Institutionalist Theories of the Wage Bargain: Beyond Demand and Supply

Daphne T. Greenwood University of Colorado at Colorado Springs

Introduction

This paper attempts 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 are often faulted for having an *ad hoc* approach. In this paper, I show that institutionalist models are an "extended family" linked by overarching views of reality and key principles. This paper represents a step toward explaining those succinctly and memorably.

These institutionalist principles and models constitute a body of theory that is in a very different form than the Walrasian price-auction model. But it includes many testable hypotheses (see Kaufman 2007, 35) and explains questions such as why minimum wages can be raised without causing unemployment; why wage inequality has increased within occupations and educational levels (as well as between); and why high pay tends to be accompanied by better benefits, working conditions, and on the job training (rather than compensating for the lack of one of these).

The next section provides a brief contrast of the institutional approach with the neoclassical and shows how three fundamental propositions link the models into one family. The third section discusses ten principles that reflect the models and the propositions. The last section presents brief 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, 181-84). 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 another.

In fairness, there are far more than three institutionalist theories of wage determination. Institutional economists do not see this is a problem because they do not expect one generalizable model of any kind to fit all circumstances, but from the vantage point of neoclassical economists relying on many models constitutes 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 in this paper that institutionalist theories of wage determination are not *ad hoc*. They are united by three key propositions. The first is the social-ethical value 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 is political: that relative bargaining power is critical to the wage process and depends on social position and the legal-institutional framework. The third is technical: that productivity resides more in the job than the individual hired to perform it. Below, I explore how the primary institutionalist models of wage determination relate to these propositions and identify ten principles of wage determination which flow from them.

Institutionalist Theories of Wage Determination: An Extended Family

The wage determination models used by institutionalists have common themes of bargaining power and the locus of productivity in the job (Table 1, Appendix A). Internal labor markets and efficiency wages are responses by employers to situations that require workers trained and socialized to fit the firms' needs. To induce other workers to provide on the job training, they 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 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 the worker and 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 noncompeting groups, crowding, and segmentation all share certain characteristics with the dual labor market approach. They emphasize that social as well as 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 McConnell, Brue, MacPherson, 2010; Kaufman and Hotchkiss 2003; Reynolds, Master and Moser, 1998) but presented as appropriate for "special cases" which the neoclassical framework cannot fully address. 1 I believe this structure needs to be turned on its head. We should instead begin with the institutionalist propositions, principles and models and treat the price-auction model as a special case – useful as an organizing metaphor or part of the economists "toolkit" only to the degree its assumptions are roughly met.

Ten Unifying Principles Underlying Wage Determination

The first five principles presented in Table 2 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 how 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. Bob Prasch's classic "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, cannot be stored, and has basic needs even when it is "lying

¹ While the early editions of Lloyd Reynolds are examples on 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 McConnell's labor texts.

fallow" with respect to employment. In addition, its' productivity can be influenced by perceptions of fairness.

These are among 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, but 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). The firm's demand for labor is a derived demand, dependent on product demand. 2 Firms also control the quantity and quality of capital, and the technique and management employed – all of which influence worker productivity. For all 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?

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 education, household production, care of children and the elderly, other forms of non-market activity (such as volunteering,

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 Dunlop as having much effect on wages in either direction (Kinnear, 2004 cites Kaufman 1988, 71).

following a spiritual or religious vocation), as well as personal care. Not only are most workers dependent on labor income for their current livelihood, their skills decline when out of work. As a rule, workers also have less information than employers about industry and product demand. All of these lessen their bargaining power relative to the employer.

The substitution and income effects derived from the neoclassical model *are* useful concepts, although empirical aggregate labor supply curves in modern economies showing a very small positive relationship of wage rates on aggregate labor force participation (the substitution effect slightly outweighing the income effect). Figure 1 Prasch's revised labor supply function (2008, 88) reflects the reality that leisure is an unlikely choice at low income levels, since it has more value when accompanied by money. Below whatever the accepted 'subsistence' wage is for a community, income effects dominate (similar to the added worker effect). Declining real wages increase labor supply until a 'breaking point' where people drop out due to ill-health, public welfare, or illegal activities. This explains increased labor force participation when real wages are declining as well as withdrawal from the labor force at very high wages. Figure 2 combines Prasch's revised labor supply with a typical downward sloping demand curve (2008, 89) to show how the two backward bends in supply make multiple stable equilibria possible.

The fifth principle is that skills affect compensation indirectly through where workers fall in the 'labor queue' for accessing the best jobs, rather than through direct payments for human capital. Since at least half of acquired skills come from on the job training, much of it informally delivered by co-workers, there is a circular relationship between education, skills, access to the primary labor market, and the development of

more skills.3 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 reasons why wage determination can't be explained well using the price-auction model. Principles six to ten describe how wages *are* determined and how this affects society. The strong relationship between on the job training and skills (#6) leads some firms to pay 'efficiency wages' to reduce shirking, minimize turnover and increase worker morale.4 These firms pursue dynamic rather than static efficiency, with an eye on profits rather than minimizing costs. But this leaves some workers willing to work at the lower 'market clearing' wage unemployed (Thurow 1975, 83-84) and others pushed into the secondary market which operates more on wage competion.

The seventh principle explains the influence of non-economic characteristics (race, gender, or ethnicity) on wages as the outcome of a particular process and structure of jobs, more than from barriers to entry. Wages represent not only the cost or 'price' of labor to an individual firm: they are signals of status and place in a society as well as primary determinants of the standard of living that different people and their families can achieve (Champlin and Knoedler 2009). Figart and Mutari describe the "three faces of wages:" a price or cost to the firm, a living to the individual and their family and a social practice that reinforces the structure of the community. Socially constructed ideas of the

³ McConnell, et al., cite studies attributing 7-12% of earnings differences to education, along with Mincer's finding that half to two-thirds of differences are explained if on the job training is added (2010, 512-13). 4 In the "secondary market", work processes require minimal monitoring and there is little on the job training, making turnover less important. Firms pay just the wage needed to attract enough labor at any one time.

"other" affect more than where one stands in the labor queue: they shape the job structure (2004, p.181-4).

Turning to the relationship between pay and productivity, the eighth principle recognizes that labor's marginal product is extremely difficult to measure in jobs that involve co-operation and teamwork. Average productivity is more easily measured and does place upper limits on worker compensation, but it resides largely in the *job* rather than the worker (Thurow 1975, 106-110). That is because there is a given quantity and quality of capital, management, on the job training, and co-workers associated with each job. Individuals obviously vary in skills and motivations, but have more room to exercise their capabilities in some jobs than others.5 And the price of the firm's output affects their marginal or average revenue product.

The ninth and tenth principles focus on how wage determination affects social well-being. Rather than increasing social welfare, competition can be destructive - a menace rather than a blessing (Atkinson 2004, 41-9). Unless the power of the employer is balanced by legal restrictions or bargaining institutions, firms are motivated to shift costs of production to the larger society (Commons 1909, 68-9). 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 2014, Lazonick 2009, Weil 2010) has created increasing pressure to engage in destructive competition, regardless of whether that is even in the long-term interests of firms.

⁵ The tendency of people to attribute wide productivity differences to the innate behavior of the worker is probably due to seeing these differences first hand. What is missed is how small worker generated differences generally are relative to job generated differences. And the same highly productive worker who is much admired in job A might have little room for their skills and talents in job B.

The tenth principle of institutionalist wage determination is both macroeconomic and ethical. High wages are not the problem, but the goal (Prasch 2004, 153). High wages create high 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 to the point where 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 "scissors" of demand and supply (1890) have become a memorable metaphor. Too little attention has been paid to how 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 may be superior, while when it is tight there is more room for elements of wage competition (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 is an attempt to make the richer and more complex analysis of wage determination in institutionalist models more accessible to those accustomed to one general model.

APPENDIX A

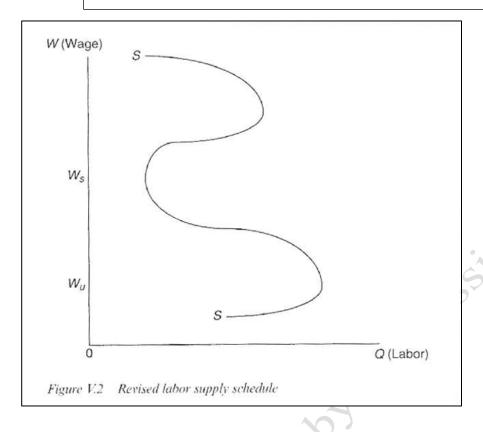
TABLE 1: INSTITUTIONALIST MODELS OF WAGE DETERMINATION					
MODEL	CHARACTERISTICS	ASSOCIATED WITH			
Internal labor market	Ports of entry/Job ladders	Kerr 1954, Osterman 1984			
Dual labor market	Primary/secondary	Bluestone 1970			
Segmentation	"Good jobs/Bad jobs"	Doeringer and Piore 1971			
Noncompeting Groups	"Good jobs/Bad jobs"	Cairnes 1874			
Crowding Models	"Good jobs/Bad jobs"	Bergman 1971, Edgeworth 1922			
Job vs. Wage Competition	On the job training	Thurow 1975			
Statistical Discrimination	Stereotyping w/o malice	Thurow 1975			
Monopsony → Oligopsony?	Employer mkt power	Joan Robinson 1933			
Efficiency wages	Above equilibrium	Yellen 1984			
		Akerlof and Yellen 1986			
Wage contours	Variation by	Dunlop 1957			
	Industry/Plant	Reynolds & Taft 1956			

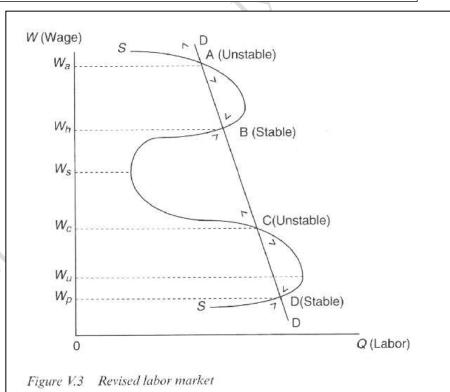
TA	ABLE 2: INSTITUTIONALIST PRINCIPLES OF WAG	GE DETER	MINATIO	ON
	Relationship to			
		Locus of Productivity	Bargaining Power	Citizen/ Worker/
#1	Labor differs so fundamentally from any commodity			
	that its wage is often not approximated by using the			✓
	demand and supply diagram for goods.			
#2	There is no "labor market" in the sense of a	✓	✓	✓
	Walrasian auction for crude oil or even for SUV's			
#3	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			
#4	The "labor-leisure tradeoff" concept is not an			
	accurate reflection of choices and decision-making		✓	✓
#5	Individual skills affect pay through where workers			
	are in the 'labor queue' and the jobs they can access.	✓	✓	
#6	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			
#7	Unequal wages and working conditions are less a			
	result of barriers to entry; more of the wage process		✓	
	and job structure in particular times and places			
#8	Productivity resides primarily in job, not worker	✓		
#9	Competition can be destructive to society without			
	requirements that internalize social costs	✓	✓	✓
#10	High wages are not a problem they are the objective			
	of economic development and a good society	✓		✓

APPENDIX B

Figure 1

Figure 2





Figures are from Prasch 2008, pp. 88-89

REFERENCES

Akerlof, George and Janet Yellen, eds. *Efficiency Wage Models of the Labor Market*, Cambridge: Cambridge University Press. (1986).

Applebaum, Eileen and Rosemary Batt. *Private Equity at Work: When Wall Street Manages Main Street*. New York: Russell Sage Foundation (2014).

Atkinson, Glen. "Labor and the Menace of Competition," in *The Institutionalist Tradition in Labor Economics*, Dell P. Champlin and Janet T. Knoedler, Eds. 39-49. Armonk, New York, M.E. Sharpe (2004).

Bergmann, Barbara R. "The Effect on White Incomes of Discrimination in Employment." *Journal of Political Economy* 79: 2 (March/April 1971), 294-313.

Bluestone, Barry F. "The Tripartite Economy: Labour Markets and the Working Poor," *Poverty and Human Resources*. (July/August 1970), 15-36.

Boulding, Kenneth E. "Review of Generating Inequality: Mechanisms of Distribution in the U. S. Economy" Journal of Economic Issues 10:4 (December 1976), 970-4.

Cairnes, J. E. Political Economy. New York: Harper (1874).

Champlin, Dell and Barbara A. Wiens-Tuers. "Pluralism in Labor Economics" in *The Handbook of Pluralist Economic Education*, Jack Reardon, Ed., New York: Routledge, 171-80.

Commons, John R. "American Shoemakers: 1648-1895: A Sketch of Industrial Evolution" *Quarterly Journal of Economics* 24 (1909), 39-84.

Doeringer, Peter B. and Michael J. Piore. *Internal Labor Markets and Manpower Analysis*. Lexington, MA: D. C. Heath (1971)

Dunlop, John T., Ed. The Theory of Wage Determination. London: Macmillan (1957).

Edgeworth, Francis Y. "Equal pay to men and women for equal work," *Economic Journal* 32 (December 1922), 431-57.

Gray, Jerry and Richard Chapman. "The Significance of Segmentation for Institutionalist Theory and Public Policy," in *The Institutionalist Tradition in Labor Economics*, Dell P. Champlin and Janet T. Knoedler, Eds. 117-130. Armonk, N.Y. M. E. Sharpe (2004).

Greenwood, Daphne T. and Richard P. F. Holt, *Economic Development in the 21*st *Century: Quality of Life and Sustainability*, Armonk, N Y: M. E. Sharpe, Inc. (2010).

Kaufman, Bruce E. "The Institutional Economics of John R. Commons: complement and substitute for neoclassical economic theory," *Socio-Economic Review* 5 (2007), 3-45.

Kaufman, Bruce E. and Julie L. Hotchkiss. *The Economics of Labor Markets*, 6th edition.

Mason, Ohio: Southwestern Publishing (2003).

Kerr, Clark. "The Balkanization of Labor Markets." In *Labor Mobility and Economic Opportunity*. New York: John Wiley (1954).

Kinnear, Douglas. "Two Sides of the Same Coin: Institutionalist Theories of Wage Rates and Wage Differentials," in *The Institutionalist Tradition in Labor Economics*, Dell P. Champlin and Janet T. Knoedler, Eds. 105-116. Armonk, N.Y, M.E. Sharpe (2004).

Lazonick, William. *Sustainable Prosperity in the New Economy*, Kalamazoo, Michigan: Upjohn Institute (2009).

Marshall, Alfred A. Principles of Economics. London and New York: Macmillan (1890).

McConnell, Campbell R., Stanley L. Brue, and David A. MacPherson. *Contemporary Labor Economics*, 9th edition. Boston: Irwin/McGraw Hill (2010).

Osterman, Paul, ed. Internal Labor Markets. Cambridge, Ma: MIT Press (1984).

Prasch, Robert E. "How is Labor Distinct from Broccoli? Some Unique Characteristics of Labor and their Importance for Economic Analysis and Policy" in *The Institutionalist Tradition in Labor Economics*, Dell P. Champlin and Janet T. Knoedler, Eds. 146-158, Armonk, New York, M.E. Sharpe (2004).

_____. "Part III: Labor Markets" in *How Markets Work: Supply, Demand and the 'Real World'*, Edward Elgar Press (2008).

Reynolds, Lloyd G. *Labor Economics and Labor Relations*, 4^{th edition}. Englewood Cliffs, New Jersey: Prentice-Hall (1965).

Reynolds, Lloyd G., Stanley H. Masters, and Colleta M. Moser, *Labor Economics and Labor Relations*, 11th edition. Upper Saddle River, New Jersey (1998).

Reynolds, Lloyd G. and Cynthia Taft. The Evolution of Wage Structure. New Haven, Ct: Yale University Press (1956).

Robinson, Joan. Economics of Imperfect Competition. London: Macmillan.(1933).

Thurow, Lester C. "The Labor Market: A Sargasso Sea of Economic Shipwrecks," in *Dangerous Currents: The State of Economics*, New York: Random House (1983).

_____. Generating Inequality: Mechanisms of Distribution in the U. S. Economy. New York: Basic Books (1975).

Weil, David. The Fissured Workplace: Why Work Become so Bad for so Many and What can be Done to Improve It, Cambridge, MA: Harvard University Press (2014).

Yellen, Janet. "Efficiency Wage Models of Unemployment." *American Economic Review* 74: 2 (May 1984) 200-5.