Institutionalist Theories of the Wage Bargain: Beyond Demand and Supply

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Abstract: I distill an integrated structure of institutionalist theories of wage determination, linked by overarching views of reality and key principles, and show that three fundamental propositions connect these into one “extended family.” I then outline ten principles that reflect the models and propositions. While very different in form than the familiar Walrasian price-auction model, this relatively succinct approach to wage determination leads to many testable hypotheses. It also explains questions, such as: Why can the minimum wage not often be raised without causing unemployment? Why has wage inequality increased within occupations and educational levels, as well as between? Why does high pay tend to be accompanied by better benefits, working conditions, and on-the-job training (rather than compensating for the lack of one of these)? The insights of many contemporary institutional economists, including Robert Prasch, are particularly important to this analysis, along with earlier work of John R. Commons, John Dunlop, Lloyd Reynolds, and Lester Thurow.

Keywords: institutional economics, labor markets, wage determination

JEL Classification Codes: A22, B52, J3

In this paper, I attempt to distill an integrated structure of institutionalist theories of wage determination. Institutionalist labor economists have developed many models that reflect the real world more accurately than the neoclassical price-auction model does, but they are often faulted for having an ad hoc approach. I show that institutionalist models are an “extended family,” linked by overarching views of reality and key principles, and I take a step toward succinctly explaining them.

These institutionalist principles and models constitute a body of theory that has a very different form than the Walrasian price-auction model, but includes many testable hypotheses (see Kaufman 2007, 35). It explains questions such as: Why minimum wages cannot often be raised without causing unemployment? Why has...
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wage inequality increased within occupations and educational levels (as well as between)? Why does high pay tend to be accompanied by better benefits, working conditions, and on-the-job training (rather than compensating for the lack of one of these)?

In the next section, I first provide a brief contrast of the institutional and neoclassical approaches, and then show how three fundamental propositions link the models into one family. In the third section, I discuss ten principles that reflect the models and propositions. In the last section, I briefly present my conclusions.

An Overview of Mainstream and Institutionalist Models of Wage Determination

While neoclassical economics claims to have one highly general model that can be applied to all cases, it actually has at least three models of wage determination, as Lester Thurow observed (1983, 181-184). Along with the well-known partial equilibrium model of demand and supply, generally used to illustrate competitive wage determination, there is a human capital model in which investment in education yields higher earnings in the future. Deviations from either of these models are attributed to imperfections, such as barriers to entry. These barriers can be in the market or “premarket,” such as social discrimination that limits access to education. Then, at the macroeconomic level, there are Keynesian and monetarist variations of how aggregate factors influence the general level of real wages.

Institutionalists question the broad explanatory power of the first two of these models, but are more likely to accept the Keynesian variation of the third. However, Thurow’s point is that mainstream economics does not attempt to reconcile these very different theories of how wages are set. It is flexible wages set by marginal productivity vs. marginal utility in one model, human capital investment in another, and fluctuations in aggregate demand or monetary policy attempting to counter rigid wages in the third.

In fairness, there are far more than three institutionalist theories of wage determination. Institutional economists do not see this as a problem because they do not expect one generalizable model of any kind to fit all circumstances. From the vantage point of neoclassical economists, however, to rely on many different models rather than one verges on an ad hoc approach. Institutionalists are faulted for presenting data but lacking theory, because there is not one grand institutionalist theory of wage determination (Kaufman 2007, 4-5).

However, I argue that institutionalist theories of wage determination are not ad hoc. They are united by three key propositions. The first is the social-ethical value, which holds that workers as human beings differ so fundamentally from other inputs into production that the price-auction applied to goods and capital can never address the full range of issues surrounding work and pay. The second proposition is political, maintaining that relative bargaining power is critical to the wage process, and depends on social position as well as the legal-institutional framework. The third proposition is technical, stipulating that productivity resides more in the job than the individual
hired to perform it. In the next sections, I explore how the primary institutionalist models of wage determination relate to these propositions, and then identify ten principles of wage determination that flow from them.

**Institutionalist Theories of Wage Determination: An Extended Family**

The wage determination models used by institutionalists have common themes of bargaining power as well as loci of productivity in the job (see Table 1A, Appendix). Internal labor markets and efficiency wages are responses by employers to situations that require workers to be trained and socialized to fit the firms’ needs. To induce other workers to provide on-the-job training, firms create seniority systems. To retain workers who succeed in this training, they often follow the wage contours set by similar firms, create job ladders, and pay efficiency wages, seeking to increase profits through dynamic rather than static efficiency. This led to Thurow’s (1975) theory that workers compete for jobs with high productivity, and are paid differentially primarily because of the job they get, not because of their innate human capital, worth little in the “wrong” job.

Even when dealing with many firms in an industry or region, the relationship between a worker and an employer is rarely one of equal bargaining power. A highly skilled and difficult to replace worker, facing an employer anxious to maintain production and profitability, is a partial exception. This insight led to dual labor market models in which more educated workers are hired into the primary labor market, often comprised of large firms with market power and high profit margins. These workers receive above equilibrium “efficiency wages,” along with better fringe benefits, working conditions, and advancement opportunities.

Other workers are pushed into the secondary market, where low wages are accompanied by few benefits, undesirable conditions, and little advancement potential. Empirical tests of the dual labor market hypothesis have found that the “primary” sector is often divided into two or more quite different categories, leading to theories of more highly segmented labor markets (Gray and Chapman 2004, 118-124). Theories of non-competing groups, crowding, and segmentation, all share certain characteristics with the dual labor market approach. They emphasize that social and geographic distance lessens the bargaining power of workers in the secondary market.

Crowding models show what happens if the primary market selects workers based on “white male privilege.” Monopsony models demonstrate how it profits an employer (or group) to segment workers by a non-economic characteristic that makes wage discrimination possible. Statistical discrimination explains why stereotypes continue to affect hiring, especially if segregated schools and neighborhoods help ensure that a stereotype (e.g., African-Americans are more poorly educated) remains true for many.

These models are included in most mainstream labor economics textbooks (see Kaufman and Hotchkiss 2003; McConnell, Brue and MacPherson 2010; Reynolds, Master and Moser 1998), but they are presented as appropriate for “special cases”
which the neoclassical framework cannot fully address. I believe that this structure needs to be turned on its head. One should begin with the institutionalist propositions, principles, and models, and treat the price-auction model as a special case — that is, useful as an organizing metaphor or part of the economists “toolkit” only to the degree its assumptions are roughly met.

**Ten Unifying Principles of Wage Determination**

The first five principles presented in Table 2A (Appendix) outline institutionalist critiques of traditional demand-and-supply models for wage determination. The last five deal with the nature of productivity, social distance, destructive competition, and the way these perpetuate inequality and impede real economic development.

First, since labor differs so fundamentally from any commodity, its wage determination goes beyond the price-auction model used for goods. People are, by nature, self-actualizing agents and participants in the reproduction of society as parents and citizens. Robert E. Prasch’s classic article, “How Is Labor Distinct from Broccoli” (2004), enumerates the ways in which labor is far more complex than any commodity. Labor cannot be sold separately from its provider, it cannot be stored, and it has basic needs even when it is “lying fallow” with respect to employment (Prasch 2004). In addition, its productivity can be influenced by perceptions of fairness.

These are some of the reasons why there is no “labor market” in the sense of a market for crude oil or winter wheat, or even for goods like shoes or automobiles that vary in style and quality. The individuals, the jobs, the structures within companies and industries, and the job locations are so different that anything approximating a market is highly segmented. From an institutionalist perspective, that segmentation is not so much a result of barriers to a competitive market, as it is a logical outcome of processes that evolve over time based on social institutions and product demand (Gray and Chapman 118).

To the degree that one finds it useful to think in terms of demand and supply, a third principle is that the demand side (the employer and their product market) tends to have considerably more influence on wage determination than the supply side (worker preferences or education). A firm’s demand for labor is a derived demand — dependent on product demand.2 Firms also control the quantity and quality of capital, as well as the technique and management employed, all of which influence worker productivity. For these reasons, there is substantial bargaining power on the demand side. But how does this compare to decisions by workers about hours to supply and the occupation or industry in which to participate?

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1 While the early editions of Lloyd Reynolds (1965) are examples of an institutionalist approach, as co-authors were added, institutionalist material was gradually dropped in favor of neoclassical models. A similar evolution can be seen in the many editions of Campbell R. McConnell’s labor texts.

2 Although aggregate demand is assumed to be the primary determinant of how many in the labor queue will be employed at any one time, unless it falls precipitously, it was not viewed by John T. Dunlop (1957) as having much effect on wages in either direction (as cited by Kinnear [2004], who also cites Kaufman [1988, 71]).
The fourth principle states that, to the degree one thinks in terms of labor supply, the alternative to market work is not only “leisure,” but also education, household production, caring for children and the elderly, other forms of non-market activity (such as volunteering, following a spiritual or religious vocation), and personal care. Not only are most workers dependent on labor income for their current livelihood, but their skills decline when they are out of work. In addition, workers usually have less information than employers about industry and product demand. All of these lessen the bargaining power of workers relative to employers.

The substitution and income effects, derived from the neoclassical model, are useful concepts, although empirical aggregate labor supply curves in modern economies show a very small positive relationship of wage rates on aggregate labor force participation (the substitution effect slightly outweighing the income effect). Prasch (2008, 88) presents a revised labor supply function that looks somewhat like a reversed “S” stacked upon another reserves “S.” It is positively related to wages in some ranges, but bends backward at low or high wages. Leisure has more value when accompanied by money, so high wages can cause the income effect to be greater than the substitution effect. But that is also true below an accepted “subsistence” wage for a community. Very low hourly wages also increase labor supply up to a “breaking point” where people drop out of the labor force due to ill-health, public welfare, or substituting work in the underground economy for market work. This explains increased participation rates when real wages decline. When this revised labor supply is combined with a typical downward sloping demand curve, the various backward bends in supply make multiple stable equilibria possible (Prasch 2008, 89).

The fifth principle is that skills affect compensation indirectly through the position workers are able to occupy in the “labor queue” in order to access the best jobs, rather than through direct payments for human capital. A great deal of acquired skills come from on-the-job training, much of it informally delivered by co-workers, but having more education increases the probability of getting a job that provides training. So there is a circular relationship between education, skills, access to primary labor markets, and the development of more skills. This helps explain why pay gaps between workers widen with age and experience, and why individuals and cohorts affected by long-term unemployment have permanently lower earnings for the remainder of their work lives.

**Bringing It All Together: The Last Five Principles**

Thus far, I have outlined the reasons why wage determination cannot be explained well using the price-auction model. Principles six to ten describe how wages

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3 Campbell R. McConnell, Stanley L. Brue, and David A. MacPherson (2010, 118-119) cite studies attributing 3.0-to-13 percent of earnings differences to on-the-job training. Bruce E. Kaufman and Julie L. Hotchkiss (2003, 380-381) cite Jacob Mincer’s (1974) finding that 30 percent of the dispersion in earnings is explained by education and age. Mincer has also concluded (1962, 59-73) that investments in on-the-job training are as important as those in higher education to wage differences and that training goes disproportionately to those with more education.
are determined and how this affects society. According to the sixth principle, the strong relationship between on-the-job training and skills leads some firms to pay “efficiency wages” to reduce shirking, minimize turnover, and increase worker morale. These firms pursue dynamic rather than static efficiency, with an eye on profits rather than cost minimization. But this leaves some workers, who are willing to work at the lower “market clearing” wage, unemployed (Thurow 1975, 83-84) and others pushed into the secondary market that operates more on wage competition.

The seventh principle explains the impact of non-economic characteristics (race, gender, or ethnicity) on wages as stemming from a particular process and structure of jobs, rather than from barriers to entry that prevent an ideal of “perfect competition.” Wages represent not only the cost or “price” of labor to an individual firm, but are signals of status and place, as well as primary determinants of the standard of living that different people and their families can achieve (Champlin and Knoedler 2004). Deborah Figart and Ellen Mutari (2004, 181-184) describe the “three faces of wages”: (i) a price or cost to the firm; (ii) a living to the individual and their family; and (iii) a social practice that reinforces the structure of the community. Socially constructed ideas of the “other” affect an individual more than the place one has in the labor queue. These ideas actually shape the job structure in advance of any worker application.

Regarding the relationship between pay and productivity, the eighth principle recognizes that labor’s marginal product is extremely difficult to measure in jobs which involve cooperation and teamwork. Average productivity is more easily measured and places upper limits on worker compensations. But even it resides largely in the job rather than the worker (Thurow 1975, 106-110), since each job is associated with a given quantity and quality of capital, management, on-the-job training, and co-workers. Obviously, individual workers vary in skills and motivations, but they have much more room to exercise their capabilities in some jobs than others. Finally, the price of the firm’s output also affects their marginal or average revenue product.

The ninth and tenth principles focus on how wage determination affects social wellbeing. Rather than increasing social welfare, competition can be destructive to it—a menace rather than a blessing (Atkinson 2004, 41-49). Unless the power of employers is balanced by legal restrictions or bargaining institutions, firms are motivated to shift costs of production to the larger society (Commons 1909, 68-69). The greater the competition in the product market, the more firms will be inclined to “race to the bottom” on the labor-cost side. The increased role of financial institutions in determining corporate behavior (Applebaum and Batt 2014; Lazonick 2009; Weil 2010).

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4 This is more likely in the primary market. In the “secondary market,” firms pay just the wage needed to attract enough labor at any one time, since worker retention is less important. Work processes require minimal monitoring and there is little time invested in on-the-job training.

5 The widespread tendency to attribute productivity differences to the innate behavior of the worker is probably due to the fact that we observe these differences first-hand. What is missed is how small worker-generated differences are relative to job-generated differences. The same highly productive worker, who is much admired in job A, might have little room for applying his/her skills and talents in job B.
2014) has created increasing pressures to engage in destructive competition, regardless of whether that is even in the long-term interests of a firm.

The tenth principle of institutionalist wage determination is both macroeconomic and ethical. High wages are not the problem, they are the goal (Prasch 2004, 153). High wages create high product demand and thus more employment. They provide a better tax base for public investments in education, infrastructure, and environmental protection. Economic development is about increasing the productivity of workers so that all can earn wages that support a good standard of living (Greenwood and Holt 2010, ch.5).

**Concluding Remarks**

While neoclassical economics has not resolved the inconsistencies in its multiple models of wage determination, or explained why there are so many “special cases” outside the model, it remains the dominant way of thinking about wages and employment. Alfred Marshall’s (1980) “scissors” of demand and supply have become a memorable metaphor. Institutionalist theories sometimes complement neoclassical economics by fleshing out the institutional context and, at other times, are a superior substitute to the price-auction model (Kaufman 2007, 34-35). For example, when the labor market is slack, the job competition model is likely more accurate, while there is more room for elements of neoclassical wage competition when it is tight (Boulding 1976).

In sum, a host of contemporary issues — such as the right level for minimum wages as well as growing wage inequality within occupations and educational levels, or the ability to raise minimum wages without causing unemployment — are better explained by the extended family of institutionalist models. Identifying core principles and propositions of institutionalist wage determination is an attempt to make its richer and more complex analysis accessible to those accustomed to one general model.

**References**


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Table 1A. Institutionalist Models of Wage Determination

<table>
<thead>
<tr>
<th>Model</th>
<th>Characteristics</th>
<th>Associated with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal labor market</td>
<td>Ports of entry/job ladders</td>
<td>Kerr (1954); Osterman (1984)</td>
</tr>
<tr>
<td>Dual labor market</td>
<td>Primary/secondary</td>
<td>Bluestone (1970)</td>
</tr>
<tr>
<td>Segmentation</td>
<td>&quot;Good jobs/bad jobs&quot;</td>
<td>Doeringer and Piore (1971)</td>
</tr>
<tr>
<td>Noncompeting groups</td>
<td>&quot;Good jobs/bad jobs&quot;</td>
<td>Cairnes (1874)</td>
</tr>
<tr>
<td>Crowding models</td>
<td>&quot;Good jobs/bad jobs&quot;</td>
<td>Bergman (1971); Edgeworth (1922)</td>
</tr>
<tr>
<td>Job vs. wage competition</td>
<td>On the job training</td>
<td>Thurow (1975)</td>
</tr>
<tr>
<td>Statistical discrimination</td>
<td>Stereotyping w/o malice</td>
<td>Thurow (1975)</td>
</tr>
<tr>
<td>Monopsony</td>
<td>Employer market power</td>
<td>Robinson (1933)</td>
</tr>
<tr>
<td>Efficiency wages</td>
<td>Above equilibrium</td>
<td>Akerlof and Yellen (1986); Yellen (1984)</td>
</tr>
<tr>
<td>Wage contours</td>
<td>Variation by industry/plant</td>
<td>Dunlop (1957); Reynolds and Taft (1956)</td>
</tr>
</tbody>
</table>

Table 2A. Institutionalist Principles of Wage Determination

<table>
<thead>
<tr>
<th>No.</th>
<th>Principles</th>
<th>Relationship to</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Locus of productivity</td>
</tr>
<tr>
<td>1</td>
<td>Labor differs so fundamentally from any commodity that its wage is often not approximated by using the demand and supply diagram for goods.</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td>There is no “labor market” in the sense of a Walrasian auction for crude oil or even for SUVs.</td>
<td>✓</td>
</tr>
<tr>
<td>3</td>
<td>The demand side (the employer and their product market) has more influence than the supply side (worker education, training, or preferences) due to an unequal bargaining relationship.</td>
<td>✓</td>
</tr>
<tr>
<td>4</td>
<td>The &quot;labor-leisure trade-off&quot; concept is not an accurate reflection of choices and decision-making.</td>
<td>✓</td>
</tr>
<tr>
<td>5</td>
<td>Individual skills affect pay through where workers are in the &quot;labor queue&quot; and the jobs they can access.</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>The relationship between on the job training and skills means that some firms pay “efficiency wages” even while there are workers willing to work for less.</td>
<td>✓</td>
</tr>
<tr>
<td>7</td>
<td>Unequal wages and working conditions are less a result of barriers to entry, and more of the wage process and job structure in particular times and places.</td>
<td>✓</td>
</tr>
<tr>
<td>8</td>
<td>Productivity resides primarily in the job, not the worker.</td>
<td>✓</td>
</tr>
<tr>
<td>9</td>
<td>Competition can be destructive to society without requirements that internalize social costs.</td>
<td>✓</td>
</tr>
<tr>
<td>10</td>
<td>High wages are not a problem. They are the objective of economic development and a good society.</td>
<td>✓</td>
</tr>
</tbody>
</table>