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Welcome to the Fissured Labor Market, where
For Whom You Work Matters More and More

The term fissure traditionally refers to splits or cracks in objects ranging from parts of the body to the face of a rock or surface of the earth. Now, thanks to David Weil's *The Fissured Workplace*, the term has entered labor market analysis, referring to splits between the wages/work conditions of employees inside a firm and the wages/conditions of the growing network of subcontractors, independent contractors, freelancers and consultants who work as non-employees outside the firm's legal boundary.

Standard economic analysis posits a unitary labor market which determines the compensation of a work, which depends primarily on worker skills. The human capital model relates earnings/productivity to investments in education and experience without reference to the specific employing unit. This is because a well-functioning labor market should produce similar pay for people doing similar work, regardless of whether they work in company A or B or industry X or Y. If the marginal revenue product (MRP) of workers with given skills exceeds the market wage (W), the firm will increase output/employment to equate the diminishing MRP to W. It will not pay workers the difference between their marginal contribution to revenues and the going wage. If a business generates excess profits, other firms will enter its market and drive wages up by competing for labor and drive prices down by increasing market output. Subject to costs of mobility, imperfect information, and other frictions, competition will produce more or less equivalent compensation and productivity among firms.

A fissured labor market is the polar opposite of the ideal competitive model. In a fissured labor market firms pay workers doing the same work differently depending on the situation of the employer. When work conditions or benefits are bad, pay may be higher per compensating differentials, but more likely than not the best firms will lead others in all dimensions of compensation. The result is that the entity for whom a worker works will greatly affect compensation, creating the splits or cracks in the labor market that justify the f-term.

This essay summarizes evidence that the US has experienced an unprecedented divergence of earnings among firms – fissuring of the labor market – and that this divergence accounts for much of the trend rise in earnings inequality that is making headlines in economic discourse. I examine cases of fissuring in the hotel industry in Boston and present econometric evidence that the dispersion of earnings increased in that sector and nationwide. I conclude with brief comments on the challenge the fissured market poses for economic analysis.

**Case Evidence of Fissuring: hotel workers**

The hospitality industry is big in Boston and adjacent locales. In the 2007 quinquennial Census of establishments, the Boston area had 385 hotels, including many famed brand-names like Hyatt or Hilton or Kimpton, that employed about 22,000 workers. Some of the hotels were unionized but many were not. Most of the brand-name hotels were and remain owned by franchisees rather than by the brand-names. And many hotels subcontract key services, such as room cleaning, to specialist firms.

Taking the big brand-name hotels as exemplars of firms that subcontract essential work to outside entities, Weil recounts the summer 2009 decision of Boston's Hyatt Hotels to fire their housekeepers, many of whom had cleaned hotel rooms for years, and subcontract housekeeping to Atlanta-based Hospitality Staffing Solutions (Weil, pp 142-143). Hyatt replaced its housekeepers with non-employee Hospitality workers for one reason: wage costs. Hyatt paid its housekeepers about $15

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1. Save for firm-specific human capital which is intrinsically tied to the worker remaining at the firm over time.
2. Efficiency wage aside.
3. Individuals will sort between companies depending on preferences and match-specific relations between them and the firm from which they/firm can earn some infra-marginal surplus.
an hour and provided the expensive health insurance and other benefits one associates with a profitable multinational. By contrast, Hospitality paid its workers S8 an hour and spent little on benefits. Had Hyatt tried to lower costs by reducing the pay of its housekeepers toward the Hospitality level, worker morale would almost certainly have plummeted; the low paid housekeepers would have distorted Hyatt's internal wage structure; and the company's reputation might have taken a long term hit. Outsourcing to Hospitality was the easy way to reduce costs and raise profits.

Fast forward to 2013-2014 and the housekeepers at a different Boston hotel – Hilton's Double-Tree Suites located in a Harvard building near Harvard Business School. As Table 1 shows, compensation and working conditions differ markedly between the Double-Tree and Boston's unionized hotels (including the Marriott Courtyard across the Charles from Double-Tree and Hilton's own Boston Downtown hotel) and between Double-Tree and comparable workers at Harvard, a building or so away. Double-Tree paid less, spent less on worker health insurance, and most striking, required that its housekeepers clean more rooms per shift than competitors, producing worker complaints about injuries and pain from the work.

The differences between Hilton's Double-Tree and its Boston Downtown facility and comparable Harvard employees reflect the labor policies and collective bargaining agreements of these employers in a labor market open to wide variation in pay/conditions. Compensation is set by Double-Tree at Double-Tree, by the Boston area-wide union hotel agreement at the Downtown Hilton are set, by Harvard's SEIU contract for Harvard employees.

Spurred by the intensity of work, limited company contribution to health-care, and poor treatment by some supervisors, in 2013 Double-Tree workers sought to unionize to improve their situation – a painful and risky undertaking in 21st century America. To sidestep the acrimony of a contested National Labor Relations Board election, the workers asked Harvard to support a card-check neutrality agreement to decide on unionization. There was precedence for such action. In 2011 Harvard had brokered a neutrality agreement between the union and the Harvard subcontractor who delivered food and beverage services at the Harvard Law School. But Harvard took a different stance toward Double-Tree, declaring that Double-Tree had sole responsibility for its employees. Its labor policies was none of Harvard's business. Parenthetically, as the union drive accelerated in 2014, Double-Tree raised pay and benefits for workers in what in a classic firm response to the threat of unionization.

Harvard justified its hands off policy toward workers on the grounds that Double-Tree is not a Harvard hotel. It is merely a tenant in a Harvard-owned building. However, the Double-Tree website informs Harvard-related customers that, “As a Harvard-owned hotel, we are pleased to offer all Harvard students, staff and alumnae a special discount off our Best Available Rates,” and emphasizes the connection by juxtaposing the University's Veritas insignia with the Double-Tree name. In fact, a substantial proportion of Double-Tree business is Harvard-connected and the University earns millions of dollars from its “non-ownership” involvement.

If these examples and those in other industries in Weil's book were one-off cases of managements exploiting temporary differences in wages of similarly skilled workers while market forces were slowly moving them toward comparable levels, the cases would be interesting stories of sluggishness market adjustments. They would not be of sufficient economic importance for David Weil to have written his book nor for LERA to ask me for this essay. But quantitative evidence on earnings for establishments and workers economy-wide shows that, far from being a temporary aberration, the

4 Perhaps the University worried that a labor dispute at campus eating facilities risked student protests while it saw Double-Tree as a financial investment unconnected to the campus.
5 Ivan B. K. Levingston and Tyler S. Olkowski, “National Union Members Descend on DoubleTree for Protest” Crimson, June 30, 2014; Sarah Feijo, Protesters demand fair union process at Harvard-owned DoubleTree hotel” http://cambridge.wickedlocal.com/article/20140626/NEWS/140627305
The fissured labor market has become the new normal, producing outcomes different from those in a competitive labor market throughout the US.

The Quantitative Evidence

While Weil was doing his case research, I and three co-authors were engaged in a seemingly unrelated quantitative analysis of earnings among all US workers (Barth, et al). Using a classic analysis of variance model, we sought to estimate the part of the increased inequality of earnings that was due to increased inequality of pay among the establishments employing the workers and the part due to increased inequality of earnings within those establishments. From confidential Census files, we calculated the variance of the log of earnings over time for establishments nationwide, controlling for industry and geographic location. Since the average earnings of an establishment change when the composition of its work force changes and varies over time for idiosyncratic reasons, we sought to identify the “establishment fixed effect” that reflects whether the establishment was high or low paying regardless of skill mix or time period. To do this we compared the earnings of workers with similar human capital characteristics across establishments over time and, separately, compared the earnings of the same worker when he/she remained at an establishment to the earnings of workers who moved to another establishment.

Our statistical analysis found that the divergence in earnings for similar workers among establishments in the US was large and ubiquitous, occurring in all industries and areas. We found, moreover, that the increased variance of establishment-level earnings was due almost entirely to diverging establishment fixed effects rather than to changes in the composition of establishment work forces. In our data, 80% of the increased earnings inequality among workers who remained with an establishment from one year to the next (which is the majority of the workforce) came from increased inequality of earnings among establishments as opposed to increased inequality within establishments. In addition, we found that the variance of establishment productivity (measured as revenue per worker) also increased greatly – indeed by more than the variance in establishment earnings.

To link our analysis to the Boston cases, I show in table 2 the variance of the log of establishment-level earnings per worker in the hotel/accommodation industry in 1977 and 2007 for Boston and the US. Both variances increase, indicating that average earnings of hotels/related establishments diverged over time. The table also records the variance among all industries in Boston and the US, which increased even more, in part because average earnings among industries diverged over time as well. Measuring fissuring as the increased variance of establishment-level earnings, these data confirm that fissuring is indeed a truly big change in the labor market.

Finally, I and my co-workers compared the increase in establishment-level earnings inequality to the increase in inequality among all workers. Figure 1 shows that the increase in establishment-level inequality accounts for over half of the trend rise in inequality from 1992 to 2007, with the exact proportion varying from 56% to 65% depending on the calculation. The road to understanding increasing inequality in the US lies through the divergence of compensation for similar workers among establishments and firms.

Interpreting the Fissured Labor Market

Analysts familiar with 1960s-1970s research on dual labor markets or with 1950s work on the balkanization of labor markets (Kerr) and variation of earnings by industry (Dunlop) may wonder in what ways beyond being a new term fissuring differs from the phenomenon in these investigations.

The fissuring phenomenon in this essay differs from the variation of earnings in the same occupation or skill group examined in earlier work by being about changes in the variation of earnings among similar workers rather than the level of variation. Analyzing the causes of the change in variation is more complicated than analyzing the factors that cause variation because one has to

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8 The period over which the Longitudinal Earnings and Household Data matches workers and establishments.
determine why causal factors had larger effects over time. I suspect that advances in the information technology that monitors goods and services and worker performance has played an important role in the change but have no evidence on this. However, changes over time provide an additional (time) dimension of variation that makes it easier to test competing explanations.

With unionization and collective bargaining in decline rapidly, the US labor market resembles more closely than before a competitive model where market forces determine outcomes. This means that we must lodge explanations for the fissuring of earnings in the working of market forces – no easy task since the basic market model predicts that competition will reduce firm-based variation of earnings among comparable workers. Either our models misrepresent the way a relatively unfettered labor market works in reality or we are missing important market forces in applying the model. From either perspective the evidence of fissuring creates a great puzzle to labor economics and social science more broadly. We need either a new “fissured market” model that goes beyond standard analysis or new measures of wage determinants in the existing framework, or some judicious mixture of the two.

I would like to conclude that I have developed the new model and found the missing factors but that, sadly like Fermat with his Last Theorem, I lack the space to lay it out for you. But that exaggerates what I know. The fissuring process so puzzled me that the last time I was fortunate to see Gary Becker this year, I put the problem to him in the hope that his unique insight into the workings of the Invisible Hand might yield a critical clue to why market forces have failed thus far to reverse the widening of establishment-level differentials. But Gary had no easy solution: “It’s a hard problem but keep working on it” were his last words to me.

The economics of fissuring is a hard problem. My belief is that as more researchers work on it – via case studies, insider econometrics of labor practices of firms and their subcontractors, analysis of establishment earnings in countries with different labor institutions – and apply insights from behavioral economics, game theory, and Beckerian price theory, we will advance our understanding enough to find ways to counter its effect on compensation. May the next LERA review of this topic be titled “Farewell to the Fissured Labor Market”. 
Table 1: Earnings, Benefits and Work Activities in Boston establishments, 2013

<table>
<thead>
<tr>
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<th>Double-Tree</th>
<th>Boston Union</th>
<th>Harvard Entry level Custodian</th>
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<tr>
<td>Hourly earnings</td>
<td>$15.53</td>
<td>$18.51</td>
<td>$18.98</td>
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<tr>
<td>Workers annual contribution to health care</td>
<td>$3,134.00</td>
<td>$624</td>
<td>15% of lowest cost plan, ~$972</td>
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<tr>
<td>Yearly Gross salary net of health-care (2080 hours per year)</td>
<td>$32,302.00</td>
<td>$38,500.00</td>
<td>$38,506.00</td>
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<tr>
<td>Rooms assigned to room attendant per day</td>
<td>28 rooms plus bathrooms</td>
<td>15 rooms plus bathrooms</td>
<td>Not applicable</td>
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Table 2: Variance of Log of Establishment-level earnings and change in the Variance, 1977-2007

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<th>2007</th>
<th>Change</th>
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<td>Hotel Industry</td>
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<td></td>
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<tr>
<td>Boston</td>
<td>0.114</td>
<td>0.162</td>
<td>0.048</td>
</tr>
<tr>
<td>US</td>
<td>0.168</td>
<td>0.209</td>
<td>0.041</td>
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<tr>
<td>All Industries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boston</td>
<td>0.353</td>
<td>0.624</td>
<td>0.271</td>
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<tr>
<td>US</td>
<td>0.332</td>
<td>0.487</td>
<td>0.155</td>
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Source: Calculated from Census of establishments, 1977 and 2007

Figure 1: Percentage of Increased Inequality of Earnings Among Workers Attributable to Increased Inequality of Earnings in their Employing Establishments, 1992-2007

Source: BBDF: all workers, table 1; with same observables, table 3; with same unobservables, table 2
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