration for Clark's marginal productivity explanation of income back to his early critiques from 1877–1889 opposing socialist theories of "the wage problem"[3] (also the view of Clark's son, John Maurice Clark). The implication was that landlords and bankers are part of the production process, with rent and interest explained by marginal productivity theory. This was a bad analogy, Patten argued. It could be maintained only by treating rent-yielding assets as capital investment, conflating tangible industrial capital with all other assets.

At issue was what constitutes the cost of production in terms real value, as distinct from extractive *rentier* charges. "The defect of the reasoning of Professor Clark", Patten observed, was his failure to distinguish manmade capital from property rights (Patten 1891: 363).[4] Clark's so-called pragmatic approach conflated profits earned on industrial capital with land and monopoly rent stemming from legal ownership rights involving no real cost of production. Real estate owners, monopolists, and financial operators deem their income to be earned by their own efforts and outlays. After all, their argument goes, they bought their land and other property on mortgage, and stocks and bonds whose price reflected the capitalized value of

real estate, so that financial and monopoly charges were, to them, an investment cost. The vested are happy that "The farmer thinks that land values depend on real costs" because he had to pay good money for his property, explained Patten, "and the city land speculator has the same opinion as to town lots" (Patten 1908b, in 1924: 254). This is the argument expressed by Clark in *The Distribution of Wealth*, conflating *rentier* income with wages earned in the production sector: "each workingman under a perfect competitive law gets what he produces, and thus . . . the ethical standard of wages is the standard that society tends to realize in fact" (Patten 1891: 363). However, Patten pointed out, these outlays capitalize property rights and financial charges that are by no means intrinsic and inevitable. Wealth in the form of income-yielding assets is provided freely by nature as well as by labor, yet natural and artificial monopolies are legal property rights or institutions that do not require labor to create or maintain.

To Clark, economic rent appeared not as an element of price without value or labor effort, but simply as a return on what investors spent on acquiring land—just another cost of doing business. "According to the economic data he presents," Patten wrote, "rent in the economic sense, if not wholly disregarded, at least receives no emphasis. Land seems to be a form of capital, its value like other property being due to the labor put upon it" (Patten 1891: 356).

In practice, *rentier* rights are legalized tollbooths to extract revenue that rightly should belong in the public sector. Clark argued that labor receives its entire product. But Patten pointed out that if *rentier* and monopoly income was unearned, it had to be at the expense of earned income.

> It seems to me that the doctrine of Professor Clark, if carried out logically, would deny that the laborers have any right to share in the natural resources of the country. . . . All the increase of wealth due to fertile fields or productive mines would be taken gradually from workmen with the growth of population, and given to more favored persons whose shares are not reduced by the use of poorer land. These privileged classes would then enjoy all the advantages due to better natural resources or to more productive instruments of other kinds. When it is said that the workingman under these conditions gets all he is worth to society, the term "society," if analyzed, means only the more favored classes who are contrasted with

> the workmen. They pay each laborer only the utility of the last laborer to them, and get the whole produce of the nation minus this amount. (Patten 1891: 365f.)

Subsequent mainstream economics has followed precisely the tautological circular reasoning criticized by Patten, depicting rent, interest, and land-price gains as costs of production built into the way in which markets function. "Professor Clark has a skillful way of hiding land values by subserving them under the general concept of capital," Patten observed, "but if the doctrine of physical valuation is once introduced the public will soon be educated to the evils of watered land values" (Patten 1908b, in 1924: 254) and railroad rates.

What has disappeared from today's neoclassical (that is, post-classical) economics is the idea of unearned income. Any given distribution of income and property is rationalized without acknowledging that market prices and incomes may diverge from benefiting society as a whole. "Everyone thinks he earns what he gets," Patten granted, "but he [the investor] keeps his accounts in such a way that he exaggerates his costs until they seem equal to his income. As he views it, he has no unearned income similar to the watered stocks of railroads or the high prices of protected industries" (Patten 1908b, in 1924: 254). Whatever is paid to *rentiers* is considered a bona fide cost, and hence has intrinsic value. Contrary to the classical distinctions between economic rent, interest, and profit, everyone's income appears justified regardless of the form it takes.

Clark would have been called a natural theologian if he had written in Adam Smith's day, for his class harmony message that economic forces give each income recipient his just reward was an evangelistic "gospel of peace [rather] than of grim struggle" (Patten 1908a, in 1924: 222). However, Patten concluded, the idea that whatever income people obtain reflects their contribution to production turns economic analysis into circular reasoning. The tautology does not explain who gets the surplus, and indeed is ambivalent over whether there really is a surplus. "To whom it shall go depends upon the laws and usages of each nation. Our present laws allow a large part of it to go to the owners of natural resources" (Patten 1891: 366).

A core tenet of American institutionalism as a program of economic reform was the recognition that "Rent is obtained by owners

of land, not as a right based on economic considerations, but as a premium given by society to secure progress out of a fund to which its claim is superior to that of any individual." Land and monopoly rights are not real factors of production, but are claims for payments levied as access charges to land, credit, or basic needs. "The unearned increment is that which comes to individuals or to classes, not from industrial qualities which they use in production, but from the lack of supply of some needed article," Patten explained. "Although the case of land is not the only example where there is an unearned increment, because the price of food is always more than its cost of production on the best land, yet it is the best example, and hence is the one in common use as an illustration" (Patten 1891: 356f.).

To Patten the classical aim of minimizing *rentier* charges remained a prime policy objective. "With the increase of our knowledge of the incidence of taxation," he concluded his essay on the ethics of land tenure, "we can place its burden more completely upon those who profit by the increase of rent and other forms of unearned revenue" (Patten 1891: 370). Whereas Ricardo had sought to minimize agricultural fertility rents by importing cheaper crops from abroad, Patten sought to minimize the rent-of-location by public investment in transportation. Like most of his fellow reformers, with the exception of George's Single Taxers, he extended the analysis of economic rent to monopolies across the board.

Public Infrastructure as a Factor of Production

Neither Clark nor subsequent mainstream economists recognized public capital investment as contributing to an economic surplus or otherwise fit it into marginal productivity models. Government spending was deemed deadweight cost, as if it were for war making or other economically unproductive purposes. Public sector spending in excess of receipts was a deficit, without regard for investment in infrastructure for future progress. Yet such investment has been the largest category of capital investment in most economies down to the 1980s. Patten stands almost alone among economists in recognizing this as capital investment fitting into an overall model.

Patten's analysis of public spending goes beyond economics as such into the political and sociological realm. He described the transition to a "pleasure" economy of abundance as being led by a shift in government spending away from war making toward a better standard of living. In contrast to military levies, which were a pure burden to taxpayers, "in an industrial society the object of taxation is to increase industrial prosperity"[5] (Patten 1892, in 1924: 96) by lowering costs rather than leaving economic rents to be taken by private appropriators intent on maximizing access charges to their holdings. How the U.S. government increased prosperity was by creating infrastructure in the form of canals and railroads, a postal service, and public education as a "fourth" factor of production alongside labor, land, and capital. Taxes would be "burdenless," according to Patten, if invested in public internal improvements, headed by transportation infrastructure. "The Erie Canal keeps down railroad rates, and takes from local producers in the East their rent of situation. Notice, for example, the fall in the price of [upstate New York] farms through western competition" by making low-priced crops available from Western farms. Likewise in the cities, public transport would minimize property prices (and hence economic rent) in the center relative to the outlying periphery[6] (Patten 1892, in 1924: 98).

Under a regime of "burdenless taxation" the return on public investment would not take the form of profit, but would aim at lowering the economy's overall price structure to "promote general prosperity." This meant that governments should operate natural monopolies directly, or at least regulate them. "Parks, sewers and schools improve the health and intelligence of all classes of producers, and thus enable them to produce more cheaply, and to compete more successfully in other markets." Patten concluded: "If the courts, post office, parks, gas and water works, street, river and harbor improvements, and other public works do not increase the prosperity of society they should not be conducted by the State. Like all private enterprises they should yield a surplus" for the overall economy, but not be treated as what today is called a profit center (Patten 1892, 98).

Little trace of Patten's concept survives in today's national income and product accounting. It would go against current free-market ideology to estimate the price saving of public over private infrastruc-

ture investment by calculating its capital cost, and estimating what normal charges would be added for interest, profits, dividends, other financial fees, and high executive salaries. What is important to recognize is that industrialists themselves advocated infrastructure investment, going back to Henry Clay's "American System" of internal improvements, protective tariffs, and a national bank early in the 19th century. And indeed, in almost every 20th-century economy, public infrastructure represents the largest capital investment, especially in third-world countries. Yet free-market models continue to treat public spending only as deadweight, and public budgets report such spending as part of the deficit, not as capital investment productive of any economic return, except for user fees. Ostensibly in response to these models, public infrastructure investment has been sold off and privatized since the 1980s.

As Patten showed, the relatively narrow scope of free market marginal productivity models applied only to private-sector industrial investment, not to public investment. (What would the "product" be?) The great virtue of Patten's analysis was to point out that the alternative was to promote a *rentier* "tollbooth" economy enabling private owners of infrastructure or other monopolies to charge much more than the "marginal product" being supplied.

The Theory of Economic Obsolescence

Patten recognized what Alfred Marshall called industrial quasi-rents, which Joseph Schumpeter subsequently portrayed as the mainspring of entrepreneurial capitalism. Marshall and Schumpeter viewed them as being earned for introducing cost-cutting innovation. The long-term effect of such innovation was to lower prices as emulators adopted the new, more productive technology, assuming that "The gains of monopoly are temporary, due to sudden increases of productive power" (Patten: 1908b, in 1924: 255).

Patten recognized that economic progress left laggards in its wake. His belief that knowledge is the key to economic development led him to infer that countries failing to upgrade their educational systems and technology would be left behind because uneducated and untrained people lost out as a result of the social changes that

accompanied progress. In his view, such individuals deserved rehabilitation in the form of public education and job training. "The state has always made use of the right to put special taxes on those who have special advantages, and it would only be a further extension of a well-organized principle, if the cost of improving the condition of the lower classes was placed upon those whose incomes grow because of social progress" (Patten 1891: 368).

A second inference was that the rising role of knowledge would cause income and wealth disparities. "After the state has settled its accounts with those who have lost through the changes due to social progress, it must look to the holders of the unearned increment, and to those who have special gains from other sources, for funds to pay these claims against it" (Patten 1891: 368).

But most of all, Patten's theory of economic rent—especially as it applies to public infrastructure investment as lowering economy-wide costs of living and production—suggests that countries failing to go beyond the *rentier* form of society would suffer higher cost structures and hence lose their competitive edge. And to the extent that monopoly privileges are sold on credit, interest charges are built into the seeming "cost of production" of essential services. Rent-seeking and financial practices thus might make entire national economies obsolete, so that the most rent-free economies would emerge dominant. This was the starting point of what may be thought of as enlightened American industrial capitalism—which aimed at becoming the world's most rent-free economy.

The Aftermath

"We have arrived at a point in the development of the social sciences where we cannot let one another alone," Patten told the 1894 American Economic Association (AEA) meetings. But the "cleft between the economic and sociological camps" had widened to such a degree that economists were ignoring the institutional environment—the political element of classical political economy. To help overcome this situation, E. R. A. Seligman acknowledged that Patten taught and inspired "more of the younger scholars in the United States than any other individual" (Fox 1967: 146f). He was an early mentor of the social

work profession, and when the American Sociological Society (ASS) was founded at the 1905 meeting of the AEA, six of its 36 founding members had taken their PhDs under him. The ASS was formed to extend economic analysis to include the transformation (and hence, reform) of society's institutions of finance and property—and in response to the fact that the most socially aware economists were leaving the discipline as it was taken over by narrow constructionists who excluded the study of public policy-making from scientific status quo economics (Mitchell 1967).

Rather than seeking "universals" as if this would give the badge of scientific method to economics, and rather than seeking a universal "technological" or material basis for explaining economic growth, Patten recognized that institutional practices were what defined national economies—their laws, their mode of handling monopolies and the phenomenon of economic rent, and their banking and credit practices—what today is termed the FIRE sector, finance, insurance, and real estate. Yet it is precisely the FIRE sector that subsequent "free market" economics has nelected.

Patten "was not afraid to break down the barriers between his science and others and to write about ethics, psychology, education, sociology, religion, and biology in the manner philosophers used before the great specializing trend of the nineteenth century began" (Tugwell 1923: 154). Patten "prophesied, before others, the success of feminism and prohibition, the success of economic federalism, changes in consumption habits . . . the general rise in living levels, [and] the future programs of taxation," observed his student Rexford Tugwell (Tugwell 1923: 188), citing Clark's remark "that Patten, at one time or another, anticipated all the later developments in economics, but that he worked none of them through" (Tugwell 1923: 186). Much to our loss, Patten never formed a "school." His approach was too wide-ranging and pan-disciplinary to synthesize in a *Principles of Economics* text.

In contrast to the simplified view of current mainstream economics in which rent and free lunches, real estate and financial bubbles are portrayed as anomalies or "market imperfections," Patten's institutional economics retains a more realistic and socially complex perspective. But reactionary response by the vested interests to the

progressive conclusions of institutional and sociological economics re-defined the criterion of academic economics to be simplicity and an internal consistency of assumptions, without much regard for their conformity to reality (Hudson 2000: 292–315).

What began as a reaction against classical political economy in the 1880s and 1890s became an academic rejection of the labor theory of value and its associated theory of economic rent. *Rentier* income is now treated as just another profit opportunity to gain from investing tangible or financial capital. Land and monopolistic rent-seeking activities are lumped together as "capital," stripping away the classical distinction between economic rent and normal profit. For the past hundred years, all gains have been portrayed as being earned by providing a service. It was and is blindly assumed that market competition will prevent exploitative economic rents from emerging on more than a temporary basis.

As the 19th century's endorsement of taxing land and its groundrent has dissipated—to say nothing of attempts to nationalize land and key monopolies—the concept of economic rent as unearned income has been dropped from the academic curriculum and public discourse. As Veblen observed, this narrowness appeals to defenders of property precisely because it leaves little room to deal with the landlord's or financier's "unearned increment" that results from rising prices for farmland and urban sites, mineral rights and natural monopolies, or for railroads and trusts that incorporate watered costs into the prices they extort from producers and consumers.

Opponents of distinguishing between earned and unearned income have disparaged progressive reformers and institutionalists as if they had no grounds for a theory. They did indeed have grounds for a theory, but its scope was broader than that of the marginalists, for whom "institutional facts are taken for granted, denied, or explained away." Regarding the financial system, for example, "the effect of credit extension on business traffic is left on one side and there is an explanation of how the borrower and lender co-operate to smooth out their respective income streams of consumable goods or sensations of consumption" (Veblen 1936: 154). The resulting unhistorical and overly abstract views of the marginalists trivialized any analysis of how wealth actually is obtained and what economies are all about. By

being "universal," abstract theory ignores the specific historical modes of wealth accumulation—for instance, what Honoré Balzac expressed when he quipped that behind every family fortune lies a great, often undiscovered crime. "Market" economics has no room for the discovery of crimes, exploitation, unearned income, economic rent, interest, capital gains, or other asset-price gains, much less a remedy for the imbalances and inequities these phenomena cause.

While today's mainstream "free enterprise" economics focuses on the so-called "real" economy, business analysts focus increasingly on developing more rent-seeking activities, whose financing now makes up the majority of bank loans. The pursuit of wealth is still primarily about rent seeking. This is why the financial approach of Hyman Minsky and his post-Keynesian followers retains the premise that "Institutions must be brought into the analysis at the beginning; useful theory is institution specific" (Papadimitriou and Wray 1998: 201). But instead of viewing this financial *rentier* overgrowth as stifling the economy, free market doctrine and policy treats it as the essence of today's path to business wealth—in practice, a greed-is-good culture regardless of economy-wide consequences.

To the institutionalists, the purpose of explaining the historical differences among nations was to bring into focus the public policy and financial context that shaped market relations—and by logical extension, on reforms that aimed to regulate, tax, and socialize wealth for the future of the economy. This is anathema to economists who—by definition—deem a "free market" as one steered by financial insiders and other *rentiers* "free" of public regulation.

Patten thus extended the discussion of economic rent far beyond that of Ricardo. Ricardo dealt with resource rents, not financial rents. The economic problem in Ricardian analysis was landlords seeking protective grain tariffs, but by the late 19th century it was the monopolists and financial trusts that organized and backed them that were the problem. Whereas Ricardo warned that rent-seeking landlords would render Britain a high-cost economy, Patten warned that rent-seeking monopolists and financiers were the major threat to the United States. Subsequent institutionalists extended the discussion to mining and industrial trusts, the Standard Oil monopoly, and high finance. In their day they were the academic counterparts to investigative journalists in

explaining how finance absorbed the insurance and commercial property sectors, fuels, and mining, as well as farming in which financial interests could control the key wholesale marketing, transport, and other choke points.

It may be surprising that the first economics professor at America's first and foremost business school should have been so strong an endorser of public infrastructure. But this is a reminder of how far economic orthodoxy has departed from classical economics and the strategy that made the U.S. economy the most productive, highest-wage, and the most competitive economy in the world.

Catastrophically, what has been lost since Patten's day is an awareness of why public enterprise tends to make economies more competitive than private enterprise. Free market ideology since the 1980s treats privatization as inherently more efficient than public enterprise, even for natural monopolies such as transportation. But private ownership of basic infrastructure—almost always debt leveraged, as is real estate—adds interest and other financial charges, high management fees, stock options, and capital gains to the cost of providing basic services. It is important to note that public enterprise is free of these charges.

Private ownership of natural monopolies creates a vested political interest in deregulation. Owners become rent seeking, charging as high a price as possible over the cost of production. Political lobbying along these lines threatens to turn economies into tollbooth opportunities for price extortion. The end result tends to benefit the financial sector, whose lending turns rent extraction into a flow of interest payments. Likewise rising valuations on land sites typically are collateralized for increasingly large bank loans. Today, banks rather than the tax collector end up receiving the site rent. This forces governments to tax labor and industry to make up for the loss of the property-tax base, adding to the cost of living and doing business.

This is the path along which the United States and other nations are traveling today. It is the opposite from that pursued a century ago during America's rise to economic power, in which Simon Patten and others laid out the logic for keeping rent seeking in check by retaining tollbooth opportunities and economic rent in the public domain. At that time, industrial capital and business found this theory sufficiently

reflective of its interests such that Patten's views were taught at the Wharton School as the economic strategy of America's future rise to global dominance. But that is the exact opposite policy from what is being taught and pursued in the United States and throughout most of the world, for the benefit of the few.

Notes

1. As Mill put matters in 1848 (*Principles of Political Economy*, Book V, ch. II §5), rent-yielding properties enabled their holders to demand payment from society "without any exertion or sacrifice on the part of the owners . . . [Landlords] grow richer, as it were in their sleep, without working, risking, or economizing. What claim have they, on the general principle of social justice, to this accession of riches? In what would they have been wronged if society had, from the beginning, reserved the right of taxing the spontaneous increase of rent, to the highest amount required by financial exigencies?"

2. Patten (1908b, in 1924: 254) elaborated: "At present there are four classes of property that gain a relatively large share of the benefits of improvements and whose values and costs are most frequently watered. These are the railroads, protected industries, western farms and city lands. A city lot valued at $100,000 or a western farm that sells at $100 an acre represents a higher proportion of watered values than do railroad stocks or the protected trusts." A large proportion of the price of rural and urban real estate consists of the mortgages attached to it, absorbing its rental income in the form of interest charges.

3. See Henry (1983: 382): "The year 1890 provides the watershed in the development of Clark's orthodoxy," developing the theory of distribution that became the essence of his 1899 *Distribution of Wealth*. By contrast, Mason Gaffney (1995) attributes Clark's views and indeed neoclassical economics as a whole to opposition to Henry George's Single Tax program, not to Marx and other socialists. This seems to overlook Clark's writings opposing socialism from 1877 through 1889. In fact, Gaffney's argument closely follows Patten's 1890 article in the *Journal of Ethics*, yet makes no reference to its precedence by over a century to the effect that marginal productivity theory treats economic rent as being as fairly earned as all other income—as if rent and interest were payments for landlords, bankers, and financial operators creating a marginal product. More egregiously, Gaffney misses entirely George's failure to apply a rigorous theory of economic rent to non-land rent extraction in the way that Patten did in what best may be characterized as the reformist wing of American industrial capitalism. This neglect does not seem to be innocent. For example, the article by Charles F. Collier (2003) presents a travesty of Patten's thought—censoring his

criticism of George and utterly misrepresenting his view—without citing the discussion of George at all!

4. Clark argued along similar lines in his articles on "The Ethics of Land Tenure" (1890a), "The Moral Basis of Property in Land" (1890b), and "Distribution as Determined by a Law of Rent" (1891). Henry (1995) provides a bibliography and analysis of Clark's development of marginal productivity theory.

5. Europe's aristocratic governments developed their tax policy "at a time when the state was a mere military organization for the defense of society from foreign foes, or to gratify national feelings by aggressive wars." Such states had a "passive" economic development policy, and their tax philosophy was "based upon moral or political ideals," not economic efficiency.

6. Stated the other way around, transportation facilities would increase outlying land prices along the routes. London's recent Tube extension along the Jubilee Line, for example, inspired a discussion about whether underground and bus transport can be financed publicly by taxing the higher rental value created for sites along such routes. Paying for capital investment out of such tax levies could provide transportation at subsidized prices, minimizing a major element of the economy's cost structure.

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Patten vs. Clark

American Institutionalists vs. The Marginal Utility School

Marginalist & Utilitarian Economists J. B. Clark, Jevons, Menger, and the Austrians	Institutional Economists (Progressives) Patten, Commons, and Veblen
Political Orientation	
- Liberal and laissez faire, opposing public taxation, regulation and oversight, and even public infrastructure spending as wasteful "interference."	- Social-democratic and reformist, looking to the government to regulate economies with checks and balances.
- Sees rent-seeking only on the part of government bureaucracies.	- It is the government's role to deter rent-seeking by the financial, insurance, and real estate sectors.
- Seeks to privatize all possible sources of economic rent, tolls, and free lunches, especially those that can be privatized from the public sector.	- The government seeks to tax away economic rent and keep natural monopolies in the public domain.
Aim and Purpose	
- To defend the status quo (especially land and other property) against labor (and incidentally against industry as collateral damage).	- To reform and uplift society, especially labor, by minimizing economic rent and exploitation, creating a level playing field.
- To deny the existence of economic rent and other unearned or exploitative income in economic theory.	- To apply classical theory to the question of who gets the economic surplus, and whether they do so in a productive or parasitic and corrosive way.
- Focus on exchange and on consumer choice in the context of diminishing returns and utility.	- Focus on technology in the context of increasing returns and reducing compulsive wealth addiction.
Scope	
- Removes the "political" from political economy.	- Examines the economy and society in symbiosis.
- Takes for granted the public policy context and productivity.	- Recommends ongoing government policy to upgrade technology and raise labor productivity.
- Reasons from abstract axioms.	- Views economies in their historical evolutionary context by extending political economy into sociology to examine how institutions evolve.
- The individual is the basic economic unit.	
- A narrow individualistic scope that excludes the study of active government policy.	

Marginalist & Utilitarian Economists J. B. Clark, Jevons, Menger, and the Austrians	Institutional Economists (Progressives) Patten, Commons, and Veblen
	- The nation is the basic economic unit, headed by the government and its laws, taxes, and subsidies.
Method	
- Deductive and abstractly mathematical. - Tends to project old British class structure as universal. - Static. Views economics as tending toward equilibrium, taking market supply and demand as "givens" in any time period. - Social attitudes and preferences are merely "exogenous." As such, they lie outside the scope of economic analysis. - Economic models are mathematically "solved" and thus "closed" by unrealistically assuming diminishing returns. - Land and monopolies are treated as bona fide "capital" expenses rather than as rent-yielding activities resulting in "tollbooth" choke points.	- Empirical and historical. - Explains why economies differ historically. - Dynamic and evolutionary. Economies tend to transform the environment within which market forces operate, as well as transform themselves. - Individual tastes are shaped by society. - Models are open-ended as increasing returns transform economies—and may polarize them. - Highlights unearned income and the "free lunch" as the main objective of rent-seeking activities.
View of Government	
- Government is a deadweight to the extent that it levies taxes. - Bureaucracy is inherently inefficient. - Private investment is more efficient than public investment. - Social and public expenditures are deadweight, not investment.	- Public infrastructure improvements are a "fourth" factor of production. - Public investment can be more efficient and cost effective than private investment because it is free of the overhead of financial charges and economic rent. - The aim of public infrastructure and enterprise is to lower costs on an economy-wide basis. - Social and infrastructure expenditures are investment in the future, not deadweight costs.

Marginalist & Utilitarian Economists J. B. Clark, Jevons, Menger, and the Austrians	Institutional Economists (Progressives) Patten, Commons, and Veblen
Trade Theory	
- Free trade. - Each economy has its own labor and capital productivity ratios, which are assumed to be fixed. - Trade creates gains, by definition. - All exchange is voluntary and by choice, hence every party must feel that it gains. - Trade creates a stable equilibrium at a higher level. - Government policy is intrusive, wasteful, and "exogenous."	- Protectionist. - Adverse trade patterns may deplete the soil and lower labor productivity by eroding wage levels. - Some exchange is coercive, favoring the strong and self-sufficient over the weak and dependent. - Trade can be destabilizing and impoverishing. - War and empires shape trade, along with tariff policy, laws, and internal improvements.
Concept of Land	
- Land is a factor of production with fixed productive powers. - Rental income reflects land's economic productivity (profit). - Economic rent is limited to groundrent. - A property's value is determined by its income.	- Land ownership is a property claim, and economic rent an access fee. - Soil fertility can be depleted by monoculture export patterns. - Economic rent is an access fee extorted by monopolies, special skills, and watered costs. - Property ownership confers political and economic power.
View of Physical Capital	
- Capital is a tool to increase productivity. - Capital is whatever it costs to set up a business. - Bases theory on the small business entrepreneur model. - Capital gains are the proper reward for enterprise.	- Capital employs wage-labor. - Capital is distinct from land and monopoly power. - Recognizes that absentee owners aim for monopoly gains. - Most "capital gains" are land-price gains.

Marginalist & Utilitarian Economists J. B. Clark, Jevons, Menger, and the Austrians	Institutional Economists (Progressives) Patten, Commons, and Veblen
View of Money	
- Monetarist. Supports hard money and private sector credit. Views interest as "time preference" without taking into account the economy-wide debt overhead. - Money is a commodity, historically emerging out of barter by individuals. - The quantity theory of money, MV = PT, assumes full employment - Only takes commodity prices and wages into account. - Borrowing is inherently productive, to make a profit or to enable people to consume earlier.	- Creditary. Takes all available credit into account, and advocates public credit as a major source of investment in the economy. - Money is created by the state (Knapp, Keynes). - Credit is needed to set labor and capital in motion. - Credit increases output in under-employment conditions. - Emphasizes the effect of credit on asset prices. - Lending against economic rent revenue rather than to create new means of production is inherently unproductive and loads economies down with debt, ending up with creditors taking control of property.
View of Labor	
- Assumes minimum subsistence wages. Believes that low-wage labor undersells higher priced labor. - Wages reflect labor productivity, so that workers do not "deserve" more than they get. - Social welfare is an uneconomic cost. - Public regulation will come at the expense of profits.	- High-wage, highly educated labor tends to be high-productivity and more efficient labor. - Good education and health raise productivity. - Social improvement makes the economy more competitive. - Advocates public regulation of working and housing conditions, and unionization.
View of Consumption	
- Marginal utility theory implies diminishing utility as supply increases. - Crude quantitative pleasure/pain psychology. In effect, endorses over-consumption.	- Consumer tastes are social in character. - Prosperity runs the danger of personal wealth addiction and self-destructive economic behavior.

Marginalist & Utilitarian Economists J. B. Clark, Jevons, Menger, and the Austrians	Institutional Economists (Progressives) Patten, Commons, and Veblen
	- Social psychology such as William MacDougal and Thorstein Veblen's conspicuous consumption. - Recognizes wealth-addiction as a phenomenon.
Role of Economic Theory	
- Theories leading to non-market policy conclusions belong in "political science," not in the economics curriculum. - Removes "pure economics" from its social context. - Economics should explain why property income is earned and protect it from government. - Defends "free markets" as they exist at any given moment in time. - Culminates in today's neoliberal (the neocons and "Washington Consensus") privatization agenda. - Tries to conserve existing power relationships.	- Economic theories are products of their time and tend to reflect self-interest. - It is subjective to view economics as "objective." - Focuses on transforming the economic environment to meet modern needs. - Economics should be socially reformist and just. - Explains how society is evolving, and how wise government oversight (regulation) can steer it. - Markets are shaped by institutions, either public regulation or financial trusts. - Culminated in Teddy Roosevelt's Trust-Busting, FDR's New Deal, and Fabian Socialism in Britain.
Outcome in 20th Century	
- Government subsidy, tax cuts, and bailouts to corporations, finance, and wealthiest taxpayers. - Privatization of public enterprises, on credit, creating rent-seeking "tollbooth economies." - Impoverishment of lower classes by "trickle-down" economic policy that polarizes economies. - Increasing debt load of consumers and business.	- Roosevelt's New Deal legislation of the 1930s. - Progressive income and wealth taxation. - Public enterprise to provide subsidized services to minimize the cost of living and doing business. - Social welfare spending, public health, and Social Security to minimize economic polarization and invest in the future.

Marginalist & Utilitarian Economists J. B. Clark, Jevons, Menger, and the Austrians	Institutional Economists (Progressives) Patten, Commons, and Veblen
- Enabled questionable ethical, financial practices in banking, insurance, real estate, and the stock market.	- Humane pro-debtor bankruptcy legislation and oversight. - Legislation to mitigate to debt deflation.

Patten pointed out that closing off only one source of monopoly would merely allow others to appropriate the surplus.

Henry George and the Intellectual Foundations of the Open Source Movement

By Neil B. Niman*

Abstract. The emergence of a common development platform (either in the form of open source projects or proprietary products) and the corresponding economic communities that emerge to support those platforms is similar in scale and scope to the concept of the city found in Henry George's economics of time and place. A modern counterpart to the 19th-century focus on land can be found in the 20th-century concern with the establishment of intellectual property rights that fence off a portion of the creative commons in order to construct temporary monopolies. Captured in the open source movement where licenses that specify property rights are adopted in order to provide a great deal of flexibility in terms of how ideas are used and shared, a strong connection can be drawn between this modern movement and the work of Henry George. Building a connection between the two provides greater clarity in terms of understanding how in a modern technology-based economy, progress can be achieved without poverty.

Introduction

Much of the success of the open source movement depends on the creation and nurturing of a community of developers, testers, and users in order to create a set of symbiotic relationships that ensure the contributions of one group are tried, tested, and improved by another within the community. Where community membership is open to all who have something to offer and can abide by the terms of the public license that governs how property rights will be assigned, an environment is created where the division of labor, no longer fettered by

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the strictures required by a publicly-traded corporate entity, can expand to the point where all of the gains associated with specialization can be appropriated by the community as a whole.[1]

The notion that communities have the ability to serve as the foundation for an expanded division of labor can be traced back to the work of Henry George. Using land as a proxy for what we would now call developer communities, George recognized that in order for the division of labor to take place and in fact flourish, individuals need to be brought together in a central location so that their skills and talents can be organized in a way that creates additional value. Such a connection between the work of Henry George and the modern open source movement can be made through the simple realization that the concept of location as an organizing principle can be expanded beyond physical space and time.[2] In the modern technological environment, location may not represent physical proximity, but rather a common platform that fosters working together by ensuring free and easy access to some structure where ideas are shared and tasks can be sub-divided in an efficient manner.

This essay begins by describing George's concept of community and why he believed they should be entitled to the subsequent gains that are created. Next, a more comprehensive discussion of the open source development model and its reliance on the concept of community will take place. Finally, connections will be drawn back to George's work in order to highlight the important role played by community development models in fostering economic progress. The end conclusion will call into question the widely held belief that the monopolization of intellectual property rights is an important prerequisite for achieving technological change.

The Economic Power of Communities

The economics of Henry George is based on his ethical belief that individuals are entitled to the fruits of their own labor, but when it comes to gifts from nature such as the natural resources embodied in a particular tract of land, what is given to the community as a whole should reside within the collective body. Hence he is critical of the rents appropriated by individuals from a particular plot of land

because they give to the individual what belongs to the collective whole. Thus George contends that "Rent, in short, is the price of monopoly, arising from the reduction to individual ownership of natural elements which human exertion can neither produce nor increase" (1948: 167).

When it comes to the creation of such rents, George focuses on the contribution that a particular tract of land makes to the division of labor rather than its resource value (Niman 2009). Thus he contends that "the most valuable lands on the globe, the lands which yield the highest rent, are not lands of surpassing natural fertility, but lands to which a surpassing utility has been given by the increase of population" (1948: 242).

In order to illustrate the point that it is increases in population rather than some inherent quality in the land that creates value, George tells the story of the settler, who, upon being first to a new location, chooses the best land to construct a homestead. The settler and his family are able to enjoy whatever advantages are associated with owning the best piece of land, but it is still a struggle to create a comfortable life. It is not until the arrival of neighbors that life begins to improve in a noticeable way. The presence of neighbors not only feeds the soul, but it increases productivity because the corresponding expansion in the division of labor makes certain things possible that could not have previously been done without a helping hand.

It is the introduction of neighbors and the corresponding division of labor that arises with the creation of a community that greatly improves the quality of life. If one approached the settler and asked him whether he would be willing to sell out and once again move to new land, George contends that "He would laugh at you. His land yields no more wheat or potatoes than before, but it does yield far more of all the necessaries and comforts of life. His labor upon it will bring no heavier crops, and, we will suppose, no more valuable crops, but it will bring far more of all the other things for which men work" (1948: 238).

This additional bounty stems from the belief that there exists increasing returns to scale with the application of labor. He argues his case with the point that "in the midst of a large population their labor

would have become more effective; not, perhaps, in the production of corn, but in the production of wealth generally" (1948: 232). What is special about this process are what we might call the "gains from localization." Localization brings out the "superior power in labor," which does not attach to labor generally, "but only to labor exerted on particular land" (1948: 235). Why a particular piece of land? Because that piece of land serves as a central rallying point where tasks are divided and the gains from specialization can be realized. As a result, land becomes more productive not because it is fertile, but because it enables "the subdivided branches of production which require proximity to other producers" (1948: 239).

Just as the existence of the market is required in order to fully realize the gains from specialization through trade, George believed that location is a necessary prerequisite for the production of those gains that emerge from an expansion in the division of labor.[3]

While it was important to identify the source of the gains from specialization, George was more concerned with questions that revolved around the distribution of those gains. The central question for him was whether these gains emerge from the efforts of a single individual, or reside in the community that is formed when individuals come together in order to realize the gains associated with location. As George tells us:

> Consider what rent is. It does not arise spontaneously from land; it is due to nothing that the land owners have done, it represents a value created by the whole community. Let the land holder have, if you please, all that the possession of the land would give them in the absence of the rest of the community. But rent, the creation of the whole community, necessarily belongs to the whole community. (1948: 365–366)

Implicit in this notion that the gains from location should belong to the community is the assumption that a community emerges through some process of self-organization. Settlers create homesteads near each other for a variety of reasons, but not as the result of some conscious direction by a single individual or a governing body. Since self-organization is not the result of the efforts of any single entity, and one is only entitled to the reward if it is tied to human effort, it is easy to see why he would conclude that any gains associated with greater specialization belong to the community.

It should be noted however that while the emergence of such a nexus for activity can occur as the result of happenstance, there is nothing to preclude an individual (entrepreneur) from putting together the elements required to divide labor.[4] The entrepreneur may purchase a piece of land that is large enough to support a population of workers who come together in a building (factory) where tools and a plan are provided that generate similar improvements in productivity. In contrast to the story of self-organization provided by George where settlers on their own, and without any conscious direction, adopt a lifestyle that enables the subsequent division of labor, it is the entrepreneur who is consciously organizing individuals according to a plan.[5]

Thus we might easily conclude that George does not really have any insights to offer because what we seem to be describing is nothing more than the existence of profit. Entrepreneurs create firms in part in order to take advantage of an increase in the division of labor and the organizational structure of the firm becomes a proxy for the implicit cooperation that takes place within a frontier community populated by settlers. However, it is important to remember that firms do not exist in isolation. Rather, they are part of a broader landscape; one that emerges spontaneously or by direction to take further advantage of an expanded division of labor.

While it may be the act of a single entrepreneur that prompts others to locate nearby, George would contend that such a decision is no more worthy of additional compensation than if firms came together because of the existence of some natural element that makes one location more desirable relative to another. Social benefits belong to society. Rewarding an entrepreneur because a particular location decision happened to generate positive externalities, does not mean that this will encourage the entrepreneur to create additional social benefits. The social benefit was created by the initial location decision and additional rewards will not expand something that was a one-time event. That is not to say that the entrepreneur does not receive anything for his or her efforts. They are still entitled to the benefits associated with an expanded division of labor within the firm, and can equally partake in any of the social benefits that arise from being in close proximity to other economic entities.[6]

In describing the economics of Henry George, John Whitaker (2001) contends that George made a significant contribution to the modeling of scale economies. Pointing specifically to his views about the spatial effects created by agglomeration, Whitaker describes the effect of location on the corresponding creation of what Alfred Marshall identifies as "external economies." Marshall describes these external economies in the following way:

> When an industry has thus chosen a locality for itself, it is likely to stay there long: so great are the advantages which people following the same skilled trade get from near neighbourhood to one another. The mysteries of the trade become no mysteries; but are as it were in the air, and children learn many of them unconsciously. Good work is rightly appreciated, inventions and improvements in machinery, in processes and the general organization of the business have their merits promptly discussed: if one man starts a new idea, it is taken up by others and combined with suggestions of their own; and thus it becomes the source of further new ideas. And presently subsidiary trades grow up in the neighbourhood, supplying it with implements and materials, organizing its traffic, and in many ways conducing to the economy of its material. (1961: 271)

In describing the relationship between the two thinkers, Whitaker remarks ". . . it is true that Marshall was more aware than George of the need to reconcile scale economies with the persistence of competition . . . George, on the other hand, deserves credit for his pioneering treatment of the economics of agglomeration, richer than Marshall's rather sketchy treatment of external economies" (2001: 22). This is much more generous to George than the words used by George Stigler (1969) to introduce the "confrontation" that took place between Marshall and George at Oxford University in 1884. Drawing our attention to the "hilarious account of the proceedings," Stigler tells us that "in any scientific sense of course there was no debate: Marshall used the theory of competitive markets, which George did not understand, to refute George's charge of a monopoly in land" (1969: 183). However, upon reading the historical account, one might ask the question: Was it George's lack of understanding of competitive markets, or Marshall's rather sparse understanding of the spatial effects created by agglomeration that carried the day?

The main point of the debate between George and Marshall was a discussion that centered on what each perceived to be the biggest

impediment to economic progress. George believed that it was the monopoly rents associated with land ownership that held back progress by robbing people of the rewards associated with their hard work. To make his point, he used the example of an island where all of the land is owned by a single individual. It is the landowner by virtue of monopoly right who is able to appropriate any and all of the extra gains associated with the division of labor through the collection of rents. The appropriation of these monopoly rents became for George the key to understanding why poverty exists amidst plenty.

This did not make much sense to Marshall, who believed that weak economic growth resulted from a lack of thrift. On the other hand, Marshall's interest in thrift made no sense to George, who believed that any increase in savings would just flow to landowners, who, in discovering a new pool of funds, would merely raise their rents in order to appropriate additional funds from the thrifty. Marshall believed that landowners in the face of competition would have little if any power to penalize the thrifty by appropriating their savings for other uses. Thus, the confrontation reached a crescendo when Mr. Marshall "wanted Mr. George to prove in an island owned by many, who were not acting in combination but in competition, it would be possible for the landlord to screw the people down to the verge of subsistence" (1969: 224).

Here we have Stigler's potential victory in sight as George is forced to respond with fact by calling attention to the experience of the Irish and how rents have steadily risen while the standard of living for farmers has fallen. That being said, George had a different response he could have offered. It may be true that on an island of sufficient size and populated by a large number of landowners who each only own a small share, that competition among landowners may lead to a fall in rents. However, the economic benefits associated with agglomeration do not extend to the entire island, but rather, only to small sub-pockets where activity is concentrated in a relatively smaller space.[7]

It is the formation of what we have been calling an economic community based on a specific area that creates gains, and hence when one is discussing competition between landowners, what had before seemed like a large population, rapidly becomes a small

numbers problem. While the island may have a large population of landowners, specific regions on the island may not; and if these regions host a large proportion of the economic activity on plots owned by only a few landowners, then Marshall's notion of a competitive market for land rent may never come into being. Location serves as an effective barrier when the gains are restricted to a small sub-set of the entire surface area, and it is only on that small sub-set where all of the gains are generated and retained. Hence what is true for the entire nation may not be true where it matters most: that specific area where industrial activity is concentrated and hence where the gains from agglomeration are generated.[8]

Hence, rent emerges because what is true for the many may not hold for the lucky few. The landlord may receive a reward (rent) for no other reason than the fact that he or she owns a monopoly right that is embodied in the superior location associated with one plot of land relative to another. Thus, George believed that justification exists for taking away those rents that are created not by individual effort, but instead are associated with what we have called "being in the right place and time."

Therefore, it should come as no surprise that the loss of rents associated with the single tax is similar to what we would expect to see as the long run equilibrium in a competitive market. An entrepreneur who creates a new product (and what becomes an entirely new market) earns a reward that initially depends in part on productivity, and in part on uniqueness. It is the characteristic of uniqueness that forms a parallel with the notion of land rent that arises not because land is more productive, but rather because it can be utilized more productively.

A new product is often able to command a premium because it does (at least initially) possess a unique position within the broader context of the market for all goods. However, it is important to realize that if the product is successful and if it is not possible to erect any artificial barriers to prevent it from being copied, then those rents will eventually disappear as competitors enter with similar products that eliminate any of the extra-normal profits associated with holding a unique position in the market. What would persist at the end of this competitive process is those profits associated with superior business

acumen or greater productivity; all of which are attributed to the efforts of the entrepreneur. What would be eliminated are those returns associated with the uniqueness of the product.

Property Rights and Innovation

To this point, we have tried to apply Henry George's basic tenets that: (1) a person should be entitled to the fruits of their labor; (2) only labor should be rewarded; (3) any gains associated with monopoly power should be at best non-existent, but in reality, of as short a duration as possible; and (4) the gains from a community should remain within the community. However, this logic stands in stark contrast to the traditional rationale that monopoly profits are needed in order to entice entrepreneurs to make the investments required to pioneer new products and markets (Arrow 1962). Without the promise of a monopoly, it is generally believed that innovation will not take place. The conventional wisdom tells the story that without the lure of monopoly profits, consumers would be subject to a stagnant set of choices as entrepreneurs shy away from investing in the development of new things (likely to fail) because they no longer can look forward to super-normal profits.

Henry George was adamantly against such temporary monopolies; particularly those that are manifested in the form of a patent. He writes:

> The patent, on the other hand, prohibits anyone from doing a similar thing, and involves, usually for a specified time, and interference with the equal liberty on which the right of ownership rests. The copyright is therefore in accordance with the moral law—it gives to the man who has expended the intangible labor required to write a particular book or paint a picture security against the copying of that identical thing. The patent is in defiance of this natural right. It prohibits others from doing what has already been attempted. Everyone has a moral right to think what I think, or to perceive what I perceive, or to do what I do—no matter whether he gets the hint from me or independently of me. Discovery can give no right of ownership, for whatever is discovered must have been already here to be discovered. (1948: 411)[9]

Patents and the subsequent creation of a temporary monopoly are problematic not only because they may interfere with a system of

natural rights, they may also lead to socially undesirable outcomes (Niman 1995; Boldrin and Levine 2002). Instead of expanding the division of labor to include the most productive individuals or entities at each stage of the value chain, the entrepreneur has an economic incentive to limit the subsequent division of labor and hence the potential gains in productivity associated with the new idea. It is by limiting the division of labor in order to capture all of the rents associated with a new idea that the entrepreneur imposes a cost on society.

It is important to point out that in order to capture all of the rents associated with the monopoly property right conveyed to the entrepreneur, she must not only be an inventor, but also adept at manufacturing, sales, and marketing; in fact able to handle all facets of the value chain. Monopoly power therefore may lead to the additional socially undesirable outcome that the lack of competition enables entrepreneurs to enjoy the fruits of their own incompetence as it may exist along the various stages of the value chain.

Furthermore, to capitalize on a new invention, a firm must rely primarily on its own researchers and its own resources in order to maximize the probability of maintaining a secret, or being able to obtain a government sanctioned monopoly. Moreover, the firm is not under any competitive pressure to continuously improve its product or the methods used in production over and beyond what it would take to prevent consumers from defecting and purchasing an imperfect substitute. Furthermore, by codifying such a monopoly, other companies are prevented from using the knowledge inherent in the innovating product to build comparable or entirely different products.[10]

Those that are in favor of monopoly as an incentive to innovate may concede these points, but will inevitably revive the question of monopoly because of the existence of risk. If most new ideas fail, then why would the entrepreneur devote much time or resources to do something that may not have a substantial payoff? The conventional wisdom views invention as something similar to a lottery where the higher the potential payoff, the greater the number of individuals who can be enticed to purchase a ticket (Wright 1983). However, the problem may not be that the rewards are too low, but rather that there are too many seeking those rewards.

What I mean by this is that if the lure of monopoly profits is too great, there may be an overabundance of entrepreneurs looking to gain their share of these extra-normal profits. If existing distribution channels have only so much capacity or current stores only a limited number of shelves, then it can be difficult for one among the many vying for limited space or capacity to succeed. When such constraints exist, lower rewards may have the counterintuitive effect of actually bringing better products to market.

It is true that lower potential rewards might lead to less entrepreneurial effort and therefore fewer new products will be introduced into the marketplace. With fewer products being introduced however, the probability of failure would be lower. With a lower probability of failure, rewards to entrepreneurs would not need to be as high in order to induce them to invent. Rather than encouraging anyone and everyone to become an entrepreneur, only those who are particularly suited toward entrepreneurial activities would be engaged in the development of new products.

By offering abnormally high rewards to would-be entrepreneurs, the effect of such a policy is to distort the division of labor by making it too attractive for individuals to generate new product ideas (whether they are good ideas or not). It is similar to the dilemma faced by everyone who purchases a lottery ticket. On the one hand, the larger the number of ticket buyers, the higher the potential payoff. The downside of course is that the more who buy tickets, the less likely a particular ticket will be the actual winning ticket. As a result, one can imagine the entrepreneurial process becoming self-defeating because the bad entrepreneurs drive out the good ones by making it more and more difficult to succeed in an ever increasingly crowded market.[11]

The important lesson to be learned is that the creation of artificial monopolies may do more to generate excess economic activity that may not lead to the desired outcome of creating the maximum amount of additional value for the least amount of effort.[12] This was the central message to be gleaned from George's discussion of land speculation as the source for a downward spiral in economic activity. He believed that if the extra-normal rents associated with land in possession of a superior location were not taxed away, then economic activity would become more focused on the generation of rents on

existing activities rather than focusing efforts on the production of new value. The net result would be that less value is created because the profits associated with land speculation outweigh the potential returns associated with the production of goods and services.[13]

Community-Based Innovation

An alternative to the traditional entrepreneur driven, firm focused, view of the innovation process, is one that has emerged with the open source movement in the development of software. In contrast to a process driven by monopoly where invention is based on a limited pool of knowledge and developed with a limited pool of resources, open source seeks to draw on the greatest possible division of labor in order to maximize the potential value of a new idea. Rather than achieving its benefits *ex post* (after the first innovation has been created), open source expands diffusion *ex ante* by drawing in as many as possible in the initial development of an idea. As a result, the number and abilities of contributors working on the product are not limited to those that exist within the boundaries of a single firm. Instead, each user becomes a potential source of new ideas for future directions in the product and the workload for implementing change is shared between an expanded group of contributors.

Changes to an open source product originate not from a small group of programmers under the leadership of a management team that thinks it understands the needs of the market, but rather from those who are actually using the product in real world situations. Thus, the open source process promotes a greater division of labor by drawing upon the "idiosyncratic knowledge" of its users (Hayek 1945). Changes are driven from a bottom up approach where end-users both initiate and implement modifications based on real needs, and not those imagined by a group of managers in a software company who have limited (or no) knowledge of the various applications for a particular product. Because of this process, the product eventually moves in a direction that is more in tune with the needs of its users than its developers.[14]

Promoting the development of higher quality software that is of more value not only in terms of its design, but also its application,

forms the basis for understanding the incentives for participating in the open source movement. Rather than the problem of the anticommons (Heller and Eisenberg 1998) associated with the patent system, open source creates a new form of commons. In the standard tragedy of the commons story, seas are overfished or pastureland is overgrazed because of a lack of property rights. Value is diminished as too many users utilize a single resource with a limited capacity to serve the needs of everyone. However, within the framework of open source, the commons represents a shared development platform, and it becomes *more valuable as it is used and modified by a growing number of individuals.*

Open source does not dispense with the notion that individuals work to further their own self-interest. Rather, open source creates an environment where individuals can share problems and collectively work toward common solutions. The greater the number of individuals who experience a similar need, or are stymied by a similar problem, the more likely participation will reach the critical number required to trigger a successful open source project. A project based in a common need becomes a vehicle for enabling the individual to leverage his or her efforts through an expanded division of labor in a way that reduces the amount of effort required on the individual's part.[15] With greater participation comes greater psychic rewards stemming from either the growing importance of the project, or the larger number of individuals who will be aware of a single contribution.[16] As a result, work on the common platform becomes self-reinforcing and does not require a temporary monopoly in order to generate a contribution.

The empirical work to date does suggest that the benefits created by and residing in the community are sufficient to attract participants. Lakhani and Wolf (2005) surveyed 684 software developers working in 287 F/OSS projects. They found that intrinsic motivation (inherent satisfaction)—the ability to express oneself creatively—provides a stronger motive than extrinsic factors such as monetary payments for generating participation in an open project. In addition to the ability to express oneself creatively while having fun, there exist nonpecuniary rewards that are associated with the opportunity to join a community. Similar results were obtained in a different survey encompassing over 2,700 respondents (Ghosh 2005).

What is interesting about the Ghosh survey is that he attempts to determine whether respondents believe they received more from participating in an open source project than they gave, or vice versa. He wanted to try and identify whether participants are odd representatives of the general population because they exhibit a disproportionate amount of "altruistic" behavior, or fit within the general assumption of self-interest. His result indicates that the majority of participants believe that they receive more than they give and hence are motivated more by self-interest than some form of altruism.

A recent empirical investigation by Fershtman and Gandal (2007) indicates that the amount of effort one freely gives to an open source project is in part determined by the restrictiveness of the public license. A restrictive license is one that forces all individual contributors to make whatever they contribute readily accessible to all other users. A restrictive license enables the contributor to achieve the ego enhancing goal of being listed as a contributor for all to see. However, once that status level has been achieved, it provides little motivation for a contributor to continue to expend a large amount of effort to the project. Hence Fershtman and Gandal contend that the more restrictive the license, the less one contributes because it forecloses potential avenues for gaining financial rewards. A less restrictive license, on the other hand, would enable contributors to create proprietary extensions to the common software platform and hence achieve some financial reward in return for their effort. Because it now becomes financially attractive to contribute more than what is required in order to be acknowledged as a contributor, they give more of themselves to the project.

The important point to take from all of these studies is that status may be sufficient to motivate an individual to contribute to an open source project. However, the extent to which one contributes is based on the traditional calculation that effort will be expended up to the point where the marginal benefit equals the marginal cost. What is perhaps different about open source participation is that the marginal benefits may take a form other than direct financial remuneration.

This seems to suggest that when we think about temporary monopolies, it must be with respect to the follow-on innovation that takes place where proprietary extensions are developed in a way

that generates financial rewards. However, in the case of proprietary extensions to a community-based effort, the risks associated with pioneering an entirely new platform or those associated with extending a commonly used and accepted platform, are greatly diminished. Proprietary extensions to a common platform are generally designed to satisfy a specific need in the marketplace. Additional effort in this regard becomes a matter of meeting a need that exists in the market rather than working on something in the hopes that *ex post* someone will be willing to pay for effort already expended. What emerges is a relationship based on work for hire rather than work for hope (grounded on a calculated gamble that someone will find what you have done has value). Therefore, the reward for participating beyond the point where status is attained or creativity is satisfied is not based on risk, but rather takes on the form of payment for services rendered.[17]

Thus in the case of proprietary extensions, just as in terms of participation in the project itself, a temporary monopoly is not a necessary condition in order to generate participation in an open source project. This returns us to the point that if the only way someone is willing to continue to innovate is because of the prospect of a government sanctioned monopoly, is this really the person we want innovating? In other words, is that the best use of society's resources? If we have to offer someone something beyond their opportunity costs, maybe their efforts would be better focused elsewhere. We want people innovating who are capable of generating returns beyond their opportunity costs as the result of their efforts. Anything else and we are merely distorting the efficient allocation of efforts throughout the entire economy. Let those who can earn an above normal return earn it and leave everyone else to find something else to do. We can adopt such an approach because individuals will continue to contribute at least some minimal effort to the community-based effort and as long as the effort can reach out to larger and larger pools of contributors, what perhaps otherwise would be considered to be a follow-on innovation will eventually become subsumed within the broader actions of the community as a whole.

However, if one limits their contributions to the community in order to exploit individual opportunities, will the open source movement

become plagued by free riders who contribute nothing to the public good? What is important to realize is that while anyone can utilize the source code for their own purposes without making a contribution, rather than reducing the value of the community, the exact opposite occurs. Individual adoption by any and everyone enhances the personal rewards for the programmer who is motivated by issues surrounding self-esteem; the more who use the product, the greater the potential for personal fame. In addition, as the user base grows, the ability to identify problems with the source code, or recruit a new pool of developers, is enhanced. Finally, the more widely a program is adopted, the greater the opportunities exist for being hired to do paid follow-on work to tailor the software for a particular purpose or support the individual needs of an adopter.

These benefits accrue to the community at large and anyone with the right experience and a solid reputation can exploit them for personal gain. However, achieving higher personal gain does not come at the expense of the community as a whole. In fact, any effort to try and limit individual gain would ultimately harm the community by altering the reward structure and hence the willingness of someone to participate. The bigger the challenge, the greater potential for my reputation to grow and thus the more likely I will be able to find someone to help solve my own individual programming problems. It is participation and not the assignment of property rights that creates benefits that all can draw from. Fencing off portions of what has become community property will do nothing more than to ensure that the area within a particular fence lies fallow.[18]

What exists for the individual can also be extended to organizations. Firms have similar incentives to participate in communities that foster innovation. The potential impact of open source on innovation is perhaps best illustrated in an *Information Week Research* survey of 420 business-technology professionals. In that survey, nearly 60 percent of respondents with revenues over $100 million indicated that open source software creates more opportunities for innovation than commercial or proprietary software. For smaller companies, 75 percent indicated that open source promotes additional opportunities for innovation (D'Antoni 2004). The additional value is not the result of network effects where something becomes more valuable because

of an increase in the *use* of the product; rather, it becomes more valuable because there is greater participation in the *production* of the product.[19]

Computer companies like IBM view open source not only as a development tool, but also as a vehicle for selling value-added services. By expanding the size of the market with the introduction of lower cost or more powerful technology solutions, new opportunities are created for selling add-on services, support, or hardware. Similar attempts to "seed" a market in order to sell value-added services are already beginning to be seen in the biotechnology industry. Recently, Perlegen Sciences, a privately held Silicon Valley biotechnology company, agreed to make its $1.2 million proprietary database of almost 1.6 million SNPs (single nucleotide polymorphisms) available to all researchers free of charge.[20] The company is also taking a leading role in the identification of SNPs for the HapMap project.[21]

The important question is why would Perlegen Sciences release its proprietary database into the public domain and also donate additional time to promote a public database? The answer is found in the idea that as more researchers contribute to the HapMap database, the faster it will be completed. A completed HapMap may increase the likelihood that its users will find new ways to make use of the data for the treatment of disease and the development of new drug therapies. The potential source of returns for a company like Perlegen Science is not the knowledge contained in the HapMap, *per se*, but rather in the expertise required to analyze the data in order to discover potential marketable solutions to medical problems more quickly for others.

Product Platforms as Innovation Communities

In the modern age of information networks, the concept of community and the corresponding external economies that are created are no longer limited to a particular geographical area. A website can serve as a coordinating structure that transforms the economies generated from a central physical location and shifts them to a platform without boundaries. It is a website that takes the place of a geographical location and the ability to interact with a network of developers that takes the place of the heart of a city. Thus, it is the concept of bringing

together various contributors in order to expand the division of labor rather than the assignment of property rights that is important.

While open source may be the clearest example of an environment where property rights and the corresponding monopolies that are created based on those rights are not a necessary precondition for innovation to occur, we see a number of innovation communities emerge despite the existence of individual property rights. New products are created every day under our current patent system that provides the inventor with a temporary monopoly. However, despite the erection of a fence to stave off competitors from enjoying some of the rents associated with their monopoly position in the market, product platforms as the foundation for organized development communities are created every day.

A good example is the Apple iPod. Apple's iPod is based on a proprietary hardware platform, a proprietary software platform, and is designed to be used with a proprietary site for obtaining content. However, as the iPod has gained in popularity, other entrepreneurs have entered the market to sell compatible products designed to expand the functionality of the basic iPod. It soon became possible to listen to your iPod through the audio system in a car, home, or by the pool. These add-on products were not the creation of Apple, nor were they the result of any conscious direction of a single individual. Rather they emerged spontaneously and in doing so, transformed a technology platform into a thriving community.

Just as a settler may travel a long distance to find virgin territory to build a new home and quickly fences off an area in order to establish a claim (property right) to the land, a community eventually emerges that enables the creation of additional value from an enhanced division of labor. This value that is created by the community does not reside in the hands of a single individual nor can it be attributed to the existence of a particular set of property rights. Rather these gains are attributed to the benefits associated with a particular place and time. In the case of the settler, it is a particular physical location that serves as the means for the emergence of spontaneous order capable of supporting the creation of additional value as other settlers in search of new opportunities locate nearby. For Apple, it is the creation of a new product platform that provides the foundation for the subsequent

entrance on the part of other firms who then seed the market with complementary products designed to expand the value associated with the product platform.

Entrance by others and the corresponding extension of Apple's product platform does not require the lure of a temporary monopoly in order to promote participation. Rather it is the potential size of the market and the ability to share in the rewards that are generated by the creation of a community that prompts entry. Just as the contribution by many leads to the creation of an open source platform for the subsequent development of complementary services or product add-ons that creates a less risky opportunity for entry, the same holds true when the basic foundation of a community is created on a proprietary platform.[22]

What remains true whether we are talking about settlers, open source programmers, or companies that are solely interested in defending their property rights, everyone benefits from the establishment of a community as the foundation for an expansion in the division of labor. It is the emergence of a community and, along with it, participation on a significantly larger scale that creates a whole that is greater than the sum of its parts. Any attempt to restrict participation by asserting a property right runs the risk of "killing the proverbial goose that lay the golden egg." Participants will either be unwilling to participate in the community or limit their participation to such an extent that either a vibrant community never emerges, or what was once a thriving place quickly loses its appeal. In the case of a proprietary product platform such as the iPod, efforts to close the door and shut out the creation of such a community runs the risk of watching the entire community migrate to a different platform.

Conclusions

The significance of a community-based innovation model is that it preserves the benefits of a meritocracy without also creating those forces that subsequently come into play and undermine a merit-based system. In a community-based environment, ideas are vested in the hands of the entire group and not a single individual or company. Therefore, any subsequent competition that may occur takes place on

a level playing field, where individual talent or hard work is then free to play a significant role in determining who are the winners and who are the losers. The control of a particular technology or piece of information cannot be used to enable a lesser competitor to gain victory over better-matched opponents either within a stage of the development process or between the various stages. As a result, the fundamental engine that drives economic efficiency remains available to promote economic innovation.

The emergence of a common development platform (either in the form of open source projects or proprietary products) and the corresponding economic communities that emerge to support those platforms is similar in scale and scope to the concept of the city found in Henry George's economics of time and place. The adoption of the single tax by George and his followers as a mechanism for eliminating the rents that emerge as land becomes a necessary cog in the creation of economic communities finds its modern counterpart in the form of opposition to the imposition of property rights designed to create temporary monopolies in an effort to fence off areas that might lead to the development of competing products based on a further expansion of the division of labor.

It is important to remember that by reducing the gains available by imposing a single tax on land, land no longer becomes a monopoly source for rent, but rather becomes a common framework that makes it possible for all to excel in terms of creating and keeping the value that results from human labor. As a result, everyone has free and unlimited access to that crucial building block required for generating additional value. When it comes to intellectual property, a similar principle holds true. Without any monopoly protection in the form of a patent, the best ideas can be developed along with the formation of a community that becomes the basis for generating the additional value that creates progress without poverty.

Notes

1. Two of the most prominent examples are the GNU General Public License (GPL) and the Berkeley Software Distribution (BSD) license.

2. George discusses the importance of space and time in *The Science of Political Economy*: Book III chapters V–VIII.

3. George's treatment of this subject is very similar to what appears later in Allyn Young's famous paper (1928) about increasing returns. Young's broader conception that "the division of labour depends in large part upon the division of labour" (1928: 533) and not just the extent of the market, bears a striking resemblance to George's notion that "It is not the growth of the city that develops the country but the development of the country that makes the city grow" (1948: 272).

4. In Book III chapter X of *The Science of Political Economy*, George (1898) makes the distinction between directed or conscious cooperation and spontaneous or unconscious cooperation. Here, the entrepreneur can be thought of engaging in directed cooperation while the community that springs forth is an example of spontaneous cooperation.

5. A more thorough discussion of why firms come into existence can be found in Niman (2004).

6. While Henry George and Alfred Marshall shared a mutual disdain for each other's economics, George's concept of the gains from community are similar to Marshall's assertion that gains from agglomeration exist within defined regions.

7. The existence of these sub-pockets is noted by Marshall who writes:

> Again, in all but the earliest stages of economic development a localized industry gains a great advantage from the fact that it offers a constant market for skill. Employers are apt to resort to any place where they are likely to find a good choice of workers with the special skill which they require; while men seeking employment naturally go to places where there are many employers who need such skill as theirs and where therefore it is likely to find a good market. The owner of an isolated factory, even if he has access to a plentiful supply of general labour; and a skilled workman, when thrown out of employment in it, has no easy refuge. Social forces here co-operate with economic . . . (1961: 271–272)

8. This of course is nothing more than the application of Williamson's (1985) concept of asset specificity. Under this broad heading, location represents one type of asset considered by Williamson.

9. Disenchantment with the patent system in the 19th century is discussed in greater detail by Machlup and Penrose (1950).

10. Polanski (2007) uses a centipede-type model to show that when knowledge development takes place sequentially, an open source process may be more robust than one based on a proprietary regime.

11. This is analogous to the famous lemons problem. One would expect however that, over time, firms will emerge that can assist consumers in terms of identifying the "good" entrepreneurial efforts from the "bad." Thus over time, the bad entrepreneurs may be forced to exit the market. However, in the interim, many of the good ones might get lost in the shuffle.

12. Maximum result for minimum effort is the guiding principle underlying George's (1898) *Science of Political Economy*.

13. Fear of such speculative behavior of course lay at the heart of Keynes' theory of the business cycle. Keynes feared that if it was easier to make money buying and selling titles to real assets, eventually we might reach the point where little incentive remains to actually create the assets themselves. One conclusion that he reaches is "to make the purchase of an investment permanent and indissoluble, like marriage, except by reason of death or other grave cause, might be a useful remedy for our contemporary evils" (1936: 160). Alternatively, he might have reached the same result if, like George, he merely advocated that any gains beyond the normal rate of return should be taxed away by the government. With such a tax in place, the only way to "beat" the market would be by creating a superior value proposition.

14. This of course presupposes that there is some form of coordination to ensure that development of an open source project takes place in an organized and orderly fashion. The importance of coordination is discussed in Richardson (1972) and Loasby (1998). More recently, Niman (2008) discusses the important role that the manager played in Marshall's theory of the firm and how coordination within the firm was structured for Marshall in a way that mirrored Babbage's early conceptions of the computer.

15. The concept of a product platform used here is similar to the discussion of modular systems contained in Langlois and Robertson (1995).

16. Johnson (2002) develops a public goods model where as the size of the developer community increases, so does the amount of innovation.

17. The potential superiority of a reward system to that of a system based on patents is discussed in Shavell and van Ypserele (2001).

18. Osterloh and Rota (2007) make the point that donators are willing to contribute if their private opportunity costs are not too high. This is often associated with the size of the project where it has been found that as the number of participants expands, the needed contribution by any single individual experiences a corresponding decrease. However, while low cost situations appear to be a necessary condition, they also point out that programmers are reluctant to voluntarily contribute to a project unless they see others contributing as well.

19. The concept of positive externalities associated with an increase in the number of supply-side participants is introduced in Niman (2002).

20. This material was obtained from Hamilton (2005).

21. The International HapMap Project is a partnership of scientists and funding agencies from Canada, China, Japan, Nigeria, the United Kingdom, and the United States to develop a public resource that will help researchers find genes associated with human disease and response to pharmaceuticals.

22. The creation of a common platform not only benefits those companies who enter in order to contribute additional value to the initial product, but it places the founding company in a stronger position. With the existence of a common platform, the value that the original product contributes to consumer welfare will exceed the price that the consumer must pay to obtain it. Thus the inventing firm may find itself in the enviable position where it can sell a larger quantity at the existing price level or sell the existing quantity at a higher price in order to capture a share of the additional value that has been created.

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Open Source Software Production, Spontaneous Input, and Organizational Learning

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Abstract. This work shows that the modular organization of voluntary open source software (OSS) production, whereby programmers supply effort of their accord, capitalizes more on division than on specialization of labor. This is so because voluntary OSS production is characterized by an organizational learning process that dominates the individual one. Organizational learning reveals production choices that would otherwise remain unknown, thereby increasing productivity and indirectly reinforcing incentives to undertake collective problem solving.

Introduction

With success stories such as Apache, Linux, and Mozilla, open source software (OSS) has entered into the vocabularies of millions of individuals worldwide. The increasing number of OSS users[1] has stimulated a vast and growing interest on the economics, and more generally social science, research front.[2] What seems to puzzle most of this research is that, contrary to more familiar economic theory, the development method of OSS should not have accounted for its success. How can a number of individuals dispersed around the world who mostly rely on open standards and an ethos of code sharing lead

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to a stable production process? Thus OSS production is perceived to be at odds with many traditional production paradigms (Feller and Fitzgerald 2002). This is especially the case for OSS development that is *voluntary* in nature.

Voluntary OSS development—the principal interest of this article—is in fact a production process whereby individuals supply input of their own accord. That is to say that it is a process where there is mostly self-selection in—rather than direction of—task performed (Langlois and Garzarelli 2008). By letting individuals contribute effort according to their own volition, voluntary OSS development tries to profit from the "distributed intelligence" of members of virtual communities (Kogut and Metiu 2001). That is, to maximize the gains from the creation, reuse, and trade of one factor: knowledge (Garzarelli et al. 2008). This "mindshare" approach has been referred to also as "collective invention" (Osterloh and Rota 2004).

In more ways than one, then, voluntary OSS production can be conceived of as another tangible illustration of the advantages that can emerge from the spontaneous interaction of many individuals, each possessing limited knowledge and pursuing their own interests (Hayek 1937, 1945; Jensen and Meckling 1992; Raymond 2001). In other words, voluntary OSS production is a contemporary illustration that shows how "the productivity of social cooperation surpasses in every respect the sum total of the production of isolated individuals" (Mises 1960: 43).

But this poses the question of the origin of the emergent benefits of voluntary OSS development. By considering production as a set of interrelated tasks rather than as a mere technological relationship,[3] we offer a counterintuitive answer to this question, namely, that in the main the emergent benefits of voluntary OSS production do not derive from specialization but from division of labor. The division of labor of voluntary OSS production is not ordered sequentially as specialization would require, but rather in a parallel and overlapping form. And the benefits from this parallel and overlapping division of labor, it is suggested, trump those of specialization. This is so because in voluntary OSS production the learning by doing is primarily organizational rather than individual.

To express our claim in other terms, voluntary OSS production is a social learning process that gives off signals that reveal problems

regarding production relationships and their inputs and outputs. The need to correct problems acts as a mechanism that stimulates internal urges, compelling individuals to seek out new problem-solving techniques. These incentives that are awakened by problems ultimately also increase productivity because they reveal production choices that would otherwise remain unknown.[4]

Modularity and Two Divisions of Labor

Before exploring the rudimentary building blocks of the division of labor of voluntary OSS production, it is useful to quickly do two things. The first is to introduce the rules governing voluntary OSS division of labor. Without at least a basic awareness of these rules it is difficult to convey a sense of how a parallel and overlapping process of production can work. The second is to shed some light on the specific characteristics that define vertical and horizontal divisions of labor, the two divisions of labor that Smith ([1776] 1981) obliquely alludes to (Leijonhufvud 1986).[5] As will be clear before long, in fact, vertical and horizontal divisions of labor are two useful heuristic expedients that will help us to more easily understand how voluntary OSS production relates to more familiar structures of production.

Modularity Rules

Software production is an activity that is very knowledge intensive: it embodies the knowledge of many programmers, each of whom only knows a portion of what others know. As such, it manifests useful give-and-take: software programming is a *social* learning process (Baetjer 1998). But in order for the learning to be sufficiently coherent with the overall aims of a software project, there must be some basic rules in place that channel it in the right direction. This is especially so in cases of voluntary OSS production where input is spontaneous.

Most voluntary OSS projects rely on the rules of modularity (Simon [1962] 1998). As the name implies, modularity is about breaking up a system into parts (modules) in the attempt to make it more manageable. By making a project more manageable through decomposition, modularity assists the division of labor (Baldwin 2008). And to lever-

age from divided labor, modular decomposition minimizes modular interdependencies by hiding information. Instead of all knowledge being communicated across modules, information hiding lets modules keep some of their knowledge "secret" from the rest of the project. In this fashion, no module can interfere with the data and functions of other modules. Knowledge is thus *encapsulated* within modules, and a programmer need not necessarily hold any information about the other modules of the project with which his module interacts (Parnas 1972). More generally, information hiding is important because it "allows developers to understand the system better by viewing it at a high level of abstraction" (Baetjer 1998: 107).

However, given that separate modules form part of the same system, communication among modules cannot be entirely blocked. Or, more precisely, as long as we acknowledge that the system is directed towards a goal, as is, for instance, the case of a software project, the system cannot be completely decomposable, but only in part. Modules need to know what their functions are as well as the functions of *complementary* modules (the *architecture* of the system), the nature of their relationships with their complementary modules (the *interface* of the system), and their performance relative to other modules (the *standards* of the system). Baldwin and Clark (2000) refer to these modular properties as the *visible design rules* of a modular system. Therefore, a modular system directed towards an end is one that should be *nearly* decomposable, preserving the possibility of cooperation among complementary modules by sharing and communicating visible design rules, while at the same time preserving the *hidden* design parameters specific to each module (Langlois and Garzarelli 2008).

The distinguishing mark of modularity is then the forcing, as it were, of the use of specialization by relying on rules that blind irrelevant information. In the case of voluntary OSS production this is also the case. However, voluntary OSS entails that, in addition to being able to spontaneously contribute to tasks that reflect one's specialization, a programmer is able to spontaneously contribute to tasks for which he or she is non-specialized. Consider the following system-versus-individual metaphor to more finely hone this observation. At the system level, individuals are specialized in the sense of being programmers; but

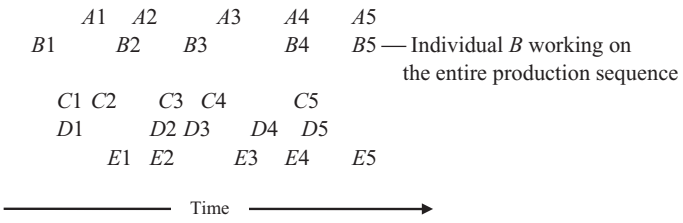
at the individual level, each programmer may not always contribute according to his primary specialty.[6] And it is because of the existence of this imperfect matching that specialized effects turn out to be secondary vis-à-vis divided ones in voluntary OSS production. In many ways, the rest of this work can be interpreted as an attempt to elaborate this point, that is, to begin to direct attention to the division of labor properties of one type of modular organization.

Vertical and Horizontal Divisions of Labor

A vertical division of labor takes place when an individual performs each of the tasks of a process of production of a particular good. Consider, to illustrate, a carpenter who needs to produce a piece of furniture. The carpenter's tasks, to name a few, would include selecting the appropriate wood, cutting and gluing the wood to design, treating the wood, and, often, even selling the furniture once completed. Figure 1 illustrates this vertical division of labor where different individuals (*A*, *B*, *C*, *D*, *E*) perform every task (1, 2, 3, 4, 5) independently. Thus, under vertical division of labor an individual boasts a wide repertoire of skills, implying a lack of full specialization. That is to say that vertically divided individuals are not committed to performing solely one task according to an opportunity cost-minimizing criterion, but rather perform a multiplicity of related tasks according to both absolute and comparative advantages.

Figure 1

Vertical division of labor



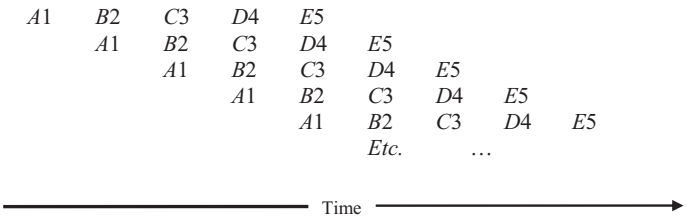
Source: Leijonhufvud (1986: 208).

But from Smith ([1776] 1981) we also know that the division of labor is constrained by the extent of the market. As the market for a particular product expands, the tasks involved in its production process can develop into specialized ones. When such a demand is reached, an individual is able to dedicate himself solely to one task. The result: horizontal division of labor, a situation typical of the factory system, and later at the root of the modern corporation (Leijonhufvud 1986). As Georgescu-Roegen (1970: 8) phrases it, "the increased specialization of labor could not have come about unless an increased demand had already induced most craft shops to introduce the system line. There can be little doubt about it: the factory system was born in an artisan's workshop, not in a factory."

Under a horizontal division of labor, market demand is sufficient to support an individual's commitment to merely one task of a production process. By implication, such an individual is able to become more refined at that single task. But since there is no free lunch, such specialization comes at the expense of a contracting repertoire of skills. As Knight (1967: 21) vividly describes it, "it is especially significant that the most important source of gain"—specialization—"also involves the most important human cost," that is to say, the narrowing of one's "personality." Contrary to the vertical, then, the horizontal division of labor implies that individuals are specialized. Figure 2 illustrates a horizontal division of labor in terms of our previous

Figure 2

Horizontal division of labor



Source: Leijonhufvud (1986: 209).

notation. We readily see how each individual performs only one task of the sequence (*A* performs just task 1, *B* performs just task 2, etc.).[7]

Voluntary OSS Division of Labor: A Stylized Model

Open source guru Raymond (2001) reminds us that in voluntary OSS production, as elsewhere, innovation and discovery often are a direct, if unintentional, product of the satisfaction of desires. At times, there may be a specific need that an individual wishes to satisfy (e.g., adapting a software package to a new printer). In these cases, the individual is "intrinsically motivated," that is, he freely sorts himself into some task that he desires to perform. Intrinsic motivation usually derives from work that is considered interesting, and can be "crowded out" if an individual senses, for example, that he is being monitored or supervised (Frey 1997). As Deci (1971: 105) originally put it, if "external rewards are given for an intrinsically motivated activity, [then] the person perceives that the locus of control or the knowledge or feeling of personal causation shifts to an external source, leading him to become 'a pawn' to the source of external rewards. Similarly, . . . external rewards affect the person's concept of why he is working and his attitude toward the work."

And yet, not all outside actions crowd out intrinsic motivation. When an outside action is perceived to be a controlling one, such as in the case of a principal-agent relationship where the principal takes over some of the agent's actions, we are most likely to see a drop in intrinsic motivation. When an outside action instead is perceived as informative, such as in the case of positive reinforcement to the agent from the principal, we are most likely to see no drop in intrinsic motivation or perhaps even a rise in it (Frey 1997: 432). As illustrated below, in the case of voluntary OSS production, where, with few exceptions, we may liken everyone to his own principal, an important source of an outside action that is informative is learning from the errors and contributions of others.

At the same time, however, the capacity to perform a self-selected task to satisfy a specific need is also a function of the number of task(s) accessible to the individual. When the tasks at an individual's disposal are limited, the ability to satisfy a need is hindered. Think

about the quintessential firm where usually not everyone is working on his or her preferred task in every point in time. In such types of organization, the incentive to pursue the satisfaction of a particular need is often abandoned. But when tasks are not limited the means of reaching satisfaction are extended. When this is the case, the incentive to pursue the satisfaction of a particular need increases. "The more extensive the agents' participation possibilities are, the higher is the work morale" (Frey 1997: 431). Voluntary OSS organization presents a potentially unlimited set of production tasks that one can freely align to.

In voluntary OSS production individuals therefore have a high intrinsic motivation because the tasks instrumental in satisfying their specific needs, such as customizing a particular software program, are open to them. As a matter of fact, in many cases they themselves create the task in order to solve a particular puzzle that is bugging them. Indeed, this is Raymond's (2001: 23, emphasis removed) first important lesson about voluntary OSS programming, namely, that "[e]very good work of software starts by scratching a developer's personal itch." As a result, there is a strong incentive behind these voluntary contributions; and a strong incentive behind a contribution means that there is greater scope for productive behavior. It is exactly this pool of self-motivation, this congeries of "spontaneous incentives" emerging from individual needs and desires, that voluntary OSS production attempts to seize. Raymond (2001) actually expresses surprise after discovering that there are tremendous productivity gains accruing through such software "development style" and employs two useful ideal types to analyze it: the cathedral (centralized) and the bazaar (decentralized).

Just like the employees in the quintessential firm, the cathedral mode of production proposes that individuals be assigned to tasks on the basis of their competence. In this way, it is suggested, knowledge can be directed to its most productive use. Consequently, a cathedral approach gives rise to a centralized development structure reminiscent of a horizontal division of labor. Proprietary software echoes this form of economic organization: the development process is left to a limited group of highly specialized programmers. However, Raymond (2001: 8) points to a significant shortcoming of this: in "a cathedral-builder

view of programming, bugs and development problems are tricky, insidious, deep phenomena. It takes months of scrutiny by a dictated few to develop confidence that you've winkled them all out." This is why, to this day, proprietary software takes quite some time to release.

Conversely, the bazaar assumes that a limited set of consciously organized individuals will never completely possess all the necessary knowledge to always solve software production problems. As Hayek (1945: 519) famously wrote, knowledge "of the circumstances of which we must make use never exists in concentrated or integrated form, but solely as dispersed bits of incomplete and frequently contradictory knowledge which all separate individuals possess." With each individual only possessing limited and different knowledge, it would seem impossible to assign tasks to a set of individuals in a manner that knowledge always would be put to its most valued use. Besides knowledge being dispersed and idiosyncratic, there is another reason as to why this is so: the growth of knowledge. Knowledge is about dynamic organization, that is, about changing interrelations among qualitative patterns of stimuli that belong to, and can change, a system. It is not about passive quantitative patterns of stimuli that just serve a system without affecting it (Fransman 1994; Langlois and Garrouste 1997): "that which we call knowledge is primarily a system of rules of action assisted and modified by rules indicating equivalences or differences of various combinations of stimuli" (Hayek 1978: 41). So how does one try to improve the allocation and use of knowledge at every point in time when such knowledge is not identical, not fully endowed to everyone and not constant? Advocates of voluntary OSS place their chips on decentralization. And evidence shows this bet to pay off (Giuri et al. 2010).

A bazaar organizational form attempts to leave all input options open by leaving the production process open. The production process is open in the sense that individuals are not necessarily assigned to, and hence not necessarily restricted to, tasks based on their implied specialization. Rather, the bazaar favors voluntary collaboration; it promotes the spontaneous convergence of distributed knowledge. Given a very large set of decision makers collaborating through the exchange of knowledge, it is possible to identify and formulate a wider array of problems and to find a larger set of alternative solu-

tions. This is what Raymond (2001: 8) refers to as "Linus's Law": "given enough eyeballs, all bugs are shallow," or, simply put, what one pair of eyes might miss, there are countless other pairs that can make up for it. In sum, the freedom to access, copy, and modify source code is a way for voluntary OSS production to tap into a larger collective intelligence that enables it to benefit from a broader problem-solving ability.

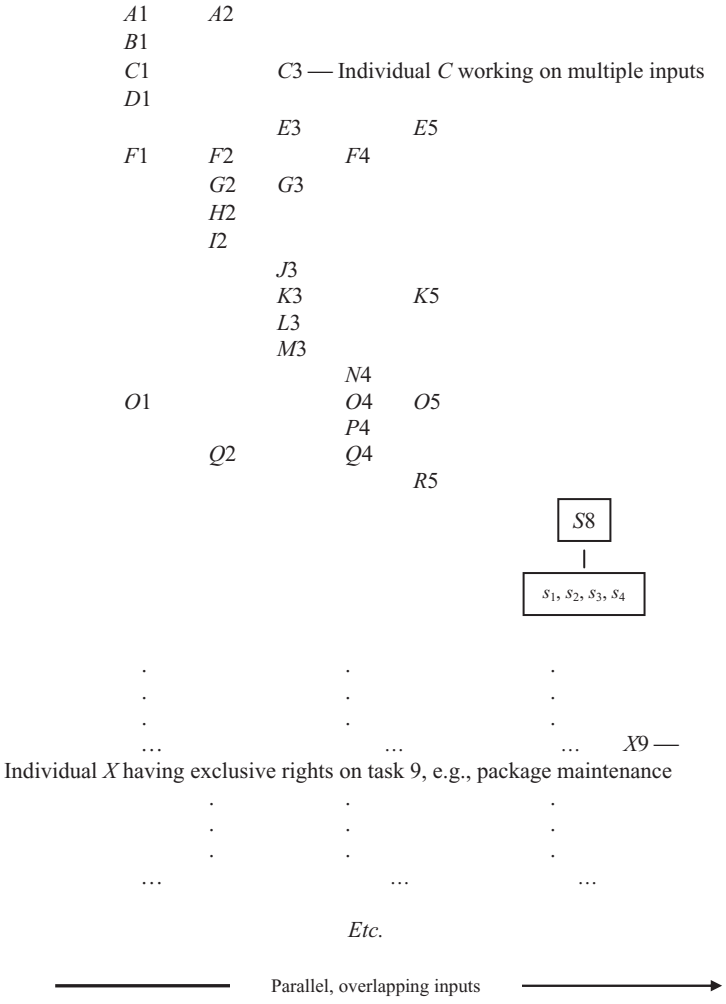
But this begs the question of what kind of division of labor voluntary OSS production engenders, namely, what are the division of labor dynamics typical of the bazaar? As hinted, voluntary OSS development leaves all input options (production tasks) open, which in turn implies that programmers have the liberty to self-select into any production task(s) they desire. In actual fact, this means that in such a production setting individuals are not bound to tasks that correspond to their primary specialization. The upshot is that in any point in time it is possible for any number of individuals to be working on single or multiple tasks *irrespective* of specialization.

Figure 3 is a stylized model that tries to capture the essence of such voluntary OSS division of labor. It shows how task 1 is undertaken by a number of individuals, for example, individuals *A*, *F*, and *O*, whom also can be seen contributing towards other production tasks. Similarly, task 3 is also undertaken by numerous individuals of whom some (*C*, *E*, and *G*) are contributing towards multiple tasks.

At the same time, within a bazaar it is possible that certain production tasks be exclusively reserved for and performed by selected individuals. This is especially evident in the early stages of an open source project when the process of production is not yet fully defined (Murdock 2003; Langlois and Garzarelli 2008). But as a project evolves and matures there are some tasks that are still in the exclusive domain of a few individuals. One example of this is the project leader, who is responsible for the coordination of production. Another example is package maintainers and core groups of programmers who usually have complete authority over their part of the project. This kind of situation is illustrated by individual *S* in Figure 3 who only oversees a specific set of components (represented by task 8) of the system by supervising the highly specialized team composed of s_1, s_2, s_3, and s_4. In another sense, the box within Figure 3 that encompasses s_1, s_2, s_3,

Figure 3

Voluntary OSS production



and s_4 (under the guidance of S) depicts an instance of the cathedral mode within voluntary production. That is, we have a rudimentary depiction of conscious direction in a voluntary project.

Therefore, we have that certain programmers can be working solely on one task (horizontal division of labor) while others can be working on multiple tasks (similarly to the vertical division of labor[8]). But what are the implications of this? The mixture of vertical and horizontal divisions of labor in voluntary OSS organization implies that:

- any individual is able to self-select into a task that corresponds to his or her primary expertise and is at the same time also able to self-select into tasks that do not reflect the same match;
- any number of individuals possibly may be contributing to the same task at any given point in time.

The first implication suggests that the voluntary nature of OSS production yields a degree of imperfect matching of individual specialization to performed task. The second implication highlights the possibility that, at any given moment, several individuals may be working spontaneously on the same production task. Prima facie, these two implications would lead us to classify voluntary OSS production as inefficient under standard production accounts. However, this is not necessarily the case once a more explicit focus is placed on the learning dynamics innate in voluntary OSS production: more knowledge is created when individuals can more freely interact with each other.

Mistake-Ridden Learning Is Not Such a Mistake

When a programmer is faced with some specific need, the voluntary nature of OSS production allows the programmer the ability to self-select into tasks that ultimately service that need. But the correction of disequilibria in voluntary OSS production, as hinted, does not necessarily hinge on perfect matching between task and volunteer. As such, one might regard such imperfect sorting as having little or no productive value. There is nothing erroneous with this argument if one reasons according to familiar productivity measures, such as increases in productivity at lower unit costs. However, what matters are also

overall increases in productivity tied to the growth of knowledge, namely, deriving from the learning curve (Garzarelli et al. 2008). The crux of the matter is that just as specialized contributions can be a source of productivity so too can non-specialized ones: as elaborated presently, voluntary OSS production promotes an environment that facilitates learning from the mistakes of one another.

In traditional division of labor accounts, such as the Smithian ones alluded to earlier, productivity gains from specialization originate from a cognitive process of *individual* learning by doing that is a "by-product" of production. For example, in horizontal division of labor, repeating the same task and following the same routine means that through increasing specialization an individual learns to simplify his task. That is to say that productivity increases as a result of increased experience in production (Atkinson and Stiglitz 1969). As such, specializing individuals develop the knowledge to source innovative ways by which the production task may be altered so as to produce more efficiently.

But in such cases there is negligible learning among persons involved in the same production process: learning by doing is mostly individual rather than organizational. In voluntary OSS production, we saw, it is possible for many individuals to be working simultaneously on the same task at any given point in time. In this case there is scope for individuals involved in the same task to collaborate, to share their production failures and successes. As a result, learning by doing becomes social in that the collaborative network extends the boundaries of learning by doing beyond the individual level into the organizational one. Knowledge growth materializes through planned and unplanned organizational interactions that transmit and exchange knowledge. Organizational interaction helps an individual improve her problem-solving ability by exposing her to the unique "bits" of knowledge held by other individuals.[9] While the ability to work independently leads to improvements in one's skills.

Consider the following example. Suppose a problem is identified and that the problem corresponds to a programming task that neither programmer X nor Y are specialized in. If X and Y are motivated by some personal need to solve the problem, both programmers will choose to spontaneously contribute towards the task. Suppose also

that programmer X is first to provide his modification of the source code to the community of developers. If X's modifications are flawed, programmer Y will be able to identify where X went wrong, and thus avoid replicating the same mistake. Taking the new knowledge learnt from X's mistakes, Y can find an alternative solution to the problem, a solution that would have otherwise been unknown to Y had X's contribution not have been able to be effectively communicated. The mistake of one individual serves to pollinate the ideas of another in a manner that bears fruit to new, productive ideas. Each learning opportunity extends the innate knowledge of participants to the production process. This in turn expands the arsenal of knowledge that can be used to scrutinize any given problem at any given point in time. This example is admittedly crude; nonetheless it helps us to more sharply focus the dynamics of mistake-ridden learning found in voluntary OSS production. It is very likely that numerous individuals provide spontaneous contributions and that numerous other individuals identify, and learn from, different mistakes. With potentially thousands of individuals spontaneously contributing at any given moment, the potential "cross-pollination" of ideas is vast.

The increase in learning experiences, in turn, favors an enhancement of learning capabilities, that is, of that specific production knowledge that is revealed in the reflexive process of adapting to changing circumstances.[10] In essence, by learning more, individuals learn how to learn better—they improve their learning skills. This "learning to learn" (Stiglitz 1987) involves improvements, firstly, in the capability to absorb information, and, secondly, in the capability to disseminate information, acknowledging mistakes and retaining best practices. In keeping with this view, we would expect heterogeneity in learning rates, that is, the open-ended sorting of individual to task gives rise to slow and fast learners. And it is precisely this heterogeneity in learning rates that can be a vital source of knowledge gains.

"Organizations store knowledge in their procedures, norms, rules and forms"—their "code." "They accumulate such knowledge over time, learning from their members. At the same time, individuals in an organization are socialized to organizational beliefs." Thus, a mutual learning process exists whereby "the organizational code affects the beliefs of individuals, even while it is being affected by those beliefs"

(March 1991: 73, 75). According to such perspective, knowledge gains transpire as a result of factors that create "variability" between organizational and individual beliefs. One way for achieving and sustaining this variability is for an organization to maintain a heterogeneous population of slow and fast learners. For "any average rate of learning from the code, it is better from the point of view of equilibrium knowledge to have that average reflect a mix of fast and slow learners rather than a homogeneous population" (March 1991: 77). This equilibrium entails that both the organization and a fraction of fast learning individuals are simultaneously able to learn from the "deviations" (the errors) of slow learners.[11] Consequently, being characterized by both specialized and non-specialized inputs, we would expect voluntary OSS to benefit from a mixture in learning rates in the same manner.[12]

Moreover, March continues, like the heterogeneity in learning rates, diversity among individuals' knowledge levels improves aggregate knowledge. The "old-timers" of an organization know more than the "new blood" of an organization. However, what they know is "redundant" with knowledge that is already possessed and reflected by the organization. As a result, old-timers are less likely to contribute new knowledge. The new blood introduced into the organization may be less knowledgeable than their existing counterparts, but their knowledge is less redundant with the existing state of organizational knowledge. Therefore, the entry of new individuals into an organization is more likely to contribute to new knowledge gains as long as collaboration continues to expose mistakes. One would imagine this to be particularly the case in voluntary OSS production where modularity renders the exit and entry of old-timers and new blood relatively free.

The knowledge production from the open interaction of different knowledge stocks and flows moreover resonates with the main normative insight about modularity, namely, its superior resiliency to change (Simon [1962] 1998; Frenken et al. 1999). The ability of a modular system to continue working even if not all its parts are on the same page (pursuing an objective even if one module is malfunctioning, simultaneously trying to solve different problems, working at different rates, etc.) is what gives a modular system its edge.

Take software bugs, that is, those programming errors that could render the functioning of a software system less reliable. In the case of proprietary software, we saw, bug solving can seriously threaten the success of a project. This is so because given the unitary nature of the cathedral mode of production, a bug may halt the whole project for there may be a substantial lag between a bug's solution and the latter's adoption within the project. But this is not the case, as we also saw, for the bazaar. A bazaar can limp along even while several bugs are trying to be fixed. There is no need for all bugs to be necessarily fixed in order for the system to continue working because, unlike the cathedral, information hiding allows the bazaar to work with a lower number of required communications among all parts of the system. The voluntary division of labor of the bazaar in fact generates a distributed intelligence that is also, to some extent, parallel. That is to say that we have an organization where there is an uncommon level of redundancy as well as of uniqueness of knowledge content. It is the amalgamation of the redundancy and uniqueness—or, if you prefer, of non-specialized *and* specialized labor—from modularity that aids the speed of adaptation (bug fixing).[13]

In general, however, it would be imprecise to assume that adaptation—the creation and discovery of new knowledge—rests merely on a parallel and distributed intelligence. Here (as elsewhere) new knowledge can also be generated in isolation by mere thinking. "Any kind of experience—accidental impressions, observations, and even 'inner experience' not induced by stimuli received from the environment—may initiate cognitive processes leading to changes in a person's knowledge. Thus, new knowledge can be acquired without new information being received" (Machlup 1983: 644, emphasis removed).

But in these cases too it is the modular nature of voluntary OSS organization that plays a crucial role. Information hiding encourages individual abstract thinking: a volunteer can maintain congruency with the common goal of the project by working on a particular task that interests her because she knows that while she is at work there will not be external disturbances. Similarly to property rights in social systems, in fact, information hiding defines sheltered domains where individuals can focus their cognitive attention not having to worry

about possible "violations" of property. The sheltering allows planning and acting notwithstanding the Hayekian knowledge problem, assisting divided labor (Miller and Drexler 1988).

However, with few exceptions mostly concerning novel knowledge simultaneously affecting several existing modules and their interrelations where we would see, for example, the coordination of the project leader, it is in the main the visible design rules that filter the value of the novel knowledge from individual thinking to the organization. Recall in fact that knowledge itself is a system of rules of action for a system that can also change a system. Hence, analogously to the case of organizationally-generated knowledge, it is the visible design rules—the already-accepted organizational knowledge—that most often coordinate the new knowledge that is individually generated. The visible design rules per se are a source of redundancy in that they are the minimum common denominator ordering the individual and organizational knowledge interactions, and that, additionally, allow knowledge to be re-used and shared across the system. In short, visible design rules cement a modular system while simultaneously being sufficiently plastic to allow changes in the system itself in the face of evolutionary necessity.

Let us point out before wrapping up that we are not suggesting that OSS holds a monopoly on voluntary production. One of the most obvious comparable organizational modes is arguably the production of science.[14] Scientific communities have organized themselves in a similar voluntary fashion at least since the late 16th century when inquiry replaced secrecy, social cooperation replaced individual isolation, and spontaneous coordination replaced top-down planned design and control (David 2004). In addition, in most cases we decide what topics we fancy working on, and the decisions made need not be particularly founded on a "best fit" for those topics as opposed to an interest in them. Similarly, we form research teams spontaneously for different projects, and we participate in networks and belong to "invisible colleges" according to shared research topics and fields. To ensure the fit of what we do within the broader literature, we must possess, and need to convey, a sense of the broader structure of the scientific research program (note the word, program) within which we are operating. In this regard, new PhDs (the new blood) are often less

clear about the broader architecture of their discipline than the more experienced researchers (the old-timers). And just as open source development communities examine the robustness of submitted code, so too do peers of academia when refereeing papers submitted to journals and conferences. In both organizational modes, knowledge is shared, suggestions for improvement made, learning opportunities among colleagues created, and contributions are more about spontaneously supplying effort to a big project rather than about making a product according to some predefined blueprint.[15]

Conclusion

This article analyzes the modular organization of voluntary OSS production by considering the relationship between the imperfect matching of a programmer's specialization to a performed task and productivity. It proposes that productivity gains may also be realized through non-specialized inputs: imperfect matching is offset by a parallel and overlapping division of labor that aids learning from each other's mistakes and contributions. As long as volunteers can freely exchange the knowledge that they come across, generate, and interpret, organizational knowledge can only ever grow.

Voluntary production renders it relatively easy for individuals to take up a set of tasks out of a sheer need to do so; however, it renders it equally relatively easy for them to abandon a set of tasks in the pursuit of another set. As a result, there may be a situation in which volunteers do not bring to completion their initial tasks. Therefore, voluntary production may not always be able to optimally capitalize on spontaneous contributions; and such inconsistency of efforts may also mean that development speed is not always as rapid as we would like to believe.

Acknowledgements

We are indebted to Lyndal Keeton and two anonymous referees for their very valuable feedback.

Notes

1. See, for example, the regularly-updated statistics freely available on Netcraft: http://news.netcraft.com/.

2. One reference for all: the MIT website that collects OSS papers, http://opensource.mit.edu/.

3. On which see, for example, Georgescu-Roegen (1970), Winter (2005), and Dosi and Grazzi (2006).

4. Compare Rosenberg (1969).

5. In a recent contribution, Leijonhufvud (2007) returns to these themes, but for some reason inverts his original classification, calling the horizontal division of labor vertical and, by difference, implying that the vertical division of labor is the horizontal. Here, we will stick to the original 1986 definitions.

6. We may even make the metaphor slightly more precise. If we define, following Ames and Rosenberg (1965), specialization as the reciprocal of skill, we have the ratio of the number of doers (individuals) per activity (task). We can accordingly define a specialization index that lies between 0 (complete non-specialization) and 1 (complete specialization). So, in terms of this index, in voluntary OSS production it is not uncommon in any point in time to have several individuals whose specialization index is significantly below 1 in at least one task performed while having an overall index of 1 in the primary activity, namely, programming.

7. Compare Houthakker (1956) for a more complete cost-benefit analysis of specialization.

8. "Similarly" yet not identically to the vertical division of labor because work—input-output relations—may be not necessarily linearly sequential, but rather roundabout.

9. Compare Marshall (1961: 271) on social learning: "if one man starts a new idea it is taken up by others and combined with suggestions of their own; and thus it becomes the source of further new ideas."

10. On the general theoretical notion of capabilities in the context of organizational analysis, see, for example, Garzarelli (2008).

11. Equilibrium is established when all individuals and the organizational code share the same belief with respect to each dimension of reality. Thus, equilibrium entails the convergence of beliefs and the end of any variability.

12. See David and Rullani (2008) for an empirical study germane to this claim; we came across this intriguing study only after the first draft of this article was already completed.

13. Organizational parallels with multi-level minds that are also modular have a long history in economics; see, for example, Marshall ([1867–1888] 1994), which seems to have had a profound influence on his subsequent theory of organization (Marshall [1867–1868] 1994).

14. We are grateful to an anonymous referee who suggested that we make this parallel more explicit. Compare also the earlier Garzarelli et al. (2008) and Langlois and Garzarelli (2008) that hint to the production parallel with science as well as to others (e.g., voluntary production for hobbyist ends).

15. Two observations can be made. First, from casual empiricism, one could argue that it is more common for social scientists than for natural scientists to work in the bazaar mode. Second, voluntary production may not be safe from opportunism either (Williamson 1985). A referee has an incentive to hold back on some things that she could see that she could develop in her own work, thereby allowing a paper to get published without some extensions being noted or "bugs" fixed. In proprietary software firms, it is possible for an employee to make herself indispensable by limiting how much she documents what she does in an opportunistic manner, so that if she were to be fired it would take substantial investment for the organization to acquire the knowledge she had been using. We arguably get less potential for opportunism in voluntary OSS projects, though it is easy to imagine that if an OSS volunteer also has a "day job" in which he uses similar capabilities, he may wish to limit how much he shares with others who are working on the same module and have day jobs with other companies who may be rivals. Note here that opportunism does not derive from physical asset specificity or other financial commitments that may be hard to liquidate or re-use elsewhere. Since exit in voluntary organization is easy, the wasted resource would merely be time, though this time investment may be more than offset by the learning that takes place while involved in the voluntary project. This second observation also brings to mind Richardson's (1960) concern with what he saw as the "problem" of coordinating market entry decisions when entry barriers are low. In voluntary production, having "too many" programmers working on a particular module or research project prima facie doesn't seem a particularly big problem because of ease of exit. Be that as it may, both observations require further scrutiny.

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TRAP Abortion Laws and Partisan Political Party Control of State Government

By Marshall H. Medoff* and Christopher Dennis†

Abstract. *T*argeted *R*egulation of *A*bortion *P*roviders (or TRAP) laws impose medically unnecessary and burdensome regulations solely on abortion providers in order to make abortion services more expensive and difficult to obtain. Using event history analysis, this article examines the determinants of the enactment of a TRAP law by states over the period 1974–2008. The empirical results find that Republican institutional control of a state's legislative/executive branches is positively associated with a state enacting a TRAP law, while Democratic institutional control is negatively associated with a state enacting a TRAP law. The percentage of a state's population that is Catholic, public anti-abortion attitudes, state political ideology, and the abortion rate in a state are statistically insignificant predictors of a state enacting a TRAP law. The empirical results are consistent with the hypothesis that abortion is a redistributive issue and not a morality issue.

Introduction

Policy adoption is an area of considerable research interest in the political science/public choice literature. The focus and concern of much of this empirical research are the questions, "How responsive is government policy to public policy preferences? Do public policy preferences influence public policy? However, in a representative democracy, the degree to which legislators follow voter preferences is likely to vary according to the policy issue in question (Gormley 1986).

State policies can be grouped into two types: morality policies and redistributive policies. Morality policies are "those which seek to regulate social norms or which clearly evoke strong moral responses from citizens for some other reason" (Mooney and Lee 1995: 600).

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Morality policies differ from redisributive policies in several unique ways. Morality policies involve contentious conflicts over fundamental values, are highly salient to the general public, non-technical, easy to understand, and require little information for citizens to participate.

Abortion is thought to be one of the most prominent examples of a morality policy since (1) nearly everyone is familiar with the issue and has an opinion, position, or belief on abortion; (2) it requires little information for citizens to participate because proponents and opponents of abortion have framed the issue between reproductive rights versus the rights of the fetus to life; and (3) there are inflexible and uncompromising positions on the abortion issue that are dichotomous—either life begins at conception or it does not. It has been argued that legislative adoption of morality policies like abortion is affected by the resources available to the opponents and proponents of abortion and the demand for abortion services and not the public's abortion policy preferences (Meier and McFarlane 1993).

Redistributive policies transfer benefits, expenditures, or resources from one group or class to another (Greenberg and Page 2009). Medoff (2002) argues that abortion is a redistributive issue not a morality issue because it has a consumption spillover (redistributive) effect. A consumption spillover effect occurs when the consumption of a good or service by one party has repercussions or redistributive effects on other parties. A spillover effect may be positive (the education of a child provides benefits to other members of society by promoting a stable and democratic society) or negative (second-hand cigarette smoke in a restaurant affects the health of non-smoking diners). In the case of abortion, there are negative and positive consumption spillover effects associated with abortion. Those who consume abortion services cause an unintended, negative effect on those who are morally opposed to abortion and believe abortion represents the taking of an innocent life. Those who oppose abortion suffer a psychological or emotional loss. Those who consume abortion may also cause a positive effect on those who support abortion rights and believe in the liberty right of a pregnant woman to control her own fertility. Abortion has also been found to have a positive effect on members of society by reducing crime (Donohoe and Levitt 2001), reducing child abuse (Bitler and Zavodny 2004), and saving

public monies spent on federal and state medical and social welfare expenditures (i.e., Temporary Assistance to Needy Families, childcare, food stamps, Medicaid; Gruber et al. 1999). Goggin (1993) notes that if abortion is a redistributive policy, then the adoption of restrictive abortion laws is determined primarily by the political ideology of political parties and single-issue advocacy groups.

The purpose of this study is to systematically examine the determinants of the restrictiveness of a state's abortion policy. We use the event history analysis estimation technique to examine a more methodologically valid measure of a state's restrictive abortion policy in order to address several important public policy questions. Is state abortion policy a redistributive issue or a morality issue? What is the impact of the public's and legislators' abortion attitudes on the restrictiveness of a state's abortion policy? Do advocacy interest groups have an impact on a state's abortion policy? Does a state's abortion policy reflect political forces (political parties, partisanship, and ideology)? The answers to these questions will further our understanding of one of the most important aspects of policy-making in a representative democracy: the interrelationships between public opinion, the policy preferences of elected representatives, and public policy on one of the most controversial issues in contemporary American politics—abortion.

Literature Review

Previous studies of the determinants of a state's abortion policy have examined a number of different measures of a state's restrictive abortion policy. The problem is that most studies use an unreliable measure of a state's restrictive abortion policy. Meier and McFarlane (1993), Berkman and O'Connor (1993), Hansen (1993), and Norrander and Wilcox (1999) all use as a measure of a state's restrictive abortion policy whether or not a state funds Medicaid abortions for poor women.

Medicaid is a joint federal and state health insurance program that funds medical services for the poor. In 1980, the U.S. Supreme Court ruled that the federal government was not constitutionally obligated to pay for Medicaid abortions and the funding decision was left to the

discretion of each individual state. The methodological error with using whether or not a state funds Medicaid abortions as a measure of a state's restrictive abortion policy is that the vast majority of states that fund Medicaid abortions did not do so voluntarily. In 2000, there were 17 states that funded Medicaid abortions, but 14 of these states did so only because they were ordered by their state Supreme Court to provide Medicaid coverage—only three states voluntarily funded Medicaid abortions. The examination of the determinants of state funding of Medicaid abortions as a measure of a state's restrictive abortion policy will yield spurious estimates since only state Supreme Courts were responsible for a state funding Medicaid abortions. As a consequence, all of these studies find very few significant predictors of state Medicaid abortion funding.

Hansen (1993), Goggin and Wlezien (1993), Norrander and Wilcox (1999), Strickland and Whicker (1992), O'Connor and Berkman (1995), Medoff (2002), and Camobreco and Barnello (2008) construct an index of a state's restrictive abortion policy based on the Halva-Neubauer (1993) count of the total number of various anti-abortion regulations and resolutions passed by a state between 1973 and 1989. These include regulations or resolutions about fetal disposal, gender selection, fetal pain, private health insurance restrictions, spousal notification, calls for a constitutional convention on the abortion issue, parental involvement laws, fetal experimentation ban, conscience clauses for medical personnel, and pro-life license plates.

There are two problems with using the total number of various anti-abortion regulations and resolutions enacted in each state as of 1989 as a measure of a state's restrictive abortion policy. First, many of these anti-abortion measures were enacted prior to 1989. For example, Utah passed a parental involvement law in 1974. But the predictor variables used in these studies are as of 1989 and do not reflect a state's political, legal, or social environment when the anti-abortion measure was enacted. Thus, the above mentioned studies are implicitly assuming that a state enacting an anti-abortion regulation or resolution perhaps 15 years ago is affected by what its characteristics are today. The second problem with using total counts as a measure of the restrictiveness of a state's abortion policy is that the anti-abortion measures examined are merely symbolic and do not restrict

women's access to an abortion. As a consequence, not surprisingly, all of these studies also find very few significant predictors of their measure of a state's restrictive abortion policy.

TRAP Laws

In order to examine the determinants of a state's restrictive abortion policy a consistent and time-invariant measure of a state's abortion policy is needed. *T*argeted *R*egulation of *A*bortion *P*rovider laws (more commonly known as TRAP laws) are state laws that single out abortion providers and impose on them requirements and regulations that are excessive and more stringent than those imposed on other medical practitioners. TRAP laws take several different forms, but the most onerous are the laws that impose on abortion providers medically unnecessary and burdensome physical plant and personnel requirements. TRAP physical plant laws impose on abortion providers requirements on the width of hallways, height of ceilings, doorway widths, counseling room dimensions, and air circulation rates. TRAP personnel laws mandate what types of medical professionals must be on staff, the qualifications of various staff members, and assign certain duties to specific staff members.

For example, Missouri requires that abortion providers must be located within 30 miles of a hospital and have procedure rooms that are at least 12 feet long and 12 feet wide with ceilings at least 9 feet high and doors at least 44 inches wide. Louisiana requires that abortions can only be performed in rooms that are a minimum of 120 square feet. North Carolina requires that abortion providers must hire a registered nurse with experience in post-operative and post-partum care that is on duty at all times as well as provide a nourishment station for serving meals or snacks. South Carolina requires that all outside areas of abortion provider facilities must be kept free of rubbish, grass, and weeds and the air temperature in its rooms must be maintained between 72 and 76 degrees. Connecticut requires that all abortion providers must have counselors who have or who are supervised by a person with a graduate degree in social work.

A state's rationale for enacting a TRAP law is to protect the life and health of the pregnant woman. According to abortion rights support-

ers, TRAP laws serve no legitimate health purposes, but the real goal of TRAP laws is to drive abortion providers out of business. The imposition of these burdensome and costly regulations forces abortion providers to extensively remodel or hire additional staff, causing some abortion providers to close.

The available empirical evidence finds that TRAP laws make it more difficult and costly for abortion providers to supply abortion services as a consequence of complying with TRAP laws. Medoff (2009) found that TRAP laws significantly affected the supply of abortion services by reducing the number of abortion provider facilities. The numerical impact of a TRAP law was to reduce the number of abortion provider facilities by 15.5 per 100,000 pregnancies as compared to states without TRAP laws. Jones and Weitz (2009) found that a TRAP law enacted in Mississippi forced the only outpatient abortion provider facility to discontinue performing abortions after 12 weeks of gestation and in Texas, all 20 of the abortion provider facilities known to perform second-trimester abortions ceased performing abortions after 16 weeks of gestation because of the enactment of a TRAP law.

TRAP laws are different from other restrictive state abortion laws, such as Medicaid funding restrictions or mandatory counseling laws, which attempt to reduce the demand for abortions by altering a woman's cost-benefit decision calculus. TRAP laws, enacted under the guise of protecting women's health, are designed to regulate all aspects of the business operations of abortion providers. The intent of TRAP laws is to deter physicians from becoming or remaining abortion providers. TRAP laws impose on abortion providers medically unnecessary requirements and regulations that are calculated to drive abortion providers out of practice or make abortions so prohibitively expensive and increasingly difficult to obtain that women will no longer be able to afford them or find a provider offering abortion services. TRAP laws create an environment where the constitutional right to make the decision to have an abortion may be moot if, because of TRAP laws, there are too few providers to perform the procedure. Through TRAP laws, abortion opponents can effectively overturn the Supreme Court's *Roe v. Wade* decision legalizing abortion. Thus, over the period 1974–2008 examined in this article, the

enactment of a TRAP law by states represents a unambiguous, direct, unmistakable, and substantive measure of a state's restrictive abortion policy.

Empirical Model

Dependent Variable

The dependent variable in this study, TRAP Law, is a dummy variable equal to 1 if a state enacts a TRAP physical plant/personnel law on abortion providers' facilities over the period t = 1974–2008.[1]

Independent Variables

The literature has identified four major determinants of a state's abortion policy: the abortion attitudes of the public, interest advocacy groups, state political ideology, and the partisan composition of a state's government (Cohen and Barrilleaux 1993).

Public Abortion Attitudes

There is a large body of empirical evidence that shows that a state's abortion policy follows the public's abortion attitudes (Wilcox 1989; Cook et al. 1993). However, as noted by Goggin (1993), any connection between public abortion attitudes and abortion policy is contingent on whether a reliable measure of a state's abortion attitudes exists.

Most studies measure public abortion attitudes by constructing an index based on survey data of voters. Norrander and Wilcox (1999), O'Connor and Berkman (1995), and Camobreco and Barnello (2008) use Norrander's (2001) anti-abortion attitude index that was constructed from the Senate National Election Study opinion survey data, which asks voters, "Do you think abortion should be legal under all circumstances, certain circumstances, or never legal under any circumstances." One drawback in using opinion surveys is that they are only available for a limited number of years. However, Wetstein (1993) and Wilcox and Riches (2002) found that public abortion attitudes are remarkably stable over time and unlikely to change due to changes in the political or legal environment.

Accordingly, this study also uses Norrander's (2001) state anti-abortion attitudes index since it is the latest available and it is unlikely that over time there was a change in the public's abortion attitudes in a state that affected the position of one state relative to another. The Norrander *Public Anti-Abortion Attitudes* index ranges in value from 1 to 5. The value 1 indicates abortion should be legal in all circumstances and the value 5 indicates abortion should never be legal under any circumstances. The greater the value of the *Public Anti-Abortion Attitudes* index the more anti-abortion a state's citizens.

Anti-Abortion Interest Groups

Individual members of the public can enhance the impact of their opinions on legislators through interest groups. Interest groups may influence legislators' judgments about the preferences of their constituents. Elected officials often fear electoral reprisals from interest groups because such groups represent attentive public voters who can give, or withhold, political contributions and resources for political campaigns.

Even though advocacy interest groups appear on both sides of the abortion issue, the two advocacy groups that are mobilized, active, and fervently anti-abortion are Catholics and fundamentalist evangelical Christians. Both have intense beliefs on the sanctity of life and strong moral prohibitions against abortion equating it to murder (Wilcox 1989; Goggin 1993). As noted by Berkman and O'Connor (1993), Meier and McFarlane (1993), and Cook et al. (1993), both groups are strongly associated with anti-abortion activities including lobbying, activists, protests, education, and campaign contributions. Following Cohen and Barrilleaux (1993), Hansen (1993), Berkman and O'Connor (1993), and Roh and Haider-Markel (2003), we use as a measure of anti-abortion interest group strength the percentage of the population that is *Catholic* and the percentage of the population that belongs to an *Evangelical Christian* denomination in each state for the years 1974–2008.[2]

State Political Ideology

Another variable that is an important determinant of state abortion policy is the general political ideology of a state's citizens. State

legislators may have a general idea of the ideological predisposition of their constituents and respond to the general public ideology of their constituents rather than to the public's abortion attitudes. A state's general political ideology may have an influence on state abortion policy, independent of the public's abortion attitudes. Schnell (1993) found that, independent of abortion attitudes, those who are ideologically conservative were more likely to engage in political action related to the abortion issue (vote, write to a newspaper, participate in rallies, write to elected officials).

We follow the abortion literature by using Erikson, Wright, and McIver's (1993) measure of a *State's Political Ideology*, which is the percentage of a state's population who identify themselves as liberal minus the percentage who identify themselves as conservative in the CBS/New York Times Poll in each state annually from 1974 to 2008 (Cohen and Barrilleaux 1993; Meier and McFarlane 1993; Berkman and O'Connor 1993; Camobreco and Barnello 2008). A positive state political ideology number indicates a state whose populace tends to be ideologically liberal, while a negative state ideology number indicates a state whose populace tends to be ideologically conservative.[3]

Partisan Political Parties

Another important determinant of state abortion policy is partisan politics. Abortion is a major social and political electoral issue, which is central to the brand name of each political party (Bartels 2008; Stimson 2004). The Republican and Democratic parties have polar extreme positions on the abortion issue. Since the late 1970s, the Democratic Party has publicly endorsed legal abortion and fewer abortion restrictions, while the Republican Party has officially adopted the anti-abortion policy position that legal abortion should be repealed and favored stringent restrictions on both women's access to abortion and abortion providers (Goggin 1993; Adams 1997; Stimson 2004).

Typically, the abortion politics literature has modeled partisan strength in state legislatures by dividing the total number of Democrats in both the lower and upper houses of the state legislature by the size of the state legislature (Berkman and O'Connor 1993; Norrander and Wilcox 1999; Strickland and Whicker 1992; Camobreco

and Barnello 2008; O'Connor and Berkman 1995; Meier and McFarlane 1993). Hansen (1993) argues that it is methodologically incorrect to assume that the impact of partisan strength on abortion policy is strictly linear, increasing in direct proportion to the percentage of Democrats (or Republicans) in state legislatures. Hansen notes that a threshold level must be reached before Democrats (or Republicans) can exert a measurable impact on state abortion policy. The existence of a threshold level implies that, until the threshold level is reached, the numerical size of the political party that is in the minority in a state legislature will not have a measurable impact upon a state's abortion policy.

The enactment of a restrictive abortion law requires a majority vote of both houses of the state legislature and gubernatorial support (or, if the governor opposes the proposed legislation, a two-thirds vote of both houses of the state legislature). Thus, either house of the state legislature or possibly the governor can reject a proposed law. The ideological divide of the two political parties on abortion suggests that the crucial factor in the enactment of an abortion policy is not the partisan strength of a political party, as measured by the percent Democrats (or percent Republicans) in the state legislature, but whether a political party controls *both* houses of the state legislature *and* the governor's office. Divided government (one political party controls either the lower house, upper house, or the governor's office, but not all three simultaneously) means that no abortion policy can be enacted unless both political parties and the governor support passage of the abortion policy.

The anti-abortion ideology of the Republican Party, in conjunction with the institutional control of the legislative/executive branches of the state government, suggests that the enactment of TRAP laws is more likely when the Republican Party controls both houses of the state legislature and the governor's office than under either Democratic Party control or divided government. In order to test our hypothesis between the interaction of institutional control and Republican anti-abortion ideology on the likelihood that a state will enact a TRAP law we include the dummy variable *Republican Control*, which is equal to one when the Republican Party controls both houses of the state legislature and the governor's office in year

t and zero if either the Democrats have institutional control or there is divided government.[4]

Event History Analysis Method

In order to estimate the impact of the public's abortion attitudes, anti-abortion interest groups, state political ideology, and partisan political control of a state's government on the enactment of a state TRAP law placing physical plant/personnel requirements on abortion providers we employ the event history estimation technique first used by Berry and Berry (1990). The enactment of a TRAP law is a non-repeatable probabilistic event that may or may not occur during a given year (once a state enacts a TRAP law its probability of adoption drops to zero).

The dependent variable for a state that enacts a TRAP law in year t consists of a series of zeroes for all the years prior to year t, followed by a 1 in the year t of adoption and then the dataset for that state is truncated (stopped) at year t. States that fail to enact a TRAP law during a given year t still have a nonzero probability of enacting such a law during the period of analysis in the years after t. Once a state enacts a TRAP law that state's observations are dropped from the dataset. Therefore, the size of the dataset is decreased at the end of each year by the number of states that enacted a TRAP law that year.

The event history analysis estimation technique has several advantages over more conventional estimation methods used in previous research (ordinary least squares, logit). First, event history analysis can assess the likelihood of a TRAP law being enacted from characteristics of a state that vary substantially from year to year. Second, unlike cross-sectional models, the pooled time-series nature of the data means that the likelihood of a TRAP law being enacted is affected by *contemporaneous* independent variables. This also means that the partisan political variables do not have to be lagged because if the political party of the governor of a state changes in a given year and the state enacts a TRAP law in the same year, then a lagged political variable would incorrectly attribute the enactment of the TRAP law to the previous governor of the opposition political party. Third, event

history analysis is a better method to explain the enactment by a state of an event—a TRAP law—that is relatively infrequent. Thus, event history analysis is an estimation technique that significantly improves the ability of a model to analyze the determinants of the enactment by a state of a TRAP law.

Empirical Results

Because the dependent variable, the enactment of a TRAP law, is binary (zero or one) this study uses the maximum likelihood probit method to estimate the empirical model (Stata, version 11). The maximum likelihood probit method of estimation treats each observation as binomial with an independent outcome (the chance of success at any trial is unrelated to the results of any other trial). This leads to a joint probability or maximum likelihood function. This likelihood function is non-linear and requires an iterative solution. Convergence is achieved when the changes in the estimated parameters in the model are quite small. The maximum likelihood estimation procedure has the desirable statistical properties that all the parameter estimates are consistent, asymptotically efficient, and have an asymptotically normal distribution (Greene 2000). As with any econometric analysis, one obvious concern is multicollinearity. To test for the presence of multicollinearity, a variance inflation factor (VIF) was computed. None of the independent variables had a variance inflation factor over 2.1 when 10 is considered the threshold for a severe multicollinearity problem (Gujarati 1995: 339).

The maximum likelihood probit estimates over the sample period 1974–2008, with the dependent variable being the enactment of a TRAP physical plant/personnel law by a state, are presented in Table 1, column 1. The empirical results indicate that the enactment of a TRAP law by a state is not a function of state political ideology or public abortion attitudes. State legislators are not enacting TRAP laws in response to the public's abortion attitudes or the public's political ideology as predicted by Downs' (1957) median voter model, which argues legislators mirror the preferences of the median voter. The percent Catholic is an insignificant determinant of the enactment of a

Table 1

Probit Estimates for Event History Analysis Model of Enactment of a TRAP Law

	Dependent Variable		
	TRAP Law (= 1)		
Independent Variables	1	2	3
Republican Control	0.466**	. . .	. . .
	(0.235)		
Democratic Control	. . .	−0.555**	. . .
		(0.260)	
Divided Government	. . .	. . .	0.111
			(0.197)
Public Anti-Abortion Attitudes	0.496	0.825*	0.552
	(0.428)	(0.465)	(0.436)
% Catholic	0.011	0.009	0.010
	(0.010)	(0.010)	(0.009)
% Evangelical Christians	0.031***	0.029***	0.026***
	(0.009)	(0.009)	(0.009)
State Political Ideology	0.003	0.003	0.000
	(0.010)	(0.010)	(0.010)
Constant	−4.242***	−4.821**	−4.300***
	(1.192)	(1.261)	(1.225)
Log Likelihood	−92.087	−91.236	−93.745
Pseudo R^2	0.09	0.10	0.07
N	1,204	1,204	1,204

Note: Standard errors in parentheses. *p < 0.10, **p < 0.05, ***p < 0.01.

TRAP law by a state. This latter result is consistent with prior research that a schism exists between the official position of the Catholic Church on abortion and the abortion practices of Catholic women (Medoff 1988, 1997). The percentage of a state's population who are evangelical Christians has a significantly positive ($p < 0.01$) impact on a state's enactment of a TRAP law. This suggests that, relative to other

advocacy groups, evangelical Christians have a disproportionate influence on the enactment of a TRAP law.

Republican Party institutional control has a statistically ($p < 0.05$) and numerically significant positive effect on the likelihood of a TRAP law being enacted by a state. As hypothesized, the anti-abortion ideology of the Republican Party in combination with the institutional control of the legislative/executive branches of state government is the strongest single determinant of a state enacting a TRAP law. This indicates that ideologically anti-abortion Republican legislators do not respond to the public's abortion preferences or political ideology as predicted by the median voter model.

In order to provide further support for the hypothesis between partisan political party abortion ideology and legislative/executive institutional control we substituted the dummy variable *Democratic Control*, equal to one when the Democratic Party controls both houses of the state legislature and the governor's office, for the variable Republican Control and reestimated the model. The empirical results appear in Table 1, column 2.

Over the sample period 1974–2008, Democratic Control has a statistically and numerically significant ($p < 0.03$) negative impact on the enactment of a TRAP law. Democratic legislators do not respond to the public's abortion preferences or political ideology or anti-abortion interest groups. None of the other variables is a statistically significant predictor of the enactment of a state TRAP law.

The above results provide strong support for the hypothesis that the enactment of a state TRAP law is related to the partisan abortion ideological divisions between the two political parties combined with institutional control of the legislative/executive branches of state government. In order to determine if the impact of Republican Control or Democratic Control is causal or spurious, the model in Table 1 was reestimated replacing Republican Control or Democratic Control with a dummy variable equal to one if there was *Divided Government*—the same political party does not control all three branches of the state government. The empirical results appear in Table 1, column 3.

The Divided Government variable is not statistically significant. This result provides strong support for the partisan abortion ideology—

institutional control hypothesis. The polar extreme ideological positions of the Republican Party and the Democratic Party on the issue of abortion means that when divided government occurs there is little likelihood of a TRAP law being enacted.

TRAP Laws: Redistributive or Morality Issues?

Hwang and Gray (1991) and Goggin (1993) argue that the major determinant of redistributive issues is the ideology of partisan political parties. The empirical results reported in the previous section found that the major determinant of abortion policy, as measured by the enactment of a TRAP law, is partisan political party abortion ideology in conjunction with partisan political control of state government. Policymakers do not, as predicted by Downs' (1957) median voter model, mirror the abortion preferences of their constituents. Lawmakers are not influenced by the abortion attitudes of their constituents in enacting a TRAP law. These results are consistent with the proposition that abortion is a redistributive issue.

Meier and Johnson (1990) argue that one of the major determinants of a morality issue is the demand for the immoral good. Previous research has found an association between public demand for abortion and the views on abortion by elected policymakers. Medoff (1989) and Chressanthis et al. (1991) found there was an association between a state's demand for abortion and the abortion policy stance by a state's U.S. Senators. Kahane (1994) found that governor, state senate, and state house views on abortion policy were significantly affected by their constituent's demand for abortion.

If abortion is a morality issue, then one would expect to find an association between a state's abortion demand and the enactment of a TRAP law by a state. The failure to include a state's abortion demand as a predictor variable in the estimation of the model means that the estimated results reported in Table 1 may be artifacts of omitted variable bias. The estimated coefficient of the Republican Control (or Democratic Control) variable will be biased if partisan political party institutional control of the legislative/executive branches of state government is correlated with a state's demand for abortion because the estimated coefficient of the Republican Control (or Democratic

Control) variable includes some of the effects of the omitted state demand for abortion.

In order to address the question of whether TRAP laws are a morality issue or a redistributive issue, we reestimated the model including as a predictor variable a state's demand for abortion: *Abortion Rate*—the number of abortions per 1,000 women of childbearing ages (15–44 years) lagged one year to minimize any possible endogeneity with TRAP laws for each state over the period 1974–2008. The lagged abortion rate variable also controls for variations in states' health care policies and levels of social spending (funds for family planning, health childcare, cash assistance for needy families, food stamps, and certificate of need requirements).[5] If abortion were a morality issue then one would expect a significant association between a state's abortion demand and the enactment of TRAP laws. The empirical results appear in Table 2, column 1 (with Republican Control), column 2 (with Democratic Control), and column 3 (with Divided Government).

Regardless of the model specification, a state's abortion rate is not a significant determinant of the enactment of a TRAP law. State legislators are neither responding to the public demand for abortion nor are they reacting to the public demand for abortion. This finding provides strong confirmation for the proposition that a state's abortion policy, as measured by the enactment of a TRAP law, is a redistributive issue and not a morality issue.

In addition, the empirical results in Table 2 show that Republican Control is still significantly positive ($p < 0.06$), Democratic Control is still significantly negative ($p < 0.04$), and Divided Government is still not significantly different from zero. Moreover, the estimated coefficients of Republican Control and Democratic Control are virtually identical to their respective counterparts in Table 1, columns 1 and 2, respectively. Also, the enactment of a TRAP law by a state is not a function of a state's political ideology, anti-abortion interest group strength, or the public's abortion preferences. Hence, even with the inclusion of a state's demand for abortion, the impact of partisan political party abortion ideology coupled with legislative institutional control on the enactment of a TRAP law is causal not spurious.

Table 2

Probit Estimates for Event History Analysis Model of Enactment of a TRAP Law with Abortion Demand

	Dependent Variable		
	TRAP Law (= 1)		
Independent Variables	1	2	3
Abortion Rate Lagged	0.000	−0.000	−0.008
	(0.015)	(0.014)	(0.014)
Republican Control	0.469*	. . .	. . .
	(0.255)		
Democratic Control	. . .	−0.554**	. . .
		(0.268)	
Divided Government	. . .	. . .	0.109
			(0.197)
Public Anti-Abortion Attitudes	0.502	0.819	0.408
	(0.492)	(0.540)	(0.488)
% Catholic	0.011	0.009	0.010
	(0.010)	(0.010)	(0.010)
% Evangelical Christians	0.031***	0.029***	0.026***
	(0.010)	(0.009)	(0.009)
State Political Ideology	0.003	0.003	0.000
	(0.010)	(0.010)	(0.010)
Constant	−4.268***	−4.797***	−3.727**
	(1.559)	(1.627)	(1.508)
Log Likelihood	−92.087	−91.235	−93.543
Pseudo R^2	0.09	0.10	0.08
N	1,204	1,204	1,204

Note: Standard errors in parentheses. *p < 0.10, **p < 0.05, ***p < 0.01.

Discussion

*T*argeted *R*egulation of *A*bortion *P*roviders (or TRAP) laws systematically impose medically unnecessary and burdensome state regulations on abortion providers that are more stringent than those imposed on

other medical practitioners. These regulations range from onerous structural/facility requirements to staffing requirements and/or qualifications. The implicit or explicit intent of TRAP laws is to effectively overturn the Supreme Court's *Roe v. Wade* decision legalizing abortion by driving abortion providers out of practice and making it extremely difficult for women to exercise their legal right to choose to have an abortion. TRAP laws create an environment where the constitutional right to make the decision to have an abortion may be moot because there are too few providers to perform the procedure. As a consequence, the enactment by a state of a TRAP law represents a substantive, as opposed to a merely symbolic, measure of a state's restrictive abortion policy. The politics of abortion can be better understood by examining the determinants of the enactment of TRAP laws by states.

This article examines the determinants of the enactment of a TRAP law by states, over the period 1974–2008, using the event history analysis estimation technique. The empirical results find that partisan political party control of a state's legislative/executive branches is the most important factor affecting the enactment of a TRAP law by a state. The institutional control of a state's government (where one political party holds a majority of both houses of the state legislature and the governorship) by the ideologically anti-abortion Republican Party is significantly positively associated with a state enacting a TRAP law, while the institutional control of a state's government by the ideologically pro-choice Democratic Party is significantly negatively associated with a state enacting a TRAP law. Divided government (where the same political party does not hold a majority of both houses of the state legislature and the governorship) is not a significant predictor of a state enacting a TRAP law. When divided government occurs there is little likelihood of a TRAP law being enacted.

The results also indicate that the percentage of a state's population that are Catholic, public abortion attitudes, or state political ideology are not statistically significant predictors of the enactment of a TRAP law by a state. These latter results stand in stark contrast to Strickland and Whicker (1992), Hansen (1993), Meier and McFarlane (1993), Berkman and O'Connor (1993), O'Connor and Berkman

(1995), and Camobreco and Barnello (2008), who found that state Medicaid abortion funding policy or the total number of anti-abortion regulations/resolutions enacted by a state are significantly affected by public abortion attitudes and/or the membership strength of anti-abortion religious groups. However, the state abortion policies these studies examined were either determined by state courts (Medicaid abortion funding) or merely symbolic abortion policies that may reflect external issues and not a state's restrictive abortion policy (a vote in favor of pro-life license plates or conscience (refusal) clauses by a state legislator may be a free speech or civil rights issue).

Several important theoretical conclusions emerge from our analysis of the determinants of the enactment by a state of a TRAP law. First, our finding that ideologically anti-abortion Republican state legislators or ideologically pro-choice Democratic state legislators do not respond to the public's abortion preferences or political ideology supports Meier and McFarlane's (1993) contention that abortion is a policy issue where the median voter model—a legislator will mirror the preferences of the median voter in order to increase the probability of being reelected—may not be applicable. On this highly charged emotional issue, state legislators do not mirror the abortion attitudes of the median voter. State policymakers are not responsive to the public's preferences about abortion policy. A state legislator's vote on abortion policy is more likely to be cast in accordance with the legislator's own abortion preferences rather than those of the median voter. Second, our finding that the enactment of a TRAP law by a state is not affected by the public's demand for abortion suggests that state legislators are neither responding to the public's demand for abortion nor are they reacting to the public's demand for abortion. This result provides strong support for the argument that because the major determinant of the enactment of a TRAP law by a state is partisan political control of state government and not anti-abortion religious groups' strength, public abortion attitudes, state political ideology, or public demand for abortion services, abortion policy is a redistributive issue rather than a morality issue. Third, our results suggest that political party abortion ideology in conjunction with institutional control of the legislative/executive branches of state government is a crucial factor that ought

to be included in any model that is examining the determinants of a state's restrictive abortion policy.

Future research into the politics of abortion must take into account our empirical finding that abortion is a partisan political issue. Abortion may represent an example of "issue ownership" in which a pro-choice or anti-abortion policy stance is identified with the Democratic Party or the Republican Party, respectively (Petrocik 1996; Adams 1997). The consequences of abortion being a partisan political issue are important areas for future research. It would be of obvious interest to investigate whether our findings are robust with respect to other state laws that are enacted to restrict women's access to an abortion.

Notes

1. The data on the enactment of TRAP Laws are from the NARAL Pro-Choice America (various years).

2. The percentage of the population that are Catholic and the percentage of the population that belongs to fundamentalist evangelical Christian denominations in each state for the years 1974–2008 is from Quinn et al. (1982, 1992) and Jones et al. (2002).

3. The data was obtained from Gerald Wright's website (http://www.php.indiana.edu/~wright1). The Erikson, Wright, and McIver measure of state ideology is available annually from 1976 through 2003. The 1976 score is used for the 1974–1975 period while the 2003 score is used for the 2004–2008 period. Data was unavailable for Alaska and Hawaii.

4. The data on the partisan composition of state legislatures and the governorship was supplied by Robert Lowry and also from the *Statistical Abstract of the United States*. Nebraska is excluded from the analysis because its state legislature is nonpartisan.

5. Certificate of need programs are statutes that require approval by state health agencies before the acquisition, expansion, or creation of hospitals or nursing homes. Certificate of need programs were enacted because of the concern that excess hospital or nursing home capacity would cause many patients to be hospitalized or admitted to nursing homes unnecessarily. Certificate of need programs may not be particularly applicable to the enactment of TRAP laws since most abortion providers' facilities are free standing clinics and TRAP laws require substantial renovation or remodeling, not expansion of the existing facilities. However, the prior presence of certificate of need programs may have deterred some abortion providers from entering the market.

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Legitimating Inequality: Fooling Most of the People All of the Time

By Jon D. Wisman with James F. Smith*

> The ideas of the ruling class are in every epoch the ruling ideas: i.e., the class which is the ruling material force of society is at the same time its ruling intellectual force. The class which has the means of material production at its disposal, has control at the same time over the means of mental production, so that thereby, generally speaking, the ideas of those who lack the means of mental production are subject to it. (Marx 1846: 172)

> A study of the history of opinion is a necessary preliminary to the emancipation of the mind. (Keynes 1926: 11)

Abstract. Over the three decades leading up to the crisis of 2008, inequality dramatically increased in the United States and Great Britain. What stands out, but is seldom noted, is that this occurred within democracies where the relative losers—the overwhelming majority—could in principle have used the political system to block or reverse rising inequality. Why did they not do so? A glance at history reveals that peoples have only very infrequently contested inequality because they were led to believe that their inferior status in terms of income, wealth, and privilege was just, that it was not really so bad, or that it was necessary for their future well-being. Ideological systems legitimated a status quo of inequality, or in more modern times even increasing inequality. This article surveys the manner in which inequality has been historically legitimated, first predominantly by religion, then predominately by economic thought. Attention is then focused on the manner in which contemporary economic science and its popular interpretations in the media have served to legitimate inequality in the U.S. since the mid-1970s. The article concludes with a reflection on the unique conditions that enable the legitimation of inequality to be delegitimated.

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Introduction

Over the three decades leading up to the crisis of 2008, inequality significantly increased in most countries, and did so dramatically in the United States and Great Britain.[1] What stands out, but is seldom noted, is that this occurred within democracies where the relative losers—the overwhelming majority—could in principle have used the political system to block or reverse rising inequality.

Why did they not do so? Two ready hypotheses are: Heightened inequality is in fact in the majority's best interest and this is well understood. Or, the majority is being hoodwinked. The first hypothesis is difficult to defend. Research demonstrates that beyond some level necessary to bring forth economic incentives, greater inequality correlates with lessened economic dynamism (Alesina and Rodrik 1994: Easterly 2002; Persson and Tabellini 1992; Garrison and Lee 1992); with poorer public health and shortened longevity (Marmot 2004; Wilkinson and Pickett 2006, 2007; Subramanian and Kawachi 2004); with greater racial and ethnic tensions and higher crime rates (Kelly 2000; Fajnzylber, Lederman, and Loayza 2002); with lessened social mobility (Jäntti et al. 2006; d'Addio 2007); and with a weakening of democracy (Bostany 2006; Phillips 2002; Wolin 2008). As for the second hypothesis, that people are hoodwinked, a glance at history reveals that peoples have only very infrequently contested inequality. And when they have done so, it was generally in the wake of dramatically worsened conditions for the less-privileged.

Class or other group-based inequality can be maintained by either physical or ideological force.[2] Physical force has often been necessary for initially establishing and solidifying a hierarchical social structure. However, brute force is relatively inefficient in that it generates strong resentment and the constant threat of insurrection. It is also costly in terms of policing resources. A far more efficient and effective long-run strategy is for the elites to generate an ideological system that convinces "both themselves—and more important, members of subordinate groups—of the moral and intellectual legitimacy of the existing social order" (Sidanius et al. 2001: 309).[3] Subordinates must be led to believe that their inferior status in terms of income, wealth, and privilege is as it must be. Since the rise of civilization, such ideological

systems have legitimated societies' distribution of income, wealth, and privilege.[4] This hoodwinking concerning inequality has been a major sub-story of human history.

During most of this history, religion played the major role in legitimating inequality. With the rise of capitalism, and secular society generally, economics, wearing the mantle of science, came to do so.[5] This article surveys the manner in which inequality historically has been legitimated, first by religion, then by economic science. The argument is not that all legitimation of inequality has been by religion and economic science, but that these two thought domains have been predominant. Arguments grounded in race, ethnicity, and gender have also been common. The article concludes with a reflection on what might be necessary for inequality to be seriously put into question, on what would delegitimate the legitimation of inequality.

Traditional Societies and Religious Legitimation

During over 95 percent of our species' existence, when humans survived as hunters and gatherers and then early agriculturalists, there was relative equality in material and social terms.[6] But since the dawn of civilization, considerable and even quite extreme inequality has existed in income, wealth, and privilege. And this inequality has always been legitimated such that most folks found it acceptable, even when it meant their lives were filled with extreme hardship and misery. The extraordinary power of such legitimation is that it establishes what Haines and Jost call " 'status quo biases' whereby people tend to favor whatever option is perceived as the current one and to avoid choices that require change. [Further] . . . providing justification makes people feel more comfortable with inequalities of status or power, even when they are in a relatively disadvantaged position. Thus, reasons and justifications serve a placating function when it comes to the preservation of power" (2000: 222, 223). More striking, "people may be more willing to accept relatively illegitimate accounts than is commonly assumed . . . [and the authors] found that people misremembered the explanations that were given to them as more legitimate than they actually were" (2000: 232).

Most traditional societies were divided into essentially two classes: A small, relatively elite class (about 15 percent of the population in pre-modern Western Europe; about 2 percent in pre-revolutionary China), and a poor class made up of all others, living at the edge of mere subsistence (Jones 1997: 4). Often the superiority of the elite was demonstrated by their appearance. As a result of their wealth, better nutrition, and health care, they were more sophisticated, cleaner, and on average typically taller, more robust, and suffering fewer signs of ill-health such as deformed bodies, facial pimples or blemishes, and open or poorly healing wounds. And, of course, they were far better clothed. The inherent superiority of the elite was there for all to see.

But beneath appearances, underlying inequality in traditional societies was a legitimacy usually provided by religion.[7] Inequality, like all social conditions (indeed all conditions, whether social or other) were as the gods required. Moreover, status conditions were not amenable to change.

Legitimation is the process by which social knowledge explains and justifies prevailing social reality.[8] Legitimation per se is neither good nor bad. It is unavoidable. Our instincts do not provide us with full guidance as to how to behave in our world. It is human culture that supplements our instincts to provide us with fairly complete and stable relationships. In this sense, humans are the only animal that must symbolically maintain a sense of "appropriate" or "right" action (Berger and Luckmann 1967: 48).

Typically, legitimations are both cognitive and normative in character. That is, they not only inform as to what is but as to what ought to be as well. As to the latter, Kelman notes that "What characterizes legitimacy at its core is that it refers to the moral basis of social interaction" (2001: 55). Legitimations need not be literally true: "the issue of 'truth' is essentially irrelevant to an ideology's ability to legitimize and justify group-based social inequality: ideologies can serve as legitimizing instruments regardless of whether they are 'true' or 'false' in any epistemic sense" (Sidanius et al. 2001: 310–311). There will, nonetheless, be an insistence on the truth value of legitimization systems whether provided by religion in tradition-guided societies or by social science in modern societies.

In pre-modern traditional societies, religion served as the predominant, if not nearly the exclusive, means of legitimation.[9] Religion provides a status to prevailing social institutions that transcends their human genesis. As Berger has expressed this, "Religion legitimates social institutions by bestowing upon them an ultimately valid ontological status, that is, by locating them within a sacred and cosmic frame of reference" (1967: 33). In this manner, social institutions are accorded the stability and inevitability that is ascribed to the ultimate spiritual and material realms. Religious legitimation of social institutions provides individuals with enormous solace by providing them with an ultimate sense of rightness. It is in this manner that inequality was provided with legitimacy. It was the will of god, or the gods, or the cosmically mandated, and therefore the way it must be. As Berger puts it, "One of the very important social functions of theodicies is, indeed, their explanation of the socially prevailing inequalities of power and privilege . . . theodicies provide the poor with a meaning for their poverty, but may also provide the rich with a meaning for their wealth" (1967: 59).[10]

Religion enabled the pharaohs of ancient Egypt convincingly to claim themselves to be gods. Elsewhere, from the ancient Mayans in the Americas to the late medieval era in Europe, rulers would pretend, even to themselves, of course, that they possessed special relationships to the gods, or divine rights to rule. Their special status justified their inordinate share of everything.

Religious legitimation of inequality typically worked at two levels. Directly, it claimed that the status quo distribution was appropriate to the cosmic order. Indirectly, it diverted attention away from the material world to a spiritual or moral domain.[11] It reinforced a static view of reality. Everything and everyone had their proper assigned place in this god-given reality.[12] It devalued a this-worldly existence in favor of a spiritual realm, and thereby depicted the greater hardships and suffering of the less well-off as unworthy of serious attention. As pyramids, temples, cathedrals, and churches attest, the material costs of maintaining the worldly manifestations of this legitimation structure were enormous.[13]

What may have been the most extreme and effective role in legitimating inequality by religion occurred in India. A frozen religious

stratification assigned everyone a place or function. Indian Brahmanism was brought to India in the second millennium B.C. by Aryan conquerors from what is now southern Russia. These invaders developed a perfectly rigid caste system that served to perpetuate their dominance and induce the acquiescence of the lower classes. As Hindu doctrine, everyone's status is determined by his or her karma or behavior in a previous life, and in this sense, everyone deserves his or her current status. If good karma is expressed in this life, then promotion to a higher caste in a next life becomes possible through reincarnation.

Good karma was understood to mean a resigned and obedient life. All other forms of personal achievement were excluded in principle. Caste membership prescribed occupation and sumptuary rights. This static world was depicted as perfect, a world in which everyone and everything had its proper place. Thus to contest the status quo was not only to violate the sacred order but to condemn oneself to a yet lower and more miserable status in the next life. And, of course, there was no good reason to be dissatisfied with one's miserable condition. It is one's just deserts and it is merely temporary, only this short lifetime. A virtuous life—not rocking the boat—will ensure a better deal next time.

It was because religions serve this legitimation function that Marx asserted that "Religion is the opiate of the people" (Marx 1844: 73). Yet the fact that legitimation may serve to augment or preserve the privileges of the elite does not entail that the world should be broken down into good guys and bad guys. Elites sincerely believe the doctrines that serve their interests.[14] They believe them to represent the will of the gods or the exigencies of science. And they typically believe such doctrines to be in the best interests of everyone.

Emergent Capitalism and Theological Revolution

In an important sense, Protestantism served as a transition religion between a predominantly traditional agricultural world dominated by Catholic doctrine and a more modern commercial one dominated by secular thought. The rise and spread of markets slowly eroded the self-sufficient communities of the Middle Ages in which somewhat of

a safety net was provided for the poor. Moreover, the expansion of market society generated an ever-expanding class of free laborers—a proletariat—that lived largely outside the support of traditional communities. Members of this class possessed neither ownership nor rights to the means of production. They could survive only by selling their labor power to an owner of such resources.

Catholic doctrine fit the legitimation needs of medieval European societies, but it was not well suited to the evolving institutions of capitalism. For instance, the Catholic Church was uncomfortable with profits, interest, alienable property, and even markets generally.[15] Protestantism, however, evolved most rigorously where capitalism was emerging most robustly, and thus came to be doctrinally better suited to legitimate the evolving institutions of markets and private property.

Protestantism, especially in its Calvinist expression, legitimated an uncharitable attitude toward the poor—the far greater part of society. According to the Calvinist doctrine of election, God had chosen the saved and the damned. Thus if one were poor, it could be presumed that thus was the will of God. The doctrinally privileged position of the poor within Catholicism[16] and the virtue of charity gave way under Protestantism to a reduced level of concern for the poor, relieving those of means from any strong sense of responsibility to provide assistance to the poor, either individually through charity or collectively through social welfare policy. To survive, the poor would have to locate someone to hire them. This put pressure on the unemployed to accept any form of employment, no matter how onerous, dangerous, or ill-paid, thereby keeping downward pressure on wages and thus favoring profits. And by relieving the well-off of the need to be charitable, it left them with more surplus to save and invest. Also, unlike Catholic doctrine, Protestantism had little problem with the pursuit of wealth.[17] It had little difficulty with those capitalist institutions and practices that the Church had found so opprobrious, such as alienable land, market-determined prices, profit, and interest. And almost as if to take all the fun out of being elite, Protestantism, again especially in its Calvinist expression, discouraged luxury or superfluous consumption and thereby encouraged saving.

The Idea of Equality

The expansion of capitalist markets slowly increased the size and wealth of a class whose economic power was grounded in its ownership of productive capital as opposed to land. But this expanding bourgeoisie encountered resistance to its quest for political power and social recognition commensurate with its wealth, and its struggle for power and status ultimately set the ideological framework for the evolution of the doctrine of social equality. This, of course, was hardly their intent. They merely sought the same rights, privileges, and status as the aristocracy. They had no intention of sharing any of this with the working and peasant classes socially beneath themselves. Indeed, they actively attempted to block any extension of their acquired gains to those below.

Initially viewed as socially inferior to the aristocracy, the bourgeoisie had to justify its bid for equality. And it was problematic to claim equality with the aristocracy only for their own class, since such an argument was hardly different in kind from the aristocracy's insistence on its uniqueness. Further, the aristocracy had tradition, or the weight of the past, on its side. Hence, doctrines that suggested what might be called a universal humanity postulate (that all humans everywhere are equal) were embraced. Any threat that this might lead to redistribution seemed remote, given the elite's monopoly on political power.

The Early Rise of "Scientific" Legitimation of Inequality

As religious legitimation weakened with the rise of secular society, inequality came to be increasingly legitimated in economic terms, although until fairly recently it was frequently supplemented by religious argument.[18] An early secular expression found in the works of numerous Mercantilists is the "utility of poverty" doctrine (partially captured by what modern economists refer to as the backward-bending supply curve of labor). The utility of poverty doctrine suggested that should wages rise above mere subsistence, workers would work less, thereby decreasing society's output and weakening the state.[19] It legitimated state-enforced maximum wages capping what employers could legally pay, thereby ensuring that the working class

remain in relative poverty. It also led some, even the relatively liberal Bernard de Mandeville, to argue that workers would work harder if they were not only kept poor, but also uneducated, or as he put it, it is "requisite that great Numbers of them should be Ignorant as well as Poor" (1924: 288).[20] The utility of poverty doctrine also generated arguments to tax workers to force them to work longer hours for their subsistence. Thus, even David Hume, who generally rejected the utility of poverty argument, would nonetheless recommend imposing a tax on the poor to goad them into working more (1870: Part 2, no. 8, "Taxes": 247). And to appease social conscience as to the workers' welfare, it was argued that having either greater free time or more income would result in debauchery or sinful behavior on the part of workers.[21] Low wages and poverty were thus in everyone's interest: the "utility of poverty."

The French Revolution, with its radical call for a new order grounded in *liberté, égalité, et fraternité* spread fear of the lower classes among the elites, especially in the wake of the assumption of power by Robespierre and the onset of the Reign of Terror. Thus the calls for democracy would be resisted, often with property requirements for the franchise. The wealthy classes, the aristocracy and bourgeoisie, feared that the realization of wider freedoms and democracy would spell the dispossession of the wealthy. The ideology that was at the service of their retention of privilege was that their privilege was functionally good for society, essential for social harmony and progress. The elites were superior, they believed, carrying and developing the requisites for civilization.

However, as doctrines of equality became ever-more entrenched in social consciousness, the idea of the innate superiority of the elite weakened, and indeed would ultimately become politically taboo. To legitimate their privilege, the elites would appeal evermore to the functional legitimacy of inequality in the terms of the evolving "science" of political economy.

Adam Smith is generally acknowledged as the father of modern economics. This credit comes to him for conceptualizing an economy in which the forces of supply and demand guide the economy as a whole toward a state of equilibrium. Borrowing from the Physiocrats, Smith played an important role in applying the mechanistic cosmology

of natural law to the social world. Markets came to be seen as natural phenomena, and thus the outcomes of markets possessed a nature-like character not unlike the natural laws of the physical world. If left alone—*laissez-faire*—then resources would be allocated efficiently. The distribution of income, wealth, and privilege that flowed from market processes was natural, and therefore good.[22] No assistance need or should be offered to the poor.

Of critical importance to this cosmology is the view that in pursuing their own self-interests, individuals further a higher social outcome that was not part of their intention, as if guided by "an invisible hand." Pursuing one's self-interest, which most traditional religions had viewed as sinful, now became morally, socially, and "scientifically" respectable.

Whereas Smith rejected the utility of poverty argument,[23] and his views were generally charitable toward the poor, the greater part of his disciples maintained harsher views toward the less fortunate. They continued to embrace the utility of poverty argument—nothing can be done to help the poor without making them and everyone else worse off. Of the English Poor Laws that were meant to relieve poverty, for instance, David Ricardo asserted: "The principle of gravitation is not more certain than the tendency of such laws to change wealth and vigor into misery and weakness . . . until at last all classes should be infected with the plague of universal poverty" (1819: 86).

In addition to the utility of poverty argument, the post-Smithian classical economists provided grounding for three additional arguments that could be used politically to block pressures for greater equality: the Malthusian population doctrine, the wages-fund doctrine, and a "trickle-down" thesis.

The Malthusian Population Doctrine

In 1798 the Reverend Thomas Malthus re-crafted a surplus population doctrine[24] that served for 70 years as a principal legitimation doctrine for inequality.[25] The doctrine he set forth in *On Population* was grounded in his contention that "Population, when unchecked, increases in a geometrical ratio. Subsistence increases only in an arithmetic ratio" (1970: 9). The reason for this bleak condition is that

the poor are ruled by their passions[26] in a world in which the supply of land is ultimately fixed. Thus to improve the lot of the poor through higher wages or welfare measures would only enable the poor to parent more children, putting further strains on available land, and thereby decreasing productivity and general economic well-being. Consequently, an argument for greater equality "offends against the cause of truth" (1970: 68). He noted that "the principle argument of this *Essay* only goes to prove the necessity of a class of proprietors and a class of labourers" (1970: 177). The poor—the far greater part of humanity—are condemned by the laws of nature to live at the edge of starvation, and in fact, often starve:

> It has appeared, that from the inevitable laws of our nature some human beings must suffer from want. Those are the unhappy persons who, in the great lottery of life, have drawn a blank. (1970: 143)[27]

Malthus's population doctrine generated a quietist attitude toward the poor: "No possible sacrifices of the rich, particularly in money, could for any time prevent the recurrence of distress among the lower members of society, whoever they were" (1960: 39). Nothing can be done. Inequality and the misery of the poor are part of the divine scheme.[28] Moreover, Malthus's population doctrine laid the responsibility for poverty on the poor themselves. They were incapable of controlling their sexual appetites. The rich need feel no guilt and no need to be charitable.

His population thesis was to serve as a principal doctrine for legitimating inequality until late in the 19th century when the failure of improved living standards to produce concomitant increases in family size sent the threat of Malthusian over-population into remission. However, it would resurface again in the early 1970s in response to food shortages and starvation in several poor countries, against a backdrop of a post-World War Two population explosion in the Third World and a growing concern that natural resources were running out.[29]

Malthus added two other justifications for inequality, and especially for the existence of a non-producing landlord class. Unlike most members of the Classical School who believed the economy would be automatically self-adjusting, Malthus believed that under certain conditions there could be a "glut" of commodities due to "ineffectual

demand." For demand to be adequate "There must . . . be a considerable class of persons who have both the will and power to consume more material wealth than they produce . . . [and] In this class the landlords no doubt stand preeminent" (1964: 400). Second, the elite status of this leisure class is merited because its behavior and consumption have led to the development of "all the noblest exertions of human genius, all the finer and more delicate emotions of the soul" (1970: 176–177). Further, "It is an historical truth which cannot for a moment be disputed, that the first formation and subsequent preservation and improvement of our present constitution, and of the liberties and privileges which have so long distinguished Englishmen, are mainly due to a landed aristocracy" (1964: 380). Preservation of a non-productive class was thus the key to retaining and furthering the benefits of civilization itself.

The Wages-Fund Doctrine

Classical economists argued that there was a fixed fund of capital out of which wages could be paid. This "wages fund" was made up of previously produced items that labor consumes, principally such goods as food, housing, and clothing.[30] This fund was fixed by output in the previous period, thus carrying the implication that any attempt to raise general wages would be futile. The wages-fund doctrine meant that combinations of workers (labor unions) could not increase the welfare of the working class, and if they were successful at raising the wages of their own members, it would be at the expense of other workers. In this manner, the wages-fund doctrine became a powerful ideological weapon against struggles of workers to organize in order to improve labor's well-being.[31] In England, it gave "scientific" legitimacy to the Anti-Combination Acts of 1799 that had been legislated to curb the rising power of the working class. Even John Stuart Mill would embrace the doctrine until 1869.[32]

The "Trickle-Down" Thesis

Since at least Adam Smith, the most ever-present economic doctrine legitimating inequality has been what has come to be called the

"trickle-down" thesis.[33] Economic dynamism results from saving and investment, and it is presumed that only the well-off carry out these functions. The presumption is that if there were greater equality, there would be less saved and invested and thus less economic growth. Because everyone benefits from a dynamic, growing economy, inequality benefits even the poor (the benefits trickle down to everyone, or in another common metaphor, a rising tide lifts all boats). Accordingly, even social thinkers and political economists such as John Stuart Mill and Alfred Marshall, who sincerely sympathized with the poor, nonetheless argued that any substantial lessening of inequality would sap the springs of capital accumulation.[34]

More recently, as will be seen more fully below, the trickle-down doctrine became central to supply-side economics and tax cuts for the rich beginning with Ronald Reagan in the U.S. and Margaret Thatcher in Great Britain.

Neoclassical Economics and the Contributory Argument

The latter part of the 19th century witnessed a revolution in the nature of economic theory and increased sophistication with which economic science would legitimate inequality.[35] The Classical School had referred to itself as political economy because it saw economics as the handmaiden of politics. It typically examined economic phenomena within the broad institutional framework of society. The neoclassical revolution narrowed the focus almost exclusively to the market nexus in an attempt, as George Stigler put it, to transform economics "from an art, in many respects literary, to a science of growing rigor" (Stigler 1941: 1).

Contemporary mainstream economics is constructed upon the fundamental orientation set forth during this neoclassical revolution. Indeed, it is often still referenced as neoclassical economics. The most potent doctrine that neoclassical economics would re-craft and add to the already formidable arsenal of economic doctrines that legitimate inequality is the contributory approach.

The rudiments of the contributory defense of inequality had been found in the works of many classical economists, most notably Jean-Baptiste Say, Nassau Senior, and Frédéric Bastiat. But its modern

and far more theoretically sophisticated expression rests upon the marginal productivity theory of factor payments set forth at the end of the 19th century, especially the version developed by American economist John Bates Clark. Marginal productivity theory can be expressed in a purely objective manner as an explanation of how income is distributed in a market economy, without necessarily implying anything "fair" or "good" about this distribution. In the preface to *The Distribution of Wealth*, Clark asserted "It is the purpose of this work to show that the distribution of income of society is controlled by a natural law, and that this law, if it worked without friction, would give to every agent of production the amount of wealth which that agent creates" (1908: v).[36] However, it has been easy for theorists to slide from the positive theory of marginal productivity to a normative theory of distribution based on contribution. Clark himself was quick to do so and to hold up his theory as a defense of the distribution of income in modern capitalist economies against socialist critics.[37] Clark wed the analytics of marginal analysis and natural law cosmology to legitimate the prevailing distribution of income.

The fundamental tenet of the contributory defense of inequality holds that individuals *ought* to receive rewards from the economy that are commensurate with their contributions to the economy. Their rewards are their just deserts. This normative variant of marginal productivity theory—the marginal contributory theory of distributive justice—is unquestionably the most influential example of this contributory view.

In its modern textbook expression, marginal productivity theory assumes an idealized competitive market economy, wherein factors of production are compensated on the basis of their marginal contribution to the creation of market value. All units of a particular factor of production are compensated on the basis of the market value directly attributable to the last unit of that factor hired—the value of marginal product (VMP) of that factor. The VMP of any factor of production is dictated by three factors: a) the technical productivity of this factor; b) the demand for the output this factor contributes to producing; and c) the supply of this factor.[38]

Marginal productivity theory insists that it is only in an abstract, perfectly competitive economy that factors of production would in fact

tend to be compensated on the basis of their marginal productivity. Although this theory also often claims that this is the "natural" pattern of distribution in a market economy, it does not necessarily imply there is anything ethically defensible about it.

However, upon this basic theoretical framework, apologists for inequality have crafted ways to generate ethical defenses. These have taken two basic forms. The first appeals to a "natural law of economic life" that involves some variant of the following chain of reasoning: a) Distribution on the basis of marginal contribution naturally emerges in an idealized, competitive market economy; b) Market economies have brought in the greatest material gains in human history, and should be treated with respect; c) To interfere with the patterns of distribution in a market economy would be to threaten the foundations of the market economy; d) Therefore, the greater good dictates that the patterns of distribution that arise in a market economy be accepted. Implicit in this chain of reasoning is the claim that differences in economic outcomes create the basic incentives to productive activity in a market system, and that therefore to alter such differences would impair economic dynamism, to the ultimate detriment of everyone.

This argument is also expressed in terms of general equilibrium theory, whereby a perfectly functioning market economy is depicted as the most efficient system for fulfilling material human wants. Accordingly, any departure from pure *laissez-faire* market economics to reduce inequality would impair efficiency and reduce social welfare.

The second strategy for using marginal productivity theory to justify distributive outcomes claims that if whatever a given class of inputs receives in a market economy reflects the output attributable to that class of inputs, then to deny it that compensation would be a form of stealing or exploitation; conversely, to transfer more to it would be arbitrary.

Together, the positive and normative variants of marginal productivity combine a "scientific" view of the social world with an ethical view amenable to huge economic disparities. However, the contributory approach is open to three principal criticisms: First, it is impossible to meaningfully isolate the marginal contribution of any one factor of production from the contributions of others. This is not just

a practical measurement problem (although it is that as well); it goes deeper. In many cases, factors of production are so interdependent in the productive process that the very concept of assigning a marginal product to any one factor becomes meaningless.

Second, it is questionable whether marginal productivity theory could possibly have any real-life relevance, even if it were granted conceptual coherence. Technically, marginal productivity theory applies only to an economy of perfectly competitive markets with certain assumed formal conditions, such as constant returns to scale and decreasing marginal product for all individual inputs. Should any of the formal assumptions fail to hold, marginal productivity theory does not apply.[39] The requirements for perfect competition are very stringent, and few real-world markets even approximate this ideal. Real economies have "imperfections" resulting from increasing returns to scale and other forms of monopoly power, as well as externalities. Consequently, the assumption that real economies tend to distribute rewards on the basis of marginal contribution is highly problematic.[40]

Third, marginal productivity theory deals with functional returns to abstract inputs, leaving open the question of how "fair" returns to these inputs are to be translated into "fair" returns to real people. What individuals can contribute depends upon what they have been able to capture from society. But what if an individual owns some valuable factors of production through sheer luck, birth to a wealthy family, or due to natural talents? Does that individual still have an ethical claim on the returns to these factors? Even if we allow that the factors themselves in some sense "deserve" rewards that reflect their marginal contribution, this does not necessarily mean that those who happen to own those factors also "deserve" these returns.

The Keynesian Anomaly

It is by no means the case that all economic theories have served to legitimate inequality. Indeed, many economists have found excessive inequality to be one of capitalism's major failings, not only because they believed it unjust, but also because they believed it impairs economic dynamism. However, these economists and their theories

have generally remained outside the mainstream of economic thinking. A striking exception, insofar as he might be considered mainstream, was John Maynard Keynes.[41]

Keynes' economics matured during the Great Depression of the 1930s. In the face of dramatic contraction in production and massive unemployment, the prescription of the prevailing mainstream of economic theory was that the economy should be left alone so as to spontaneously return to dynamism and full employment. Keynes challenged this. Under certain conditions market magic will not do the trick. To grasp why, he focused upon economic aggregates such as total demand, investment, savings, consumption, and employment. He concluded that the crisis was due to inadequate total demand, and that government intervention in the form of greater spending was necessary to restore the economy to full employment. But he added a special, radical kicker: inequality was part of the problem! Because the less well-off spend a larger percentage of their incomes, redistributing income to them would increase total consumption and thereby help protect the economy from falling into recessions or depressions due to inadequate total spending.[42]

Keynes also claimed that a science of economics could not be value-free,[43] permitting him to continue to wear the mantle of science when he claimed that "The outstanding faults of the economic society in which we live are its failure to provide for full employment and its arbitrary and inequitable distribution of wealth and incomes" (Keynes 1936: 372).

Keynes' view of inequality challenged the trickle-down economics that had dominated economic and political thinking since the origins of modern economics more than 150 years earlier.[44] He legitimated government intervention to reduce inequality, not merely in the name of justice, but for the well-being of the economy, and therefore of society. His doctrine represented an ideological reversal: in place of trickle-down theory legitimating inequality, Keynesian economics depicted greater equality generating greater economic dynamism—a trickle-up theory.

Although Keynesian economics was highly influential for more than 30 years, its dominance occurred during the decade of the 1960s. And ironically, the doctrine would encounter heavy weather just as it was

gaining its fullest acceptance (in 1971, Nixon was the first prominent Republican to embrace Keynesian economics).

Inequality lessened during the three decades when Keynesian economics was highly influential, suggesting that the accepted economic theory tends to be supportive of the real-world status quo.[45]

Drawing upon Contemporary Economic Science and Social Thought to Legitimate Inequality

The mainstay argument justifying inequality in the U.S. today—the (marginal) contributory approach—draws its supposed scientific status from neoclassical doctrine. As discussed above, it claims that inequality reflects the differing economic contributions made by various individuals in a market society. This approach is strongly complemented by what could be called the incentive approach.

The contemporary expression of the incentive approach combines the first incentive argument made by mercantilist economists in the form of the utility of poverty doctrine with trickle-down doctrine. The incentive argument first targeted at the poor has been generalized to the behavior of not just the poor, but of all economic actors, and especially the rich. In the 30 years leading up to the crisis of 2008, the incentive argument for inequality was the most virulent one. This story will be detailed below, after two other principal arguments legitimating inequality are addressed. Both of these arguments draw less directly from economics, but share the same basic philosophical tradition and are typically conflated with economics. These are the libertarian or rights approach and the fluid vertical social mobility approach.

The Libertarian Argument

Libertarian philosophy and neoclassical economics share a set of common intellectual roots in the Western Enlightenment tradition that sets the autonomous individual at the center of the social world. Many of the most distinguished intellectual defenders of inequality "such as the late Milton Friedman and his colleagues from the Chicago School" view the social scientific and libertarian arguments as complementary,

and freely mix them in their writings for general audiences. This has resulted in a widespread but mistaken tendency to view these two approaches as one.

Like those who invoke a marginal contributory approach to justify inequality, libertarians insist that any degree of inequality can be acceptable in an ethical sense, and healthy in a social-economic sense.[46] However, libertarians do not insist that economic distribution ought to be deserved, to reflect economic contribution. Rather, they are solely concerned with the issue of how a given distribution comes about, and specifically with whether the process involves the violation of anyone's rights. Thus if a single individual were to receive almost all of society's income without violating anyone's rights, that distribution would be viewed as fully just.

The ethical foundation for libertarianism is the single, broadly-conceived, and inviolable right of self-ownership. This means that individuals have a right to dispose of their persons and legitimately-acquired property as they choose. The right of self-ownership entails the "negative rights" to liberty, physical security, and property. Therefore, libertarianism proscribes outside interference with the right of individuals to do as they please with themselves or their property. This right to self-ownership may be justly limited only to the extent that one individual's exercise of it threatens others' claim to the same right: "my right to extend my fist ends where your nose begins."

The only proper roles for government are setting and enforcing the rules of the economic game, and safeguarding individuals against violations of their rights by others. Because they believe participants in markets are free—"no exchange occurs unless all participants freely give their accord"—libertarians share the preoccupation of mainstream economics with the market sphere. A concept of distributive justice based on the right to self-ownership gives someone an ethical claim on others' time, property, or resources only through voluntary contracts or where there is need for restitution for past rights violations.

Justice never permits the state "or anyone else" to take legitimately-acquired property from some individuals in order to give to others, no matter how great the benefits to recipients, relative to the costs to donors. All such transfers would involve confiscation or coercive taxation and thus constitute an unacceptable infringement of the right

to self-ownership.[47] Any resulting reduction of inequality would involve greater injustice than the toleration of it. The most influential statement of libertarianism is Robert Nozick's 1974 book, *Anarchy, State, and Utopia*.[48] Nozick's main contention is that for a government to intervene in the market-given pattern of distributive outcomes involves unacceptable infringement upon individual rights, and is therefore unjust. Nozick argues that the difference between the libertarian and marginal contributory approaches can be reduced to the difference between *entitlement* and *desert*. We are *entitled* to anything we get without violating others' rights, but this does not mean we *deserve* it, in the sense that we have earned it.

This concept of libertarian entitlement helps defenders of inequality resolve the question of unearned assets (such as natural talents and inherited property) that poses a dilemma for the contributory defense of inequality. It is not that people deserve their inherited fortunes, but rather that their parents had a *right* to do as they pleased with their wealth. The crucial distinction for the libertarian view is that just distribution has nothing to do with compensation on the basis of economic contribution.

Many spokespeople for libertarianism conflate the contributory and moral defense of inequality. This is the case with the highly influential Ayn Rand, whose books still sell more than a half million copies each year. Incidentally, she also drew inspiration from Nietzsche's conception of *Übermenschen,* living in societies where they are constrained by the weak and lazy (Chait 2009). Highly influential people such as George Gilder, Charles Murray, Gale Norton, Alan Greenspan, and Martin Anderson have claimed to have been strongly guided by her thought.

Much of the libertarian vision is highly attractive to an individualistic society such as the U.S. But even in the U.S. it meets with some obvious criticisms. For instance, its view of rights is generally deemed too narrow, concerned only with negative (freedom from) as opposed to positive (freedom to) rights. It does not, for instance, recognize a right to equality of opportunity. Yet there is widespread agreement that individuals should not be greatly hobbled from birth by factors beyond their control. And this value implies that individuals have a claim to certain primary goods (food, housing, education, and basic

health care that are generally seen as comprising a necessary foundation for effective biological and social functioning).

The functional definition of "property" in a libertarian society is also problematic. One's own body might constitute personal property by any reasonable definition, but beyond that the issue of property is less clear-cut. Practically, property is an extremely complex issue that must be settled through detailed legal codes, within even the best of which some gray zones remain. More philosophically, libertarianism has its roots in the natural rights philosophy that developed during the 17th and 18th centuries as part of an intellectual struggle to ground legitimation in the natural as opposed to spiritual realm. But the claim that there are natural rights is no longer compelling. Rights are social creations.[49] And like all social creations, their identity and legitimacy can ever be re-defined to best meet what is judged as socially ideal.

The most sweeping objection to the libertarian view, however, is simply that outcomes matter, or as Isaiah Berlin famously put it, "total liberty for the wolves is death to the lambs" (1990: 63). The libertarian fixation on processes and indifference to outcomes often leads to conflicts with widely-shared moral intuitions, and even common sense. For example, taken to its logical extreme, libertarianism must claim that no consequences could justify the slightest infringement upon the right to self-ownership. Thus it would be no violation of justice if 10,000 children were to starve in a famine-stricken village as a consequence of all local grain stores having been bought by a wealthy absentee speculator who is holding out for an anticipated price rise.

The Fluid Vertical Social Mobility Approach

The fluid mobility approach argues that inequality is not terribly important, since by dint of hard work, anyone can get rich. It assumes that there is equality of opportunity. This idea of fluid vertical mobility draws upon and is nourished by mainstream economics, especially its conception of human behavior. Mainstream economics assumes that humans are free to choose among bundles of preferences. It fully ignores the social formation of these preferences, the ways in which

the economy might shape them. Preferences are simply taken as given. And because all are free to choose, there is an implicit presumption of a fundamental equality of opportunity for all, such that the child of a drug-addicted prostitute would have the same chance of succeeding as the child of a Rockefeller. Americans generally accept great economic disparities in their society because they believe that opportunities for upward mobility exist for those who would take advantage of them.

In the 19th century, Alexis de Tocqueville and Karl Marx both noted an exceptionally high degree of vertical mobility in the U.S. and termed it "American exceptionalism." However, whatever might have been the case in 19th-century America, today such exceptionalism seems no longer valid. A recent study (Jäntti et al. 2006) of vertical mobility in six wealthy countries (Denmark, Finland, Norway, Sweden, the United Kingdom, and the United States)[50] has found that the U.S. has less mobility than the other five. As the authors put it, "The only crystal-clear result is that there is less intergenerational mobility in the U.S. than in the other countries" (2006: 17). This is supported by a recent OECD study (d'Addio 2007) that finds upward mobility between generations to be lower in the U.S. than in Canada, Sweden, Germany, Spain, Denmark, Austria, Norway, Finland, and France (2007).[51]

Yet Americans continue to believe the myth of American exceptionalism. More than people of other countries, Americans generally believe that it is not so important to have wealthy parents to get ahead, that people are rewarded for effort, that people are rewarded for skills and anyone can acquire them, that the distribution of income is fair, and that government should not intervene to reduce income differences (Wisman 2009).[52] Consequently, Americans more readily take credit for their successes and find the poor responsible for their poverty (Alesina, Glaeser, and Sacerdote 2002).

Legitimating Inequality in the U.S. Today

The contributory, incentives, trickle-down, libertarian, and fluid vertical mobility approaches to distributive justice have continually provided a powerful theoretical and political under-girding for those who

oppose efforts to reduce inequality through policy. These approaches even favor policies that serve to increase inequality, such as tax cuts for the rich and cuts in public goods and social welfare for the poor. The contributory argument insists that those who have more in our economy are typically those who contribute more, with the claim that this is both natural and just. The incentives argument suggests that inequality, or even more of it, is necessary for bringing forth behavior that contributes to economic dynamism.[53] Its trickle-down corollary claims that redistributing income to the rich who will save and invest it is best for everyone. The libertarian view asserts that policy measures to reduce inequality are more unjust than the inequality itself because the former involves the violation of individual rights and the latter does not. And the fluid vertical mobility argument suggests that inequality is not an issue since anyone can by dint of diligence make it to the top.

All five approaches are grounded in theoretical constructs that distort social reality. For example, the contributory approach presumes that the U.S. economy approximates the competitive market model found in textbooks. Yet the actual economy clearly diverges from this model in many ways—imperfect competition, imperfect information, increasing returns to scale, externalities. The incentive argument is likewise unconvincing. Some inequality is certainly necessary for incentives. However, it is not convincing that inequality need be great to bring forth adequate incentives, as is demonstrated by the robust economic performance of economies where inequality is relatively modest. The trickle-down approach assumes that extra income will be productively invested as opposed to spent on luxury consumption or on speculative assets. The libertarian approach assumes that inequality is the result of voluntary interactions among well-informed, rational individuals, operating within a fully-specified legal system that is itself inspired by libertarian values. Those who draw on this approach to stymie efforts to reduce inequality implicitly deny that sleight-of-hand by the powerful, rather than the free choices of all economic actors, might underlie some existing inequalities or, more insidiously, the laws and institutions that sustain them. And, as noted above, in the U.S. today the fluid mobility argument is simply not nearly as valid as widely believed.

The Thirty Years Prior to 2008

Relative stagnation in the U.S. during the 1970s in the form of slow growth, high unemployment, and high inflation created a crisis for the aggregate demand orientation of Keynesian economics. It nourished a renaissance of pre-Keynesian economics, and it came forth in a conservative movement that called itself "supply-side economics." Supply-siders claimed that economic dysfunction resulted from bloated government that wasted society's resources; over-regulated the economy; over-taxed people (especially the rich) and thereby hindered incentives to work hard, save, and invest; and gave welfare to the poor that sapped their will to work. Trickle-down economics was reborn with a vengeance. The Keynesian interlude that had generally been supportive of greater equality was finished.

The response was tax cuts, deregulation, and the weakening of welfare programs. Tax cuts without offsetting spending cuts resulted in record budget deficits, proving wrong supply-siders who claimed that the positive incentive effects would increase government revenues sufficiently to avoid deficits. But the other advocates for tax cuts whom Ronald Reagan's Budget Director David Stockman called "starving the beast" advocates—found in supply-side economics a convenient strategy for cutting government spending, especially on programs that benefit the less well off.[54]

As noted earlier, the trickle-down doctrine fits well into neoclassical economics, where the behavioral assumption is that everyone is free to choose. No note is taken of individuals' differing aptitudes to freely choose wisely, depending upon how privileged their family background or education. The formation of preferences is ignored, and thus issues like who controls ideology formation are ignored. Presumably, everyone is equally well equipped to choose schools for their children and invest for their retirement. Consequently, the answer for education is private schooling via vouchers, and the answer for retirement is defined-contribution plans and privatized Social Security.

The fiscal crisis afflicting state governments, coupled with an aversion to raising traditional taxes, led them to turn ever more toward gambling for revenues. It is difficult to take issue with gambling. No one is forced to participate. All are "free to choose." Yet as a source

of government revenue, it is extremely regressive. Participants are disproportionately the poor and minorities who, deprived of good educations and supportive communities, face few options for improving their lives. Gambling is also sought out as recreation, especially by the poor who are not afforded a great variety of alternatives. Since 1964, practically all states and the District of Columbia have not only adopted state lotteries, but aggressively promoted them as well (Wisman 2006).

The dramatic redistribution of income and wealth in the U.S. over the past several decades is generally believed to have been due to more than just changes in public policy. The character of technological change and the changing structure of international trade were also contributors. But what is so striking is that while "economic" forces have worked to increase inequality, public policy has worked to augment the effect. That this has been so testifies to the extraordinary command of ideology by the rich.[55] Indeed, any challenge to this trend is immediately labeled as inciting "class warfare," dredging up images of discredited authoritarian socialism.

Progressive Intentions Foiled by "Science"

Some economists shy away from the topic of inequality on the grounds that it involves value judgments that are beyond the realm of positive or scientific economics. Values, as Milton Friedman so famously put it, involve "differences about which men ultimately only fight" (Friedman 1953: 5). Robert Lucas, 1995 recipient of the Bank of Sweden Prize in Economic Sciences, went further, asserting that "Of the tendencies that are harmful to sound economics, the most seductive, and in my opinion the most poisonous, is to focus on questions of distribution" (2004).

However, not all mainstream economists support the stances of Friedman and Lucas, or the current level of inequality in the U.S. Indeed, many, perhaps even a majority, would wish for greater equality. However, their embrace of mainstream doctrine frequently leads them to oppose specific measures that might promise to lessen inequality. A good example is the minimum wage. There is a high degree of consensus among mainstream economists that minimum

wage legislation will result in reducing the demand for low cost labor and thereby harm those it was intended to help.[56] And indeed, from the narrow focus of the functioning of markets, the logic is impeccable. But from a broader social perspective, the argument may be invalid. Adam Smith may have been right: higher wages may bring forth greater productivity. Low wages, especially when they keep full-time workers beneath the poverty threshold, may result in a number of socially perverse forms of behavior that not only reduce work effort, but also reduce family cohesion, weaken communities, and handicap children brought up in relative poverty. Such "externalities" make the statistical study of the effect of minimum wages intractable.[57] All the same, economic orthodoxy provides conservative policy makers with a powerful justification to vote against increases in minimum wages.

A second example is free trade. The logic of trade theory all but compels mainstream economists to support free trade. And, with a number of qualifications, it can be justly argued that free trade typically benefits both trading partners as each is better able to exploit its particular comparative advantages. However, it is also true that freer trade often increases inequality within countries. Faced with this, mainstream economists typically argue that public policies can be used to neutralize this consequence, thereby leaving everyone a winner. But the political reality is that there is usually inadequate support for such neutralizing policies. Even so, because mainstream economists cannot readily abandon, or even relax, their free trade stance, they wind up legitimating policies that result in greater inequality. Their values are foiled by their science.

Nevertheless, mainstream economists have long nurtured an image of their science as value-free. Indeed, it is standard that textbooks begin by drawing a distinction between positive and normative economics, with a testament that their science is concerned only with the former. But this stance has seldom been convincing to heterodox economists or scholars outside the discipline. The general inability to appreciate the extent to which economics is value-ladened follows from the behavioral assumptions made, the narrow focus of most research, and the relative lack of concern with the history of the discipline or history generally. Yet a quick glance at history reveals

that the mainstream expression of economics tends to be supportive of the power and privilege structure of the political world in which it is practiced. In state socialist countries, the mainstream economics was Marxist-Leninist. Scholastic economics was supportive of the social structure of late medieval Europe. Mercantilist economics supported the rising power of the commercial class and the nation state. And since the beginning of modern economics with Adam Smith, mainstream economics has supported the institutions and power structure of capitalism.

Can the Legitimation of Inequality be Deligitimated?

A glance at history reveals that only rarely has inequality been challenged, even when it has been extreme, thereby testifying to the extraordinary legitimating power of prevailing ideology. In pre-democratic times, the poor (85 to 98 percent of the population) typically lived at or near bare subsistence as a result of any surplus they produced being appropriated by the ruling secular and religious elites. When revolts occurred, it was usually in spontaneous response to acts or events that challenged their already precarious existence. For instance, the greatest medieval peasant uprising, the Great Rising of 1381 A.D. (Tyler's Rebellion), was provoked by the imposition of a poll tax upon peasants who were already living at bare subsistence.

With the rise of democracy and the extension of the franchise to the working class, dissatisfaction could be expressed peaceably via the political process. But protest of inequality still rarely arose, except when the less privileged suffered a substantial deterioration in their condition. The greatest instance of this in American history came in the wake of the onset of the Great Depression. The resulting widespread suffering called into question political and economic policies. It also challenged the prevailing economic theory that legitimated these policies, making space for the Keynesian revolution. For three decades inequality lessened, guided by economic doctrines that depicted greater equality as positive.

There are many parallels between the ideology and policies that led up to the crisis of 1929 and the crisis of 2008. In both instances, the so-called science of economics legitimated inequality, and at times the

benefits of greater inequality. The resulting inequality was a major cause of both financial crises (Wisman and Baker 2009). It is an open question as to whether the economic dislocations resulting from the crisis of 2008 will delegitimate the prevailing mainstream of economics and create room for an economic science friendlier to greater equality.

Notes

1. In the U.S., for instance, between 1976 and 2006, whereas inflation-adjusted per capita income increased by 64 percent, for the bottom 90 percent of households it increased only by 10 percent. For the top 1 percent of households it increased a whopping 232 percent. The Gini coefficient rose from slightly more than 40 in 1980 to about 47 in 2006. (http://www.census.gov/hhes/www/income/histinc/h04.html). In the U.K., the gini coefficient rose from 0.25 in 1979 to about 0.36 in 2007 (Muriel 2010).

2. As Jim Sidanius et al. have put it, "Since the time of Machiavelli, students of social power have suggested that group-based hierarchy is established and maintained by two primary means: through the use of force (e.g., physical intimidation, administrative coercion, and both overt and covert discrimination) and through ideological control and the manipulation of social discourse" (2001: 309).

3. Sidanius et al. go on to note that "almost all perspectives on legitimizing ideologies suggest that their power is derived from their consensuality . . . legitimizing ideologies are believed to be effective in regulating group-based inequality because they are often endorsed by dominants and subordinates alike. All other things being equal, the greater the degree to which both dominants and subordinates agree on the veracity of hierarchy-enhancing legitimizing myths, the less physical violence will be necessary to keep the system of stratification intact" (2001: 316).

4. Following John Thompson, this study understands ideology as "the ways in which meaning is mobilized in the service of dominant individuals and groups" (1991: 73).

5. Or as Joan Robinson aptly put it, economics has replaced religion as the principal instrument for justifying "the ways of Mammon to man" (1964: 21).

6. Jared Diamond describes this relative equality as follows: "Tribes also share with bands an 'egalitarian' social system, without ranked lineages or classes. Not only is status not inherited; no member of a traditional tribe or band can become disproportionately wealthy by his or her own efforts, because each individual has debts and obligations to many others . . . every able-bodied adult . . . participates in growing, gathering, or hunting food" (1997: 272).

7. However, in a few instances, legitimation of inequality was constructed in secular or natural terms, as was generally the case with classical Greek

thought. A natural frame of reference was meant when Aristotle noted that "From the hour of their birth, some are marked out for subjection, some for command" (*Politics* 1962: Book I).

8. The study of legitimation is also referred to as system justification theory (Haines and Jost 2000).

9. It has been suggested that humans may be hardwired for religion because it evolved to help solve the public goods problems of trust and social order. But, as Nicholas Wade has put it, religion came to be "co-opted by the rulers of settled societies as a way of solidifying their authority and justifying their privileged position. Modern states now accomplish by other means many of the early roles performed by religion, which is why religion has become of less relevance to some societies. But because the propensity for religious belief is still wired into the human mind, religion continues to be a potent force in societies that still struggle for cohesion" (2006: 164).

10. Jared Diamond notes that "Besides justifying the transfer of wealth to kleptocrats, institutionalized religion brings two other benefits to centralized societies. First, shared ideology or religion helps solve the problem of how unrelated individuals are to live together without killing each other—by providing them with a bond not based on kinship. Second, it gives people a motive, other than genetic self-interest, for sacrificing their lives on behalf of others" (1997: 278). Morris Zelditch expresses this as follows: "The problem of any kind of polity . . . is to find a basis of loyalty that is voluntary but not purely instrumental; that does not depend only on rational self-interest or purely on personal preferences . . . legitimacy is always a matter of voluntarily accepting that something is 'right,' and its consequence is always the stability of whatever structure emerges from the process" (2001: 37, 40).

11. Thomas Frank's *What's the Matter with Kansas?* (2004) suggests that this indirect second dimension of how religion diverts attention away from material issues has been very much at work in the U.S. in recent decades.

12. R. H. Tawney describes how this legitimation was expressed in functional terms in the Middle Ages: "The facts of class status and inequality were rationalized . . . by a functional theory of society, as the facts of competition were rationalized in the eighteenth century by the theory of economic harmonies; . . . Society, like the human body, is an organism composed of different members. Each member has its own function, prayer, or defense, or merchandise, or tilling the soil. Each must receive the means suited to its station, and must claim no more . . . Between classes there must be inequality; for otherwise a class cannot perform its function, or—a strange thought to us—enjoy its rights" (Tawney 1963: 27).

13. Diamond notes that even in a remote Norse colony, these costs could be substantial: "Greenland was a hierarchical society, with great differences of

wealth justified by the Church, and with disproportionate investment in churches" (2005: 245).

14. As Joan Robinson aptly put it, "No one, of course, is conscious of his own ideology, any more than he can smell his own breath" (1964: 41).

15. Note, for instance, the following passage from Ecclesiasticus 27:2: "As a stake is driven firmly into a fissure between stones, so sin is wedged in between selling and buying."

16. Catholicism denigrated the material world in favor of a spiritual realm. It also privileged the poor, not the rich. It favored New Testament passages such as the following: "Blessed are you poor, for yours is the Kingdom of God. Blessed are you who hunger, for you shall be satisfied. Blessed are you who weep, for you shall laugh" (Luke 6: 20–21). Or again, in Matthew: "Verily I say unto you, That a rich man shall hardly enter the kingdom of heaven. And again I say unto you, it is easier for a camel to enter through the eye of a needle, than for a rich man to enter the Kingdom of God" (19: 23–24). And in 1 Timothy: "If we have food and clothing, we shall be content with that. Those who want to be rich are falling into temptation and into a trap and into many foolish and harmful desires, which plunge them into ruin and destruction. For the love of money is the root of all evil" (6: 8–10).

17. Catholicism put importance on the following sort of parable: A rich man approaches Jesus and asks: "Good Teacher, what must I do to share in everlasting life?" Jesus answered: "Go and sell what you have and give to the poor; you will then have treasure in heaven. After that, come and follow me" (Matthew 10: 17). Or, again: "No servant can serve two masters. Either he will hate the one and love the other or be attentive to the one and despise the other. You cannot give yourself to God and money" (Matthew 19: 24). The modern view of Protestantism, by contrast, was well captured in Russell Conwell's *Acres of Diamonds*, a book published in the U.S. in 1915 that would go on to sell 10 million copies. Note the following passage: "I say that you ought to get rich, and it is your duty to get rich. . . . Some men say, don't you sympathize with the poor people? Of course I do, or else I would not have been lecturing all these years. But the number of poor who are to be sympathized with is very small. To sympathize with a man whom God has punished for his sins, thus to help him when God would still continue his punishment, is to do wrong, no doubt about it" (1915: 17, 21).

18. Until relatively late in history, many economists mixed elements of religion into their economics. For instance, at the beginning of the 19th century, Jean-Baptiste Say would claim private property to be "sacred and indisputable" (1863: 293). At mid-century, Frédéric Bastiat would argue that the scientific laws of economics were divine laws (1964: 569). Waterman claims that it was not until the 1880s that "It was no longer part of the professional duty of economists to reconcile their findings with Christian

theology . . . [and that] The divorce of science from theology adumbrated by Whately was complete by the end of the nineteenth century" (2008: 136).

19. Writing in the 17th century, William Petty argued that a law that determines wages "should allow the Labourer but just wherewithal to live; for if you allow double, then he works but half so much as he could have done, and otherwise would; which is a loss to the Publick of the fruit of so much labour" (1963 vol. 1: 87). Also in the 17th century, Thomas Mun asserted that "penury and want doe make a people wise and industrious" (1895: 100). A century later, in 1771, Arthur Young claimed that "Everyone but an idiot knows that the lower classes must be kept poor or they will never be industrious" (cited in Furness 1920: 118). During this period, the Reverend Joseph Townsend argued that "In general it is only hunger which can spur and goad them on to labor; . . ." (1971: 23). Even an Enlightenment figure such as Diderot could write: "*Il faut que le peuple vive, mais il faut que sa vie soit pauvre et frugale: plus il est occupé, moins il est factieux, et il est d'autant plus occupé, qu'il a plus de peine à pourvoir à ses besoins*" ["It is necessary for the people to live, but they should be kept poor and frugal: the more they are kept working, the less trouble they cause and the busier they are kept, the more difficulty they have in meeting their needs"] (cited in Ragon 1974: 68). Malthus strongly embraced this view. Receiving more income "would make every man fancy himself comparatively rich and able to indulge himself in many hours or days of leisure. This would give a strong and immediate check to productive industry, and in a short time, not only the nation would be poorer, but the lower classes themselves would be much more distressed" (1970: 94–95).

20. If they received instruction, there was the danger that they be discontent with menial and demanding labor. Thus, humans, or at least their overwhelming majority, were viewed as mere means, to be maintained as beasts of burden and nothing more.

21. Thus Malthus would note that "even when they have an opportunity of saving they seldom exercise it, but all that is beyond their present necessities goes, generally speaking, to the ale-house" (1970: 98). All money above subsistence would be spent on "drinking, gaming, and debauchery" (1960; vol. 2: 13).

22. Many of the French and Scottish Enlightenment writers who embraced a natural law cosmology were deists, believing that an omniscient God had created a perfect world that no longer required his further intervention. Thus in what appeared to be secular doctrine, religious legitimation continued to play a role.

23. "The wages of labour are the encouragement of industry, which, like every other human quality, improves in proportion to the encouragement it receives. . . . Where wages are high . . . we shall always find the working-men more active, diligent and expeditious, than where they are low" (Smith 1776:

1: 99). Moreover, low wages result in low levels of nutrition and a constrained ability to work (Smith 1776: 1: 96ff).

24. The Reverend Robert Wallace—a friend of Adam Smith's—had argued that equality would result in "excessive population" so as to lead to the impoverishment of all society. William Godwin, believing as did many in the French Enlightenment in the perfectibility of society, attempted to refute Wallace. Malthus set out to refute Godwin and other utopianists by expanding upon Wallace's argument.

25. For example, in the 1860s, Henry Fawcett would contend that "granting a legal right to employment at the ordinary wage" would be a mistake "because there would be no check on population" (1863: 245–247).

26. Malthus's treatise was an explicit rejection of the Enlightenment's faith in the power of reason to improve the lot of all humanity.

27. It is noteworthy that Malthus was an ordained minister, and the views he expressed suggest the enormous distance Christian doctrine had traveled since the Catholic view of the poor as "blessed." This distance is especially evident in the following passage from the second edition of his *Essay on Population*: "A man who is born into a world already possessed, if he cannot get subsistence from his parents, on whom he has a just demand, and if the society does not want his labour, has no claim of *right* to the smallest portion of food, and, in fact has no business to be where he is. At nature's mighty feast there is no vacant cover for him" (Malthus 1803: 531; cited in Bonar 1924: 304–305). This passage was excised from later editions. Malthus's view of the poor lends support to Berger and Luckmann's contention that "In the period following the Industrial Revolution . . . there is a certain justification in calling Christianity a bourgeois ideology, because the bourgeoisie used the Christian tradition and its personnel in its struggle against the new industrial working class, which in most European countries could no longer be regarded as 'inhabiting' the Christian universe" (Berger and Luckman 1967: 123). And, "Every group engaged in social conflict requires solidarity. Ideologies generate solidarity" (Berger and Luckman 1967: 124).

28. Yet, Malthus's God is still good: "The partial pain . . . that is inflicted by the supreme Creator . . . is but as the dust of the balance in comparison of the happiness that is communicated, and we have every reason to think that there is no more evil in the world than what is absolutely necessary" (1970: 215–216).

29. This neo-Malthusian view was well captured by the widespread success of Ehrlich's *The Population Bomb*, published in 1968 and *Limits to Growth* in 1972 (Meadows et al.).

30. This doctrine had its origins in the Physiocratic conception of *avances* to workers from the saved capital from the previous period.

31. Interestingly, Smith had approved of worker unions, which he saw as necessary to offset the unfair advantage of employers, who "being fewer in

number, can combine much more easily; and the law besides, authorises, or at least does not prohibit their combinations, while it prohibits those of the workingmen" (1776: 84).

32. Mill rejected the doctrine in a review of a book by William Thornton. In doing so, he recognized that wage levels were dependent upon the relative bargaining power of the laboring and capitalist classes. Yet his recantation of the wages-fund doctrine was not incorporated into the 1871 revision of his *Principles*.

33. Adam Smith provided what may have been the first hint of this doctrine when he wrote that taxation "may obstruct the industry of the people, and discourage them from applying to certain branches of business which might give maintenance and employment to great multitudes. While it obliges the people to pay, it may thus diminish, or perhaps destroy, some of the funds which might enable them more easily to do so" (1776, II: 826).

34. Marshall, who had taken up the study of economics explicitly because of his concern for the poor, was led by his study of the discipline to the conclusion that not too much should soon be done to help the poor: "I think also that the attempt to do it in a hurry would be dangerous; for carelessly done, it might sap the springs of freedom and energy" (1961: 712).

35. This revolution drew substantially from the utilitarian foundation laid by Jeremy Bentham who, incidentally, believed that redistribution from the rich to the poor would increase a society's aggregate utility (1954, vol. 3: 441ff), although he too worried that it might impair capital accumulation.

36. A few pages later, Clark restates the workings of this natural law in terms of each factor of production:

> We may now advance the more general thesis . . . that where natural laws have their way, the share of income that attests to any productive function is gauged by the actual product of it. In other words, free competition tends to give to labor what labor creates, to capitalists what capital creates, and to entrepreneurs what the coordinating function creates. (1908: 13)

37. As E. K. Hunt has put it: "Thus Clark had completed the task, originated by Say and Senior, of showing that the rewards to capitalists and workers were based on exactly the same principle. There was no surplus and there was no exploitation. Capitalists were rewarded by receiving what they created just as were laborers" (2002: 304).

38. The theory implies that if a worker's earnings are low, it is because the VMP for the type of labor or other factor that she supplies is low. To some extent, the underlying factors that explain this may be beyond her control. Perhaps her technical productivity is low because she is working with aged or inadequate capital. Perhaps there is weak market demand for the output of her industry. Or perhaps there are too many others competing to supply labor services like hers. But whatever the specific reason, all factors of production

are assumed to contribute to production, and all are compensated on the basis of their marginal contribution.

39. At a high theoretical level, there is a serious problem of measuring capital, indeed ascertaining even its meaning, as the Cambridge capital controversy of the 1960s made clear. This debate put into question the very logic of marginal productivity theory (Robinson 1980).

40. Some advocates of marginal contributory theory recognize this problem, but have a counterargument. Markets, they assert, naturally tend toward perfect competition if left to themselves. Thus, the main reason some real-life markets are not competitive is that governments interfere in them. If governments were to pursue *laissez-faire* policies, real-life markets would tend toward the competitive ideal and distribution would gravitate toward reflecting marginal contribution. However, it is by no means *a priori* evident that *laissez-faire* markets do not have at least as great a tendency toward collusion and monopolization. This was the view of the pragmatic Adam Smith. A recurring theme in his *Wealth of Nations* was "the clamour and sophistry of merchants and manufacturers" whose "mean rapacity" and "monopolizing spirit" led them "on many occasions" to "deceive and even to oppress the public." These were people who "seldom meet together, even for their merriment and diversion, but the conversation ends in a conspiracy against the public or in some contrivance to raise prices" (1776: 128, 249–250, 402–403).

41. Between the mid-1970s and the financial crisis of 2008, many American economists no longer viewed Keynes as "mainstream," or even as an important economist.

42. Malthus, whom Keynes praised for recognizing and addressing the problem of inadequate demand, had come to the opposite conclusion. As noted earlier, he concluded that a significant portion of national income needed to flow to a class of "unproductive consumers" whose expenditures would help hold up total demand. This was part of his defense for members of the landlord class, who, as Smith had put it, "love to reap where they never sowed" (1976: 67).

43. "[A]s against Robbins, economics is essentially a moral science and not a natural science. That is to say, it employs introspection and judgment of value" (Keynes 1973: 297).

44. Keynes had characterized the legitimating function of this *laissez-faire* doctrine as follows: "That it could explain much social injustice and apparent cruelty as an inevitable incident in the scheme of progress, and the attempt to change such things as likely on the whole to do more harm than good, commend it to authority" (1936: 33).

45. In the U.S., for instance, between 1946 and 1976, inflation-adjusted per capita income increased by about 90 percent. For the bottom 90 percent of households it increased by 83 percent, but only by 20 percent for the top 1 percent.

46. Austrian economist and libertarian Ludwig von Mises claimed that "Inequality of wealth and incomes is the cause of the masses' well-being, not the cause of anybody's distress. Where there is a 'lower degree of inequality', there is necessarily a lower standard of living of the masses" (von Mises 1955).

47. While rejecting taxation for redistributive purposes, most libertarians accept the taxation required to support a minimal "nightwatchman state." That is, taxes are justified to support the framework of institutions that makes ordered social life possible. This is because, without a minimal state to set and enforce the laws that define private property and prohibit fraud and coercion, no one's right to self-ownership would be safe from predators, thieves, and swindlers. However, some "pure" libertarians see no positive role whatsoever for the state. They have generally been associated with the Austrian school of economics. See, for instance, Rothbard (1973) for an exposition of how a stateless social economy might function.

48. Despite some rather extreme claims, such as that taxation is equivalent to forced labor, Nozick is by no means the most extreme proponent of libertarian views. Among well-known libertarians, that designation almost certainly goes to the pop philosopher Ayn Rand.

49. Although often depicted as a libertarian, Friedman makes this point: "what constitutes property and what rights the ownership of property confers are complex social creations rather than self-evident propositions" (1962: 26).

50. The choice of countries is noteworthy in that it compares mobility in two of the most *laissez-faire* economies with that in four of the most social-welfare-oriented.

51. Other studies also lend support to the claim that the U.S. is no longer the exceptional land of great equality of opportunity (see Hertz 2007; Mishel, Bernstein, and Allegretto 2007; Mazumder 2005; Solon 1992).

52. George (2006) offers the interesting hypothesis that this belief in fluid social mobility has been nourished by the substantial improvements of formerly discriminated against identity groups such as women, African-Americans, Hispanics, and gays.

53. In recent years, a new twist emerged on how the incentive argument can be mustered to impede measures to reduce inequality. The poor must bear a greater share of the tax burden to preserve their sense of participation in our democratic system. This argument has an economic edge as well as a political one. In a sense, it's a resurgence of the fear of democracy argument. If the poor pay little or no taxes, they vote for increasing government expenditures for which they will contribute little or nothing. George Will points out that "Moral hazard exists when a policy produces incentives for perverse behavior" and then provides as an example "the policy of removing tens of millions of voters from the income tax rolls, thereby making government largesse a free good for them" (2007: A15).

54. In an unguarded moment, for which he was taken to the woodshed, Stockman had characterized the supply-side theory behind the tax cuts as a "Trojan horse" to redistribute income in favor of the wealthy (Greider 1981: 46).

55. One of the most striking examples of this command over ideology is the elimination of the estate tax. It was overwhelmingly a tax on only the very wealthy. In 1999, only the top 2 percent of estates paid any estate taxes at all. Indeed, half of the tax revenues from the estate tax came from only 0.16 percent of the total, or 3,300 estates with an average estate of $17 million. But because these people have so much money, they exert enormous political pressure, as well as the ideology that the tax, which they cleverly call a "death tax," principally hurts small businesses and farmers. The ideological rhetoric was carried even further by GOP activist Grover Norquist. Interviewed by Terry Gross on her National Public Radio program, "Fresh Air," Norquist compared the estate tax to the Holocaust, with the justification that "the morality that says it's okay to do something to a group because they're a small percentage of the population is the morality that says the Holocaust is okay because they didn't target everybody, just a small percentage" (cited in Cohen 2004: A17).

56. Yet higher minimum wages in Europe are widely credited with lessening inequality in those economies. And in some, Denmark and the Netherlands, they do not correlate with higher unemployment.

57. One well-known study (Card and Krueger 1994) has cast doubt on the claim that higher minimum wages result in decreases in employment. Indeed, they found that higher minimum wages in the fast food industry resulted in a slight increase in employment.

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Moral Capitalism: A Biblical Perspective

By Hershey H. Friedman* and William D. Adler**

Abstract. We argue that laissez-faire capitalism in its current form is unsustainable, and that if it is to survive, we need to develop a new moral capitalism. An underexplored source on the subject that may provide insight into current difficulties is the Hebrew Bible. We explicate four basic principles of the Hebrew Bible and Talmud on economic affairs, and show how these ancient ideas can be used to create a more moral economic system.

Introduction

During the past several decades many crises have beset the American laissez-faire capitalist system. The savings and loan debacle cost American taxpayers $124 billion and led to the failure of more than 1,000 banks. This was followed by numerous corporate scandals involving accounting fraud and financial irregularities at such firms as Enron, Adelphia, Global Crossing, WorldCom, and Tyco International. In 2008, the largest Ponzi scheme in history, perpetrated by Bernard Madoff, also made it apparent that our financial system was not being monitored properly. The final straw, of course, has been the financial meltdown that has nearly destroyed the world economy. Millions of jobs have been lost worldwide and trillions of dollars in assets have evaporated.

It is ironic that just when the world has given up on communism, it has become clear that capitalism in its current form, based on theories of pure rationality, is also in trouble. A number of scholars have been warning the American public that capitalism based solely on greed was dangerous. Robinson (2007) asserted that the single-minded pursuit of self-interest has caused much harm to society and

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that we should cease associating Adam Smith with this doctrine. In actuality, Smith believed that "society . . . cannot subsist among those who are at all times ready to hurt and injure one another." In the book he believed would establish his reputation, *The Theory of Moral Sentiments*, Smith made it clear that he believed that economic growth depended on morality. To Smith, benevolence—not pursuit of self-interest—was one of the highest virtues (Pack 1991). Smith (2002: 162) argued that:

> Man . . . ought to regard himself, not as something separated and detached, but as a citizen of the world, a member of the vast commonwealth of nature and to the interest of this great community, he ought at all times to be willing that his own little interest should be sacrificed.

Alvey (1999) demonstrates how economics started out as a moral science but somehow got derailed and is no longer concerned about ethics. He quotes Sen, who discusses the discipline and says "economics has been substantially impoverished by the distance that has grown by economics and ethics."

Suskind (2008) reports that Alan Greenspan, Chairman of the Federal Reserve, was at a meeting on February 22, 2002 after the Enron debacle and was upset with what was happening in the corporate world. Greenspan noted how easy it was for CEOs to "craft" financial statements in ways that could deceive the public. He slapped the table and exclaimed, "there's been too much gaming of the system. Capitalism is not working! There's been a corrupting of the system of capitalism" (Suskind 2008). Lawrence H. Summers, in a 2003 speech to the Chicago Economic Club, made the following prescient remark: "For it is the irony of the market system that while its very success depends on harnessing the power of self-interest, its very sustainability depends upon people's willingness to engage in acts that are not self-interested" (Snyder Belousek 2009).

The business world will have to make significant changes to overcome its tendency toward selfishness. One way this can be accomplished is through changes in the business school curriculum. The current financial crisis has made it quite apparent, for instance, that business schools have to rethink what they are teaching (Holland 2009; Jacobs 2009; Vass 2009). Mandatory ethics courses in most MBA curricula have apparently not been very successful. One study found

that graduate business students are the most likely to cheat; 56 percent of them admitted to cheating (Di Meglio 2006). Even before the financial meltdown, scholars were maintaining that "today's business schools, by elevating shareholder profit above social benefits and other concerns, may have unintentionally become breeding grounds for a generation of Gordon Gekkos" (Mangan 2006: A14–A16). Friedman and Friedman (2008) maintain that it is time for *homo spiritualis* to replace *homo economicus* in the business curriculum.

Leaders as diverse as President Barack Obama, French premier Nicolas Sarkozy, and Pope Benedict XVI all agree that capitalism based on selfish behavior is not sustainable (Berenson 2008). The Pope just signed his third encyclical, "Charity in Truth" (*Caritas in Veritate*), in which he calls for a radical new approach to the world economy that requires "greater social responsibility on the part of business" (Donadio and Goodstein 2009). The Pope notes that the "pernicious effects of sin are evident" in our economic system and he singles out the financiers who have not been building their work on an ethical foundation (Donadio and Goodstein 2009). President Obama, in a speech at Georgetown University on April 14, 2009, called for "a new economic foundation" for the United States. He felt that the Bible could be used as a basis for this new approach (Leonhardt 2009).

We agree with the president. The Hebrew Bible is replete with precepts that deal with business ethics and can therefore be used as a starting point for those interested in developing a more moral capitalistic system. Considerably more than 100 of the 613 precepts in the Pentateuch[1] deal with economic life and business (Green 1997). The Bible has had a profound effect on a countless number of people. The Bible is the most popular book of all time—it is estimated that as many as 6 billion copies have been sold—and is the source of many metaphors and scenarios that can be very helpful to those interested in developing a new kind of capitalism.

Rather than attempting to merely maximize shareholder wealth, companies need to give workers and consumers a stake in the investments they make. A model of capitalism oriented around strict principles of rationality has encouraged too much selfishness. Stakeholder theory has long recognized the importance of including moral

principles in the running of businesses (Freeman 1984). Leaders must consider the interests of all the stakeholders, rather than only do what is best for shareholders. These stakeholders include the local community, customers, employees, the environment, the nation, society, and suppliers. Of course, decisions that are good for one group may be contrary to the interests of other groups. An ethical leader does not only focus on the needs of stockholders and is thus mainly interested in short-term profits. Instead, the needs of all stakeholders are considered and balanced.

Based on work by Donaldson and Preston (1995), we argue here for a moral conception of corporate responsibility, guided by the principles of the Hebrew Bible. This article will outline four principles, derived from the Hebrew Bible and Talmud, on which a new moral capitalism can be based. Together, these principles can be used as a foundation for an economic system that produces growth and jobs while simultaneously incorporating ethical, environmental, and social responsibility and respecting human dignity.

A New Kind of Capitalism: Four Biblical Principles

Principle One: Material Wealth, Not Greed

Scholars such as Friedman (2001) and Levine (1998) agree that the attitude of the Hebrew Bible towards wealth is quite positive. One does not have to be an ascetic and disdain owning property. The ideal system is not one in which every individual has exactly the same amount of property. The Bible recognizes that there will be poor as well as wealthy individuals. What matters is how the wealth is used and whether or not one is grateful to God for it. Wealth, peace, and/or long life should be seen as rewards from God for obeying His laws (Leviticus 26: 3–13; Deuteronomy 11: 13–16; Deuteronomy 25: 15; Proverbs 22: 4). The patriarchs, Abraham, Isaac, and Jacob, were all affluent. Abraham leaves Egypt "very rich in livestock, silver, and gold" (Genesis 13: 2). He uses his wealth to build altars for God and to tithe (Genesis 13: 18; Genesis 14: 20). The Bible states clearly that Isaac was blessed by God and became very prosperous, so prosperous that he aroused the envy of the Philistines (Genesis 26: 12–14). Jacob had to

escape Esau and arrives in Padan Aram, hometown of Laban, penniless. Twenty years later, after working as a shepherd for his father-in-law, Laban, Jacob becomes extremely wealthy. In fact, in his prayer, he notes how kind God has been to him; he started out with only a staff and became so prosperous that he has become two entire camps (Genesis 32: 11).

Wealth is good; greed, on the other hand, is not. One scholar, in discussing the Ten Commandments, asks why the dictum "you shall not covet the house of your fellow, you shall not covet the wife of your fellow, his servant, his maid, his ox, his donkey, nor anything that belongs to your fellow" (Exodus 20: 14) is considered so important as to require inclusion in the Decalogue. After all, it is only coveting, and does not seem to require much in the way of action. His answer is that once you engage in coveting—which inevitably entails greed and lust (itself a manifestation of greed)—you often end up violating the other nine commandments as well (Avi Ezer, commentary to Exodus 20: 14). This commandment thereby demonstrates that there is nothing intrinsically wrong with owning property; greed, however, is considered a serious problem.

Amos (4: 1) says that acquiring wealth is acceptable, but using it for the wrong purposes is not: "Hear this word, you cows of Bashan, who are on the hill of Samaria, who defraud the poor, who crush the needy, who say to their husbands, 'Bring so we may carouse!' " Clearly, the prophet is concerned about the wives of the powerful and wealthy who in their desire for a flamboyant lifestyle push their husbands to become deceitful and not care for the destitute.

Kantzer (1989), in his discussion of Christian business ethics, makes a clear distinction between greed and the acquisitive motive: "greed is always bad. The acquisitive motive implanted in us at Creation is not bad; it represents a divine, providential motive for work and expenditure of energy for our own good." Green (1997: 21–30) uses the Hebrew Bible and Talmud in developing guiding principles of Jewish business ethics. He likewise concludes that Jewish law takes into account the belief that "all wealth derives from and, in a sense, belongs to God, who apportions it to human beings as caretakers and stewards." God's ultimate ownership of all property makes humanity "tenant farmers for God," in his view. Business

activity is fine, as are profits, as long as people are guided by moral laws.

There are numerous examples in the Hebrew Bible where kindness trumps the belief in private property and other principles of capitalism. Thus, the Bible demands (Exodus 22: 25–26): "if you ever take your neighbor's garment as a pledge, you must return it to him before nightfall. For that is his only covering, it is his garment for his skin. What will he sleep in? When he cries to Me, I will hear, for I am gracious." Similarly, one is not permitted to take a widow's garment as a pledge (Deuteronomy 24: 17). Land was restored to its original owners during the Jubilee year (Leviticus 25: 13). On this concept, Hertz (1992: 533) observes, "in this way the original equal division of the land was restored. The permanent accumulation of land in the hands of a few was prevented, and those whom fault or misfortune had thrown into poverty were given a 'second chance.' " Of course, historically not everyone did this for purely altruistic reasons; nevertheless, the Bible's aim is to encourage good behavior regardless of underlying motives. It is inevitable that with time wealth will become inequitably distributed and the gap between rich and poor will be great. The Jubilee ensures that there will be a redistribution of wealth every 50 years. Hertz (1992: 533), quoting Heine, makes the observation that the Bible aims at the "moralization of property." Thus, we see that capitalism based on greed is not consistent with biblical values. Capitalism that has biblical values built into it can help lead to a more acceptable economic system.

Principle Two: Industriousness

According to the Bible, working hard is an integral component of a moral life. As the Psalmist declares (128: 2): "when you eat the labor of your hands, you shall be happy, and it shall be well with you." Schnall (2001: 49) feels that this text supports the view "that the six days of labor hold intrinsic religious value in rough parallel to the spiritual benefits derived from the Sabbath itself." The creation story in Genesis shows God being pleased after each day of creation with what He has accomplished, demonstrating that even God finds great joy in productive labor.

Rae (2004) notes that the messianic vision of Isaiah (2: 4) in which nations will "beat their swords into plowshares and their spears into pruning hooks" is one in which people work with their tools, plowshares and pruning hooks. Humankind works to improve the world and make it a better place for everyone. This will help lead to Isaiah's vision of a future with all of humanity living in an idyllic, rustic, spiritual world filled with beauty and peace (Isaiah 11: 6–9).

The "Woman of Valor" hymn in Proverbs (31: 10–31) describes the attributes of the perfect wife. What is fascinating about it is that it describes an entrepreneurial woman. The following are the traits of this ideal woman: (1) She is industrious:

> She seeks out wool and flax, and works with her hands willingly . . . She stretches out her hands onto the distaff, and her palms support the spindle . . . She arises while it is yet night, and gives food to her household and a portion to her maidservants . . . She does not eat the bread of idleness.

(2) She is enterprising: "She considers a field and buys it; from the fruit of her handiwork she plants a vineyard . . . She makes a cloak and sells it, and supplies aprons to the merchant." (3) She is honest: "She knows that her merchandise is good." (4) She is charitable: "She spreads out her palm to the poor; and extends her hand to the needy . . . the lesson of kindness is on her tongue." (5) She is devout: "a woman who is God-fearing shall be praised." The Bible thus describes an entrepreneur who simultaneously refuses to lose sight of higher goals.

Principle Three: Social Responsibility

Jonathan Sacks, the Chief Rabbi of Great Britain, sees the Bible as "God's call to human responsibility" (Sacks 2005: 28). In fact, he argues that responsibility is its "greatest overarching theme" (Sacks 2005: 135). As noted above, prophets such as Isaiah (1: 17) stressed that humanity should "learn to do good." The Bible demands that our entire economic system be built on a foundation of social responsibility. Friedman and Klein (forthcoming) demonstrate that the Hebrew Bible was concerned with such issues as conservation of resources, pollution, humane treatment of animals, and beautifying the environ-

ment. Humankind, according to Jewish tradition, has an obligation to make the world a better place. This philosophy is known as *tikkun olam*, which means repairing the world. People have an obligation to imitate God (Leviticus 19: 2), which implies acting in a manner that is concerned with social realities, in the same way that God cares about society (Levine 1993: 14–15). People were given dominion over the entire earth (Genesis 1: 26) for a purpose. We are the caretakers of this planet and have to continue God's work of creation by improving the world and making it a better place for all. Each individual is obligated to participate in this task (Tamari 1998). Indeed, the Psalmist (104: 14) thanks God for the wondrous and magnificent world He created. The Psalmist (104: 24) concludes, "how manifold are your works O God! All were made with wisdom; the earth is full of your possessions."

The Bible is concerned with all aspects of business ethics. In fact, Friedman (2000) shows how many of ethicists' contemporary concerns regarding business ethics have their antecedents in the Hebrew Bible. Thus, fair treatment of employees, avoidance of fraud and deception, tampering with weights and measures, and raising prices unjustly are all serious crimes. Indeed, the verse states (Proverbs 11: 1): "dishonest scales are an abomination to the Lord; but a just weight is his delight." The Talmudic sages thought business ethics were so important that they say the first question an individual is asked in the next world at the final judgment is, "were you honest in your business dealings?" (Babylonian Talmud, Shabbat 31a). The prophet Jeremiah (9: 23–24) succinctly stated what truly matters. Individuals, organizations, and countries should not be praised for their might or riches, but for "practicing kindness, justice, and righteousness to everyone on earth."

There has to be some regulation since people are often tempted to cheat. Thus, the first independent audit is described in the Book of Exodus. The Bible states (Exodus 38: 21–31), "these are the accounts of the Tabernacle, the Tabernacle of the Testimony, as they were calculated according to the commandment of Moses . . ." Moses realized the importance of making a full accounting of all contributions and commanded others to do a proper audit so that the Israelites would not have cause to suspect that even one piece of gold or silver used in the construction of the Tabernacle went into any individual's

pocket (Midrash Exodus Rabbah 51: 1). The Bible placed strict limits on charging interest (Exodus 22: 25; Deuteronomy 23: 19–20). Similarly, the Talmud (Babylonian Talmud, Baba Batra 89a) reports that the sages required market commissioners to be appointed to supervise weights and measures.

A key component of social responsibility is respect for all people and society at large. There are numerous passages in the Bible dealing with helping the poor and downtrodden. The Psalmist declares (Psalms 82: 3): "do justice to the needy and the orphan; deal righteously with the poor and the impoverished; rescue the needy and the destitute and save them from the hand of the wicked." The Bible constantly refers to helping the destitute, the orphan, the widow, and the stranger. Isaiah (1: 17) also makes this very same point: "learn to do good; seek justice, aid the oppressed, defend the orphan, plead for the widow."

The Bible sees the positive side of the acquisitive motive and in private property. Yet there are some laws that seem to be inconsistent with the concept of private property. These laws deal with gleanings and the corner of the field. The Bible states (Leviticus 19: 9–10):

> When you harvest the harvest of your land, you shall not complete your reaping to the corner of your field, and the gleanings of your harvest you are not to gather. You shall not glean your vineyard; and the fallen fruit of your vineyard you are not to gather; for the poor and the stranger you are to leave them.

Another passage expresses a similar idea (Deuteronomy 24: 19–21):

> When you reap the harvest in your field and overlook a sheaf in the field, do not turn back to get it; for the stranger, the orphan, and the widow it shall be—in order that the Lord your God may bless you in all your undertakings. When you beat down the fruit of your olive trees, do not go over them again; for the stranger, the orphan, and the widow it shall be. When you gather the grapes of your vineyard, do not pick it over again; for the stranger, the orphan, and the widow it shall be.

The corners of the field were not harvested by the owner but were left for the poor. In addition, individual stalks that fell from the sickle during the harvest had to be left for the poor. Also, if a bundle of grain was accidentally left in the field during the harvest, it too had to be left for the indigent. In a similar vein, the farmer was not permitted to pick

all the fruits off the vine or tree and leave it bare. He was obligated to leave the gleanings of the vine and the olive tree for the poor (Maimonides, Mishneh Torah, Laws of Gifts to the Poor, 1: 1–15).

What is unique about these laws is that private property from the biblical perspective is not entirely private. Humankind is permitted to own property; however, God is a silent partner who demands that a portion of this property be used for spiritual purposes. The Bible in effect gives the indigent the right to a portion of a landowner's field. From the Book of Ruth (Chapter 2), it is apparent that the poor followed the harvesters while they were working and picked up the gleanings. The harvesters did not have the right to tell them not to trespass. Indeed, the poor *owned* the corner of the field and the gleanings belonged to them. The verse (Leviticus 25: 23) stresses the fact that the true owner of all property is not man: "the land shall not be sold in perpetuity, for the land is Mine: for you are strangers and sojourners with me." The obvious lesson to be derived from this is that the Bible accepts private property but demands that a portion of the profits be used to help the poor. Charity is not sufficient.

Capitalism that draws from the Bible requires that all firms help the poor by setting aside a portion of a company's profits for the needy. According to Maimonides (Mishneh Torah, Laws of Gifts to the Poor, 10: 7), the highest form of charity is providing one with the ability to earn a living so that the individual does not become poor. He derives this from the verse in Leviticus (25: 35) that talks about "strengthening" the destitute individual: "if your brother becomes impoverished and his hand falters beside you, you shall strengthen him, whether he is a stranger or a native, so that he can live with you." This may be accomplished by providing a gift or loan enabling one to start a business, taking the destitute person in as a partner, or helping the individual find employment. Thus, government should work with business to "strengthen" those in economic jeopardy by providing individuals with training and employment. If a firm finds that it has to close down a plant because of economic conditions, management should do everything possible to find employment for the affected employees in other parts of the company.

The obligation to take care of the poor and helpless is not merely the responsibility of individuals but is also the responsibility of the

entire society. The economic system has to function in a way such that the poor and helpless are taken care of. Ezekiel argues that the sin of Sodom was not caring about the plight of the needy: "Behold, this was the sin of your sister Sodom; she and her daughters had pride, plenty of bread, and untroubled tranquility; yet she did not strengthen the hand of the poor and the needy" (Ezekiel 16: 49). Ezekiel also says that since "the people of the land have perpetrated fraud and committed robbery; they have wronged the poor and needy and defrauded the stranger without redress . . . I have therefore poured out My wrath over them and consumed them with My fire of fury" (Ezekiel 22: 29, 31).

Job started out as a wealthy capitalist and emphasized how he ran his business with concern for those around him: "because I rescued the poor that cried, and an orphan, and him who had no one to help him, the blessings of the forlorn came upon me, and I caused the widow's heart to sing with joy" (Job 29: 13). A system that makes the poor and helpless "sing with joy" is the only one in accordance with the Bible. Job describes how a wealthy property owner should behave when he tells God:

> Never did I deny the desires of the poor or let the eyes of the widow grow weary. Never have I kept my bread to myself, not sharing it with the orphan. But from my youth, I cared for them as would a father, and from my birth I guided the widow. Did I ever see a forlorn person perishing for lack of clothing, or a needy man without a garment, and his loins did not bless me for warming him with the fleece from my sheep. (Job 31: 13–20)

Job also makes the point (Job 31: 24–25) that he never took pride in the fact that he owned so many possessions or flaunted his wealth. He was a moral capitalist who used his wealth to help others and made sure to pay his laborers a fair wage. Job (31: 39–40) asserts that if he was dishonest in any way, then "in place of wheat, may thorns grow."

In ancient times, the powerless were the orphans, widows, and strangers. Today, firms have to help the poor, the elderly, and the handicapped. Exploiting immigrants is a clear violation of the laws in the Bible dealing with loving the stranger (Leviticus 19: 34) and not oppressing them. There was supposed to be one law for both the native and stranger (Leviticus 24: 22; Numbers 15: 16). Employing the unfortunates of society is precisely what the Bible demands of any

economic system. Green (1997) states that "these biblical foundations led to an extensive body of Talmudic social welfare legislation that sought to put an economic 'floor' under those not able to fend for themselves within the commercial sector: widows and orphans, the elderly and disabled, refugees from persecution, and those genuinely unable to find employment."

Principle Four: Human Dignity

Another core value of the Bible is the idea of being holy, which is closely tied to the concept of social responsibility and spirituality. The Hebrew word *kadosh*, which can be translated as holy, is used countless times in the Bible. By choosing the good, the Bible counsels, we can become holy. A key verse in the Bible (Leviticus 19: 2) states, "you shall be holy, for I the Lord your God am holy." Hertz (1992: 497) declares that the command of "You shall be holy" is linked directly to precepts such as taking care of the needy, honesty in business, paying wages on time, equal justice for all, loving one's fellow human being, and the prohibition against tale bearing and malice. Hertz feels that it is not just a general prescription, but also a "regulative principle in the everyday lives of men and women." The way to achieve holiness in the Bible is not by separating oneself from the world but by being part of it and having relationships with people. However, being holy requires that truth, justice, compassion, and a love of humanity influence how one acts. On the verse "justice, justice shalt thou follow" (Deuteronomy 16: 20), Hertz (1992: 821) similarly observes that "justice is the awe-inspired respect for the personality of others, and their inalienable rights."

We can see that holiness, according to the Bible, naturally leads to a respect for human dignity. Human dignity is also a core value of the Bible (Friedman 2008). This is why the Bible stresses that man was made in the image of God (Genesis 1: 27). Since God is holy, all of mankind is urged to be holy. Predatory capitalism that is focused on maximizing profit and exploiting labor robs individuals of their dignity; moral capitalism should enhance it. Economic freedom and democracy are necessary but not sufficient conditions to help ensure human dignity.

Conclusion

After the global financial debacle, almost everyone can easily relate to the argument that savage, laissez-faire capitalism without a soul will not survive. If capitalism is going to have a future, it has to be concerned about truth, justice, compassion, and the environment. Moral capitalism based on the principles of the Bible is a new kind of capitalism that makes sense and is sustainable. This is what Adam Smith believed in, not laissez-faire capitalism based on greed and self-interest.

The Talmud states in *Ethics of the Fathers* (5: 10) that a pious person follows the philosophy that "mine is yours and yours is yours," the antithesis of the wicked person whose philosophy is "mine is mine and yours is mine." Of course, we cannot expect ordinary people to adopt this view. Nevertheless, a moral capitalism that encourages creativity and profit without losing sight of the importance of helping others is certainly achievable. A simple rule of business ethics can also be derived from the sage Hillel's philosophy in *Ethics of the Fathers* (1:14): "If I am not for myself, who will be for me? And if I only care for myself, what am I?" An organization undoubtedly must achieve its profit-making goals, but at the same time it needs to care for others. The same is true of an economic system: it has to be moral so that a concern for others is inherently built in.

Note

1. The Pentateuch is the term used to describe the five books of the Hebrew Bible.

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The Political Uses of Some Economic Ideas: The Trade-Off Between Efficiency and Equality

By María Jiménez-Buedo*

Abstract. The notion of a trade-off between efficiency and equality is pervasive in many disciplines across the social sciences. Moreover, an imprecise notion of this well-known dilemma is an integral part of the discourse of politicians and policy-makers. The scientific status of the idea of a trade-off between efficiency and equality is, however, a matter of contention. Philosophical dissections of the idea have already deflated the analytical cogency of most of its versions, while the economic literature trying to assess the empirical relation between growth and equality has shown contradicting results. This article, by focusing on the role this idea plays both in the discourse and strategy of social-democratic parties, and in the social science explanations of their trajectories, argues that the pervasiveness of the notion of the trade-off between efficiency and equality is best explained in terms of the political functions it can fulfill.

I

Introduction

The notion of a trade-off between efficiency and equality is pervasive in political economic debates, fundamental to the talk about public policy evaluation, and central to certain streams within political philosophy. Few other notions are so often referred to in so many different disciplines across the social sciences, and some have portrayed this trade-off as one, if not the most important, of the big *leitmotifs* of contemporary social science (Esping-Andersen 2000). Moreover, an imprecise notion of a trade-off between efficiency and

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equity, economic growth and equality or justice, or the many ways of naming this well-known dilemma seems to be an integral part of the discourse of politicians and policy-makers. To add to the muddle, and though more typical of the politicians' discourse, the confusion between the terms efficiency and growth, on the one hand, and equity and equality on the other (where these are commonly and mistakenly used interchangeably), is also sometimes found in the social scientific literature.

This widespread use of a general, blurred version of the notion of the trade-off, both in the social scientific language and political discourse seems undisturbed by the fact that the efforts, little or many, that have been directed at shedding light on the logical or empirical status of the different versions of the trade-off show, at the very least, that the idea of an inverse relation between efficiency or economic growth and equity or equality is controversial. And while for some, the idea of a *prima facie* general trade-off between efficiency and equality is dubious or unconvincing, for others, it is a commonsensical, self-evidently true, notion.

In this way, we can find, among reputable scholars, very different positions with respect to this trade-off, in which each author in turn falls back or relies on what is supposedly "common knowledge" about the *obvious* status of the trade-off between efficiency and equality or equity. In a recent article on social contract theory, Binmore, lamenting that modern economic textbooks have little to say about fairness, points out that they "[s]ometimes . . . promote the *myth* that there is a necessary trade-off between equity and efficiency, but they mostly brush the problem of distribution under the carpet altogether by defining *any* efficient outcome to be socially optimal" (Binmore 2004: 5, emphasis added). For others, rather than a myth, the trade-off is an essential component of societal life. Hardin, in a recent work, discusses at length the crucial role of the apparent (in the sense of obvious) "conflict between equality and efficiency, two orthogonal values," in the theories of Hume and Rawls' regarding social order and justice (Hardin 2005: 183).

In terms of the pervasiveness of the notion, and especially, in terms of the pivotal role that the notion of the trade-off plays in their analyses, it is interesting to look at the works of those scholars

assessing the trajectories of Western social-democratic parties. Indeed, the fate of moderate left parties has been usually understood in terms of their ability to form stable coalitions of voters given the existence of the trade-off. That is, a successful social-democratic project has been portrayed as one displaying the ability to choose an electorally maximizing mixture of both efficiency and equality, assuming that there is an inverse relation between the two.

To take an example, Carles Boix's influential thesis on the particularities of supply side policies designed by social-democratic parties has the advantage of making explicit the analytical framework on which most of these analyses are based, and that usually is, in the political economy literature, only implicit (Boix 1998). Boix's framework, which he describes as being both simple and widely accepted, pictures the interests and ideological traditions represented by conservative and social-democratic parties in advanced democracies in the following manner.

Political parties design their policies so as to provide two outcomes that are ordered in a lexicographic manner. These outcomes are, in order of importance, economic growth and the redistributive advantage to each party's natural constituency. The left's natural constituency is formed by the working class and those segments of society that are less well-off in general whereas professionals, and the upper-middle classes, constitute the conservative party's constituency. The middle classes are thus disputed between the two parties. The lexicographic order between economic growth and redistributive advantage stems from the fact that any policy failing to provide a successful growth model will turn out to be unfeasible in the medium term. In this somewhat stylized picture, conservative and social-democratic parties differ in their electoral strategies to form coalitions and in their recipes for economic growth. Social-democratic parties are depicted as being relatively more prone to wealth redistribution and the promotion of equality. In contrast, conservative parties prefer to delegate as much as possible to the market, as they consider it optimal in the promotion of wealth and the preservation of individual liberties.

In this well-accepted political economic outlook of class parties, the existence of a trade-off between equality and growth or

between justice and efficiency is normally assumed. The implication is that this trade-off affects left wing parties more acutely, given the lexicographical order between the two main objectives (growth and redistribution to one's constituency) of any governing party. While conservative parties need only to maximize growth rates and let the market redistribute, social-democratic parties must, in addition, mobilize the public sector in order to generate egalitarian outcomes.

What is puzzling, though, is that while many of the works that have studied the long term trajectories of social-democratic parties have implicitly or explicitly endorsed the idea of the existence of a trade-off between efficiency and equality, these same accounts have often described the trajectories of social-democratic parties as successful in the rendering of both economic growth *and* redistribution, even after the 70s oil crises (see, for example, Maravall 1997; Esping-Andersen 1985; Boix 1998). In this way, these approaches seem to rely on an assumption that is in contradiction with their conclusions. So what kind of ontological status do these same scholars grant to the efficiency-equality trade-off? And what exactly do different social scientists refer to when they refer to this idea?

As we will see further on in this article, the economic literature shows only mixed evidence on an inverse relationship between economic growth and equality, or between efficiency and redistribution. So the empirical record of the trade-off is, at least, a matter of contention. On the other hand, philosophical analyses of the notion of a trade-off between efficiency and equity have already debunked the analytical cogency of at least some versions of the idea.

Given that, as Kenworthy puts it, "the most prominent argument against equality is based not on normative considerations, but on [this] well-accepted principle of economic theory" (1995), it seems worthwhile to contemplate that the notion of a trade-off between efficiency and equity, or between equality and growth (or its different versions) may serve functions other than those explained by its descriptive or explicatory power.

This article aims at understanding the political uses and functions of a concept that appears, more often than not, both in political and

academic discourses as a "given," devoid of political connotations. The potential political role of the idea of the trade-off between efficiency and equality will be illustrated by spelling out the uses and functions that this idea can have in the discourse of political parties, with an emphasis on the role that it may have for parties of the moderate left. The role this idea may play in the strategy of moderate left parties seems particularly relevant, since it gives rise to a *puzzle*. While it is in principle easier to see why conservative parties, given the interests of their constituencies, would want to stress the extent to which redistributive policies hinder efficiency, it is harder to see why social-democratic parties would want to emphasize this idea if evidence on the existence of the trade-off is a contended issue. In the final part of this article a tentative interpretation of this fact is offered by advancing a series of hypotheses on the political role that the trade-off plays for *both* conservative and more counterintuitively, social-democratic parties.

The rest of the article is structured as follows: In the second section, we present a review and classification of the main contributions to the literature devoted to assess the empirical status or conceptual cogency of the idea of a trade-off between efficiency and equality. We first review the philosophical analyses of the most general version of the notion of the trade-off between efficiency and equality and then go over the economic literature that has dealt empirically with the question of the relationship between equality or equity and efficiency or growth. In this section, a distinction is made between two separate debates that do nevertheless get often conflated when the trade-off is referenced both in the political discourse and relatively often in the social scientific references to the trade-off, i.e, amongst economists, the equality versus growth debate is clearly differentiated from a separate literature dealing with the equity-efficiency trade-off. In the third section, we go back to a general idea of a trade-off between efficiency and equality in order to examine its role in the discourse of political parties. We then present a series of propositions on the political uses of the idea of the trade-off for social-democratic parties. Based on our conclusions, we advocate for a more careful and limited use of the notion of the trade-off between efficiency and equality amongst social scientists.

II

The Trade-Off Between Efficiency and Equality: What Is It?

As mentioned above, a general version of the trade-off between efficiency and equality prevails in the language of the social sciences. This general version is often ambiguous enough so that we can find (sometimes even within the same article) references to a "trade-off between equity and efficiency" and "between equality and efficiency," or "equality or equity and growth," as if these notions were interchangeable or indistinct. Although, clearly, not all social scientists fail to differentiate between them, when the idea is then imported into the discourse of politicians, the distinctions typically get lost or obliterated. The object of this article is to analyze the pertinence and logical and empirical record of overarching claims about a *general* relationship between either efficiency and equity, or between equality and growth. Indeed, in these pages it is argued that it is precisely this general, indistinct notion of a trade-off between either efficiency or growth and equity or equality, i.e., a general notion stating that prosperity and justice are somewhat at odds with each other, that fulfills political functions.[1] But in order to assert this, we need first to clarify the distinctions between different types of trade-offs relating to equality and efficiency that are found in the literature that deals with the idea as such. To this end, we first review the philosophical critique to the broadest version of the notion of the trade-off. We then go over the economic literature that has tried to ascertain empirically whether redistribution and/or an egalitarian distribution either impede or encourage economic growth.

Philosophical (Conceptual) Analyses of the Trade-Off

The most detailed analysis of a broad version of the notion of the trade-off between efficiency and equity is to be found in LeGrand (1990), where he refers to it as the *elusive trade-off* and examines the question of whether a general notion of a trade-off between equity and efficiency actually makes sense. LeGrand distinguishes two possible versions of the trade-off, a value trade-off and a productive one. A value trade-off relates to the social evaluations people make regard-

ing different combinations of objectives. A productive trade-off has to do, instead, with the production substitutability of different objectives and relates to the feasibility of alternatives, rather than to our preferences over them. We now examine LeGrand's conclusions regarding each in turn.

The approach taken by the author is to inquire into the necessary conditions for it to be appropriate to talk of the relationship between equity and efficiency *qua values* as a trade-off one, i.e., that efficiency must be a social and economic objective in the same sense in which equity is an objective. LeGrand defines an allocation of resources as efficient if it is impossible to move toward the attainment of one social objective without moving away from the attainment of another objective, and therefore concludes that efficiency cannot be an objective in the sense in which equity is an objective. The reason is that efficiency is necessarily a secondary objective that only acquires meaning with reference to primary objectives such as equity, peace, or the like. He therefore deems the notion of a trade-off between efficiency and any other primary objective as meaningless, for they cannot be traded against each other. Instead, efficiency is the final outcome arising from the maximization of a society's objectives, among which equity is likely to be one. From his conclusion LeGrand cannot but wonder if people are referring to something other than efficiency when they talk about the trade-off between equity and efficiency. In the rest of his piece he therefore goes on to the study of two other distinct but related trade-offs: equity versus economic growth and equity versus Pareto-optimality, both understood as productive trade-offs.

A common interpretation of the trade-off (in both scholarly and popular discussions) stems from identifying efficiency with aggregate economic production growth. For LeGrand, this identification has an obvious appeal, linked to its policy implications. He then problematizes this type of trade-off not so much in terms of its analytical coherence or the soundness of the causal processes implied by it, but in terms of its normative content: elevating economic growth to the status of a primary objective is problematic since growth may only be desirable if it is able to provide want satisfaction or utility for one or more individuals. What he stresses is that the costs of increasing production, in the form, for example, of the disutility attached to

increasing working hours, are normally neglected and that therefore increasing production per se is hardly a desirable goal. However this takes LeGrand back to the analysis of the trade-off between equity and efficiency understood as values. In this sense, his analysis of the concept of all the possible meanings of a trade-off between equity and economic growth is incomplete precisely for this reason. Once one thinks of the trade-off between economic growth and equity as a production trade-off, the focus must be on the empirical analyses and causal explanations found in the specific literature on the topic, which LeGrand avoids doing. We undertake this task later on in this article.[2]

LeGrand has also studied a second version of the trade-off that is more detached from popular discourse and thus known mainly in academic settings, i.e., the trade-off between equity and Pareto-optimality.[3] Under this interpretation, there would be no feasible allocation that is both equitable, according to a chosen definition of equity, and Pareto-optimal. Though Pareto-optimality is frequently offered as a possible definition of efficiency, LeGrand argues that its correct interpretation is instead that of a social welfare function, i.e., is a real-valued function that ranks conceivable social states. The problem, LeGrand argues, is that social welfare functions necessarily incorporate a notion of equity in them. The author thus contends that all investigations of the trade-off between various interpretations of equity and Pareto-optimality are not really concerned with the trade-off between equity and efficiency, but, rather, with what actually is, at least in part, a trade-off between two different kinds of equity: one whose properties are being explored (for example, equity defined as absence of envy) and one that is embodied in the Pareto social welfare function.

In the same vein, Lukes has concluded that "this famous, supposed trade-off between equality or equity and efficiency is never quite what it seems to be. It is either incoherent or else it is a coded way of referring to other trade-offs, which may well include other conceptions of equity" (1992: 5). This conclusion, though right as a general impression derived from the analysis of careless uses of the idea, leaves unanswered a set of questions, linked to the possibility that the notion of the trade-off between efficiency and equal-

ity may stem from potentially available evidence on a negative correlation between economic growth and egalitarian policies. Given the existence of works, central to some branches of the discipline of economics examining precisely this question, it seems compulsory to look the findings of those that have tried to measure the concrete form that the trade-off between growth or efficiency and equality or equity takes.

Two Distinct Debates: Equity, Efficiency, Equality, Growth

As we have pointed out, many of those who use the notion of the trade-off between efficiency and equity fail to specify the notion of efficiency that they have in mind, and they do not always spell out whether they take it to be a value or a production trade-off. In turn, the examination of the economic literature aimed at measuring the extent of a potential trade-off between equity or equality and growth or efficiency offers an interesting *prima facie* conclusion: the discussions around the question are for the most part inserted in two quite distinct debates that are nevertheless conflated when the notion of the trade-off is exported to other disciplines or to the discourse of politicians and laypersons. The distinction between these two debates and the empirical conclusions they lead to together constitute the focus of the following paragraphs.

The first such debate comes from the literature on public economics, and the study of the potential for desirable state intervention in the presence of market imperfections. This literature, which studies the actions of governments and the extent to which these foster or hinder economic efficiency, does sometimes frame some of its central questions by referring to an *efficiency-equity* trade-off.

A second separate debate comes from the stream of economics related to macro processes and variables and devoted to the study of patterns of modernization and industrialization and economic growth in general. One of the central questions of this literature is the relationship between economic growth and the distribution of income. In this sense, it is also sometimes devoted to assessing whether there is a trade-off between *equality and economic growth*. We now examine the main results of these in turn.

Equity Versus Efficiency

The equity-efficiency trade-off assumed by part of the economics discipline is related to the loss of resources associated to public interventions in the economy: when the state imposes a tax, it produces an alteration in the market mechanism ruling the system and so some resources are definitively lost. These lost resources constitute a loss of efficiency that is often referred to as the "deadweight loss" of taxation. This kind of trade-off is concerned with attempts to redistribute income, and thus, attempts at achieving equity, and not necessarily equality. Equity, a notion that by design eludes a precise definition, is the appropriate term for any morally desirable redistributive attempt and is taken to mean different things by different people, just like justice or fairness. In turn, the definition of efficiency normally considered in this context is one related to the total economic resources available to society: a more efficient society can produce more with the same amount of resources.

The mechanisms associated to this loss of efficiency driven by state interventions aimed at increasing equity come in two groups. The first is linked to incentives or, rather, the disincentivation to either work or to save and invest driven by redistribution. The second is due to the mere fact of the administrative costs inherent in the implementation of the redistributive policy in question (Blank 2002). Altogether, as a result of these mechanisms and according to standard microeconomic theory, government efforts to achieve equity lead to a lower level of total income and less efficient use of resources. To be sure, theoretically, the existence of this equity-efficiency trade-off may nearly constitute as much a cornerstone of economic theory as the perfect clearing of markets, but its empirical record is not always obvious.

During the 1970s a series of government funded trials, known as the "negative income tax experiments," testing the effects of welfare programs on the labor supply of recipients showed disquieting results whereby the government had to spend almost 2 dollars in order to increase family incomes by 1 dollar.[4] Though much cited at the time, these and similar experiments and simulations have however been called into question as a satisfactory way to measure the "leaky bucket effect" of taxation. Blank (2002) argues that these experiments cannot be said to represent well the idea of a trade-off between efficiency and

equity because they have traditionally been targeted at populations and policies particularly prone to show the adverse effects of redistribution in the incentives to supply labor. As she has pointed out, when transfers go to populations with no capacity to change their behavior vis-à-vis their labor supply (such as children, or the elderly), or when transfers go to programs that limit efficiency losses through behavioral requirements, the room for the rise of efficiency losses vanishes. On the other hand, there is widespread support for the idea that when transfers are devoted to the financing of long-term investments like education, the creation of future income gains can more than outweigh the losses in efficiency even in the presence of distortionary taxation (Saint Paul and Verdier 1993).

It seems thus that the conflict between equity and efficiency may not be as unavoidable as one of the titles that has helped popularized the idea had us believe. Arthur Okun (1975), author of one the best known discussions of the trade-offs between efficiency and equality, and the Brookings Institution's best-selling volume ever, helped to popularize the idea that the "big trade-off," as he called it, was inescapable and he still is much cited on this verdict.[5] Yet, and paradoxically, a good deal of his book, which is actually a series of essays on the compatibility of capitalism and democracy reflecting the political worries of a liberal during the Cold War, is devoted to inquire into how both efficiency and economic equality can be increased by attacking some inequalities of opportunity like those linked to gender and race. The fact that Okun's work is much more quoted on the inescapability of the trade-off than in his analysis of the ways to surmount it, is more easily explained, as this article claims later on, by political factors.

Equality and Growth

We next present a review of the political economic literature concerned with the relationship between the distribution of income (i.e., either equality or inequality) and economic growth. The main debates in political economy dealing with this relationship can be divided into two main groups: First we deal with the effects of growth on the distribution of income, then, with the effect of the distribution of

income on economic growth. We finish with a brief discussion on the relationship between these two debates.

For decades, the effect of growth on inequality was seen through the lens of Kuznets' findings of the '50s and '60s (1955, 1963), whereby he had identified an inverted U-shaped relation between income and gross national product per capita. Kuznets interpreted this regularity as describing the evolution of the distribution of income over the transition from a rural to an industrial economy: income inequality should increase during the early stages of development due to urbanization and industrialization and decrease later on as industries would start attracting a large fraction of the rural labor force.[6] This theory has shaped ideas about the relationship between economic development and inequality for years, the expectation being that in advanced nations, as income increases, inequality should diminish (Barro 2000). However, the downward trend in inequality experienced by many advanced economies during the 20th century seems to have been recently reversed: the past 20 years or so have revealed a significant increase in wage inequality in some of the most economically advanced nations. The example of the United States, with higher growth rates in the '80s and '90s than most of the rich countries, and growing inequality, has driven many to review their ideas about the relationship between inequality and growth and to wonder whether at least for the group of rich countries, inequality may come with growth.

As for the effect of inequality over economic growth, for years the traditional textbook approach assumed that inequality was good for growth. The argument was based on the fact that the investment and saving rates of the richer individuals in society was higher. Therefore, a nation with a more unequal distribution of income should have greater rates of growth, *ceteris paribus* (see Kaldor 1960). To this logic, the classic argument about incentives applied as well: inequality would serve as a stimulant for production. Development economists had long expressed counterarguments regarding the potential efficiency attached to the redistribution of productive assets (mainly based on the experience of some agrarian societies). However, the fact that these arguments were not always formalized did not help their cause and their views started gaining more weight in growth economics only in the '90s (Aghion et al. 1999).

Since the mid 1990s, the view that inequality is growth enhancing has been challenged by a number of empirical studies, often based on cross-country regressions of gross domestic product growth on income inequality. This has coincided with an acknowledgment by part of the academic community of the superior rates of growth reached by the relatively egalitarian Asian tigers in the '70s and '80s as compared to the more inegalitarian Latin American countries that faced a long lasting economic downturn and stagnation during the same period (Benabou 1996). By the mid 1990s, therefore, there appeared a majority of works that started pointing to the possibility that *inequality* was detrimental for growth.

Among the most influential works on the empirical assessment of the effect of inequality on growth we find Persson and Tabellini (1994). Their results point to inequality having a negative impact on economic growth and similar findings were equally obtained in Alesina and Rodrik (1994), Perotti (1996), and Benabou (1996).

Summing up: the empirical evidence of the effect of either equality or redistribution on economic growth is *at least* inconclusive. As Kenworthy (2004) has put it, the received wisdom on the matter seems to shift back and forth over time between the two possible views that inequality is either good or bad for growth. While the textbook version was for many years that inequality was good for growth, the '90s reversed the dominant view. However, as suggested, in recent times perhaps the mainstream view within the specialized literature is now that inequality hinders growth in developing countries but that its effect in rich countries is more ambiguous. Given the lack of a definitive empirical conclusion on the matter, we may wonder at the extent to which the idea linking inequality to growth in rich countries may find more echo insofar it fits well into the ongoing debate, starting as early as the 1970s, about the supposedly excessive generosity of European welfare states.

In any case, one of the main conclusions to be drawn from the economic literature analyzed above is that there are two different questions that are normally conflated within a general notion of a trade-off between equality and efficiency. One is the debate belonging to microeconomics that tries to discern the extent to which redistribution, or *equalization* of rents, leads to inefficiencies. The other is

the debate belonging to growth economics that tries to discern the nature of the relationship between growth and any given distribution, that is, the relationship between *equality* and growth. In any given political regime, the preferences for *redistribution* will depend, naturally, on the existing *distribution* of income, and so these two questions are intimately related. However, equality and the equalization of rents are two clear and distinct notions, and yet, when people refer to a possible trade-off between equality and efficiency, the two questions are normally conflated, and this again points to the fact that mention of a general, imprecise notion of the trade-off has a more complex referent than is normally assumed.

As we have seen, a review of the debates on the economic literature that has tried to give empirical content to the trade-off between either equity and efficiency or equality and growth does not provide us with definitive answers on its nature or empirical status, but rather opens new questions regarding the political underpinnings of the many versions of the notion.

The Political Uses of Some Economic Ideas

We have so far seen how the evidence on the existence of a trade-off between equality and growth and between equity and efficiency remains elusive: the debates around the general version of the idea are many, and their results, inconclusive. Yet, the trade-off between efficiency and equity or between equality and growth figures prominently as a central concept in social science explanations of many phenomena and has a significant presence in the discourse of societal actors across the political spectrum. In view of these contending facts, the concept of a trade-off between efficiency and equality calls for attention as such and may be studied as a constitutive part of the political language of contemporary advanced democracies. In this section, we explore the political causes and consequences of its use by relevant societal actors.

As mentioned above, the concept of the trade-off plays a particularly important role in many of the most relevant contemporary accounts of the long-term trajectories of social-democratic parties, while, at the same time, it is also an important element in the rhetoric

of the leaders of these same parties. Yet, there is something puzzling about this fact: the trade-off between efficiency and equality is one of the most important and common arguments against redistribution (thus seeming an idea that is, in principle, adverse to the ideology of leftist parties), and thus, based on the available evidence, appears as if there would be no compelling reasons to endorse the existence of a general trade-off between equity and either efficiency or growth. Thus the question naturally arises as to why it is that social-democratic leaders often recur, in their discourse, to this idea. In this sense, and by focusing on the role of this notion in the strategy of social-democratic parties, we approach the problem with the aim of contributing to a research agenda suited to the study of the political role of some economic ideas.

Standard political-economic models can offer suggestions on the matter: Meltzer and Richards' (1981) seminal political-economic model is the classical locus for an explanation of the size of the public sector as determined by the distribution of income in polities where decisions are taken by majority rule. Their model, based crucially on the median voter theorem, constitutes the standard basic formal approach to redistributive politics in democratic settings, and predicts that changes in the economy making the initial distribution of income more unequal increase the political support for redistribution.

In fact, Meltzer and Richards' formal analysis predicts that if the income of the median voter is less than the average income in the economy, the electorate will favor the adoption of taxes that redistribute all the available income and give rise to a totally egalitarian distribution. In order to obtain a moderate equilibrium where taxation does not amount to the total of the income produced in the economy, the authors introduce a crucial assumption by which the levying of taxes reduces total income by producing distortions in the market. This assumption and the role it plays in Meltzer and Richards' model is actually useful to see the effect that beliefs on the extent to which there is a trade-off between efficiency and equity have on the electorate. The authors show that this mechanism causes voters to moderate their demands for taxation, even among those that having relatively lower incomes are net beneficiaries of redistributive policies. Very straightforwardly, then, the existence of a trade-off between

efficiency and equality in the form, for example, of distortions produced by taxation, reduces the demand for redistributive policies across the electorate.

It is startling, however, that, while many standard political-economic models of redistributive politics rest crucially on the idea that the perception of a trade-off between efficiency and equity shapes the preferences of voters, much of the same literature, with few exceptions,[7] has not considered the possibility that political actors may try to manipulate this perception to their advantage. The main contention of this article is related to this idea, for the claim at stake is that the framing of some issues in terms of the trade-off serves political functions.

As we have already pointed out, it is rather clear-cut (given the standard assumptions about political parties and their natural constituencies) why conservative parties could have an interest in framing questions regarding the relationship between redistribution or equity and growth or efficiency in terms of a trade-off. Hoisting the idea of a trade-off between efficiency and equality can allow these parties to justify their preference for limited redistribution in terms of the pursuit of the common good, rather than in terms of the pursuit of the welfare of their natural constituencies. However, it is less intuitive why social-democratic parties (for which the idea would seem in principle detrimental) would also want to frame some issues in terms of the trade-off, given the dubious analytical and empirical status of the idea.

If our purpose is to underline that the idea of a sketchy, general notion of a trade-off between efficiency and equality can fulfill some political functions there is a somewhat fading theoretical framework that could be of assistance in this quest, i.e., ideational approaches in comparative political economy. To recall, from the second half of the 1990s comparative political economy saw an upsurge of the "ideational factor," under the auspices of the work of Peter Hall, who helped launch a research program aimed at the study of the role of economic ideas on the policy-making processes (Hall 1989, 1993). Peter Hall started this research line for two main reasons. First, as a means to complete the state-centered analyses on public policy. Second, to shed light over those processes of policy change that implied a shift in the overarching objectives of policies.

Hall's work seemed for some time to have opened a promising research line, as the appearance of other works highlighting the importance of cognitive factors in policy processes on the matter seemed to indicate.[8] However, in perspective, part of the initial enthusiasm has waned, and ideational approaches in comparative political economy come about now less often than the initial fervor had us expect, with relevant exceptions.[9] As was pointed out by a number of scholars the research re-launched by Hall and others emphasizing the role of ideas in policy-making processes suffered from a number of weaknesses, some of which are inherent in the difficult task of assessing the independent impact of ideas in big transformative processes that imply a change in the overarching orientation of policy-making, as in Hall's study of the reception of Keynesianism (Woods 1995; Jacobsen 1995; Yee 1996; Blyth 1997; Campbell 1998).

Generally, the critiques directed to the theoretical project aimed at emphasizing cognitive factors in political processes were directed to the fact that the defenders of the role of ideas have not been able to show, empirically, that ideas have an independent impact in the policy-making processes. One of the fundamental problems of this approach was its incapability to specify the causal mechanisms by which ideas affected these policy-making processes (Yee 1996). Other types of criticisms to the ideational turn in political economy have referred to the fact that these works have not been able to study the role of ideas independently of the institutions on which they impact, or in which they come to be embedded (Blyth 1997). The project has also been accused of failing to spell out the relation between ideas and the interests of those putting them forward (Woods 1995).

Our purpose is parallel to (though in a sense more modest than) that of standard ideational approaches. Our aim here is not to assess the impact on policy-making of encompassing systems of ideas like Keynesianism. Instead, and by focusing on one delimited yet important economic concept, we try to illustrate how some economic notions can be used politically in the justification of policy choices. In our view, the study of the impact of ideas on the political process can be made more amenable if the research is centered on the political functions of particular notions rather than overarching ideational paradigms.

In the case of the idea of a general trade-off between efficiency and equality, and as mentioned above, it is well conceivable that regardless of the empirical backing of the notion of the trade-off, conservative parties may have an interest in including this notion in their rhetoric. The rationale can be derived rather straightforwardly from standard assumptions about class-based preferences in redistributive models in political economy: hoisting the idea of a trade-off between efficiency and equality can allow these parties to justify their preference for limited redistribution in terms of the pursuit of the common good, rather than in terms of the pursuit of the welfare of their natural constituencies.

In turn, and for social-democratic parties, the rationale for emphasizing the existence of a trade-off between efficiency and equality is less straightforward and implies less intuitive considerations. One way to approach the problem would be to recur to the notion of hegemony, as associated to a Gramscian perspective. Under this light, we would see social-democratic parties as somehow forced to accept the idea of a trade-off between efficiency and equality. The idea would be that once conservative forces (either right wing political parties or, in general, those segments of society that would benefit from a lesser degree of redistribution) have successfully indoctrinated the electorate on this issue, moderate left parties would be unable to oppose the idea, either because they too would actually believe in the existence of a trade-off between efficiency and equality, or because they would be constrained to publicly endorse it given the beliefs of other social actors. We depart from this type of argument for two reasons.

First, and in view of the debates that we have summarized in previous sections, it seems difficult to argue that the views regarding the relationship between efficiency and equality are subject the phenomenon of hegemony, in the sense in which a social group would have managed to indoctrinate the rest of society (including social-democratic leaders) in order to have them hold erroneous beliefs regarding the relationship between redistribution and growth or efficiency. As we saw, the scholarly debates regarding the existence of a trade-off between equality and efficiency are generally characterized by their plurality and openness. In this sense, it seems utterly implausible that social-democratic leaders would actually hold beliefs about

the trade-off that would have been interestedly instilled in them by other social actors. At a minimum, social-democratic parties would have access to the relevant debates, where *controversy* around the existence of the trade-off is the norm.

Secondly, what we observe is that social-democratic parties do not just follow conservative parties in the inclusion of the notion of the trade-off between efficiency and equality in their discourse, but that, at times, they actually take the lead in framing the discussion in those terms. As obvious examples, we could think of Blair's Third Way and Schroeder's New Middle of the late 1990s. These movements, which amply took up the notion of the trade-off in their discourses, have not necessarily been seen as a defensive reaction to the conservative lead (Przeworski 2001). Instead, they have been characterized by some as innovative, strategic moves that have allowed the social-democrats to take the lead at given points in time (Giddens 2000; Blyth 2005).

For these reasons, the contention here is not that social-democratic parties, insofar as they seek office in a world characterized by capitalist accumulation, are *obliged* to incorporate the notion of the trade-off in their discourse. Instead, what it is argued here is that the incorporation of the notion of the trade-off to the discourse of social-democratic parties is at least partly strategic: our hypothesis is that framing certain policy choices in terms of the idea of a trade-off between efficiency and equality can help social-democratic parties in the pursuit of their political strategy, and that the notion is a constitutive part of a general rhetorical strategy of compromises and conciliatory choices.

Thus, the contention here is that for social-democratic parties, hoisting the idea of a trade-off between efficiency and equality can allow them to portray demands or initiatives for a greater degree of redistribution (coming from either some segments of their electorate or from other political parties competing at their left) as either implausible or detrimental to all. It can thus help them justify their moderate redistributive policy choices against more radical critics, thus helping to mitigate electoral competition at their left. In the same vein, recurring to the idea of a trade-off may also be useful in those circumstances in which socialist parties, for reasons that have to do with the composition of their electoral coalition, are only able to offer

redistributive policies that differ little from those of their conservative counterparts. In such cases, emphasizing the existence of a trade-off between efficiency and equality can allow these parties to justify their policies as providing the greatest possible degree of redistribution given feasibility constraints. At the same time, emphasizing the existence of a trade-off between efficiency and equality can help social-democratic parties to present themselves as moderate so as to not to alienate those segments of middle class voters that may be prone to consider certain redistributive policies as excessive.

In sum, what is here proposed is that the idea of a trade-off between efficiency and equality may serve to de-politicize certain choices made by moderate left wing parties under political constraints: while left wing parties face many dilemmas in their building of electoral coalitions (as in, for example, the choosing of fiscal policies that cannot simultaneously satisfy the political preferences of an electoral mass composed of a heterogeneous body of voters in terms of social class, ranging from those relatively worse-off and the working class to the middle and upper middle classes), it is often beneficial to these parties to present these political impasses as external, objective constraints. Certain constraints or choices that are faced by parties and that are of a political nature can be thus de-politicized by recourse to the idea of an external, objective trade-off between efficiency and equality, since references to this idea may turn political constraints into economic or technical ones. Thus we can conceive that some political parties, both to the right and to the left of the political spectrum, may have an interest in incorporating the trade-off to their discourse, regardless of the analytical status or empirical record of a general idea of an inverse relation between efficiency and equality.

Concluding Remarks

The aim of this work has been that of tracing, classifying, and clarifying the standing sources of evidence on the existence of a general, overarching trade-off between efficiency and equality. In view of the mixed evidence on the matter, we argue that the prevalence of the notion in the discourse of politicians and in the language of social scientists can be understood in terms of its political functions.

We have tried to underline these by focusing on the role of this idea in the discourse and strategy of social-democratic parties, partly because this notion is often present in the writings of those that have attempted to describe the long term trajectories of these parties, and partly because the incorporation of the notion in the discourse of moderate left parties can appear as paradoxical.

This work vindicates that the idea of the trade-off can fulfill political functions for the political actors that employ it, i.e., both the conservative and the social-democratic parties. There is a methodological correlate to this contention: those social scientists aiming to understand the political trajectories of these parties should be careful not to acritically incorporate in their analyses some of the same categories that the actors studied employ. In this sense, this piece intends to complement existing understandings of the trajectories of social-democratic parties to the extent that they have traditionally taken for granted the accurateness or neutrality of the representations of a trade-off between efficiency and equality that some political actors put forward. The history of the concept of the trade-off between efficiency and equality seems one of success, as its widespread use both among scholars and political actors testifies. Deepening the study of this notion can help us understand some of the factors that make certain economic concepts and ideas prevail and gain leverage in the societal sphere.

By focusing on a general notion of a trade-off between efficiency and equality we have tried to show that its use can fulfill political functions and also that our use of the concept is often more ambiguous than we would like to concede. Not acknowledging this fact might lead one to readily accept as satisfactory pervasive statements like those affirming that social-democratic parties chose to abandon the policies linked to the Keynesian consensus because they were faced with a trade-off between efficiency and equality. In view of the preceding discussion, it is hard to know what this statement may concretely mean, and yet harder to see what makes accounts of this sort enlightening other than in a superficial way. The democratic class struggle, or the compromise arrived at by the social-democratic and conservative parties, needs, in order to sustain itself, a political language of its own. The idea of a trade-off between efficiency and

equality may be part of this language, so perhaps social scientists investigating the fate of social-democratic parties should refrain from its use if they are to illuminate us in our understanding of this and other political processes.

Notes

1. Another caveat is in order: we need to distinguish between *specific* situations in which *a* trade-off or an inverse relation between an efficient outcome and an equitable one may hold, and claims as to the existence of either an empirical or a logical *general* trade-off between efficiency and equity, or between equality and growth. This work does not make claims about the pertinence of talking about an equity-efficiency trade-off for *specific* situations, since it is always at least conceivable that in a particular situation, a dilemma between any two outcomes (be them efficiency, equality, price stability, life expectancy, etc.) may indeed take place. The question we instead analyze is the extent to which such a dilemma is a characteristic, stable feature of society.

2. Lukes (1992) has extended LeGrand's analysis on this point and has pointed to the possible rhetorical advantage of using the language of efficiency when people are really talking about economic growth. He suggests that this is perhaps done to imply on the one hand, that economic growth is in itself the most efficient way of providing a range of implicit values like social stability, democracy, and perhaps equity, and on the other, that welfare programs and redistributive policies are inefficient or counterproductive at doing so.

3. Pareto-optimality is defined as the property of an allocation of resources in which changes in the allocation in order to make one individual better off necessarily imply making another individual worse off.

4. Ibid., p. 452. For a simulation showing equally upsetting results, see, for example Browning and Johnson (1984).

5. See, for example, recurring references in Hardin (2005).

6. One way to understand this pattern is to associate it to a marginal productivity theory of income distribution, where in the early stages of industrialization, inequality may grow because of the relative abundance of labor and the increased profitability of capital investment, whereas in the later stages of industrialization, new investments become less profitable, while labor grows scarcer and demands for redistribution of income become widespread.

7. See Roemer (1994).

8. For a well known application of this approach in the field of international relations, see, for example, Goldstein and Kehoane (1993).

9. See Blyth (2002).

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Does the Lack of a Profit Motive Affect Hiring in Academe? Evidence from the Market for Lawyers

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Abstract. The comparative performance of academic and economic markets continues to be debated. One factor potentially distinguishing academic markets is the profit motive. Profit and competition have been shown to curb discrimination in markets, and the absence of profit discipline could result in myriad forms of prejudice in academic hiring. We explore the role of the profit motive in the performance of academic markets by comparing the pedigree of employees of top law schools and top law firms. Top law schools are much more likely to employ graduates of top ranked law schools than elite law firms, and the difference exists at both the junior and senior levels. We find no evidence that the graduates of top 5 law schools outperform grads of less prestigious schools in publications or citations. In the absence of a profit motive, academic hiring appears more likely to indulge a preference for pedigree, and by implication, this may explain other scholarly prejudices in the academy.

Introduction

The human proneness to snobbishness does not disappear with education. Students of elite universities like to think that admission to and graduation from these schools validates their personal status. Graduates of prestigious universities often presume that graduates of less distinguished institutions are not as talented or as well trained.

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Conversely, graduates of non-elite universities often claim that they never get a fair shake in their careers, as the elite look out for each other.

Snobbishness is a form of prejudice, and economic research shows that by forcing people to bear its opportunity costs, markets curb discrimination (Becker 1971). By implication non-profit employers should be more likely to indulge snobbishness more than for-profit firms. The market for lawyers combines non-profit law schools and for-profit law firms, and thus offers an opportunity to test whether academic markets are more prone to prejudice, specifically a prejudice for pedigree. While all employers might like to hire from elite law schools, law firms face reduced profits when indulging this prejudice whereas law schools will not lose profit when hiring based on pedigree instead of ability. We test the role of the profit motive on hiring by comparing the educational backgrounds of the faculty of 20 top ranked law schools to the lawyers of six prestigious law firms.

This article specifically investigates a relatively benign yet tangible form of prejudice—for pedigree. Presumably other more problematic prejudices (including political ideology or research methods) could be indulged in faculty selection (hiring, tenure, and promotion). As Polanyi (1962) noted, science (and other disciplines) share the base architecture of the market economy, namely decentralized decision making coordinated through a feedback process. Academic markets nonetheless do differ in some ways from markets, notably in their reliance on prestige and peer review as opposed to direct payment for scholarship (Burris 2004; Thornton 2004), so research benefits authors by generating a reputation. In addition, research fields are dominated by academics located in non-profit universities in contrast with profit driven firms in the economy. The absence of the profit motive could help explain the difference in performance of spontaneous coordination in the academy relative to traditional economic markets. Many observers raise a number of charges of scholarly bias against specific disciplines and the academy as a whole. For example, the economics profession has been accused of bias against heterodox economics (Lee and Elsner 2008) and Austrian economics (Yeager 1997). Others charge economics with pursuing excessive formalism and mathemati-

cal modeling at the expense of testable hypotheses (Leontief 1982; Coelho and McClure 2005). And commentators on the political right accuse the entire professorate of left-liberal bias (Kimball 2008; Horowitz and Laskin 2009). Our investigation provides perspective on the potential causes of such bias. If indirect exchange and reputation seeking function analogously to monetary exchange and profit seeking, then academic markets should not be less efficient than economic markets. But the absence of a profit motive may provide academics slack with which to indulge prejudices and biases.

The remainder of this article is organized as follows. The next section further discusses the role of the profit motive and commercial forces generally in limiting academic prejudices and relevant literature. The third section describes the construction of our data set. The fourth section presents the main results. Law schools are significantly more likely to hire graduates of elite law schools than the most prestigious firms. Overall 61 percent (81 percent) of faculty of top 20 law schools graduated from one of the top 5 (top 20) ranked law schools, compared with 35 percent (69 percent) of lawyers in private practice. The difference prevails at both the senior and junior levels, but junior positions have a more distinguished pedigree distribution than senior positions in law schools, while the reverse pattern is observed for law firms. The fifth section considers some extensions to address alternative explanations for the observed pedigree distributions, including self-selection of schools by students and cohort size effects. The next section deploys a second type of evidence, based on the scholarly records of faculty. Graduates of top 5 law schools do not have better scholarly records than their colleagues from lower ranked schools, suggesting that superior performance does not explain law school hiring. The final section discusses the implications of our findings.

Theoretical Issues and Review of Related Research

Does the absence of commercial forces—the profit motive—importantly affect the academic market? To explore this question, we examine the educational pedigree of lawyers at top law firms and law schools in the United States. We expect a high proportion of lawyers and faculty to have earned degrees from top ranked schools; the best

students apply to the most prestigious schools, which have the best known faculty and offer better opportunities for internships and clerkships, and so forth. But lower ranked law schools have outstanding faculty and not all of the best students attend the best schools. Some outstanding lawyers are late bloomers lacking the credentials to attend top schools. Consequently not all of the best lawyers will be from the best schools.

Will law firms or law schools be more willing to hire top lawyers who did not attend the right school? The profit motive suggests that law firms should be more likely to hire an outstanding lawyer with an *undistinguished pedigree*, since this person can bring in additional business or better serve clients, increasing the firm's profits. The partners of a law firm forego earnings by hiring based on pedigree instead of ability. By contrast, a professor is unlikely to receive a raise by hiring better colleagues, and since outstanding colleagues might successfully compete for future raises, faculty may benefit from hiring a pedigreed mediocrity over an outstanding performer from a lower ranked school. If monetary incentives dominate on the margin, law firms should be more likely to hire the best lawyers regardless of pedigree.

The absence of profit, however, does not eliminate all incentives for faculty to hire good colleagues. An active market for faculty exists, allowing top researchers to earn higher salaries, and so self-interest can motivate faculty to hire colleagues who can improve the quality of their own scholarship. Also reputation is important to academics, and many faculty value the ranking of their department or school, providing another incentive to look past pedigree.[1] Administrators could implement a hiring and tenure process that selects faculty willing to contribute to the public good of the university without a monetary reward. The importance of monetary incentives in general does not rule the potential of a select group of professionals to contribute to their university. U.S. law schools confer almost 50,000 J.D. degrees each year while the top 20 ranked law schools have about 1,100 regular faculty positions. Even if less than 1 percent of lawyers are willing to contribute to the public good of the quality of the law school and possess the skills and aptitude required for successful teaching and scholarship, law schools will be able to find faculty with

the desired disposition. Whether the profit motive truly differentiates academic from economic markets is an empirical question.

The market for lawyers consists of junior and senior segments, and the importance of pedigree may differ across the segments. For instance, law firms might be willing to hire associates from a wide range of backgrounds to compete in the tournament for partnership, with pedigree assuming significance only in the selection of partners. On the other hand, the financial well-being of the firm depends more on the productivity of the partners than of associates. As Galanter and Palay (1991: 53) note, "The push for new business also brings about increased emphasis on 'rainmaking' by more of the firm's lawyers. Those lawyers who are responsible for bringing in business—'rainmakers' or 'finders' or 'business-getters'—have a new ascendancy over their colleagues." The importance of pedigree might differ for junior and senior faculty as well. Untenured faculty may be viewed primarily as teachers of first year classes for whom pedigree is relatively unimportant, with senior faculty viewed as the permanent face of the school. Alternatively, senior hires can be based on research records to date while junior faculty hires must be based on expectations of productivity, which could correlate with pedigree. For these reasons, we will compare the junior and senior ranks of law firms and law schools separately.

As a preference for pedigree is a form of discrimination or favoritism, the enormous literature on discrimination is of relevance to our investigation. In addition to competition and discrimination, the breakdown of discrimination is also relevant to our study. Goff, McCormick, and Tollison (2002) examined the integration of major league baseball and college basketball in the Atlantic Coast Conference. They found that in each case the most successful teams integrated first, which they attribute to the superior entrepreneurship and management of successful teams, and the same pattern of breakdown occurred in both the for-profit industry (major league baseball) and non-profit industry (college basketball).[2]

A number of papers examine hiring across a variety of fields in academe and document the disproportionate share of faculty positions obtained by graduates of top schools. For instance, Redding (2003) finds that 33 percent of new faculty hired in law schools graduated

from Harvard or Yale, and over 85 percent were from top 25 schools; Redding, however, did not examine the pedigree of senior faculty. Burris (2004) finds that top 5 departments accounted for about 1/3 of faculty at 94 top departments in sociology, and top 20 departments in total accounted for 70 percent. Pieper and Willis (1999) find that the top 10 (20) ranked economics department produced about 1/2 (2/3) of the faculty at Ph.D. granting programs. The dominance of top schools, if anything, will be greater in the direction of dissertations; Pieper and Willis (1999) report that six departments produced over half of dissertation supervisors at 47 leading departments in 1992. Overall the supply of Ph.D.s is not concentrated, as Scott and Anstine (1997) found that the top 20 programs in economics produced just over 40 percent of Ph.D.s in 1991, and the Herfindahl-Hirschman Index for Ph.D.s was just over 200, indicating a highly competitive supply. A lack of Ph.D.s from other programs does not explain the dominance of faculty positions by graduates of top ranked schools. Klein and Stern (2009) argue that groupthink and majoritarianism exist within academic departments, and this can perpetrate hiring based on pedigree or fashions in scholarship. Students trained at top departments feel more loyalty to their discipline than their university and decide that hiring more faculty trained to think similarly is the key to building a good department. Once graduates of elite programs form a majority, the process is self-sustaining. Studies documenting pedigree effects, however, lack a comparison group. Yes, top departments hire a large percentage of faculty from other top programs, but these universities may simply be hiring the best candidates, who happen to graduate mainly from top ranked schools. Our study allows a comparison of academic hiring with similarly elite private sector employers.

Economists have also looked for evidence of favoritism and networks in academic publishing. At issue is whether top journals really publish the best papers, or whether insider networks dominate publishing (Faria 2005). Domination of the best journals by a privileged elite can provide a self-validating system: the faculty and graduates of the best schools publish in the "best" journals, while outsiders never get a fair chance to publish in the top journals, and their less prestigious publication records ex post justify their lower placement (Klein 2005). Yet Laband and Piette (1994) found no evidence of

favoritism in top economics journals in a comparison of citations to papers by authors with connections to the journal and papers by outsiders, suggesting a limited effect of favoritism. Overall systematic evidence of favoritism has been elusive (Thornton 2004).

Criticisms of the economics profession and the academy are also of relevance to our topic. Other critics challenge the quality and contribution of academic research. Scholars are alleged to discriminate against work that conflicts with the discipline's mainstream. In the economics field, heterodox economics (Lee and Elsner 2008) and Austrian economics (Yeager 1997) are particularly disadvantaged relative to the profession's mainstream. The mainstream's disregard for these dissidents may appear vindicated based on conventional metrics for ranking departments or scholars, but the evaluation of academic research is notoriously self-referential (Klein 2005). In the case of the Economics Research Assessment in the United Kingdom, Lee (2007) examines how the assessment first categorized heterodox journals as of low significance, and then lowered the ratings of departments with concentrations of heterodox economists on the grounds of fewer publications in what had been classified as highly ranked journals. Economists have also challenged the contribution of mathematical economics (Blaug 1998), and economics' romance with mathematical and statistical analysis could be a methodological bias. Subsequent papers have critiqued the case for mathematical economics (Beed and Kane 1991; Sutter 2009), the paucity of testable hypotheses generated by mathematical models (Coehlo and McClure 2005), and rationales economists offer in support of the scholarship (Grubel and Boland 1986). Other critics charge the professorate with a considerable left-liberal bias (Kimball 2008; Horowitz and Laskin 2009), which could be one manifestation of prejudice in academe. Recent studies have documented the ideological disparity among faculty across many disciplines (Cardiff and Klein 2005; Klein and Stern 2005) and argued that conservative scholars across disciplines were employed at less prestigious universities than predicted by their credentials. All of these charges amount to different types of prejudice among academics. Our study contributes to this dialogue by focusing on an easily verifiable form of prejudice—for pedigree—and examining why academic markets might be more prone to prejudice and

bias than economic markets. If the academy is more likely to indulge prejudices for pedigree, it could also indulge ideological or methodological prejudices.

Construction of the Data Set

We compare the law school backgrounds of faculty of top 20 law schools with lawyers at six prestigious law firms. Law features a highly paid and prestigious private sector as well as a high status academic sector and thus offers a good test for the influence of the profit motive on hiring.[3] We use Brian Leiter's law school rankings for 2007 to establish our top 20 law schools. Large urban firms specializing in corporate law are clearly recognized as at the top of the prestige hierarchy of the bar (Heinz et al. 2005). Among large law firms, we choose the six highest ranked firms in partner compensation (all of which are also highly prestigious) to maximize the profit motive contrast with the academy.[4] Examination of websites of the law schools and law firms between March and June 2008 produced the lists of individuals included in this study. Individuals were classified based on the school from which they earned their J.D. degree or its equivalent; advanced degrees in law were noted, but not used in classifying graduates. Faculty not holding a law degree were excluded from the analysis.

We exclude from analysis graduates of international law schools to avoid finding satisfactory worldwide law school rankings. The number of international graduates is small, so their exclusion does not affect our analysis substantially. An individual was counted as an international graduate if his or her J.D. degree or equivalent was awarded from a school outside of the U.S. An individual holding an international bachelor's degree in law and an advanced degree from a U.S. school was included in the analysis and counted as a graduate of the school from which he or she earned the first U.S. degree.

We noted each person's current rank to test for pedigree differences at junior and senior levels. Partners and associates, respectively, comprise the senior and junior ranks for law firms. Firms also employ individuals in a wide range of other positions, such as Of Counsel or Special Counsel; following Galanter and Palay (1991), we include all

of these titles in a miscellaneous category. Professors are the senior rank and assistant and associate professors are junior ranks for law schools. We also note persons holding a named professorship as a separate senior category.[5] Individuals holding clinical professor, instructor, or legal writing positions are included in an "other" category. We make comparisons between firms and schools including all lawyers and faculty as well as with the miscellaneous and other categories.

We obtained biographical information (based on the above criteria) for 2,266 lawyers at the six law firms and 1,388 faculty. Our analysis and discussion refers exclusively to the individuals in our data set, not all persons at the firms or schools. Firm size ranged from 147 to 614, and faculty size ranged from 42 to 115. Table 1 describes our data set by sector and rank. Associates outnumber partners in law firms, but senior faculty outnumber junior faculty. The miscellaneous and other categories comprise 18 percent and 21 percent of law firm and law school personnel in our sample. A total of 179 lawyers with international law degrees were excluded, while our data set includes 133 lawyers with degrees from U.S. law schools at international offices.

Table 1

Distribution of the Sample

Law Firms		Law Schools	
Total	2,266	Total	1,388
Partners	593	Regular Faculty	1,100
Associates	1,269	Senior Faculty	946
Miscellaneous	404	Named Professors	523
		Professors	423
		Junior Faculty	154
		Associate	89
		Assistant	65
		Other Faculty	288

Empirical Analysis

Table 2 compares all lawyers and all faculty. Law schools are more likely to hire graduates of top 5, top 10, and top 20 ranked law schools than law firms. Overall 35 percent, 49 percent, and 69 percent of lawyers for the law firms graduated from top 5, top 10, and top 20 ranked law schools (inclusive), while 61 percent, 76 percent, and 89 percent of faculty graduated from top 5, top 10, and top 20 ranked schools. These differences are statistically significant.[6] Both distributions include the miscellaneous and other categories described above, but these individuals are not part of a firm's partner tournament or a school's tenure stream. Thus Table 2 also reports the pedigree distributions for partners and associates and regular faculty. The proportion of graduates of elite law schools increases for both firms and schools, and the increase is slightly larger for law schools. Overall 71 percent of partners and associates and 91 percent of regular faculty graduated from top 20 law schools, and the distributions differ significantly.[7]

Table 3 reports the pedigree distributions by rank or category for firms and schools. The percentages of junior and senior faculty are also reported (that is, combining assistant and associate and also professor and named professor) for a direct comparison with associates and partners. Pedigree seems less important to firms at the

Table 2

Hiring Patterns, Law Firms vs. Law Schools

		Top 5	Top 10	Top 20
Law Firms				
	All Lawyers	34.55	48.99	68.62
	Partners & Associates	36.04	50.97	70.95
Law Schools				
	All Faculty	61.17	76.08	88.76
	Regular Faculty	67.27	80.45	91.45

Numbers in cells are percentages. The regular faculty designation excludes clinical faculty, lecturers, and other individuals in the "Other" category

Table 3

Hiring Patterns by Rank

		Lawyers Graduating From		
		Top 5	Top 10	Top 20
Law Firms				
	Partners	42.33	55.14	78.24
	Associates	33.10	49.01	67.53
	Miscellaneous	27.72	39.85	57.92
Law Schools				
	Named Professor	70.36	83.17	94.07
	Professor	62.41	75.65	87.94
	Associate	62.92	78.65	89.89
	Assistant	80.00	92.31	95.38
	Other	37.85	59.38	78.47
	Senior Faculty	66.81	79.81	91.33
	Junior Faculty	70.13	84.42	92,21

Numbers in cells are percentages. The Miscellaneous category for law firms includes all lawyers with titles other than Partner or Associate. The Other category for law firms includes clinical faculty, lecturers, and associate deans not holding a law degree.

entry level; 33 percent and 68 percent of associates graduated from top 5 and top 20 schools, compared with 42 percent and 78 percent of partners, and these pedigree distributions are statistically different. By contrast, the percentage of graduates from top schools is relatively equal across ranks in the academy, and is slightly more distinguished for junior than senior faculty. Our finding is consistent with Redding's (2003) evidence on the background of new law school faculty. The miscellaneous and other categories have less distinguished pedigree distributions. The pedigrees of faculty are significantly more prestigious than lawyers at both the junior and senior level.

Special circumstances might affect hiring by both firms and schools. Lawyers trained in the state where they practice may offer a comparative advantage to law firms if much of these firms' cases are under that

state's law. A graduate of an in-state law school might know more about that state's laws than a graduate of Harvard or Yale. And law schools might face pressure to hire (or not hire) their alums. For instance, Harvard has a long standing tradition of offering the top graduate in each year's class the opportunity to join the faculty. The best test of a prejudice for pedigree might arise for positions hired free from these considerations. Table 4 reports the pedigree distributions for all lawyers and partners and associates graduating from a school in the state where they currently practice and from an out-of-state school. A slightly higher percentage of lawyers from out-of-state graduated from top 5 schools, while slightly more lawyers who are in-state graduates are from schools ranked from 6 to 20. Table 5 reports the pedigree distribution for alumni and non-alumni faculty. Trivially all alumni faculty of top 20 law schools graduated from top 20 ranked schools. For top 5 and top 10 ranked schools, alumni are more likely to hold senior than junior positions; 58 percent of senior faculty alums at top 20 ranked law schools were at the top 5 schools, compared with only 27 percent of the junior faculty. The non-alumni hires have more prestigious pedigrees.

To use out-of-state trained lawyers versus non-alumni faculty or "free hires" to test for a prejudice for pedigree, we compare the bottom portions of Tables 4 and 5. Schools are much more likely than

Table 4

Lawyers Trained In-State and Law Firms

	Lawyers Graduating From		
	Top 5	Top 10	Top 20
Trained In-State			
All Lawyers	30.40	53.10	70.34
Partners & Associates	32.02	55.28	73.11
Trained Other State			
All Lawyers	36.85	46.71	67.67
Partners & Associates	38.25	48.58	69.75

Numbers in cells are percentages.

Table 5

Law School Alumni Faculty

	Top 5	Top 10	Top 20
Alumni Hires			
All Faculty	47.76	69.78	100.00
Senior Faculty	58.17	74.51	100.00
Junior Faculty	26.67	53.33	100.00
Other Hires			
All Faculty	64.38	77.59	86.07
Senior Faculty	68.46	80.83	89.66
Junior Faculty	74.82	87.77	91.37

Numbers in cells are percentages of faculty graduating from top 5, 10, and 20 ranked law schools.

firms to fill free hires with graduates of elite schools: 64 percent (86 percent) of non-alumni faculty graduated from top 5 (20) schools, compared with 37 percent (68 percent) of out-of-state trained lawyers. The differences between these pedigree distributions are statistically significant.

The distribution of pedigree differs for law firms and law schools, as all of the comparisons so far have been highly statistically significant. But the comparisons do not control for multiple factors simultaneously. As a robustness check, we estimated a probit regression model of pedigree, with the dependent variable indicating if an individual graduated from a top 5, top 10, or top 20 ranked law school (inclusive). The model includes a constant, a dummy variable indicating lawyers working for law schools, and dummy variables to control for the level of appointment (with the miscellaneous/other level as the omitted category). Unfortunately several of the potential determinants of prestige do not translate into control variables for both schools and firms. Table 6 presents the results, reporting the probit coefficients and robust standard errors. In each case the law school variable has a positive coefficient that differs from zero at better than the 0.01 level. The marginal effects depend on the circumstances

Table 6

Probit Regression Analysis of Pedigree

	Top 5 Graduate	Top 10 Graduate	Top 20 Graduate
Intercept	0.0360	0.129**	0.404***
	(0.0359)	(0.0367)	(0.0367)
Law School	0.250**	0.436**	0.600**
	(0.0720)	(0.0792)	(0.0904)
Senior	0.000159**	0.000157**	0.000125*
	(0.0000379)	(0.0000430)	(0.0000511)
Junior	−0.803***	−0.276**	0.145***
	(0.0454)	(0.0452)	(0.0461)
Log Likelihood	−2,214	−2,302	−1,884
McFadden R2	0.118	0.0663	0.0568

Number of observations = 3,649. Probit coefficients reported; Huber-White standard errors in parentheses. ** and * indicate significance at the 0.01 and 0.05 levels in a two-tailed test. The dependent variable is, respectively, whether the lawyer is a graduate of a top 5, top 10, or top 20 law school.

(junior vs. senior level) and are non-trivial. The probability of graduating from a top 5 program is about 0.10 greater for faculty than lawyers; for senior positions, for instance, the probability rises from 0.51 for firms to 0.61 for schools. The marginal effect for graduates of top 10 programs is around 0.15, and the effect for graduates of top 20 programs is almost 0.20.

We also estimated the specifications from Table 6 for two subsets of our data, regular faculty and partners and associates of firms, and with law school alums and lawyers trained in-state for firms excluded. The results, not reported, confirm the findings of Table 6 and the bivariate comparisons. In each case faculty are significantly more likely to have graduated from top 5, top 10, or top 20 ranked law schools. The pedigree distribution of law school faculty is more prestigious than the distribution for top law firms, and the result is robust and of non-trivial magnitude. In the next section we further consider some alternative explanations of our finding.

Prejudice for Pedigree? Further Analysis

Self-Selection Among Law Students

We would like to interpret the more distinguished pedigrees of faculty as a consequence of the demand side of the market, that is, a prejudice for pedigree on the part of law schools not curbed by commercial forces. But the supply side of the market could also explain the disparity, through self-selection by students interested in teaching law. Students hoping to teach may select top law schools because they are aware that law schools hire based on pedigree, and have for some time (see Redding 2003). Self-selection by students could explain part or all of the concentration of graduates of top 5 law schools on law firm faculties.

To address this possibility, we examined the relationship between undergraduate degree and law school matriculation for graduates of top 5 law schools. We could determine the undergraduate alma mater of 1,614 top 5 law school grads in our data set, and 52.2 percent of these individuals held faculty posts. Of course a number of factors other than an interest in teaching law will affect a student's law school choice. A student might attend law school at the same university she attended as an undergraduate, due to ties to the school and community. Students who matriculate to a different university for law school should be more likely to choose the school for career reasons. Geography could also be a factor; students might want to attend law school in the same state where they studied as an undergraduate (and possibly grew up). Undergraduates from an elite university might be influenced by their professors to attend law school at a peer university and more likely to go to Yale, Harvard, or Columbia for this reason. And undergraduates who studied outside of the U.S. are making a decision to study law at a top U.S. law school, presumably to work in the U.S. legal market. These considerations allow us to identify subsamples where self-selection by students is more likely to have occurred.

Table 7 reports the employment of top 5 law school graduates by their undergraduate education. The first row reports for all graduates, which is our benchmark for testing for self-selection. Each successive

Table 7

Employment of Graduates of Top 5 Law Schools

Category	Number of Grads	Percent with Firms	Percent as Faculty
All graduates	1,614	47.8	52.2
Graduates who did not earn undergrad degree at same university as their law degree	1,297	48.8	51.2
Graduates who matriculated from another state	1,224	48.3	51.7
Grads who matriculated from another state and did not attend at top 5 or Ivy League university as undergrads	654	51.2	48.8
Grads who earned undergrad degrees in another country	118	72.0	28.0

row eliminates one of the above mentioned sets of graduates, leaving a group more likely to have made a law school decision based on career prospects. If self-selection by students explains the preponderance of the graduates of top schools on law school faculties, the proportion of graduates with teaching positions should increase in these subsamples. The first adjustment omits graduates who earned their undergrad degree at the same university. The second excludes graduates of a college in the same state as the law school attended, while the third excludes undergraduate alumni of other top 5 law school and Ivy League universities. The final row includes only international undergraduates. The proportion of lawyers employed at law firms is higher for each of these subsets than overall, contradicting self-selection. Fifty-one percent of grads who matriculated from a different state and not from an Ivy League institution were working for law firms. And 72 percent of students earning undergraduate degrees outside of the U.S. worked for law firms. The difference in proportions is statistically significant only for international students, but we find no evidence of self-selection by students interested in teaching.

Further Analysis of State and Regional Effects

As discussed above, lawyers who attended law school in the state where they practice might have a comparative advantage over graduates of a top ranked but out-of-state school. Law schools value scholarship and teaching, which are likely more portable across states. We compared in-state and out-of-state trained lawyers in Table 4 as one way to address this. But the geographic concentration of the top law firms (54 percent of our lawyers are based in New York) might muddy this comparison. To further disentangle state influences on hiring, we examined the hiring in Florida, the most populous state in the U.S. without a top 20 ranked law school. All graduates of top 20 law schools in Florida will be "imports." We selected the two highest ranked law schools in the state, the University of Florida and Florida State University, and the two firms in the state ranking highest on partner compensation, Hollard and Knight and Greenberg and Traurig. We applied the procedure

Table 8

Comparison of Florida Law Firms and Law Schools

		All Lawyers		In-State Graduates, Alumni Excluded	
		Top 5	Top 20	Top 5	Top 20
Law Firms					
	All Lawyers	8.33	22.00	17.86	47.14
	Partners	9.36	21.64	19.51	45.12
	Associates	2.83	17.92	7.14	45.24
Law Schools					
	All Faculty	25.22	45.22	30.21	54.17
	Senior	29.33	56.00	30.56	58.33
	Junior	46.67	66.67	53.84	76.92

Numbers are percentages of lawyers graduating from a top 5 or top 20 ranked law school.

described above to obtain information on the faculty of the two schools and a randomly selected set of lawyers for the two firms. The Alchian-Allen theorem suggests that a large fraction of out-of-state trained lawyers would be from top schools, but the theorem should apply for both firms and schools. We test if a prejudice for pedigree by law schools is still observed.

Table 8 reports the pedigree for all lawyers and only graduates of out-of-state law schools for the firms and schools. Again law schools are significantly more likely to employ prestigious law school graduates. Overall 25 percent and 45 percent of faculty and 8 percent and 22 percent of lawyers graduated from top 5 or top 20 law schools. The disparity prevails at the junior and senior levels. Exclusion of in-state trained lawyers and alumni (which includes over half of lawyers at firms) brings the distributions more in balance, with 30 percent (54 percent) of faculty from top 5 (20) law schools, compared with 19 percent (47 percent) of lawyers. The pedigree distributions at the senior level are more similar, but the distributions diverge substantially at the junior level, with 54 percent (77 percent) of junior faculty from

top 5 (20) schools compared with 7 percent (45 percent) of associates. The divergence of the pedigree distributions between the Florida schools and firms are statistically significant.

A Preference for Pedigree or Cohort Size?

The number of positions hired each year may drive the difference in pedigree distributions. The law firms in our sample have over 400 lawyers each, while the top 20 law schools have a total of just over 1,500 faculty members (including those not in our data set). The six law firms have 1,269 associates in our data set (plus others for whom we could not obtain education information), and with a time to partner of around seven years, in steady state just these six firms would hire perhaps 200 new associates each year. By contrast, assuming a 20-year teaching career, the 20 top law schools would need to hire around 50 new faculty per year. The top 5 law schools admit about 1,500 students per year, with reported attrition rates of about 1 percent. Thus the top 20 law schools would have to hire less than 5 percent of each year's graduating class to fill the open faculty positions with top 5 grads, while these six firms would need to hire 13 percent of the graduating class. There are many other large, prestigious firms in the U.S., so law firms may have a strong a prejudice for pedigree but must hire from nonelite schools.[8] Galanter and Palay specifically discuss how the growth of large law firms has undermined hiring from elite law schools:

> As the number and size of large firms increase, recruitment has become more competitive and meritocratic, leading to changes in the social composition of the new recruits. The range of law schools from which big firms recruit has widened and recruitment goes "deeper" into the class. Barriers against Catholics, Jews, women, and Blacks have been swept away. The social exclusiveness in hiring that was still a feature of the world of elite law practice in 1960 has receded into significance. Performance in law school and in the office counts for more and social connections for less. (1991: 57)

> Another argument emphasizes that while the nation's law schools graduate almost 300 percent more lawyers in 1980 than in 1960, the most prestigious schools did not maintain that same pace. Large law firms traditionally had done the bulk of their recruiting at these schools. As the number of students available from the elite schools failed to keep pace with the needs

> of the big firms, they recruited deeper into the classes of these schools and more heavily from less prestigious schools. (1991: 110–111)

Controlling for the influence of cohort size on the pedigree distribution is difficult. But if the top law firms as a group cannot hire predominantly from elite law schools, perhaps some firms can. So we investigate whether any of the law firms in our sample resemble the elite law schools, and tabulate the pedigree distribution for individual firms. Table 9 first reports the pedigree distributions for several groups of law schools, including the top 5, the second 5 (ranked from 6 to 10 including the tie at 10), the second 10, Ivy League schools, and law schools at state universities to use as benchmarks for the firms. The percentage of faculty from top 20 law schools as a group is relatively constant across the top 5, second 5, and second 10 schools at 94 percent, 89 percent, and 86 percent. The percentage of graduates of top 5 schools, however, diverges considerably for these groups of schools, as 80 percent of faculty (over 85 percent of regular faculty) of top 5 ranked schools graduated from top 5 schools, but only 50 percent of the second 10 schools. Junior faculty at the second 5 and second 10 schools are even more likely to be graduates of elite law schools than their senior colleagues, although these differences are not always statistically significant. The Ivy League schools in our sample have a more distinguished pedigree distribution than our sample as a whole and than public universities. The difference between Ivy League and state universities is most pronounced for graduates of top 5 and top 10 schools: 75 percent of Ivy League faculty (and over 80 percent of regular faculty) graduated from top 5 schools, compared with 53 percent of faculty at state universities. The difference is modest however for graduates of top 20 schools, at 91 percent of Ivy League and 87 percent of state university faculty.

Table 10 displays the pedigree distribution by firm for all lawyers, partners, and associates. Three firms resemble at least some of the law schools. The pedigree distribution of Wachtell, Lipton is significantly more distinguished than the top 20 law schools as a group (Table 2) and is statistically indistinguishable from the second 5 ranked law schools. Cravath, Swaine and Sullivan & Cromwell have distributions similar to the second 10 law schools. The pedigree distribution of partners of each of these firms is more prestigious than for all their

Table 9

Hiring Patterns for Types of Law Schools

		Top 5	Top 10	Top 20
Ranked 1–5				
	All Faculty	80.06	87.81	93.63
	Senior	86.19	91.63	97.07
	Junior	85.71	96.43	100.00
Ranked 6–11				
	All Faculty	61.19	81.43	88.57
	Senior	67.43	82.89	91.12
	Junior	82.86	97.14	97.14
Ranked 12–20				
	All Faculty	49.92	65.40	86.00
	Senior	54.84	70.47	88.09
	Junior	60.43	75.82	87.91
Ivy League				
	All Faculty	75.31	82.81	91.25
	Senior	80.31	86.87	94.21
	Junior	86.36	90.91	95.45
State Schools				
	All Faculty	53.35	73.43	87.26
	Senior	58.68	74.45	89.27
	Junior	70.00	83.33	91.67

Numbers in cells are percentages of faculty who graduate from a top 5, 10, or 20 ranked law school, respectively.

lawyers; indeed, Cravath's partners are statistically indistinguishable from senior faculty at the second 5 law schools. That some firms resemble law schools is consistent with an interpretation that top law schools simply do not graduate enough students to fill all of the positions at top law firms.[9] Yet the cohorts are not so large as to render hiring more exclusively from elite schools impossible, and no strong correlation exists between firm size (in our sample) and pedigree. For instance, Sullivan & Cromwell has the most lawyers in our sample and

Table 10

Hiring by Law Firm

		Top 5	Top 10	Top 20
Wiley, Rein				
	All Lawyers	15.06	23.17	59.85
	Partners	20.00	29.17	74.17
	Associates	10.78	19.61	51.96
Wachtell, Lipton				
	All Lawyers	63.16	78.95	92.82
	Partners	69.23	82.05	92.31
	Associates	65.14	81.65	95.41
Cravath, Swaine				
	All Lawyers	49.78	65.37	80.52
	Partners	58.89	72.22	86.67
	Associates	50.17	66.55	83.28
Cadwalder				
	All Lawyers	12.52	27.30	45.74
	Partners	19.81	34.91	59.43
	Associates	9.56	25.60	41.98
Sullivan & Cromwell				
	All Lawyers	45.44	61.40	78.33
	Partners	53.80	69.62	85.44
	Associates	39.95	57.37	74.26
Cahill, Gordon				
	All Lawyers	21.09	33.33	61.22
	Partners	34.15	39.02	65.85
	Associates	14.14	29.29	56.57

Numbers in cells are percentages of lawyers who graduated from a top 5, 10, or 20 ranked law school, respectively.

resembles a second 20 law school, while Wiley, Rein has the fewest and has a much less distinguished pedigree distribution. The weak connection between firm size and pedigree mitigates against a pure cohort size explanation of law school pedigrees.

Quality of Publication Records

We have relied on the objective information of law school alma mater to test for a difference in pedigree between schools and firms. Our approach makes no assumption that the graduates of top law schools in fact outperform graduates of lower ranked schools. The disproportionate hiring of graduates of top ranked schools by top law schools is consistent with a greater indulgence by nonprofit universities of a preference for pedigree relative to profit oriented firms. If nonetheless law schools do hire and promote based on merit and the graduates of top schools happen to be better than the competition, their academic records should be better than those of graduates from lower ranked schools. We test for such a difference in scholarly records here, even though the self-referential nature of academic publishing renders definite conclusions elusive.

We restrict attention to professors and named professors. Inferences regarding the productivity for junior faculty may be problematic, since faculty with poor records may be soon denied tenure. By contrast, professors and named professors have already passed the tenure hurdle. We will make tabulations separately for professors and named professors, since presumably the standards for a named professorship exceed tenure requirements. We additionally make separate tabulations for top 5 and second 5 ranked law schools, since tenure and promotion requirements may differ.

We use two measures of academic productivity, publications in top 30 law journals and citations to these papers. To control for individuals at different stages in their careers, we scale publications by years since graduation from law school.[10] We created four pairs of 10 faculty members, professors, and named professors with degrees from top 5 and lower schools holding positions at top 5 and second 5 schools. Faculty were randomly selected, with faculty holding a Ph.D. degree in another discipline excluded, since only a portion of this person's career publications could be in law journals. Publication information was taken from the faculty member's C.V. if available online, and if not, from the Institute for Scientific Information's Social Science Citation Index. Citation totals (as of June 2009) to the publications in top 30 journals were obtained from the SSCI.

Table 11 summarize the productivity of law school faculty in each group. Two measures are reported, publications or citations per year for all faculty in each category, and median publications or citations per year for each group of faculty members. Named professors from lower ranked law schools outperform their colleagues from top 5 ranked schools, particularly among named professors at top 5 schools. Faculty not from top 5 schools have about 20 percent more publications per year and 30 percent more citations per year than their more distinguished colleagues. For named professors at schools in the second 5 schools, grads of lower ranked schools have slightly lower publication totals but better citation totals. Full professor graduates of top 5 schools out performed the graduates from less prestigious schools in both publications and citations. Note that the professors category includes high performers on their way to named professorships and faculty who earned tenure but did not perform well enough to earn a named professorship. On average the graduates of top 5 schools holding professor positions achieved them earlier in their careers than the graduates of lower ranked schools, and so interpretation of the professor rank differences is less clear.

To further test the influence of pedigree on productivity, we estimated Tobit regression models of total publications and citations (to account for censoring at zero). As controls we include indicators for whether a faculty member graduated from a top 5 ranked law school, had a position at a top 5 law school or not, and years since attaining the J.D. degree. Table 12 presents the results. The regressions were estimated separately for named professors and full professors. The point estimate for top 5 graduates for both named professors and full professors is negative, indicating that graduates of top law schools have not compiled better records, but neither attains statistical significance. Thus the superior performance of professors from top 5 schools observed in Table 11 disappears when controlling for time since degree. Certainly we find no evidence that law school faculty with more distinguished pedigrees do not outperform their colleagues from lower ranked schools. Our results are similar to Redding (2003), who found that rank of the law school attended affected placement but not publication prospects among new law school faculty.

Table 11

Publication and Citation Records of Selected Law School Faculty

	Named Professors			
	From Top 5 Law Schools		Not from Top 5 Law Schools	
	Publications/Yr	Citations/Yr	Publications/Yr	Citations/Yr
At Top 5 Law Schools	0.502	16.7	0.699	22.3
	0.354	*5.93*	*0.504*	*9.82*
At Rank 6–10 Law Schools	0.498	9.94	0.489	12.8
	0.399	*8.29*	*0.288*	*7.12*
	Full Professors			
At Top 5 Law Schools	0.477	8.86	0.377	5.96
	0.408	*5.90*	*0.318*	*5.89*
At Rank 6–10 Law Schools	0.267	5.38	0.127	3.11
	0.219	*2.55*	*0.075*	*1.03*

Based on the publications per year and citations per year across all faculty in each category. The number in regular font in each cell is the mean of the measure of productivity, and the number in italics is the median.

Table 12

Regression Analysis of Faculty Productivity

	Named Professors		Full Professors	
	Publications/Yr	Citations/Yr	Publications/Yr	Citations/Yr
Intercept	19.6**	624**	5.32*	75.5
	(7.68)	(286)	(3.13)	(80.0)
Top 5 Grad	−1.79	−132	−1.75	−24.2
	(3.27)	(154)	(1.98)	(46.6)
At Top 5 School	4.04	214	2.36	36.2
	(3.26)	(150)	(1.63)	(44.9)
Years Since Degree	−0.251	−10.2	−0.0241	0.825
	(0.224)	(8.79)	(0.104)	(3.21)
# Observations	40	40	37	37
Log Likelihood	−149.7	−290.1	−106.8	−223.6

Tobit regressions of the measures of productivity. Tobit coefficients and standard errors based on robust covariances in parentheses. ** and * indicate significance at the 0.05 and 0.10 levels in two-tailed tests.

The lack of a negative relation between pedigree and scholarly performance may stem from the endogeneity of publication and citation opportunities. If faculty at top law schools have greater access to top law reviews (which are edited at these same schools), or if editors at lower ranked schools give top reviews seek to curry favor with faculty at the top schools, a faculty member at a top law school will be able to bolster his or her record based merely on appointment (Redding 2003). Faculty less able to produce solid research on their own benefit relatively more from such opportunities (top scholars would publish in top law reviews without assistance). Thus the perks of their positions may enable top 5 graduates to produce acceptable publication records, "validating" their appointments. Such an effect would reduce the difference between the publication records of top 5 graduates and graduates from lower ranked schools could account for the lack of significance in the regressions in Table 12.

Conclusion

Profit is an important motive, but hardly the only motive that matters. Higher education is almost exclusively organized on a not-for-profit basis, and absence of the profit motive plausibly affects decision making (faculty hiring, curriculum development, and the content of research). Yet the market for faculty provides monetary incentives for individual faculty members, and academics value prestige, which derives in part from the ranking of the school at which they teach. Thus whether the lack of a profit motive significantly affects decisions given these other motives is an empirical question. A variety of charges have been made against the professorate, including favoritism for members of a network, and left-liberal bias. These charges imply that spontaneous coordination does not work as well in academic markets as in traditional markets, and the lack of a profit motive may be one part (or perhaps most) of the explanation.

We have offered evidence on the lack of a profit motive in academic markets, testing for a preference for pedigree in law, a field with both prestigious academic and remunerative market employment opportunities. While prior studies have documented the tendency for graduates of top programs to claim a disproportionate share of faculty

positions across a number of fields, we can test whether for-profit and non-profit employers similarly indulge a preference for pedigree. A significant greater percentage of faculty at top 20 law schools graduated from top law schools than lawyers at six top firms; for instance, 61 percent of faculty graduated from top 5 law schools versus 35 percent of lawyers. The divergence is robust, present at both the senior and junior levels, highly statistically significant, and holds up under regression analysis. Fewer associates than partners in law firms graduated from elite law schools, suggesting that law firms may be even more meritorious, as graduates of less prestigious schools have the opportunity to compete in the tournament for partner. By contrast, the percentage of top law school graduates is slightly higher for junior than senior faculty.

Scientific and academic research shares with the market economy the fundamental characteristics of a spontaneous or emergent order, namely decentralized decision making with mechanisms of feedback and coordination (Polanyi 1962). Yet economists who generally believe that spontaneous coordination works well in markets doubt its efficacy in academic settings (Yeager 1997; Klein 2005). Our evidence suggests that the profit motive is an important (but not necessarily the only) factor in the differential performance of spontaneous coordination in these environments. And if faculty can indulge a prejudice for pedigree due to the lack of the profit motive, faculty might also be able to indulge other prejudices regarding scholarship.

We have offered several types of evidence to demonstrate that the lack of a profit motive explains the preference for pedigree in academic hiring, but definitively ruling out alternative explanations is almost never possible. Cohort effects, that law firms simply cannot fill all of their positions exclusively from top law schools, remains one alternative explanation. We have tried to control for self-selection among students, but the potential exists for personality or aptitude factors to induce students to attend top law schools and then enter the academy. And the networking students at top law schools can undertake may be of more value to academic employers.

Future research could further examine cohort effects and the consequences of hiring on pedigree. A detailed study of year-to-year variations in the number of associates hired and the pedigree distri-

bution of each year's hires could provide further evidence on the extent to which cohort size explains our finding. If cohort size limits firms' ability to indulge their prejudice for pedigree, the pedigree distribution will be more distinguished in years when fewer associates are hired. Another avenue for research would examine the consequences of hiring based on pedigree for both firms and schools. Hiring pedigreed mediocrities instead of the best candidates should affect future performance of both firms and schools. Firms that hire on merit should over time outperform firms that hire mediocre top law school grads. The relationship of changes in rankings of law schools over time to past hiring could also be examined. Law school rankings depend more on subjective perceptions of faculty quality. Does hiring based on pedigree have similar consequences for law schools as law firms, or is there a difference in the speed with which schools and firms face the consequences of their hiring?

Notes

1. This statement holds if productivity and not perception drives rankings. As Burris (2004), Klein (2005), and Lee (2007) argue, academic rankings can be driven by status or self-reinforcing metrics of scholarship quality.

2. Although universities are non-profit, the success of sports teams is highly visible, and thus universities might act more like for-profit firms in revenue generating team sports.

3. By contrast, in fields like history and sociology, the market for Ph.D.s is limited, while in economics, well compensated market employment is available, but the status is definitely lower than academic employment. Our test assumes that law students are potentially employable in both firms and law schools. This appears to hold. The resumés of lawyers in the two sectors share other common features besides law school attendance, including membership on law reviews and federal clerkships. And many faculty have worked in private practice, even for the law firms considered here.

4. Leiter's ranking are at http://www.leiterrankings.com/faculty/2007faculty_impact.shtml, while the partner compensation rankings are available at http://www.vault.com. Two schools tie for 10th place in Leiter's rankings, and so we will refer to the top 10 or top 11 interchangeably.

5. Named research professorships are not included in named professorships, as generally research professorships provide funds for research activities but do not augment the base salary as is typical with an endowed professorship.

6. The tests of statistical significance were chi-square tests of a difference in the distribution of lawyers among four categories of schools ranked 1 to 5, schools ranked 6 to 11, schools ranked 12 to 20, and schools not ranked in the top 20, and have 3 degrees of freedom. Except when specifically noted, the differences in distributions are significant at the 1 percent level or better.

7. Some faculty positions might require specialized expertise, which could severely limit the pool of suitable applicants to graduates of law schools offering such specialized training, which may also only be available at top schools. In addition, law firms might need to hire lawyers with such specialized expertise as well. The *difference* in the number of such focused positions seems much for small to explain the observed difference in pedigree.

8. Note that firm size is a choice variable, so if firms had a strong enough prejudice for pedigree, they could limit themselves to a size that can be staffed with elite law school grads. Firms have expanded because presumably this increases profit, and so firm size might itself provide additional evidence that profits have trumped pedigree.

9. If top law schools expanded their first year class sizes, the schools might lose prestige and top firms may not hire their grads based on a preference for pedigree.

10. If a faculty member's J.D. degree year was not available, we used the year of his or her first law review article, which correlated very closely with degree year when available.

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Appendix

List of Top 20 Law Schools

1. Yale
2. Chicago
3. Stanford
4. Harvard
5. Columbia
6. New York University
7. UC–Berkeley
8. Duke
9. Michigan

tie 10. Texas
tie 10. UC–Los Angeles
12. Georgetown
13. Northwestern
tie 14. Vanderbilt
tie 14. Cornell
16. Pennsylvania
tie 17. Illinois
tie 17. Virginia
19. George Washington
20. Arizona

Law Firms Included in Sample

1. Wiley, Rein
2. Wachtel, Lipton, Rosen, Katz
3. Cravath, Swaine
4. Cadawalder
5. Sullivan and Cromwell
6. Cahill, Gordon

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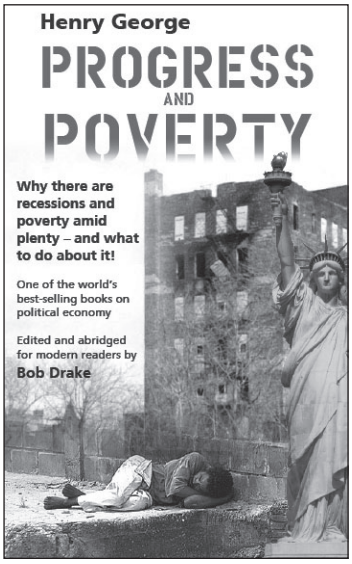

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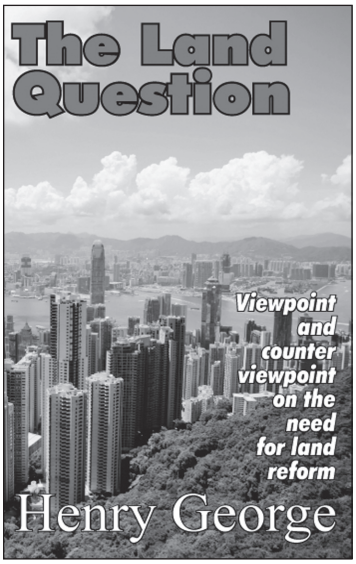

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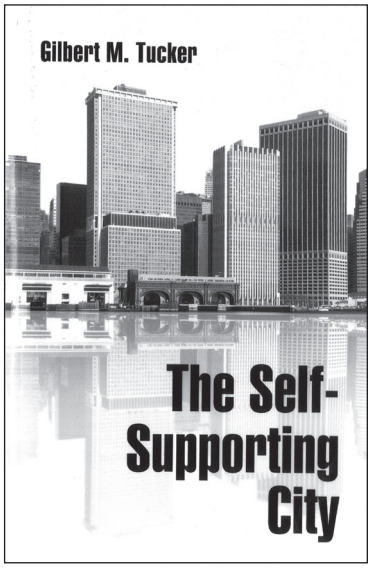

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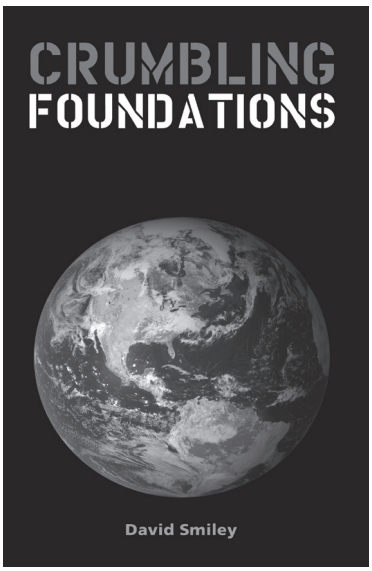

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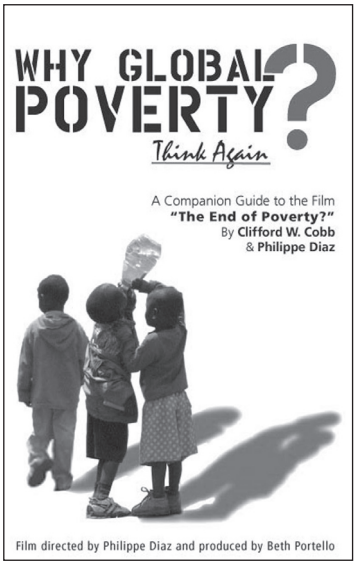

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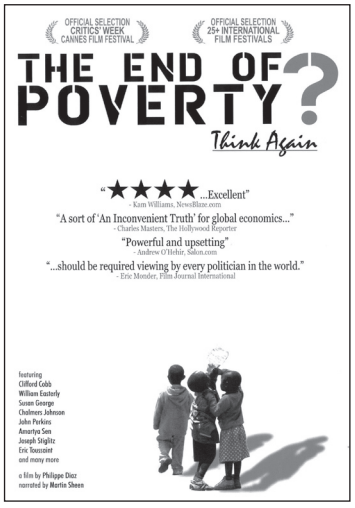

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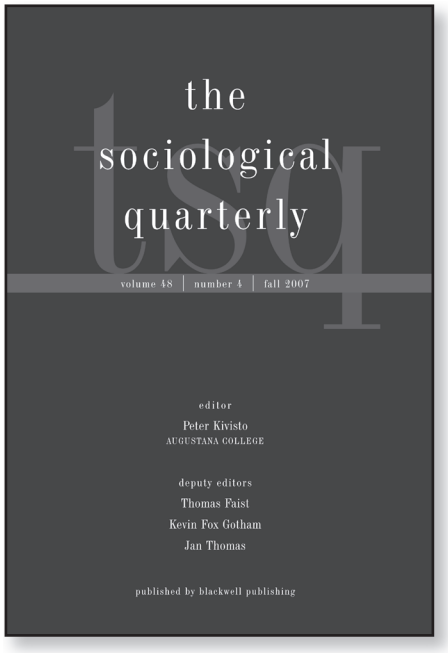

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