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FEDERAL TRADE COMMISSION

COMPETITION AND CONSUMER PROTECTION

IN THE 21ST CENTURY

Tuesday, October 16, 2018
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1 P R O C E E D I N G S

2 MR. KOBAYASHI: Okay, I think we're going to
3 get started. It's great to be back at Antonin Scalia
4 Law School. My name is Bruce Kobayashi, and I've been
5 a faculty member here since 1992. I'm currently on
6 leave and serving as the Director of the Bureau of
7 Economics. And in that capacity, it's my honor and
8 pleasure to be able to introduce our opening speaker
9 for the two morning panels on antitrust and labor
10 markets, Professor Alan Krueger.

11 Professor Krueger holds a joint appointment
12 at the Department of Economics in the Woodrow Wilson
13 School as the Bendheim Professor of Economics and
14 Public Affairs at Princeton University. It's a
15 particularly appropriate choice to open our labor
16 market sessions, having published widely on the
17 economics of education, unemployment, labor demand,
18 income distribution, social insurance, and labor
19 market regulation.

20 In addition to a long list of academic
21 articles, he has published multiple books, including
22 his coauthored book with David Card, *Myth and*
23 *Measurement: The New Economics of the Minimum Wage*,
24 and a book that I put on my reading list, *Rockonomics:*
25 *How Music Explains Everything (about the Economy)*,

1 especially since I saw in the blurb that he
2 interviewed the manager of the Red Hot Chili Peppers.

3 Professor Krueger has served in the
4 Government. He was the Chairman of the Council of
5 Economic Advisers and a member of President Barack
6 Obama's cabinet from 2011 to 2013. Just prior to
7 that, he served as Assistant Secretary for Economic
8 Policy, and as a chief economist with the U.S.
9 Department of Treasury from 2009-2010.

10 And way back in the day when we were all
11 younger -- he's still younger than I am -- he was a
12 chief economist at the U.S. Department of Labor. So
13 Alan certainly knows a lot about labor and public
14 policy. He has held high positions in the American
15 Economic Association, served on the executive
16 committee, won numerous awards, too lengthy to
17 mention. Here's his resume. It's double-sided. But
18 let's give a warm welcome to our opening speaker, Alan
19 Krueger.

20 (Applause.)

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1 WELCOME AND OPENING ADDRESS

2 MR. KRUEGER: Thanks very much for that
3 generous introduction, and especially for plugging my
4 book, which will be out in May. But you may
5 especially be interested in the book by Flea of the
6 Red Hot Chili Peppers, which covers the first 18 years
7 of his life, which will be out around the same time as
8 mine. And I'm concerned there may be competition.

9 I want to thank the FTC for inviting me and
10 for holding this set of hearings. It's a really
11 impressive set of topics that are being discussed by a
12 very impressive set of researchers and others. What I
13 thought I would do is give an overview of how I see
14 competition and lack of competition in the labor
15 market.

16 I think this is a particularly appropriate
17 time to have this discussion. Research in labor
18 economics has been growing very quickly on
19 noncompetitive practices and on the noncompetitive
20 workings of labor markets. I think this is a topic
21 which is very important. I think it's one in which
22 the evidence is still evolving. We face similar kinds
23 of challenges in the labor market, as industrial
24 organization economists face in looking at product
25 markets in terms of defining the scope of a market.

1 In fact, in many ways, I think it's more difficult in
2 a labor market because every individual is unique.

3 That said, I think there's a growing body of
4 evidence which suggests that the go-to model of the
5 labor market, which has historically been one of
6 perfect competition, is probably not the best model to
7 use in many situations. In a perfectly competitive
8 model of the labor market, bargaining power is
9 completely irrelevant because wages are determined by
10 the external forces of supply and demand. Firms just
11 passively accept whatever the market wage is.

12 In many applications, I think it is more
13 appropriate to model the labor market as imperfectly
14 competitive, and Bob Topel arrived just in time,
15 subject to monopsony-like effects, collusive behavior
16 by firms, search frictions, and surpluses that are
17 bargained over. As a result of these labor market
18 features, I think it's often more appropriate to view
19 firms as wage-setters or wage-bargainers rather than
20 wage-takers.

21 This perspective can explain many well-
22 documented phenomena in the labor market, such as the
23 high variability in pay for workers with seemingly
24 identical skills, who work in different industries or
25 in different firms, the lack of evidence that minimum

1 wage increases reduce employment, and the reluctance
2 of firms to raise wages despite facing vacancies.

3 Now, I've noticed that many economists are
4 reluctant to accept the idea that markets are
5 manipulable, that firms or traders have some power
6 over prices and wages. When I worked at the U.S.
7 Treasury Department in 2009 and 2010, and I had the
8 opportunity to work with some of the best finance
9 economists in the world, who were on leave to help
10 during the financial crisis, my colleagues thought it
11 was inconceivable that foreign exchange markets or
12 LIBOR could be manipulated. After all, these are the
13 largest and most liquid markets in the world.

14 Only later did we learn that several traders
15 had been convicted of colluding on exchange rates and
16 that LIBOR was totally rigged. Interestingly, the
17 people who I worked with who came from the markets who
18 actually had experience trading thought this was quite
19 the norm.

20 Now, one economist who thought that labor
21 markets are imperfect and subject to manipulation was
22 Adam Smith. In *The Wealth of Nations*, Smith wrote,
23 quote, "Employers are always and everywhere in a sort
24 of tacit, but constant and uniform combination, not to
25 raise the wages of labour above the actual rate. To

1 violate this combination is everywhere a most
2 unpopular action, and a sort of reproach to a master
3 among his neighbors and equals."

4 Smith ridiculed naysayers who doubted that
5 employers colluded as "ignorant of the world as of the
6 subject." And then in full conspiracy mode, he added,
7 "We seldom, indeed, hear of this combination because
8 it is the usual, and one may say the natural state of
9 things, which nobody ever hears of."

10 Now, you don't have to look too far to find
11 evidence of the conspiracy that Adam Smith warned
12 about. In an ongoing FTC case involving physical
13 therapists in Dallas and Fort Worth, the language
14 rings very similar to what Adam Smith wrote about,
15 only it's been more modernized with texting. The
16 owner of one physical therapy company wrote another,
17 "Yes, I agree, I'll do it with U." You was spelled U,
18 not Y O U. And "do it" was referring to jointly
19 agreeing to lower wages.

20 Now, I'll return to some other cases
21 involving collusion in the job market. Broadly
22 speaking, there are two varieties of economic models
23 that give employers some discretion over wage-setting.
24 The first, pioneered by Joan Robinson, is a static
25 monopsony model, where there's a single employer who

1 faces an upward-sloping labor supply curve. This
2 could be easily extended to a small number of
3 employers, oligopsony. And it could be extended to
4 Smith-like situations, where employers jointly collude
5 to suppress pay below the competitive rate.

6 The second class of models, which were
7 pioneered by Ken Burdett, Dale Mortensen, Chris
8 Pissarides, Peter Diamond and extended recently by
9 Alan Manning, rests on search frictions. And there
10 were a variety of different types of search models,
11 but basically it takes time and effort for workers to
12 search for job openings and for firms to search for
13 workers. As a consequence, the firm pays a little
14 less than the going wage; it would not lose all of its
15 workers or find it impossible to hire new ones.

16 In fact, there is no single going wage in
17 these models but a range of plausible offers that
18 firms could make, or bargains that firms and workers
19 can strike. As a practical model -- a practical
20 matter, both classes of models are equivalent to
21 assuming that the labor supply curve to a firm is
22 upward-sloping instead of infinitely elastic. Firms
23 would operate with costly vacancies in these models,
24 yet resist raising wages because pay would need to be
25 increased for all workers, not just the incremental

1 hired worker. And the employers collude to hold wages
2 to a fixed below-market rate, or monopsony power
3 increases over time, then wages could remain
4 stubbornly resistant to upward pressure, even at a
5 time when the economy is booming.

6 So with this framework as background, I'd
7 like to make four observations about the labor market
8 that I think are particularly relevant at a time when
9 we're seeing relatively weak wage growth despite 50-
10 year low unemployment. First, average wage growth is
11 weaker than one would expect from historical
12 relationships between wage growth and the unemployment
13 rate.

14 Janet Yellen alluded to this earlier this
15 week and said that a leading explanation for the shift
16 in the Phillips curve is that worker bargaining power
17 is weaker than it used to be. Although nominal wage
18 growth has been creeping up in this recovery, over the
19 last 12 months, nominal wage growth has barely kept
20 pace with inflation. And there are many explanations
21 for why wage growth may be weaker than we would
22 predict. Low productivity growth, I think, is an
23 important factor, but low productivity growth can't
24 account for the last year because productivity growth
25 has picked up, yet wage growth -- real wage growth --

1 has actually weakened.

2 Based on the specification of the wage
3 Phillips curve that I estimated 20 years ago in a
4 Brookings paper, I would expect wages to be between 1
5 and 1 and a half percent stronger today than they have
6 been.

7 Second observation. There's growing
8 evidence supporting an important role of monopsony
9 power in the job market stemming from both employer
10 concentration and dynamic labor market considerations.
11 I won't go into too much detail on this work because
12 one of the main contributors, Ioana Marinescu, is
13 here, but basically this work finds that measures of
14 employer concentration, even measured by concentration
15 within an industry in a county or concentration -- of
16 employment within an industry in a county in work by
17 Benmelech and coauthors, or measured by job openings,
18 posted online for occupations within a small commuting
19 zone, show a relationship with wages which suggests
20 that in more concentrated areas, wages are lower,
21 other things being held equal.

22 There is also some evidence that
23 concentration has increased, although again, I think
24 it's important that we define the boundaries of the
25 labor market carefully in that work. Other studies

1 have looked at monopsony power within specific
2 industries. And here I think the most work has been
3 done in the nursing industry. Dan Sullivan in 1989,
4 Doug Staiger in 2010 and coauthors found substantial
5 evidence that hospitals are able to use monopsony
6 power in setting wages for nurses.

7 Then lastly, there's evidence on dynamic
8 monopsony power. For example, Doug Webber has used
9 the longitudinal employer household dynamics data
10 set to estimate labor supply elasticities to firms.
11 Specifically, he looked at how turnover relates to the
12 generosity of compensation across firms, he found that
13 the average labor supply elasticity to a firm was 1.1.
14 And he also found considerable variability across
15 firms, and the firms that had a more inelastic labor
16 supply tended to pay lower wages, as one would expect
17 if they take advantage of their monopsony position.

18 Third, monopsony power and search frictions
19 have probably always existed in the labor market. But
20 the forces that traditionally counterbalanced
21 monopsony and boosted worker bargaining power have
22 eroded in recent decades. The most obvious is labor
23 unions. Union membership fell from 25 percent of the
24 workforce in the U.S. in 1980 to 10.7 percent last
25 year.

1 Collective bargaining used to be an
2 effective counterweight to monopsony power. We used
3 to write papers on the union threat effect, but in
4 most industries, there's hardly any union threat
5 effect, so the spillover effects where companies might
6 raise wages to try to prevent having a union drive is
7 weaker than it used to be. Another counterbalance to
8 monopsony power that is weaker today is the minimum
9 wage. The U.S. federal minimum wage is currently
10 \$7.25 an hour. It had not been raised since July of
11 2009. The real value of the minimum wage is down
12 about 20 percent since 1979.

13 By contrast, in that period, both the U.K.
14 and Germany enacted their first national minimum
15 wages, and they currently stand at \$10 an hour at
16 current exchange rates. The decline in unionization
17 and the erosion of the real value of the minimum wage
18 have been found to significantly contribute to higher
19 income inequality and polarization in the U.S.
20 workforce.

21 These shifts have also probably contributed
22 to the downward trend in labor share in the U.S. since
23 the 1990s after decades of stability. Now, one might
24 argue that these changes to the labor market have made
25 the labor market more competitive. But the fact that

1 the employment-to-population rate has trended down,
2 especially for the workers who were covered by
3 collective bargaining and affected by the minimum
4 wage, and that regional shocks are now more
5 persistent, the wages, employment, and labor force
6 participation suggests that we have a less competitive
7 labor market with weaker bargaining power and more
8 monopsony power.

9 There's been a proliferation of practices
10 that enhance monopsony power and weaken worker
11 bargaining power. I'll highlight five of these
12 practices. First, there's been increased reliance on
13 temporary help agencies, staffing firms, and
14 outsourcing. One implication of this practice is that
15 firms can wage-discriminate. This can facilitate
16 monopsony. If a hospital has persistently high
17 vacancies for a nursing position, it can reach out to
18 a staffing firm, hire a staff nurse from the firm, and
19 pay a higher salary to that particular nurse than
20 other nurses who are employed by the hospital.

21 Second, a quarter of American workers are
22 bound by a noncompete restriction on their current job
23 or from a previous job. These restrictions, which may
24 be justified in an unlimited number of cases to
25 protect returns to specific training or trade secrets,

1 have truly run amok. Even Jimmy John's used the
2 practice for submarine sandwich makers until they were
3 forced to drop it.

4 Just over one in five workers who earn less
5 than the median wage are bound by a noncompete
6 restriction on their current or previous job,
7 according to work that Eric Posner and I have done,
8 and I'm sure we'll hear more about noncompetes later
9 from Evan Starr. Noncompete agreements lower --
10 reduce workers' options and reduce mobility and
11 bargaining power.

12 Third, a growing fraction of the workforce
13 is covered by occupational licensing restrictions,
14 typically imposed by state and local authorities.
15 Morris Kleiner and I, for example, find that over a
16 quarter of workers are required to obtain a license to
17 perform their job. These restrictions may be
18 justified in positions that require extraordinary
19 skill or put the public at risk, but they also
20 restrict job opportunities and mobility.

21 Occupational licensing has also run amok.
22 It's particularly difficult for workers who want to
23 change jurisdictions, change states. It is especially
24 a burden on military spouses. Military families move
25 around often. The most common jobs for military

1 spouse are nurses and teachers who often have to get
2 licensed in the new state when they move, pay a
3 licensing fee, and by the time they are permitted to
4 work in those states, they often move again.

5 Fourth practice, my colleague, Orley
6 Ashenfelter, and I have found that 58 percent of
7 franchise companies have a no-poaching clause in their
8 franchise contract that prevents one franchisee from
9 hiring workers from another franchisee or from the
10 franchise company itself if the company operates
11 stores. This is up from 36 percent of franchise
12 companies in 1996. The practice is particularly
13 common in fast food chains. We found that 80 percent
14 of the largest quick-service restaurant franchise
15 chains had a no-poaching requirement.

16 Since the human capital that is being
17 prohibited from moving around different outlets within
18 the franchise would stay in the franchise company, it
19 is awfully hard to see a business justification for
20 this practice other than trying to suppress mobility
21 and suppress workers' wages.

22 Washington State took action. The Attorney
23 General in Washington State launched an investigation
24 and managed to persuade 30 of the largest franchise
25 chains to drop their no-poaching agreement in the U.S.

1 -- in Washington State and the U.S. Almost all of the
2 major fast-food companies with the no-poaching
3 agreement have dropped -- have dropped that from their
4 contract, thanks to the work of Bob Ferguson, the
5 Attorney General in Washington State, over the last
6 couple of months.

7 Just yesterday he announced that he's
8 bringing a lawsuit against Jersey Mike's, a franchise
9 based in my state, New Jersey, which operates in
10 Washington State and other states for continuing to
11 use this practice.

12 I should add that in addition to restricting
13 mobility and increasing monopsony power, these types
14 of restrictions on mobility like noncompete clauses
15 and no-poaching agreements, and the no-poaching
16 agreement was just completely blind to the worker.
17 Workers are not aware they're not party to these
18 agreements. They reduce workers' opportunities for
19 finding better job matches, improving their working
20 conditions in other ways, and work by Bob Topel and
21 Michael Ward back in 1992 found that about a third of
22 the wage gains in the first ten years of young
23 workers' careers were associated with job changes.

24 So apart from the effect of suppressing
25 wages at the firm where these workers work, they also

1 reduce opportunities for the workers to move up the
2 wage hierarchy. Now, no-poaching agreements would
3 clearly be illegal if they occurred across unrelated
4 firms. It's an unsettled area of the law as I
5 understand it, if franchisees agree to these types of
6 no-poaching agreements. But as I mentioned earlier,
7 there are violations of the law outside of the
8 franchise sector as Adam Smith had anticipated. I
9 could go through many examples, but I think I'm
10 running short on time, so I'll give you a few more.

11 In the famous case, Apple, Google, Adobe,
12 Intel, and Intuit, Pixar, Lucas Films were found to
13 have colluded on not hiring each others' workers,
14 colluding on pay settings, and paid a half-billion-
15 dollar settlement in 2015. There have been several
16 cases in the hospital industry, addressing pay of
17 nurses. Eight major hospitals in Detroit recently
18 reached a \$90 million settlement in a suit alleging
19 that the hospitals colluded to reduce nurses' pay.

20 Similar cases are in various stages in
21 Albany, Memphis, San Antonio, and Arizona. A couple
22 of months ago, I spoke with Jeff Suhre, who is a
23 registered nurse and was the lead plaintiff in the
24 Detroit nurses case. I wanted to understand from his
25 perspective how he came to recognize that this was

1 taking place and what impact it had on his career and
2 his work.

3 He said that he worked at the emergency room
4 at St. John Providence Hospital in Warren, Michigan.
5 He was hired in 1991. He later moved to the critical
6 care unit, and he attended patients who were
7 recovering from open heart surgery and other serious
8 conditions. After working there for 12 or 13 years,
9 Mr. Suhre said he got an inkling that the human
10 resource department at his hospital was coordinating
11 with other hospitals and setting nursing pay because
12 he had an opportunity to see some emails where they
13 were discussing trying to reduce mobility and
14 coordinate on pay.

15 He said the hospitals -- the nurses at his
16 hospital were nonunionized, and the hospitals in the
17 area wanted to prevent nurses from jumping from one
18 hospital to the another for better pay and better
19 working conditions. The executives would often
20 discuss these issues and exchange pay rates at
21 conferences. One indication that the hospitals
22 exploited their monopsony power that he told me about
23 was that when they had vacancies, which was often, the
24 hospital would reach out to a staffing firm. The
25 staffing nurses were paid \$40 an hour, plus the firm

1 got administrative fees, while employee nurses were
2 paid \$30 an hour.

3 A class action suit was filed on behalf of
4 Mr. Suhre and thousands of other nurses in 2006. He
5 gave a deposition in 2007. He said the hospital,
6 "made my life hell for me after that," increased his
7 patient load to a level he considered unsafe for the
8 patients. He quit in 2008. Other hospitals were
9 reluctant to hire him. He now works in home
10 healthcare.

11 The antitrust suit was settled in 2010. Mr.
12 Suhre did not receive any compensation until 2012, six
13 years after the suit was filed. So I think this gives
14 an indication of the challenges that workers face in
15 this situation and the retaliation that they sometimes
16 can face.

17 It's worth noting that collusion is easier
18 when there are fewer firms in a market. The increase
19 in employer concentration in the U.S. has probably
20 facilitated collusion. And collusion doesn't have to
21 be explicit. Employers could collude at a focal
22 point. The minimum wage could be a focal point, for
23 example. Round numbers could be a focal point. And
24 there is evidence that this type of passive collusion
25 occurs as well.

1 Now, a really tight labor market might make
2 it possible for this collusion to break down. I
3 suspect that's part of the reason for the historical
4 Phillips curve to exist in the first place, so we may
5 see some improvement if the economy continues to
6 improve and the unemployment rate continues to stay
7 low.

8 I want to conclude by saying I presented a
9 similar set of remarks at Jackson Hole this summer at
10 the Kansas City Fed annual conference on monetary
11 policy. The reaction I got was quite encouraging. I
12 think many of the monetary policy officials thought
13 these issues are important, but probably beyond the
14 reach of monetary policy. I think there was a
15 consensus coming out of that meeting that these are
16 very important issues for the Department of Justice
17 and for the FTC to focus on.

18 I want to commend the FTC and the DOJ for
19 issuing joint guidance in October of 2016 for human
20 resource professionals clearly stating that wage-
21 fixing and agreements not to poach other firms'
22 workers are illegal. And I think this is an area that
23 needs a greater intention and more vigilant
24 enforcement, because from the evidence that is
25 available, it seems that Adam Smith was right and

1 there are many instances of employers combining
2 tacitly, sometimes explicitly, as in those emails that
3 I read before, to try to suppress pay. Thank you.

4 (Applause.)

5 (Welcome and introductory remarks
6 concluded.)

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1 PANEL 1: ECONOMIC EVIDENCE OF LABOR MARKET MONOPSONY

2 MR. SANDFORD: Thank you, Alan. And thank
3 you to everyone for coming or watching on the web. My
4 name is Jeremy Sandford. I'm an economist at the FTC,
5 and I will be one of the moderators of this panel.
6 The other will be Devesh Raval, who is also an
7 economist at the FTC and is seated to my left.

8 We have a very strong panel to discuss the
9 issue of labor market monopsony. We've already heard
10 from Alan Krueger. The other panelists are Matthias
11 Kehrig of Duke University. Ioana Marinescu of the
12 University of Pennsylvania School of Social Policy and
13 Practice, Nancy Rose of MIT, and Nancy recently served
14 as the Deputy Assistant Attorney General for the
15 Department of Justice, and Bob Topel of the Booth
16 Business School at Chicago.

17 So Alan's already had a chance to give
18 remarks. The other four panelists are now going to
19 each have up to 12 minutes to give opening remarks.
20 And the order will be first Matthias, then Ioana, then
21 Nancy, and then Bob. And following that, we'll have a
22 Q&A session in which Devesh and I ask questions of the
23 panel.

24 So with that, I will hand it off to
25 Matthias.

1 MR. KEHRIG: Okay. Thank you very much for
2 the invitation to discuss here with other academics
3 and policymakers, economists of the FTC, concentration
4 and market imperfection in labor markets. I'm a
5 macroeconomist. I work on productivity and firm
6 dynamics and how firm -- high-productivity and low-
7 productivity firms evolve over time, how they hire and
8 what wages they pay.

9 So in principle, what I'm going to want to
10 bring to this discussion is little bit the firm side,
11 how do firms decide, how do they act in labor markets,
12 how do they respond to market conditions in terms of
13 their employment, in terms of their wages and so on.
14 So the first important thing that I want to say is,
15 when we talk about wages, wages are compensation for
16 something that the worker produces for the firm, which
17 is somehow value-added per worker or gross profits per
18 worker.

19 So this is what I'm going to add to this,
20 and I basically want to make four points here. The
21 first point is I want to talk about how concentration
22 evolved in markets. I'm going to talk about markets,
23 I want to talk about, first of all, open markets,
24 goods markets, and, secondly, input markets, labor
25 markets. It turns out they're actually slightly

1 different, and that's important because when you think
2 about how firms should typically respond to standard
3 economic reasoning, they should be related, but they
4 are not since the 1980s.

5 The second point I want to make is that
6 overall the labor compensation and labor productivity
7 per worker, they have diverged since the '80s. So on
8 principle, you can think of this, this is the fact
9 that the aggregate labor share in the economy, the
10 share of GDP that is paid out as wages and
11 compensation for workers, has gone down. And the
12 interesting aspect is when you look at individual
13 firm-level data, for the average firm, this is not the
14 case. It is really a very small subset, a very few
15 what we call hyper-profitable or superstar firms that
16 have tremendous productivity growth and don't share
17 with the workers.

18 The third point I want to say, it's like
19 this productivity growth primarily stems from the
20 output side of firms. So these firms, they make
21 incredible profits by having high relative prices
22 compared to their peers in the same product and market
23 and so on. It is not so much that they pay
24 particularly lower wages. It still could be going on
25 that although wage level is suppressed because of

1 various factors that Alan Krueger mentioned --
2 collusion, unionization and so on -- but when we
3 single out these individual firms that have this
4 tremendous productivity growth and no really wage
5 payment, it is not because they undercut the wages,
6 it's because they are at relatively high prices.

7 And the last point that I want to make is
8 that there's remarkable turnover at this high price
9 end of the market, that the firms are kind of in a
10 mutual competition of overtaking each other, and that
11 has become increasingly volatile, and that might be
12 one reason also why they don't pay higher wages
13 because on the output sides, they face a lot of demand
14 pressure.

15 So first point, the concentration dynamics.
16 So when we look at the concentration in goods markets,
17 this is from a slide from some work from David Autor
18 and others. The concentration goods market has been
19 unambiguously going up. If you look at the share of
20 sales accounted for by the top four or by the top 20
21 firms, what you see is that has been increasing
22 secularly. And that's true for many other
23 concentration measures such as the Herfindahl index
24 and others.

25 So these are -- this is based on census

1 data, and the census data in principle captures all
2 the businesses there are. So they capture in
3 principle all the sales. They also, of course, record
4 employment, and that's what I want to show to you now,
5 is when we look at the same idea of concentration
6 measures in the labor market, the evidence is much
7 more ambiguous. So there's some recent work by
8 Claudia Macaluso, Brad Hershbein, and Chen Yeh, and
9 also David Berger, Kyle Herkenhoff, and Simon Mongey,
10 that they say actually if you look at the local
11 concentration of employment in local labor markets
12 that's been going down.

13 Now there's some other work and evidence on
14 the concentration of -- among new vacancy posting of
15 job openings. So that's slightly different. What I'm
16 showing here is these people have worked on the
17 concentration of the total employment. And, of
18 course, when it comes to wage-setting, wages are
19 typically set at the beginning of when a worker starts
20 working for a firm, so when they're hired, when the
21 vacancy is opened, and then there are some interview
22 postings and then filled. So employed workers don't
23 get as much wages, unless they're poached, unless
24 they've alternate offers or they quit.

25 So the first -- the takeaway is that the

1 concentration dynamics don't exactly line up. Of
2 course, there are many questions that are dicey here,
3 about measurement, what exactly is a firm, what
4 exactly is a local labor market? Should we look at
5 overall employment, should we look at the net addition
6 of employment. So I want to acknowledge that there
7 are many measurement issues that we want to -- should
8 be mindful of, but in principle what we see is upward
9 concentration and labor market concentration do not
10 move in lockstep.

11 So, so far this is all data on the entire
12 U.S. economy. Now I'm moving on to my own work based
13 on micro-level data in the manufacturing sector. The
14 reason why I'm doing this is because in manufacturing
15 we have very good data on both input, output, and we
16 can talk about productivity. We can precisely talk
17 about what does the worker produce for the firm, what
18 is value added per worker, and what is the wage of
19 that worker.

20 So standard economic theory would say, well,
21 if there is a very good -- quote, unquote -- firm that
22 gets very large, sells a lot of products, then in
23 principle that firm should draw resources, should
24 poach workers from other firms, should grow, and that
25 grows the economy. That reallocation of work is

1 essential for economic growth. This is standard
2 thinking.

3 And when we actually ask ourselves if that's
4 really the case, there has to be something changing in
5 that relationship. What I'm now showing you is a
6 simple plot about productivity shocks, a total effect
7 of productivity shocks and how firms respond to them
8 in terms of their hiring. So the question is do firms
9 that have a high productivity that are very
10 profitable, do they also expand in terms of
11 employment. That would be the standard way our
12 economic reasoning works.

13 So from this work here with Cosmin Ilut and
14 Martin Schneider, what we saw is that on the right
15 axis, to the right of the zero, you have the high
16 profitable firms. They expand that hiring. The low
17 profitability firms, they cut hiring. So that was the
18 1960s, 1970s, up to the early 1980s. But when you
19 start rolling this forward into the 1990s, 2000s,
20 2010s, that relationship changes. In particular, it
21 changes at the top end.

22 So this relationship becomes asymmetrical
23 because the high-productivity firms don't hire
24 anymore. Low-productivity firms still fire. So what
25 we see is we have some of these -- quote, unquote --

1 superstars, they don't pass on their great
2 profitability shocks into employment. Well, the
3 obvious question, then, is do they at least pay high
4 wages, though, because they are -- they should pay
5 high wages for two reasons. A, they are very
6 profitable, they get a high T of P shot. And,
7 secondly, since they don't hire, the output per worker
8 that remains is higher now.

9 So in other words, talking about wages is
10 basically nothing else -- I want to mention that
11 there's a similar relationship also about investment.
12 So the question now is, when we think about do these
13 firms pass on their high profitability into the wages,
14 it's based on nothing else than the question, what is
15 the labor share? The labor share, in principle, if
16 you go to Y , which denotes here GDP, or output, L is
17 workers, the amount of workers, and W is the wage
18 rate. When labor productivity is high, if the market
19 is perfectly competitive, if there are no frictions,
20 if workers can move around and so on, then the wage
21 also would go up because workers will compete for what
22 they produce.

23 However we know that in the aggregate, the
24 labor share, the accurate labor share, the total wage
25 flow, WL divided by GDP has been going down since the

1 '80s. So that has been documented by a bunch of
2 papers. The interesting part is that downward trend
3 in the aggregate labor share is actually driven by a
4 very small set of firms. About 10 to 15 percent of
5 the firms in the economy drive down the aggregate
6 labor share. The other 80 to 85 percent tack on as
7 always. Their labor share is stable but they remain
8 smallish.

9 One way to see that is the following graph.
10 On the left side, we have again like the 1960s. This
11 is the first year when we have data and the right side
12 is in 2012. What I plot on the X axis is the labor
13 share, so how much -- across firms, now. This is
14 firm-level analysis. So on the axis, you see some
15 firms that have a labor share of close to zero. That
16 means they generate a lot of value-added, and only
17 very small fraction, like 0.2, would say only 20
18 percent of that value added is paid out as a wage
19 bill.

20 And you see the thin black line is the
21 overall distribution, where firms are. You see that
22 in the '60s, in the 2000s, most firms are actually
23 middle-of-the-road-type of firms. What is changing is
24 how big these firms are. These are the gray bars.
25 The gray bars denote where in the spectrum of labor

1 shares is actually value-added economic activity
2 taking place.

3 And you see by the end of the sample in 2012
4 most of the economic activity, most of the output that
5 is being produced is produced by these incredibly low
6 labor share firms that have very, very high output,
7 don't pay high wages, and they account for an
8 incredible market share. So the question is where
9 does that come from. Do these guys pay low wages, or
10 do they just generate a lot of profits?

11 So the way we assess that is we look at the
12 wage scale of these firms. Principally we go back to
13 the distribution of labor shares and ask yourself, how
14 does the wage scale look like across that spectrum of
15 labor shares, do the lowlander firms, do the low labor
16 share firms, do they undercut their competitors in
17 terms of wages because they are very dominant, because
18 they operate in very concentrated markets, and they
19 pay low wages, or is it because they're just compared
20 to the other firms relatively profitable but they pay
21 the same wages as everybody else?

22 So when we look at the wage scale of that,
23 this is the left graph here, you see that the wage
24 scale, which is the light gray line, is basically
25 almost the same across all the labor share firms. So

1 that means these few superstar firms at the low
2 spectrum of the labor share that basically don't share
3 with the workers, don't have a labor share because
4 they screw all their workers because of wages. The
5 way they differ is, and this is the darker gray line,
6 is they're immensely profitable per worker. They
7 don't share these profits with their worker. If the
8 labor share was completely the same for all the firms,
9 then these -- the light gray and the dark gray line
10 would be on top of each other and they would be all at
11 one labor share, but this is not the case.

12 What -- the primary difference of these
13 firms is in their output side, is in the prices. So
14 they generate these profits predominantly by going --
15 by charging relatively high prices, not by being,
16 like, fantastically physically more better; that they
17 just have faced demand conditions that allow them to
18 charge relatively high prices and you can see these
19 differences are pretty soft, as I said. This is a log
20 point difference here of like .4, .5, so that means
21 exponent of that, that's something like close to twice
22 the price for the same -- for the same product in the
23 same market at a very fine definition, of course,
24 there are many -- many measurement issues surrounding
25 this.

1 And these firms generate extremely high
2 profits which they don't share with workers, but they
3 are high prices. The reason one can conjecture, which
4 I want to throw in into the discussion, which is
5 behind the -- what's happening on the wage side, is
6 the reason why they might not share with the workers
7 is these high prices for a given firm, if we follow
8 them over time, are relatively transient. So if you
9 look over time, what's going on, these low labor share
10 firms -- please just look at the right graph, that's a
11 bit more intuitive -- the firms that have a relatively
12 low labor share in a given year, if we backtrack them
13 and forward-track them in time, they have a low labor
14 share for about, like, five to eight years, and then
15 that's it.

16 Or because we know this is all driven by
17 relative prices, they have a relatively good time in
18 output markets for five to eight years, and then it's
19 over, then they, quote, unquote, go back to normal.
20 That might be part of the reason why they don't share
21 with their workers because it's relatively temporary
22 and they say, well, I could either expand, I could
23 hire more workers, but then five years down the road I
24 have to get rid of them again, and that's not that
25 trivial.

1 I can also pay them higher wages now because
2 they're very profitable for me, but in a couple of
3 years I have to lower the wages again or I have to
4 kick them out. And so that might be one reason why
5 they don't share. Over time, these patterns have
6 become much more pronounced so these relative
7 differences of having, like, a couple of good years in
8 the goods market have become, compared to the peers,
9 relatively strong.

10 So to summarize, there is some more
11 evidence, which I want -- we'll skip now, but the --
12 to take away again, first of all, the concentration of
13 outputs in labor markets is not the same. It's not
14 exactly lockstep, and the reason is that they are
15 high-profitability firms that don't respond to good
16 profit conditions in terms of employment as they used
17 to. They also don't pay higher -- the wages that
18 these workers generate for them, and the reason why
19 they may not do that is because these are relatively
20 transient things.

21 The firms are engaged in a product market
22 product competition where they are relatively good for
23 a couple of years, then they are overtaken by someone
24 else. We see that eventually they might come back 15
25 years later, but there is this temporary oligopsony

1 power, which raises questions that we have to think of
2 and how that translates into the labor market.

3 So these are the basic -- the four main
4 points I wanted to raise and bring to the discussion.
5 And on that, I want to hand off to Ioana, who will
6 discuss more the labor market concentration.

7 (Applause.)

8 MR. SANDFORD: Okay. Thank you, Matthias.
9 We will hear from Ioana Marinescu.

10 MS. MARINESCU: Good morning, everyone, I am
11 very happy to be here and talk to you about the
12 economic evidence for labor market monopsony and what
13 the role of antitrust is in all of this. And first of
14 all, just most of you are aware here, but for some
15 people who might be listening to us on the web, it's
16 important to remind ourselves the role of context here
17 for antitrust.

18 There is a legal significance of labor
19 market concentration because the same
20 Herfindahl/Hirschman threshold that is being used to
21 assess, for example, mergers, applies to seller and
22 buyer power. So one way to frame this is that for the
23 purposes of antitrust, when we are looking at the
24 labor market, we are looking at buyer power as one
25 particular example of buyer power.

1 And so in my work, in my recent work, I have
2 been calculating HHIs for the labor market. And as
3 others have pointed out, this raises the interesting
4 and difficult question of defining a market because
5 when you want to calculate an HHI you want to know
6 what the relevant market is.

7 So our working definition of labor market is
8 a combination of occupation, which would define at the
9 SOC-6, which is a fairly detailed occupational
10 classification comprising 820 roughly occupations,
11 commuting zone, and quarter. So for example, given
12 that my data is going to be based on job vacancies,
13 this would be, for example, job vacancies for
14 registered nurses in Washington, DC in the first
15 quarter of 2016.

16 And so briefly, why vacancies? Vacancies
17 are highly relevant for unemployed job seekers, the
18 point being that even though there might be employment
19 in many companies, what is of highest relevance to the
20 unemployed job seekers is what companies have openings
21 or are recruiting right now, hence the relevance of
22 vacancies to understand the degree of labor market
23 competition as faced by unemployed job seekers.

24 So in this first paper that I'm talking
25 about here, we are using data from Burning Glass

1 Technologies. This is coauthored work with Jose Azar,
2 Marshall Steinbaum, and Bledi Taska, and this data set
3 comprises all -- essentially all online vacancies in
4 the U.S., which itself represents more than 80 percent
5 of the actual job vacancies in the economy.

6 So using the definition of the labor market
7 that I outlined before, which again reminds ourselves
8 that's a commuting zone by quarter, by occupation, we
9 can, for example, draw a map of the average
10 concentration by commuting zone. And, you know, if
11 you just look at every market, defined in this way in
12 the U.S., you find that 60 percent of U.S. labor
13 markets are highly concentrated, meaning that they
14 have an HHI above 2,500 or the equivalent of four
15 employers recruiting with equal shares.

16 On average, if you take the average, in
17 fact, there's only about two employers recruiting with
18 equal shares at any point in time. Now, this
19 situation differs a lot with geography. So what this
20 map shows you is that the levels of concentration are
21 very high in less densely populated areas, mostly in
22 the middle of the country, and if you look at where we
23 are here on the East Coast, you see a big green band
24 of low concentration because that's where some of the
25 most densely populated areas are, and, therefore, on

1 average, you tend to see a lower concentration even
2 though even there there is variation and some
3 occupations can be highly concentrated.

4 So, therefore, because of this difference by
5 population density, it is also the case that labor
6 market concentration, even though 60 percent of U.S.
7 labor markets are highly concentrated, this affects
8 about 20 percent of workers who work in 60 percent of
9 highly concentrated markets. Of course, for antitrust
10 purposes, it is enough to find one market that is
11 substantially affected, so I think the 60 percent is
12 relevant but when we are trying to explain likes
13 things like the labor share, then we ought to pay
14 attention to how many workers are affected by this
15 degree of concentration.

16 So the second headline finding is that
17 higher concentration is associated with lower wages.
18 So to look at this, we use a different data set which
19 is from CareerBuilder.com. This is the largest online
20 job search engine, together with Monster, captures
21 about a third of U.S. vacancies. So using this data
22 set, we find that a 10 percent higher HHI is
23 associated with a 0.4 percent to 1.5 percent lower
24 posted wages. So these are the wages that companies
25 say they're willing to pay in their ads.

1 Furthermore, people have, you know, after we
2 got this working paper out, it became, you know, a
3 whole team of other people reached out and did similar
4 research, and two independent studies with different
5 data and different market definitions confirm a
6 negative association between wages and concentration.
7 One paper by Benmelech and another one by Rinz which
8 just came out very recently, only a week ago or so.

9 So this is the broad picture of what's been
10 found so far regarding the level of concentration and
11 the association of concentration with wages. I want
12 to raise some issues and talk to you about how I think
13 we're at in terms of addressing those issues. The
14 first one is, and that's a classic, how sure can we be
15 that concentration decreases wages? Is it really that
16 it's concentration, per se, that it is causing lower
17 wages, or are there some other factors that the
18 analysis hasn't accounted for that might lead to lower
19 wages, even though concentration itself is not
20 responsible for that?

21 And, you know, first of all, it's important
22 to note that HHI is only a proxy for labor market
23 power. Alan Krueger, you know, helped us see the
24 bigger picture, and HHI can be correlated with other
25 factors, potentially unrelated to market power, that

1 also lower wages.

2 So what can we do to, you know, assuage our
3 concerns that these other factors might be driving the
4 relationship? So the negative coefficient of HHI on
5 wages is robust to a number of controls. So first of
6 all, one concern is that maybe labor market
7 concentration is high simply when there are few
8 vacancies, so when the labor market is down, there's
9 fewer vacancies, and that mechanically could lead to
10 higher concentration.

11 So in our paper, we actually are able to
12 control for the state of the labor market. With a
13 time-varying measure, we control for labor market
14 tightness, so the total number of vacancies in the
15 market divided by the total number of applications.
16 And this is a very, you know, good summary statistic
17 for the state of the labor market as we learn from
18 search and matching theory.

19 The second thing we do is we instrument
20 labor market concentration essentially by the number
21 of firms in other markets, and this other paper by
22 Rinz also does that. The results survived there. In
23 fact, the coefficient gets bigger. And, finally, you
24 might also be concerned that as the correlation
25 between concentration and firm productivity, so in

1 this other paper by Benmelech, they also controlled
2 for firm productivity using firm data and they still
3 find a negative association between HHI and wages.

4 So, overall, I would summarize this as
5 saying that these are not perfect experiments. It is
6 very hard to, you know, find a crystal-clear case of
7 HHI being quasi-experimentally assigned, but the
8 evidence is pretty consistent and robust to a number
9 of concerns.

10 The second issue now I am moving on to the
11 issue of market definition. So obviously this is a
12 tough problem that we need to -- a tough nut we need
13 to crack, what exactly is a labor market? How are we
14 going to define it? So first, just note that even
15 though the three studies I mentioned in the prior
16 slide use different market definitions, some use like
17 my own occupations, others use industries, some use
18 counties, some use commuting zone, you find a
19 consistent negative association between wages and HHI.

20 So the exact market definition doesn't
21 really matter in terms of the general pattern of
22 finding a negative association between wages and HHI.
23 Of course, the definition will matter for the level of
24 HHI. So if you're going to use HHI thresholds, now it
25 really matters how you define your market because the

1 level of HHI could be very different. So to do that,
2 and the reason why we chose our definition, is we used
3 a labor market version of the SSNIP test. So the
4 intention for this is that if the elasticity of labor
5 supply is below some critical elasticity, the market
6 is well defined, and otherwise it's too broad.

7 And really the intuition for this is to say
8 that if labor supply elasticity is really low, then
9 firms are able to suppress wages without losing many
10 employees, and thereby it can be profitable to do so,
11 whereas if labor elasticity is very high, it is not
12 profitable to suppress wages because you would lose
13 too many employees. And, so we do have very good
14 evidence, actually, on the labor supply elasticity to
15 the individual firm.

16 It's typically below two, and a very recent
17 experiment in online environments, where you would
18 think that there are essentially zero frictions, it's
19 super easy to find another job. Even there, the
20 elasticity is only 0.1 for an online job, right? So
21 there is no moving costs. In principle, you can look
22 for a job, and even there, there is very little
23 reaction of workers to differences in wages.

24 So basically, low labor supply elasticity is
25 strong evidence for imperfect competition or monopsony

1 as Alan Krueger pointed out in his introductory
2 remarks. And so if we have such a low labor supply
3 elasticity to the individual firm, this suggests that
4 even the individual firm in some cases can be
5 considered a market in itself. It already has enough
6 market power by itself to be a market. So, therefore,
7 an SOC-6 by commuting zone by quarter is likely to be
8 too conservative from that perspective.

9 And so, finally, the last point is how does
10 that apply to merger analysis in particular? So the
11 FTC already has a policy to analyze mergers based,
12 among other things, on product market concentration,
13 so HHI in the product market. So the question is, do
14 we even need to worry about the labor market? Maybe
15 these are perfectly correlated, and so if we worry
16 about the product market, the labor market will take
17 care of itself.

18 But the point is, a separate labor market
19 analysis, we think, is needed because a firm, for
20 example, that sells in the national market can have
21 little product market power but a lot of labor market
22 power in local areas right where it hires most
23 workers. So in the meantime, I've done some quick
24 calculations to get you some examples.

25 So I have looked at manufacturing industries

1 with more than a \$100 million in sales annually, so
2 very big industries. And so an example is on the one
3 end you have the car industry. There, it's relatively
4 highly concentrated in the product market at the
5 national level, but relative toward the industries,
6 it's pretty low concentrated for workers.

7 On the other end of the spectrum, another
8 example is iron and steel. Iron and steel has very
9 low concentration as per HHI sales at a national
10 level, but extremely high concentration compared to
11 other industries in terms of the labor market
12 situations that workers are facing in those different
13 markets where I define markets as before by
14 occupation, CZ, quarter, et cetera.

15 So I am running out of time, so just to tell
16 you that in my paper with Herb Hovenkamp, we discuss
17 how labor market affects can be incorporated in the
18 merger review using the HHI thresholds, and we also
19 discuss the significance of anti-poaching and
20 noncompetition agreements that Alan talked about.

21 So just last point about anti-poaching,
22 anti-poaching agreements are very interesting because
23 the existence of an anti-poaching agreement
24 establishes that, one, firms are competing in the same
25 labor market, otherwise what's the point of agreeing

1 not to poach? And, two, that collusion is profitable,
2 because, you know, if it weren't then, again, what's
3 the point to poach since other firms in the market,
4 you know, would take workers away from us anyway. So
5 that can be a good way of going at it if we don't know
6 what the market is, but we have evidence that there is
7 an anti-poaching agreement. That's a good argument to
8 use in that context.

9 So in conclusion, we found that the majority
10 of U.S. labor markets according to our favorite
11 definition of highly concentrated, although as others
12 have said I think more work is needed in refining the
13 definition of a labor market, we and others have found
14 that labor market concentration is associated with
15 lower wages, and antitrust enforcement can use this
16 evidence and readily take into account these
17 anticompetitive effects on the labor market by
18 adapting existing tools that have been used for a long
19 time for the product market. Thank you.

20 (Applause.)

21 MR. SANDFORD: Thank you, Ioana. And let me
22 take this opportunity to remind people in the room you
23 will have a chance to ask questions of the panelists
24 if you wish to do so. We will have FTC staffers
25 walking around with comment cards, so just flag one of

1 them down and write your question on it. We'll get it
2 passed up to Devesh and I, and we'll see if we can ask
3 it.

4 Okay, with that, we'll now hear from Nancy
5 Rose.

6 MS. ROSE: I want to thank you for the
7 invitation to participate in these hearings, and I am
8 delighted that the FTC is focusing attention on
9 upstream harm, whether that is from buy-side mergers
10 or anticompetitive actions of buyers, something that I
11 worked on during my service in the DOJ Antitrust
12 Division. I am proud to have been involved in the
13 challenge to the Anthem-Cigna merger, in which DOJ
14 included an allegation of upstream harm to healthcare
15 providers, resulting from the elimination of
16 competition between Anthem and Cigna as buyers of
17 healthcare services.

18 I met with others across the administration
19 to discuss labor market competition and its crucial
20 role in the welfare of workers and economic growth.
21 And I was privileged to work with both economists and
22 lawyers at the DOJ Antitrust Division and the FTC in
23 drafting and issuing the October 2016 antitrust
24 guidance for human resource professionals that Alan
25 alluded to earlier, which emphasized not just the

1 illegality of wage-fixing. There had been already
2 government enforcement actions in that space prior to
3 this against colluders, but more significantly
4 announced DOJ's intent to pursue criminal action
5 against naked wage price -- wage-fixing or no-poach
6 agreements.

7 Those experiences motivated my contribution
8 to the analysis that Scott Hemphill and I developed on
9 mergers that harmed sellers, which Scott testified so
10 eloquently on during the hearing on monopsony and
11 buyer power last month. And I thought that was an
12 extraordinarily interesting session, and I look
13 forward to the rest of today's discussion, which
14 focuses on one particular group of buyers, mainly
15 workers -- I'm sorry, one particular group of sellers,
16 namely workers.

17 I know my time management skills could use
18 some improvement, so I'm going to start with my
19 bottom-line conclusions so that I get those, get to
20 those by the end. And those are two. First, I would
21 sound a cautionary note on the conclusions that we can
22 draw at this point from the wealth of aggregate
23 studies of labor market outcomes. I think it's
24 terrific that empirical economists are focusing their
25 attention on these issues, both energizing and

1 informing the policy debate, but despite a wave of
2 academic research that shows aggregate declines in
3 labor share across the economy, growing wage
4 productivity gaps, and correlations between low wages
5 and measures of employer concentration either for a
6 given occupation code or within a given industry, I
7 think we're still a ways from being able to establish
8 a credible causal connection between low wages and
9 employer concentration, let alone a causal connection
10 between low wages and anticompetitive mergers.

11 Remember that the antitrust laws do not
12 reach the concentration, per se. They reached a
13 concentration that is accomplished either by an
14 anticompetitive merger or by anticompetitive what are
15 sometimes called monopolization or in this case
16 monopsonization practices. So at least for most
17 workers in most settings, we're still a ways from
18 understanding what the cause of the correlation might
19 be, and I would just urge us to recognize that without
20 a cause we have a lot of trouble discerning the
21 appropriate solution.

22 Second, so not to end on a totally bleak
23 note, I'm encouraged by a recent empirical study by
24 Elena Prager and Matt Schmidt on hospital mergers that
25 suggest that there may be at least modest adverse wage

1 effects for specialized occupations -- think nurses,
2 for example -- and skilled workers within that sector
3 who are affected by a merger that substantially
4 increases concentration.

5 I don't think we can yet be certain that the
6 impact they uncover occurs from a reduction in labor
7 market competition as opposed to a reduction in labor
8 demand -- I'll say more about that in just a moment --
9 that reduction in labor demand could result from
10 output restrictions due to greater market power by the
11 hospitals, pulling back their output and therefore
12 marching down a labor supply curve. Or it could be --
13 arise from more efficient operations post-merger,
14 again, marching backward on the labor supply curve.

15 Those have very different implications for
16 policy and antitrust enforcement, but I think that
17 this study is a compelling call not only for further
18 academic research in this spirit, what I might call
19 hand-to-hand combat as opposed to aerial strafing over
20 this landscape, but also for greater consideration in
21 select merger investigations where there may be
22 significant specialized occupations that are dependent
23 upon labor market competition between the merging
24 firms.

25 So why the caution in interpreting the

1 empirical labor economics evidence? The first thing I
2 would highlight is that monopsony may not be what you
3 think it is, particularly if you are coming to this
4 from a non-labor-economics background. I learned this
5 lesson the hard way, through talking past a group of
6 labor economists when they talked about monopsony and
7 I said no, no, no, that's not monopsony.

8 As Alan highlighted and I think quite
9 eloquently explained in his remarks, monopsony, as
10 frequently used in labor economics, is not necessarily
11 the mirror image of monopoly or oligopoly. Monopsony
12 may be used for many deviations from a perfectly
13 competitive outcome in labor market, not just those
14 that arise from having too few employers competing for
15 workers. That's quite different than the way
16 industrial organization economists and antitrust
17 enforcers tend to use the word "monopoly."

18 While monopsony could be a failure of
19 competition due to too few employers, it could also
20 reflect or instead reflect a wide range of frictions,
21 including information failures, search costs,
22 transaction costs, unwillingness to relocate,
23 idiosyncratic match quality, and so forth. And even
24 when monopsony may be due to too few employers bidding
25 for a set of potential workers, that situation may not

1 arise from any anticompetitive action by employers,
2 either mergers, which are actionable under the Clayton
3 Section 7; collusion, which is actionable under
4 Sherman Section 1; or attempted monopsony behavior
5 actionable under Sherman Section 2.

6 What that means is that antitrust
7 enforcement is going to be neither an effective nor an
8 appropriate tool to address most of those frictions.
9 Moreover, some of those work against the existence of
10 and certainly against the argument of monopsony power
11 in what I'll call the classic IO sense of monopsony,
12 too few employers, because if wages are customized to
13 individuals, for example, then there is no effect of a
14 merger. If each firm is a monopsonist to the workers
15 it employees, mergers don't have any further
16 anticompetitive effect. So I think we really need to
17 think very carefully about how these different pieces
18 fit together.

19 But as I said, one of my big concerns is
20 that we don't even know from the empirical evidence
21 yet whether the correlations between wages and
22 measures of employer concentration, what the
23 implications of those are or whether they are causally
24 related to competition. And to explain that, I
25 thought it might be useful to take a look at a graph

1 of supply and demand in a labor market, so if you
2 could just -- I don't have the clicker -- just flip to
3 the next one, that would be great.

4 All right, so this is a little bit messy,
5 apologies to those of you who aren't economists or
6 even to those of you who are. But suppose we have
7 upward-sloping labor supply curve. That's the red
8 curve that slopes upward, and that seems plausible.
9 In most cases, we would think that higher wages are
10 going to elicit more workers willing to work. With
11 high labor demand, that's, for example, the downward-
12 sloping blue curve on this graph, wages are higher
13 than they will be with low labor demand, the red
14 downward-sloping curve on this graph.

15 That's true whether markets are competitive
16 and wages are just determined by the employment level
17 where labor supply intersects with labor demand, the
18 label "competitive" shows low labor demand in
19 intersecting with the labor supply curve, but it's
20 also true if employers are behaving monopsonistically,
21 which I'm representing by the blue upward-sloping
22 curve.

23 So in either case, higher labor demand is
24 going to be associated with higher wages, lower labor
25 demand with lower wages. Now, why does that matter?

1 It matters because we can't just tell, I think, from a
2 correlation between the number of employers or an HHI
3 of employers and the wage rate what's going on.
4 Suppose that we are in a market where a new employer
5 moves into the area, shifting out labor demand, so
6 moving from low to high. Wages go up and measured
7 concentration goes down. That's the concentration is
8 coincidental with the wage change. What's changing
9 the wages is an increase in labor demand. Or suppose
10 a firm shuts down a factory. Labor demand and wages
11 will both fall, as will employment; employer
12 concentration will rise.

13 We can't tell from these sets of facts or
14 these correlations whether each employer is moving
15 along that red labor supply curve or they are moving
16 along a monopsonistic labor -- what I call marginal
17 labor cost monopsony curve. And I think that problem,
18 that identification problem, which is very similar to
19 what Steve Berry talked about in the first session
20 with respect to concentration studies in general, I
21 think that that's a fundamental problem. It's not
22 solved by instrumenting for HHI, with the inverse of
23 the number of firms.

24 In the example I just gave you, it's a
25 change in the number of firms that's changing wages

1 and changing labor demand and changing concentration.
2 It's not going to be solved by controlling for
3 tightness of the labor market, because if you are on
4 the labor supply curve, you don't have excess supply
5 of labor. You have as many people willing to work at
6 the going wage as is consistent with equilibrium. You
7 just don't know how you got to that equilibrium,
8 competition or monopsony. And it's probably not going
9 to be solved for by a control for firm productivity.

10 I don't want to be too harsh. IO economists
11 ran regressions like this for years, maybe decades,
12 making the same type of inferences from the results.
13 And it wasn't until the late 1970s and early '80s that
14 we began to recognize there was a fundamental
15 identification problem confronting these types of
16 analyses and have adapted now to different methods to
17 try and understand market power. But I think that's
18 important to recognize.

19 However, as I told you in my second
20 conclusion, I don't think this means that we should
21 just sit back and say we don't need to worry about
22 labor markets, far from it. The Prager and Schmidt
23 paper on hospital mergers exemplifies, I think, a
24 fruitful direction for scholars that are interested in
25 exploring the evidentiary foundation for employment-

1 based upstream challenges, and it suggests that
2 mergers that substantially increase concentration may
3 have wage effects, on the order of one to one and a
4 half percent lower wage growth per year for some
5 classes of workers.

6 And I think that this study might also point
7 at a kind of bridge to antitrust enforcement, which
8 is, they show those effects are -- appear for workers
9 in specialized occupations, so in the case of these
10 hospitals, think of nurses or physician's assistants
11 or radiologists, others that are specialized to
12 hospital settings, as well as skilled workers, and
13 they appear only for the most significantly
14 concentrating mergers, changes in the HHI of 3,000 or
15 more.

16 Now, I think that suggests that we probably
17 haven't missed anything in the hospital setting
18 because a delta HHI of 3,000 is going to get the FTC's
19 attention on the product market side. And we don't
20 need to allege labor market harm if we're blocking a
21 merger because of product market harm, which courts
22 are much more familiar with. I suspect the reason
23 they've got observations in their study is most of
24 those seem to be very small communities during the
25 period when the FTC was having trouble getting courts

1 to agree with its challenges to hospital mergers,
2 which, thankfully, seems to be largely behind us at
3 this point.

4 But I guess I would just close by saying
5 it's important for us to identify where we might want
6 to add labor market analyses, so where there might be
7 -- where both firms in a merger are significant
8 employers of the same type of specialized labor, but
9 whose products may not be sell-side substitutes, as
10 Ioana mentioned in her remarks, or where those
11 products may not overlap enough to hit the horizontal
12 merger concentration threshold on the product side.

13 These could be even potential competition or
14 what we sometimes called complementary product
15 mergers, where you might think what the firms are
16 doing is similar enough that the employment pools
17 might be similar, but there wouldn't typically be an
18 immediate trigger on the product side. The reason I
19 think this is important is that agency enforcement
20 resources, as those at the FTC and the DOJ know well,
21 are quite limited, and if we tell agencies to add
22 extensive labor market analysis to most merger
23 investigations, we should recognize that we are
24 telling them to investigate and challenge fewer
25 mergers overall. In my mind, that tradeoff is not an

1 obvious improvement for workers, for consumers, or for
2 our overall society.

3 So the question is, how to target resources
4 most effectively so we are not missing anticompetitive
5 upstream harm mergers but without adding an entire
6 layer of complexity and additional analysis to all the
7 investigations that we decide to pursue or that
8 agencies decide to pursue.

9 MR. SANDFORD: Thank you, Nancy.

10 (Applause.)

11 MR. SANDFORD: Finally we will hear from Bob
12 Topel.

13 MR. TOPEL: Thanks for inviting me. You
14 know, I got to listen to everyone's comments, and I
15 can cross out a lot of things. I agree with Nancy, so
16 there's my overall comment. Alan and I have been
17 going to conferences like this for 35 years or so, and
18 Alan has a tendency to, whenever he sees a market
19 outcome, he can think of a way to fix it. And I guess
20 I've had a reputation for thinking that market
21 outcomes are sort of intrinsically less fixable.

22 Now, part of the reason I am probably here
23 is that I have some experience with some of the cases
24 that have been referred to. I worked on a little bit
25 the high-tech case and without really revealing too

1 much about it, as Alan pointed out, the CEO of one
2 high-tech company called up and said let's not poach
3 the engineers of -- from each other.

4 Now, when you're teaching classes, you tell
5 your students, don't make that phone call. Just don't
6 do that, because even if you think it has some
7 procompetitive justification under Section 1, you're
8 likely to be in big trouble. The real question then
9 came down to -- in that kind of matter comes down to,
10 well, how much of an impact did that -- is that likely
11 to have in practice?

12 And it turns out instead of, you know, if
13 you're trying to define market in which people
14 competed, the diversion ratio, if you will, for FTC
15 and DOJ types of where people came from and where they
16 went, if they left these firms, was extremely diverse,
17 that people came from everywhere, there wasn't that
18 much -- before the challenge acts -- wasn't all that
19 much mobility between these employers. They were
20 coming from everywhere.

21 So it would appear that the consequences of
22 that action were pretty doggone small. But having
23 said that, you want to tell them, don't do that
24 because you're going to end up with a settlement of
25 the size that Alan referred to.

1 So are there antitrust issues in labor
2 markets? Well, of course, and you would think that
3 they would be -- they would be actionable under the
4 usual -- under the usual criteria of collusion or
5 unilateral conduct. I'll come back to those kinds of
6 things in a minute.

7 And so, yes to that question, and then the
8 second question you might ask is, does rising
9 monopsony power explain the evolution of relative
10 wages and the relative lack of success, in particular,
11 of less skilled individuals. I think the answer to
12 that is likely to be no. So I am going to differ with
13 Alan on that quite a bit.

14 So in my view, the evidence for substantive
15 monopsony power that may be of antitrust concern is
16 pretty thin, both as an empirical matter and for --
17 and for the reasons that Nancy stated. Though I am
18 pretty skeptical of Ioana's evidence, and I'm going to
19 come back to that in a minute, suppose for the sake of
20 argument that she's right, that in all of those red
21 places on the map, they're kind of red politically and
22 they're red in her map because they're highly
23 concentrated. In these narrow occupations, employers
24 possess some monopsony power. Then you have to -- the
25 operative question is, well, what do you want to do

1 about that? How should the FTC or the DOJ concentrate
2 -- or use their resources in these cases?

3 And it's true that you might want to be
4 alert to the possibility of anticompetitive conduct in
5 there, but as Nancy pointed out, merely the possession
6 of some market power, which would here be a small
7 elasticity of labor supply to an individual employer
8 or group of employers, is not actionable in and of
9 itself. The possession of market power is not an
10 antitrust violation. There has to be some
11 anticompetitive conduct that goes along with it.

12 So you treat it much the way you would treat
13 any other case that -- it's just kind of Stigler's
14 theory of oligopoly applied to labor markets. There
15 are some plus factors, and if you've got scarce
16 resources, you might want to devote them to places
17 where you think anticompetitive conduct might arise.

18 Now, Alan might argue that the putative
19 existence of monopsony power in those red places is a
20 reason for offsetting monopoly power in the form of
21 unions, and I don't think that's really -- it's
22 certainly not an antitrust concern. And the other
23 thing to note, though, is that unions have typically
24 been less powerful in exactly those places. And so,
25 and if it was a no monopsony -- and those patterns

1 have existed forever -- if it was really a monopsony,
2 you would expect that those would be the places where
3 unions would be most successful.

4 Now, Alan makes much of the existence of
5 franchise agreements and restrictions within franchise
6 agreements, and I got to read your paper yesterday so
7 I can -- I am going to comment a little bit on that,
8 and some of your comments sort of indicated that,
9 well, I can't think of a really procompetitive reason
10 for doing this. Now, if I had -- if I started Bob's
11 Excellent Hamburgers and I had two franchises, I would
12 probably tell my franchises, I don't want you
13 recruiting from each other. You know, you're
14 competing in the labor market.

15 Well, why do I want to do that? Because
16 brand name matters a lot, and I am going to have all
17 kinds of vertical restrictions on what people can do
18 and how they can fix the hamburgers and how the store
19 is going to look. And one of the things I want my
20 employers to do is go out and find people, and going
21 out and finding people is hard, especially in a
22 business like that.

23 I used to work in a grocery store, and one
24 of the things I learned is that 90 percent -- this
25 applies to a lot of things, 90 percent of success is

1 just showing up. And you want to find the people that
2 are just going to show up. That's an investment in
3 individuals. And if I -- if I allow my people to raid
4 each other, my franchisees to raid each other, there's
5 going to be a lot less incentive to invest in that
6 form of human capital. It's not the type of specific
7 human capital we usually think about, but it's really
8 important. Does it have much anticompetitive impact?
9 No.

10 And I read Alan's evidence that a lot of
11 franchises do this as more evidence that this has got
12 to have a good procompetitive reason. Small firms do
13 it, small franchises do it, large franchises do it.
14 Now, can it have some anticompetitive impact? If you
15 can prove that McDonald's is a valid labor market for
16 antitrust purposes, then it might, so you've got to
17 weigh, as always, the anticompetitive effects against
18 the procompetitive effects when you're talking about
19 unilateral conduct.

20 Now, let me come to a little -- just discuss
21 briefly some of Ioana's evidence that -- sorry, Ioana,
22 I'm not buying. And let me find my notes here. So if
23 you'll recall her map, we don't need to put it back
24 up, we had red states and green states. And one of
25 the examples I used to give back when we were talking

1 about efficiency wages and people saying, well, you
2 know, some firms pay much more than others, is if you
3 think about -- think about the market for economists.
4 And there's -- out in Lincoln, Nebraska, which would
5 be a commuting zone, there's basically one place where
6 a professional economist can work, and the Herfindahl
7 is going to be really doggone high, and if you go off
8 to Boston, it's going to be really low.

9 Well, the average productivity of the
10 economist in Boston is substantially higher than the
11 ones in Lincoln, Nebraska. And so you're going to
12 expect wages to differ in that regard. So my point is
13 that a lot of the differences that you see simply have
14 to do with the composition, even within the skill
15 composition even within these groups.

16 Now, in reality, that picture doesn't have
17 any impact on Ioana's real evidence. She has that
18 picture that shows that those markets are more
19 concentrated, the red ones out in the Midwest. Or out
20 on the plains. They're more concentrated. And the
21 ones in Chicago and Boston, in and around San
22 Francisco, you kind of expect that.

23 And then she's got a graph showing that
24 wages go down as concentration goes up, using that
25 cross-sectional evidence, but the evidence you really

1 use is within, changes within. And it is worthwhile
2 keeping in mind that she's got data from 2010 to 2013,
3 which is a very short period of time, and she runs her
4 regression because it's got fixed effects.

5 You're only using the within -- the within
6 commuting zone variation, and what she finds is that
7 for OLS, changes in that concentration have a small
8 impact on wages, about 3 percent. And as Nancy
9 pointed out, a lot of that can come from the fact that
10 when another firm enters you've got greater labor
11 demand and wages may rise, especially because this is
12 a short run elasticity.

13 And then she -- now, oh, and by the way, how
14 big is that 3 percent? Well, the mean HHI in her data
15 is about 3,300 or 3,200, something like that, and a
16 change in the log of one is going to be 2.7 times
17 that, it takes you up to almost pure monopsony. So
18 that would be a huge change, and it gives you 3
19 percent. If that were the impact, it would not be
20 worth the attention of the antitrust authorities to go
21 chasing that.

22 On the other hand, she has an instrumental
23 variables regression where the impact of a unit change
24 in the log of the HHI is on the order of 11 to 14
25 percent. Now we're talking about something that might

1 matter. On the other hand, what is that instrumental
2 variable picking up? It's the instrumental variable
3 is itself the change in the number of firms and a lot
4 of other places, and so the regression that she runs
5 is how much of the within this place -- within this
6 area change in the HHI is explainable by changes in
7 the number of firms being created in other places,
8 which is to say you're picking up aggregate demand
9 effects, and those are much likely to be much larger.

10 So the argument that these findings are due
11 to monopsony power strikes me as pretty doggone weak.
12 So I am going to leave my comments there. And I look
13 forward to our discussion.

14 MR. SANDFORD: Thank you, Bob.

15 (Applause.)

16 MR. SANDFORD: Okay. We'll now move on to
17 the Q&A portion of our panel, and once again, let me
18 remind those of you in the room that there will be FTC
19 staffers walking up and down the aisles to collect any
20 questions we may have from the audience.

21 Okay, I'd like the first question to go to
22 Ioana. Ioana, Nancy, and Bob both expressed some
23 skepticism of the current state of research, including
24 your own papers, of course. Nancy sounded a
25 cautionary note that we may not be there yet in terms

1 of having a causal connection between concentration
2 and wage, suggested that concentration is not
3 necessarily of direct relevance to antitrust, given
4 what we have control over and what we don't.

5 Bob suggested a variation between Lincoln,
6 Nebraska and Boston, Massachusetts might be explaining
7 some of the results that you find. Would you like to
8 respond to any of this?

9 MS. MARINESCU: Yes, I'd love to. Thanks so
10 much for your thoughtful comments, both of you. So
11 let me start with Bob's points. As Bob accurately
12 pointed out, our regression does not rely on comparing
13 Nebraska with Boston or, you know, Chicago, but relies
14 on changes over time in the HHI within a given market,
15 namely, an occupation by commuting zone. So that's
16 the variation.

17 Now, it's true that this could still be
18 driven by labor demand as both Nancy and Bob have
19 pointed out, and what we do is control for labor
20 market tightness, and that, I understand Nancy's
21 point. I think in the end what you should control for
22 and how to interpret it depends on your specific
23 model, so, for example, under perfect, you know,
24 competition, workers indeed will also be less likely
25 to apply if wages are lower, but we've seen that the

1 elasticity of labor supply is very low. So if that's
2 the case, you know, tightness would not react much on
3 the worker side. It might react on the firm side.

4 But this is something that in any case needs
5 more investigation, and that's why I have started --
6 you know, Steve Berry, in the same hearings, made a
7 similar comment, and we reached out to him and
8 actually we are starting a paper together, you know,
9 trying to do better on that front by using some of the
10 tools that IO has developed in the meantime to address
11 precisely some of these issues. So stay tuned.
12 Hopefully we can do better there.

13 Now, there is another evidence that -- there
14 is another point that Bob made, which is regarding the
15 IV, so it is true that it could be correlated with,
16 again, labor demand at the national level. One thing
17 we do is that we, in our OLS, we can control for
18 occupation by time fixed effect, thereby absorbing
19 some of the national changes in labor demand for each
20 occupation.

21 And that doesn't affect at all the effect of
22 our concentration in the OLS, so it's just one
23 particular way of controlling for time-varying changes
24 in demand in the occupation level. So this is
25 reassuring, but granted, you know, it's the usual

1 discussion of omitted variable bias. You know, it's a
2 little bit hard to be foolproof there.

3 MR. TOPEL: Ioana, let me just clarify
4 something about that.

5 MS. MARINESCU: Yeah.

6 MR. TOPEL: In the IO estimates, you're
7 using the portion of the within region or within
8 commuting zone variation that's predictable by the
9 national changes. So that says that this part is
10 predictable by what's happening everywhere else. So
11 you'd expect -- what you'd expect to find is that the
12 idiosyncratic parts that allow people to move across
13 areas is going to have a small impact on wages because
14 people are mobile. On the other hand, if everybody is
15 moving together, you'd expect a larger wage impact,
16 and that's exactly what you get.

17 MS. MARINESCU: Right. And so in the new
18 version of the paper, we do a bounding exercise, which
19 I am not going to bore you with, but, you know, if the
20 variable instrument is partially endogenous, there is
21 a way to give bounds, and, you know, we find that even
22 if it's quite endogenous we still find the negative
23 effect. Of course, the magnitudes change.

24 Now, what we can bring to the analysis is
25 rely on the new analysis by Prager and Schmidt, which

1 I think is fascinating on the mergers in the
2 healthcare industry. And there, the nice thing about
3 their work is that, well, you know, as Nancy pointed
4 out, we are using these HHIs everywhere, which is kind
5 of nice in a way because we're capturing everything.
6 But the big downside is that we don't really -- we
7 can't really account for what's truly going on.

8 Why is HHI changing in a given market? Who
9 knows, right? So that's a problem, and in the study
10 of healthcare mergers, like the one by Prager and
11 Schmidt, at least we can have a better handle on
12 what's really going on, what's causing these changes
13 in HHI.

14 And I think their study is quite nice
15 because it's able to do a good job, I think, of
16 accounting for some of these demand effects. For
17 example, they look at whether there are pre-trends in
18 wages before the merger happens, which might happen if
19 there was a demand shock that occurred prior to the
20 merger, and they don't find any evidence of that.

21 They also looked at the effects on wages of
22 out-of-market mergers, so mergers between companies
23 that don't, you know, happen to overlap in markets.
24 Those mergers don't have an effect on wages. Or the
25 effect of mergers that were blocked, also no effect on

1 wages. So I think this is somewhat reassuring that it
2 is not some, you know, labor demand shock that is
3 driving the effects that they are talking about. So I
4 think that is about it. Thank you.

5 MR. RAVAL: So this is to Alan and Bob.
6 So imagine you have a policymaker that's concerned
7 about either the falling labor share or the stagnating
8 wage. How would you rank the different policy tools
9 that might affect these, and where would antitrust
10 enforcement, either on conduct or mergers, rank in the
11 list?

12 MS. MARINESCU: Bob. Do you want to go
13 first?

14 MR. TOPEL: The question was for Alan and
15 me?

16 MR. REVEL: Yeah, but --

17 MR. TOPEL: And the question was what
18 policies would affect labor share?

19 MR. KRUEGER: And wages.

20 MR. TOPEL: And wages? First of all, I'm
21 not convinced that labor share is the thing we ought
22 to be looking at. I mean, there's often been a lot of
23 confusion about the decline in labor share and the
24 changing welfare of workers. If, for example, the
25 price of capital declines, that there is some evidence

1 for or at least prices of certain types of capital
2 declines, or if there is capital bias technological
3 change which is equivalent, and if the elasticity of
4 substitution is a little bit above one, you get a --
5 you'll get a decline in labor share of national
6 income, but there is more capital, and all -- and the
7 workers get more capital to work with.

8 So the marginal product of labor is going to
9 rise. Now, it's true, that might take a few years to
10 play out, but simply a decline in labor share of
11 national income is not an indicator of welfare or
12 monopsony power or anything like that. So would I
13 want policies that are targeted at labor share? No.

14 MR. KRUEGER: How about wages?

15 MR. TOPEL: Are there policies that could
16 affect wages? Sure.

17 MR. KRUEGER: That was the question.

18 MR. TOPEL: Okay. Yeah, what would
19 happen to the wage -- people say at the bottom of
20 the wage distribution. Well, in my view, a lot of
21 what's happened is that -- is due to skill-biased,
22 technological changes. It's been very disadvantaged
23 -- disadvantageous to people at the bottom of the wage
24 distribution. Interventions there are likely to make
25 human capital even more scarce than it was before.

1 One solution would be an immigration policy
2 that put more emphasis on changing the skill ratio
3 itself because that's been a big disadvantage to less
4 skilled people.

5 MR. KRUEGER: Why don't I respond a little
6 more generally to what Bob said earlier as well as
7 answering the questions. I agree with Bob on labor
8 share. I think if we focus on policies to raise wages
9 that will probably end up raising labor share. In the
10 short run, having a strong macroeconomy seems to be
11 the best advice. Of course, you don't want to
12 overheat the economy and have another crisis like we
13 had ten years ago. But since the work of Arthur Okun
14 on a high-pressure economy, that seems to help people
15 particularly at the bottom over the long run. I agree
16 on human capital investment, preschool, help for post-
17 secondary education and so on.

18 I think there is a lot of common ground
19 between Bob and me in that we both would like to see a
20 competitive labor market. I think the difference is I
21 have my doubts about how competitive it is to begin
22 with. In fact, the graph that Nancy showed with the
23 upward-sloping supply curve, to labor economists,
24 that's actually quite controversial in that the
25 explanation for industry wage differences is that

1 there are different supply conditions to different
2 industries.

3 We don't have the law of one price, and the
4 model that you graphed, you've got, you know, very
5 different markets for homogeneous labor. That's the
6 way I was reading what you showed. Or in any event,
7 you know, labor economists will call anything where
8 there is an upward-sloping labor supply curve
9 monopsony. It doesn't matter to us how we got there
10 because you get monopsony-like effects, which is why
11 Alan called his book Dynamic -- or Monopsony in Motion
12 because the search frictions give individual firms an
13 upward-sloping supply curve.

14 And in that kind of an environment, the
15 existence of noncompete agreements and no-poaching
16 agreements can have an effect on wages, whereas if you
17 start from a model where you've got an infinitely
18 elastic labor supply curve, which is the competitive
19 model, those agreements wouldn't really matter because
20 workers are just paid the same wherever -- wherever
21 they're working.

22 Bob, I think unfairly, said that I look for
23 government interventions to solve these problems.
24 Some are no doubt beyond the reach of antitrust
25 policy. I haven't been an expert in any of these

1 cases, so I don't have the insights that an expert
2 might have. I also don't have the potential conflicts
3 that an expert might have.

4 MR. TOPEL: I was teasing you, Alan.

5 MR. KRUEGER: I wasn't referring to you, per
6 se.

7 MR. TOPEL: You said unfairly. I was
8 teasing you.

9 MR. KRUEGER: Oh, okay. Anyhow, you know,
10 in some of these cases, it's pretty clear what the
11 loss is to the workers. If a hospital reaches out
12 because they have vacancies because they have colluded
13 with other hospitals about hiring, and they pay \$40 to
14 temporary nurses and the staff nurses are paid \$30,
15 that suggests that the marginal product of the nurses
16 is at least \$10 higher.

17 I agree that in some situations having
18 bilateral monopoly would be a better solution, you
19 know, having more labor unions. I agree with what
20 Nancy said about antitrust having to think about how
21 to use its limited resources.

22 I also wonder, and I don't know how common
23 this is, since this is not my field, if you have a
24 case which is on the margin on the product market
25 side, if the labor market side could put that over the

1 top, that if you take labor market side in addition to
2 the product market side into account, so it could
3 potentially end up blocking more mergers that are
4 harmful to workers and to consumers if the labor
5 market side is added to the equation as opposed to
6 focusing exclusively on the product market side.

7 And I am a bit confused about Bob's argument
8 on Steve Jobs who told Google if you hire any of my
9 workers this means war, that Bob would recommend that
10 that's not a good thing to say and it's not a good
11 practice to put in place. But then when it comes to
12 no-poaching agreements, he said they're fine, they
13 could be in contracts.

14 And the argument that Bob gave about the
15 brand value, I think, is an argument based on
16 anticompetitive rationale. You want the franchisees
17 to hire good workers, and you want to pay them less
18 than they could get elsewhere, and you say to them,
19 you may add value to our brand, but the only place you
20 could go is outside our brand, we're not going to let
21 you go to another establishment within our brand.

22 So, again, I'm not an expert in these cases
23 but I would think that that's an argument that this is
24 an anticompetitive practice, rather than a business
25 justification that would pass muster under the law.

1 MR. TOPEL: I'll just say that you were
2 unfair there, but let's keep going.

3 MR. SANDFORD: Okay, next question.

4 MS. ROSE: Could I -- since I'm implicated
5 in Alan's remarks, do you mind if I weigh in on that?

6 MR. SANDFORD: Sure.

7 MS. ROSE: So two things I wanted to say.
8 So first, working in reverse order, two weak antitrust
9 cases do not a successful challenge make. So I think
10 if the question was, is there a strong labor market
11 case and a product market case that might not be as
12 strong, and that was why I gave it the -- touched at
13 the end about maybe a potential competition or a
14 complementary product merger, where it's very hard, as
15 the FTC knows well, to successfully challenge on
16 potential competition grounds. If there were a strong
17 labor market case, you might bring that challenge and
18 bring it successfully.

19 We don't know because courts have not yet
20 decided a merger, even on a buy-side, a litigated
21 merger, even on a buy-side harm that doesn't involve
22 labor market but other suppliers, we don't know how
23 they'd respond to labor market. It would be a
24 challenge, but it's probably one that's worth
25 exploring and testing and developing.

1 But to say, you know, the product market's
2 at the margin and the labor market's at the margin, I
3 don't think you bring that case because you have the
4 potential not only to go down but for bad law to be
5 made as well.

6 MR. SANDFORD: Okay, next question. So Bob
7 just said that in his view the labor share doesn't
8 really matter, it should not be a concern of
9 policymakers directly. Yet, Ioana's work, the
10 Benmelich paper and the 2016 CEA report on labor
11 monopsony all cite the declining labor share as a
12 motivating fact.

13 So let me read from Marinescu and Hovenkamp,
14 "The share of GDP going to labor has been declining at
15 an alarming rate. This may result from several
16 things, including suppression of unions and increasing
17 concentration in product markets, but lax antitrust
18 enforcement could be a major source as well."

19 So the first question is, should we care
20 about the declining labor share; and the second
21 question is, well, while Matthias just presented
22 results that suggest a decline in labor share is due
23 primarily to a reallocation of production to superstar
24 firms, and that's -- that seems to me to be an
25 explanation that is perhaps orthogonal to antitrust,

1 would you agree with that characterization, and do
2 Matthias' results cause you to update any priors about
3 how concerned we should be about labor market
4 monopsony. So let me ask Ioana that question first,
5 and then anyone else that wants to weigh in can do so.

6 MS. MARINESCU: Right. So this evidence has
7 been coming up. Between when I wrote this and now,
8 we've had more evidence, for example, about trends in
9 labor market concentration, which we didn't have at
10 the time, and with my vacancy data it wouldn't make
11 sense to look at long-run trends because the vacancy
12 data has changed so much over time.

13 So, you know, I still think that this needs
14 more research, but it is fair to say that right now,
15 with the kinds of data that people have just based on
16 employment concentration and typically at the industry
17 level, there has been a decline in labor market
18 concentration, and, therefore, it is not as clear how
19 exactly this plays in the trends. So, you know, to
20 what extent labor market concentration trends, not
21 levels, I think I want to make a distinction between
22 that, explains wage stagnation.

23 So, but, you know, here are some interesting
24 avenues I think for future research. So first of all,
25 again, labor market definition is critical, and one

1 issue when you compare over time is to ask yourself is
2 the definition of the labor market -- should it stay
3 the same over time? And that is a critical question,
4 because for example, we have done some preliminary
5 analysis looking at the impact of population density
6 on the scope of geographic search of workers, so
7 basically, in more densely populated areas, commuting
8 times are longer, there is more congestion and people
9 tend to search closer to, you know, where they live,
10 for example, and that is changing over time,
11 differentially over different zones.

12 And, so after you adjust for that, for
13 example, the decline in HHI doesn't seem to be as
14 strong. Just as one example of an issue that needs to
15 be addressed in terms of thinking about the definition
16 of the labor market. Other things that, you know,
17 might be interesting to think of are things like
18 multimarket contact or changes in common ownership,
19 so, you know, I believe that we need to learn more
20 about the trends and how the whole, you know, story
21 fits in.

22 I feel more confident about the general
23 relationship between concentration and wage -- you
24 know, even to be less controversial, market power
25 because I think the labor supply elasticity evidence

1 is much stronger, better identified than the
2 concentration evidence. So I think there is an issue
3 of market power and that it's very clear that there is
4 such an issue of market power and power in the labor
5 market. But exactly how the trends have played out, I
6 think at this point is less clear, and we have to, you
7 know, further investigate to learn more about that.

8 MR. SANDFORD: So does anyone else want to
9 comment on whether we should care about declining
10 labor share? Matthias?

11 MR. KEHRIG: Sure. Happy to talk about
12 this. On principle, when we talk here about wages,
13 this is not the point that we -- it's not about wages,
14 it's about welfare. And when we think about welfare,
15 we have to think about, what is your wage and what is
16 the price level. So it's really about real local
17 wages that we should be concerned about. The labor
18 share gets it a little bit closer to that because it
19 relates the wage to the nominal output by the share of
20 that stuff.

21 When we started our research on the labor
22 share, we tried to come up with for reasons for why
23 the labor share went down. We explored about half a
24 dozen avenues related to labor market factors in the
25 hope that there was an explanation. So we looked at

1 states that become right to work, is it that now there
2 is lower bargaining power that we see actually the
3 labor share declining in those states, and the
4 evidence is basically very muted.

5 And we also looked at -- we looked at
6 regions where unionization has been going down a lot,
7 basically manufacturing has been exodus from the Rust
8 Belt, the Midwest, down south where wages generally
9 are lower, the regulations are lower, they have much
10 more free reign. Boeing is shifting production from
11 Washington to South Carolina. All car manufacturers
12 have plants in Tennessee, South Carolina, Alabama. We
13 don't see a big impact on the labor share.

14 We also looked at concentration to see
15 basically Walmart comes to the county, does that lower
16 the wages a lot in that county? And the evidence
17 again was pretty muted. So the labor share -- we have
18 basically a paper where there's a big graveyard
19 section at the end, where it's like all these
20 unsuccessful hypotheses that empirically don't really
21 hold up.

22 It took us two years of testing to find out,
23 like, that actually the main action is at the output
24 side, at the price side. So this is in terms of labor
25 share the one thing that we have to understand in

1 terms of when we think about this in the context of
2 the labor market. We have to think, what does it mean
3 for the consumers, for your real purchasing power? Of
4 the wage that you have?

5 And that is one -- one thing that I wanted
6 to add to the discussion about local concentrations,
7 so there are two things. Labor markets are regional,
8 they tend to be regional. You have a certain set -- a
9 pool of people that live there and a certain pool of
10 employers that hire there, and that's it. Goods
11 markets are not. So when you consider antitrust cases
12 and you consider the labor market consequences, that
13 is very hard to assess because we have to have --
14 basically keep in mind that the firm's action -- they
15 are active nationwide. And -- but they -- in the
16 local market, they act locally. So that's one aspect.

17 The second aspect I want to say is, what is
18 the difference between concentration at the local
19 level and at the global level? So locally it might
20 well be that concentration is going down because a new
21 employer moved to town. But if basically we know that
22 at the product level side, there has been a lot of
23 consolidation, so if it is the case that basically if
24 you live in County A or Commuting Zone A, and your
25 options are work for Walmart, become a Starbucks

1 barista or something else, in the old days, you used
2 to have the option to pack up and move elsewhere and
3 you would face different employers, different firms.

4 Today, you again have Walmart, Starbucks,
5 and some other local firms. So basically these firms,
6 when they set their wages locally, they keep in mind,
7 they set a whole menu of wages, not only just in that
8 one commuting zone, but also in the neighboring -- in
9 the neighboring regions. So that's important to keep
10 in mind to assess the whole situation about local
11 concentration, what are the neighboring, what are the
12 other options for the workers to go elsewhere, and
13 what are the local prices.

14 Oh, and to add also the last thing about the
15 labor share, what Bob Topel said earlier, there's the
16 story that capital deepening is behind the labor share
17 decline. This is also not the case.

18 MR. KRUEGER: I would have described labor
19 share as a symptom rather than the cause. And
20 Matthias showed before that there seems to be less
21 profit-sharing, less rent-sharing or less sharing of
22 the gains in productivity at the superstar firms.

23 And another development which is consistent
24 with that is that firm size premium is smaller than it
25 used to be, so larger companies used to pay higher

1 wages, and that gap is much smaller, which is
2 consistent with weakening of worker bargaining power,
3 the places where there are rents where workers could
4 get a bigger share of the pie, they're not able to for
5 whatever reason.

6 Some of those reasons are beyond -- well
7 beyond the reach of antitrust policy. Some antitrust
8 policy may be able to have a significant effect if the
9 October 2016 guidelines are enforced and so forth.
10 I'm not aware of any criminal cases. That could send,
11 I think, a very strong signal across many different
12 employers.

13 So I think of it more as a symptom, and one
14 of the causes may have been weakening bargaining power
15 related to anticompetitive practices.

16 MS. ROSE: So I want to echo that, but,
17 Alan, I don't know why you are going to
18 anticompetitive practices because it seems to me
19 having in my youth worked on rent-sharing and hearing
20 some of the discussion that you've had here today,
21 that weakened worker bargaining power may be due to a
22 whole set of institutions on the labor market side
23 that really have nothing to do with competition among
24 employers or with antitrust.

25 And I would have thought if we were trying

1 to choose an answer that required kind of the least
2 steps of logic to get there, that would be the place
3 to begin. I mean, we certainly have, as your earlier
4 remarks indicated, a lot of evidence that there's been
5 a decline, say, in not just unionization rates but
6 union bargaining power as a consequence of that more
7 difficulty in unionizing firms and so forth.

8 And I think -- I think this discussion of
9 worker rent-sharing also weighs into that. What we're
10 asking for, if we think rent-sharing created a kind of
11 golden age where workers were paid more, I am not
12 saying this as a former antitrust enforcer, but we
13 want less competition, not more, to get those rents
14 created and then shared with workers.

15 And so I do feel we're chasing after a bunch
16 of symptoms that make us concerned, and somehow for
17 some reason we have glommed onto antitrust, but it is
18 neither, as I said before, the most effective nor
19 appropriate nor probably legally available tool for a
20 lot of what we're concerned about.

21 MR. TOPEL: Let me respond a little bit. I
22 think that raises a very important point. I don't
23 think they're independent. I think the decline in
24 unions helped to lead to some of the anticompetitive
25 practices, that it's harder for employers to have --

1 require noncompete agreements if there is a labor
2 union which is negotiating a contract and says we
3 don't want a noncompete agreement. It's harder for
4 companies to have anti-poaching arrangements if
5 franchises are unionized, so I don't think that
6 they're independent.

7 And I don't want to argue that the
8 significant changes we have had in the labor
9 market have developed because of an increase in
10 anticompetitive practices I think that's a
11 contributing factor. I think there are others which
12 way may well be more important. So I don't want to
13 be -- I don't want to mischaracterize myself in
14 saying, you know, this is the instrument that we
15 should use because this is the problem.

16 On the other hand, there are very few
17 instruments that are available currently. So if you
18 say what are the tools that we could use, especially
19 if they've been underutilized, which I think has been
20 the case, that, you know, the franchise contracts have
21 been allowed to have no-poaching agreements for
22 decades. It's only recently because of the actions of
23 the Attorney General in Washington State that 30
24 franchises have dropped it, affecting hundreds of
25 thousands of workers.

1 So I think these are tools that were in our
2 toolkit that were underutilized, but I don't -- and
3 they're available, but I don't think they are -- I
4 wouldn't necessarily -- I think we don't know enough
5 to say that anticompetitive practices are the main
6 reason, and I suspect it's probably not the case.

7 MR. RAVAL: That's essentially a nice segue
8 to my next question. So this is about the definition
9 of monopsony. So maybe one of the classical
10 definitions of monopsony would be you restrict the
11 amount of labor hired into the amount of output
12 generated, and then there's going to be a welfare loss
13 of dead weight loss in the output market.

14 But you could also think about things like
15 a change in bargaining power between labor and
16 management, and workers are now getting a smaller part
17 of the joint surplus from their employment. So should
18 this be considered with -- should we be -- as
19 antitrust enforcers be worried about changes in
20 bargaining power? Is that an interest or concern or
21 not?

22 MS. ROSE: So I'll say yes. I've got a Yale
23 Law Review paper with Scott Hemphill that says
24 absolutely yes. I think the antitrust law requires us
25 to focus on actions that reduce competition, and if we

1 are reducing competition and that's what's leading to
2 sort of reduced -- or increased employer bargaining
3 power, say, and an ability to suppress wages, we
4 should worry about that if it's coming from a merger,
5 say.

6 If it's reduced bargaining power by workers
7 because we have become more hostile as a country to
8 unions, that's not an antitrust -- that's not an
9 anticompetitive effect that's coming through the
10 action of the firms. And that is probably not
11 something that we can reach. But I think -- I think
12 the notion that we need an output reduction as opposed
13 to a transfer of wealth is very misleading. We don't
14 do that on the product market side, typically, and so
15 I don't think we should be doing it on the input
16 market side either.
17 Bob may disagree.

18 MR. TOPEL: No, I agree with what you said.
19 If it's due to a reduction in real competition, then
20 it is an actionable thing. It's within the purview of
21 antitrust policy. If it's due to other phenomena, you
22 referred to hostility, but there's a lot of reasons of
23 the decline in the fraction of labor force belongs to
24 unions. I'm not suggesting --

25 MS. ROSE: Right, right, it could be

1 anything, but right.

2 MR. TOPEL: -- that you're -- it could be
3 anything, but none of those really fall within the
4 purview of antitrust policy.

5 MR. SANDFORD: Okay, next question. So
6 speaking as an antitrust enforcer, I mean, to a first
7 approximation, we block mergers if we think the price
8 is going to go up. A merger that might increase
9 employer concentration is going to, we would think,
10 cause wage to go down. Wages go down, the price of
11 the product purchased by consumers may go down as
12 well.

13 And so, one, is it clear that -- what is
14 the path to address concern about labor market
15 consolidation from a merger if it would cause the
16 product market price to go down? And, two, how would
17 we balance a merger that might increase labor market
18 consolidation but have other efficiencies that would
19 cause the product market price to go down? And so
20 that's probably most appropriate for the antitrust --
21 people with antitrust experience. We can start with
22 Nancy.

23 MS. ROSE: Sure. I'd love to weigh in on
24 that. So I think the first and most important thing
25 to keep clear, and I am not saying that you weren't

1 recognizing this, but I think in these discussions,
2 particularly among antitrust practitioners, if it's a
3 classical monopsony case where the firm is withholding
4 employment to drive the wage down, the firm does not
5 perceive that lower wage to come with a lower cost of
6 hiring a worker. If you go back to that curve that I
7 showed you, the firm is perceiving the marginal cost
8 of hiring another worker to be very high because it
9 has to pay a higher wage to everyone.

10 So in a classical monopsony case, there's
11 just an output restriction by the firm that's
12 exercising monopsony power. There's no lower cost to
13 pass on. In the bargaining case, that might not be as
14 apparent or might not be true. There might be no
15 employment effects, no output effects, just a transfer
16 of rent -- just, but a transfer of rents from workers
17 to the firm due to, say, an anticompetitive merger.
18 And as I said before, our merger law requires us to
19 challenge mergers that may substantially reduce
20 competition.

21 I think it's misleading to say how should we
22 balance. It's like saying there is a merger in the
23 product market that has product market benefits for
24 some set of consumers or some set of products or
25 purchasers, and it has harms in other product markets.

1 Should we say, well, let's add them all up and say if
2 the total is that the group that wins, wins by more
3 than the group that loses, loses, we just let it go.

4 And I don't think we typically do that. I
5 think if we see that there are -- and, of course,
6 there's always prosecutorial discretion, but if we see
7 that there are a group of consumers that are harmed by
8 an anticompetitive merger, we challenge. It might be
9 that if the mergers got mostly benefits and there is
10 one small group that's harmed, we accept some kind of
11 remedy that solves the competitive harm and preserves
12 the benefits. But I don't think we tend to agonize
13 over that balancing in the product market side, and I
14 don't think we should agonize over that balancing when
15 the harm is going to workers.

16 MS. MARINESCU: Yes, and actually in my
17 paper with Herb Hovenkamp we discussed this point and
18 come down to the same conclusion based on case law.

19 MR. RAVAL: So the next question, so for
20 better or worse, whenever we're doing an antitrust
21 case, one of the basic things we need to do, and which
22 is often kind of the biggest part of the legal case,
23 is introduce market definition. So in terms of labor
24 markets, how should we approach geographic and product
25 market definition?

1 And in particular, this is a point that Bob
2 picked up, you know, if you think about the market for
3 university professors, Lincoln, Nebraska is probably
4 not -- Lincoln, Nebraska is probably not a market.
5 The market should be maybe more broad or more
6 national. So how much labor mobility do we need in
7 order to define a broad market versus a narrow market?

8 MR. TOPEL: And over what period of time?
9 Does mobility have to -- or that elasticity have to
10 occur? I think that's really -- really an important
11 question. So as I was outlining in my presentation
12 briefly, one of the tools you can use is a critical
13 labor supply elasticity, and this can vary by
14 occupation. Right? So I think that's what you're
15 getting at, that different types of workers might be
16 more or less mobile, and this is something that we
17 actually are able to get data on for various sources,
18 including, for example, transition, say from the
19 current population survey, across geography for
20 different occupations.

21 In my current work in progress, with Jose
22 Azar and Steve Berry, we're using a very detailed
23 microdata set of applications from workers, two jobs
24 where we have every occupation under the sun, and we
25 see the distribution of applications, which kind of

1 allows us, by occupation, to see the variety of
2 geographies and other types of jobs that people are
3 applying to.

4 So there definitely exists ways of getting
5 at that, if we're interested in estimating those
6 elasticities. And this is something that we are
7 actively working on.

8 MR. KRUEGER: Just to add as a practical
9 matter, labor markets tend to be more regional for
10 less skilled workers, more national for highly
11 educated workers. It's going to vary a bit by
12 occupation, but that's what one generally finds. And
13 we do have data available to do the kind of analysis
14 that Ioana was mentioning to look at where workers are
15 moving, how are they defining the markets and use that
16 as an input, I think.

17 MR. SANDFORD: So are mergers that lead to
18 worse outcomes in the labor markets more likely to
19 involve high skilled workers or low skilled workers?
20 I mean, it seems to me like low skilled workers have
21 many maybe different occupations that they could --
22 it would be easier to shift occupations if you are
23 low skill, but if you're high skill, you're likely to
24 be -- you know, when I was a professor at University
25 of Kentucky, the nearest comparable employer was like

1 75 miles away, and I couldn't really go anywhere. So
2 it seemed like I was more locked in as a high skilled
3 worker there than low skilled worker.

4 Maybe I'll pose that to Nancy.

5 MS. ROSE: So I wanted to weigh in. When I
6 was thinking about what mergers we might have missed,
7 and I have a candidate, the candidate popped at first
8 because the second most highly concentrated occupation
9 in Ioana's work was -- in one of her papers was
10 railcar repairers, and that called to mind an April
11 2018 DOJ no-poach action against rail equipment
12 manufacturers, in Knorr-Bremse and Wabtec, that
13 alleged that the companies had "for years maintained
14 unlawful agreements not to compete for each other's
15 employees" and moreover had a similar no-poach
16 agreement with Faiveley Transport before Faiveley was
17 acquired by Wabtec in November of 2016.

18 What this no-poach complaint said was that
19 they'd entered into what they called pervasive no-
20 poach agreements that spanned multiple business units
21 and jurisdictions involving typically -- it said
22 primarily affecting recruiting for project management,
23 engineering, sales, and corporate officer roles.

24 So I wonder if sometimes we have some
25 indication of what these labor markets might look like

1 by the extent, when we uncover a collusive agreement
2 by the extent or the incidence of where the no-poach
3 agreements are being pursued, and that does suggest a
4 more high skilled occupation mix, maybe not, maybe not
5 as specialized as I would have expected it to be, but
6 it doesn't sound like they were entering into no-poach
7 for the janitorial staff or even the low-level factory
8 workers, suggesting that maybe we worry more about
9 that typically. Again, not always. We'd have to look
10 at facts and circumstances, but maybe more with the
11 higher skilled and more specialized workers, and
12 that's certainly consistent with what that hospital
13 mergers paper found.

14 MS. MARINESCU: And, you know, that just
15 gives you the easy way out in the sense that if there
16 is the no-poach agreement, that's a very good piece of
17 evidence to use. You don't necessarily need to --
18 and, you know, at least the further evidence would be
19 confirmatory instead of having to dig deep into the
20 elasticity of labor supply for that particular, you
21 know, kind of occupation.

22 MS. ROSE: Well, let's be clear if you were
23 going to challenge the merger, this might be a useful
24 screen. You're not going to win a merger case by just
25 saying, look, it must be a labor market, they had this

1 agreement here. I think anybody who's been involved
2 in litigation would be leary to go to court with just
3 that argument.

4 MR. TOPEL: Putting aside collusive conduct,
5 do we have good examples of, like, in the realm of
6 mergers, we have all kinds of examples of possibly
7 mergers for monopoly that can be challenged because
8 it's going to affect prices in the output market. Do
9 we have any examples of merger for monopsony where the
10 purpose was to reduce wages in the labor market? Or
11 are we chasing unicorns here?

12 MR. KRUEGER: You know, it's interesting.
13 I'm not sure there's an answer to that, and on the
14 chasing unicorns, when the October 2016 guidance was
15 discussed, that very same question came up about,
16 well, how common are these no-poaching agreements,
17 wage-fixing agreements --

18 MR. TOPEL: But that's the collusive --

19 MR. KRUEGER: Let me finish, Bob.

20 MR. TOPEL: -- side, yeah.

21 MR. KRUEGER: And the assistant attorney
22 general, Makan Delrahim said he's been shocked by how
23 many cases there are. And part of the guidance set up
24 a hotline for people to call in. So I think, you
25 know, I started my remarks by saying this is an area

1 where I think we are learning a lot, where there has
2 been a lot of active research. I don't think we know
3 the answer to that, but in some areas it looks like
4 the anticompetitive practices are more common than was
5 widely understood.

6 MS. ROSE: So I think it's harder to get
7 that information on the labor side, but it's not
8 impossible, right? So when you start a merger
9 investigation, you're calling and talking to people in
10 the industry, and you're often getting inbounds, and
11 so I think if there was a merger primarily motivated
12 by an effort to push down wages by the two merging
13 parties, and I'm not saying for sure we'd hear about
14 it if it really affected kind of lower level workers,
15 but if higher level workers thought, you know, this
16 makes no sense except that it's going to really
17 eliminate the only people competing for my talent, I
18 would have thought we'd hear some about it.

19 I suspect it's not the main or only
20 motivation, but there could be mergers where -- so
21 like in this rail equipment one where maybe the labor
22 market overlap is more significant than the product
23 market overlap was.

24 MR. TOPEL: Well, you can envision a lot of
25 mergers, let us say for efficiencies, that end up

1 being labor-saving that because of at least for the
2 short-run elasticity of supply that Ioana refers to
3 there's going to be a large impact on people who've
4 got specific skills with the firm and stuff like that,
5 so that labor costs might decline a lot, and it might
6 not just decline because of a head count but because
7 you have to pay these people less to retain them, so
8 then you've got to balance anticompetitive impact
9 against procompetitive benefits.

10 But I'm asking about one that would be
11 specifically like, look, we're not going to be more
12 efficient, we just, in terms of the diversion ratio,
13 we've brought this other unit inside and now we can
14 control the price better than we did before, but the
15 price we're controlling is on the labor market side.

16 MS. MARINESCU: So, Bob, would it be
17 anecdotally thinking about the high-tech sector? We
18 hear about companies buying another company in order
19 to get their software engineers so, you know, that's
20 only anecdotal. I don't know, you know, how much
21 evidence we have on that, but at least you hear those
22 stories regarding, you know, buying the pool of --

23 MR. TOPEL: Well, that comes back to high-
24 tech, you know, I want to hire the software engineers
25 from the guy across the street because they know a lot

1 of good stuff that my folks don't know. So that's
2 more like proprietary information I'd like to get my
3 hands on.

4 MR. KRUEGER: Another example was the film
5 animators, Lucas Film and Disney, which had a big
6 settlement for no poaching, and then they merged. And
7 it's a little hard to say that they did it to get, you
8 know, the human capital before they agreed not to
9 poach from each other.

10 MS. ROSE: Right, although there you would
11 want to investigate sort of what the labor market
12 looked like, right? Was there something about these
13 two firms reaching an agreement but that were lots of
14 other competing employers or not.

15 MR. KRUEGER: I don't think there were.

16 MS. ROSE: I see. I mean, that's -- I think
17 that's the kind of thing that antitrust enforcers know
18 how to do. I think what's great about this literature
19 and this discussion and these hearings is that it's
20 maybe encouraging us to think, to ask some of these
21 questions early on in an investigation to determine
22 whether this might be one of -- you know, maybe it's
23 not a unicorn, but maybe it's one of the rare ones
24 where labor market issues might come to the front.

25 MR. RAVAL: So if you look at the research,

1 developing the case law.

2 But I don't think we want to have agencies
3 bury their heads in the sand and not worry about the
4 potential harm upstream.

5 MR. KRUEGER: Could I add? You know, I
6 think one place where DOJ and FTC could have a lot of
7 leverage in the no-poaching and the naked wage-fixing
8 is that one very strong case will send a very strong
9 signal to 6 million employers who, from what I can
10 tell, think there are no penalties because so far
11 there have been no penalties for no-poaching
12 agreements. The penalty has been stop doing this
13 rather than -- as far as I know, rather than paying
14 fines.

15 And in the Detroit case, my understanding
16 was the human resource people thought this was kind of
17 the right practice to do. They -- the right practice
18 in the sense they knew it was technically illegal, but
19 they thought that's kind of the normal business
20 practice. And I think a strong case where there are
21 actual penalties as opposed to just cease and desist
22 will send a signal and potentially have a significant
23 effect, much more than enforcement actions, because it
24 will -- you don't have the resource -- I suspect given
25 the prevalence of anticompetitive practices you don't

1 MR. JACOBSON: Yeah, so as I said, I would
2 spend the money on rulemaking. I think a
3 retrospective or two focused on labor markets would be
4 good bang for the buck as well.

5 MR. POSNER: I would divert substantial
6 resources, as I was arguing earlier, to labor market
7 anticompetitive behavior, product market
8 anticompetitive behavior, they're just, you know,
9 substitutes for the firm. And so just think of, like,
10 the police force trying to catch drunk drivers. You
11 know, if you've got all of your resources on Highway 1
12 and Highway 2 goes the same place, your drivers are
13 just going to take Highway 2.

14 What you have to do is you put some
15 resources on Highway 1 and some resources on Highway
16 2, and I think the same thing has to be done here.

17 MR. GAYNOR: If I could convince Congress
18 that the FTC does not need to continually monitor
19 gasoline markets, then I think that would free up some
20 resources that could be better spent in a lot of other
21 ways, this among them.

22 MR. STARR: I definitely think that a
23 moderate amount of resources should be spent on
24 understanding more about labor markets, and in
25 particular I feel like it would be straightforward to

1 develop some screeners that would indicate at least
2 the use of these nonpoaching agreements, noncompete
3 agreements, and understanding what's happening at the
4 -- within those firms that are merging. That seems
5 like pretty low-cost and easy to do. And, yeah.

6 MR. MOORE: So the second question is going
7 to relax one of stipulations from the first question.
8 And let's suppose that Congress has appropriated funds
9 to the FTC earmarked specifically for addressing
10 concerns about monopsony power in labor markets. And
11 this is on top of the budget that we already have.

12 So you have a pile of money to spend on
13 addressing labor market issues. How do you spend that
14 pile of money? What -- Marty mentioned some of this
15 in his opening talk, but what are the first places or
16 where are the first places that you'll go to address
17 concerns about monopsony in labor markets?

18 MR. GAYNOR: So I'll just reiterate what I
19 said, go after the stuff that's obviously bad and do
20 it now and don't let it sit. Think about crafting
21 rules on noncompetes as have been discussed, and put
22 some resources into really understanding better what
23 happens on the merger side where I think that it's
24 potentially highly important and significant, but we
25 have a pretty big gap in knowledge.

1 MS. HESSE: I think I would invest the
2 resources in doing a more broad-scale investigation of
3 the question of whether or not you can correlate
4 growing concentration to wage inequality and wage
5 stagnation. I think if we could actually find studies
6 that people won't always agree on everything, but
7 where, you know, there was some sense amongst a core
8 group of smart antitrust economists and lawyers that
9 there was really a correlation between those two
10 things, that would go a long way.

11 MR. JACOBSON: Of course, there was such a
12 correlation with the FCP paradigm back in the '60s and
13 look where they got us, but -- so I'd spend the same
14 money on retrospectives and rulemaking. Sorry to be
15 simple.

16 MR. MOORE: Okay.

17 MR. POSNER: I would spend it on merger
18 analysis. I think one way to think about this is that
19 there's been an immense amount of consolidation in
20 this country going back decades with the FTC and the
21 DOJ looking at the product market. I think probably a
22 lot of what was going on is they were saying, well,
23 there's a national market, there's an international
24 market, this is fine, we can let these mergers go
25 through.

1 And all through these mergers, they ignored
2 the labor market effects, which are local and regional
3 and were probably -- I mean, we don't know, but could
4 very well have been very big. So I think there's a
5 big, you know, chunk of missing social welfare and the
6 Government has to catch up.

7 MR. STARR: I agree with Eric on the merger
8 review, and in particular I think that resources
9 should be spent on understanding actual concentration
10 for workers, and in particular because labor markets
11 are two-sided markets. And I think that poses some
12 unique matching difficulties that search costs are
13 really high, and I don't know if we have a good way to
14 generalize that across studies, and I feel like it
15 would be valuable to put some resources there.

16 MR. MOORE: Any last comments in the 35
17 seconds that we have before lunch?

18 MR. MOORE: So I totally agree that I think
19 understanding what happens is important, and I think
20 more research is. I would not do -- spend more time
21 on looking at concentration. For reasons given on the
22 previous panel and actually on other sessions here, I
23 don't think that's a productive activity. I don't
24 think that's going to yield useful research evidence,
25 but I do think that we need to do more about this and

1 we think when you do this and focus studies on
2 specific markets analogous to the study that was
3 mentioned about the effect of hospital mergers on
4 certain nursing markets, that's where I think the
5 effort should go.

6 MR. MOORE: So please join me in thanking
7 all of the panelists.

8 (Applause.)

9 MR. MOORE: And now we have a lunch break.
10 (Panel 2 concluded.)

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1 PANEL 3: WHAT CAN U.S. v. MICROSOFT TEACH ABOUT
2 ANTITRUST AND MULTI-SIDED PLATFORMS

3 MR. ADKINSON: Thank you for coming to
4 today's session. If you could take your seats,
5 please. My name is Bill Adkinson. I'm an attorney
6 advisor in the Office of Policy Planning at the
7 Federal Trade Commission. It's my pleasure and
8 privilege to introduce the panel on What can U.S.
9 against Microsoft Teach about Antitrust and Two-sided
10 Platforms.

11 We will have people collecting cards. If
12 you have questions you want the panelists to consider,
13 please write them out on the cards and pass them to
14 the folks in the aisle who are collecting them.

15 So 20 years ago this past May, the
16 Department of Justice brought its seminal antitrust
17 case against Microsoft, which culminated in a 2001
18 opinion by the DC Circuit and a subsequent consent
19 decree. The case was groundbreaking in many respects.
20 It was the prototype for applying antitrust in
21 dynamic innovation-intensive industries. It raised
22 challenges regarding how antitrust can protect
23 competition and promote incentives for innovation
24 both by dominant platforms and edge players in the
25 tech sector.

1 Of particular relevance to these hearings,
2 Microsoft's dominant position was the product of
3 indirect network effects. The Windows operating
4 system was a two-sided platform serving applications,
5 developers, and computer users. However, the economic
6 literature on the network effects was in its infancy,
7 as David Evans reported yesterday. Similar antitrust
8 issues are currently arising in the context of a new
9 set of tech-sector platforms, such as Facebook,
10 Google, Amazon, and Apple.

11 As we heard during yesterday's panels, these
12 platforms also post challenges in applying antitrust
13 in dynamic, rapidly changing industries. Enforcers
14 and courts strive to protect innovation incentives of
15 both platforms and platform participants and evaluate
16 conduct by two-sided platforms and the impact of
17 network effects.

18 This afternoon's extraordinarily
19 distinguished panel will discuss how the benefit of
20 greater economic learning and hindsight can help us
21 better understand aspects of the Microsoft case and,
22 more importantly, how the experience and understanding
23 from the Microsoft case can inform and guide proper
24 antitrust enforcement in this area today.

25 The panelists will each give opening

1 statements of approximately five minutes each. They
2 are, starting from my right, Professor Daniel
3 Rubinfeld, New York University School of Law and
4 University of California at Berkeley School of Law;
5 Professor Douglas Melamed, Stanford University School
6 of Law; Susan Creighton, a partner at Wilson Sonsini
7 Goodrich & Rosati; Professor Randy Picker, University
8 of Chicago Law School; Leah Brannon, a partner at
9 Cleary Gottlieb Steen & Hamilton; and Professor
10 Timothy Wu, Columbia University Law School.

11 Dan?

12 MR. RUBINFELD: Thanks very much, Bill,
13 appreciate the introduction. During the time of the
14 Microsoft case, I was the deputy at the Department of
15 Justice in charge of economics, and I spent a good
16 deal of my time, along with a lot of help from a team
17 of lawyers and economists, thinking about the
18 Microsoft case. And I want to try to describe a
19 couple of important elements that I think are worth
20 reviewing.

21 First, of course, we were not talking about
22 the world of two-sided markets in those days. We were
23 talking about platform competition, however. The
24 Microsoft case is about a two-sided market. There are
25 customers both on the side of users of the Office

1 suite and users of the operating system, as well as
2 developers for apps. But the two-sided market doesn't
3 have anything like the characteristics of the two-
4 sided market we see with transactions because there
5 aren't single transactions that affect both sides of
6 the markets at the same time. There are network
7 effects, there are externalities, and there's a kind
8 of feedback loop, but it's not one that has any direct
9 impact.

10 And as I will explain, what I think is
11 important, you'll see that nothing I'm going to say
12 depends on the fact there is or there is not a
13 characterization of a two-sided market. I think
14 that's largely a misleading characterization for
15 purposes of looking at the Microsoft case.

16 What was important to me was network
17 effects. And at the time that I was doing work on
18 this case, along with the staff, there was a
19 significant literature in the economics world on
20 network effects. People like my colleagues Carl
21 Shapiro, Mike Katz, Stanford's Garth Saloner, NYU's
22 Nick Economides, and a lot of other people were
23 writing about network effects, but it was new and it
24 was controversial.

25 That was an important point to develop, and

1 network effects turned out to be an important part of
2 the case. They helped to describe the way in which
3 Microsoft maintained its market power and its
4 operating system. And it was in a way the key to the
5 case. And it was the key to the case because the
6 Government believed and developed the argument that
7 network effects could generate substantial monopoly
8 power and could lead and support practices that would
9 allow Microsoft to maintain its market power and
10 monopoly power in the operating system market.

11 So the key to the case was to develop
12 network effects. And the other thing that was
13 important and essential was to show how network
14 effects drove the important barrier to entry. And
15 the barrier to entry, as most of you would know, was
16 that in order to compete in the operating system
17 market, you had to actually have useful important
18 applications, so entry really occurred in two steps.
19 You had to generate an application and an operating
20 system.

21 And that application's barrier to entry
22 became the term that was the norm of the case for us.
23 As far as I know, it was a term never used before the
24 case was filed, and I can tell you by the end of the
25 trial, Microsoft, as well as the Government, was using

1 the term every day in the trial. And I think that was
2 really a significant part of the case.

3 There was a platform argument made in the
4 case, and it is true, I think, that the operating
5 system and the apps upon it can be described as a
6 platform. But the two-sided nature is really not
7 important. What was important was that the platform
8 really supported this monopoly power. Interestingly
9 enough to me, the issues about platforms that came up
10 during the case were issues -- relevant issues as to
11 whether this market power, substantial market power,
12 really was sustainable and significant. And the
13 argument was raised by Microsoft in the case that that
14 monopoly power could be overcome. There would be
15 competition for the market that would be powerful.

16 But what's striking to me, and it turned out
17 to be important in the case as the facts developed,
18 was that it was very hard for Microsoft to specify
19 what that competition was. And for me, one of the
20 really striking exhibits in the case was a Microsoft
21 exhibit saying we face substantial competition from
22 known and unknown sources. And my view is when you
23 have to rely on unknown, unnameable sources to defeat
24 monopoly power, you really have a weak case. And that
25 really struck the tone for me. And I will stop and

1 pass to Doug.

2 MR. MELAMED: I'm going to focus on what I
3 think of as the legal implications of the case. The
4 theory was conventional and straightforward -- well,
5 it wasn't conventional in the sense that Section 2 had
6 been pretty moribund at that point, but it was
7 conventional in the sense that it was entirely
8 consistent with longstanding Section 2 principles.

9 The theory was basically this. Microsoft
10 had monopoly power in operating systems -- PC
11 operating systems. That monopoly power was protected
12 by substantial entry barriers, specifically the
13 indirect network effects and the so-called
14 applications barrier to entry. The point is you need
15 lots of applications in order to have people buy your
16 operating system. You won't have applications until
17 lots of people buy -- have already bought the
18 operating system in particular, a problem that was an
19 entry barrier.

20 Okay, Microsoft, therefore, has a monopoly
21 protected by entry barriers and it engaged in conduct
22 that increased the entry barriers compared to the but-
23 for world. The important point here, the premise of
24 the Government's case was not that the entry barrier
25 was impregnable, not that Microsoft would have a

1 monopoly forever rather than that it had -- there were
2 entry barriers, and it was a question of raising
3 the entry barriers compared to the rest of the
4 world.

5 Okay, how did Microsoft raise the entry
6 barriers? With Netscape and Java which were two
7 uniquely important potential platforms, application
8 platforms and thus potential facilitators of new
9 operating system entry. The conduct was the kind of
10 conduct that would pass any ordinary test for
11 anticompetitive conduct under the antitrust laws, and
12 it was to serve no efficiency enhancement purpose at
13 all. There are one or two footnotes I'm not going to
14 bother with, and thus the conduct made no sense except
15 as a device to increase entry barriers. Plaintiff
16 wins. Perfectly straightforward.

17 So what was the controversy about other than
18 the sort of importance of going after this exciting
19 new company and the world's youngest \$40 billion
20 person and so forth? And I think it was because the
21 case entailed the application of these very
22 traditional principles in a very new context that had
23 not previously been the subject of antitrust scrutiny.
24 So there was the issue of network effects, as Dan
25 said, widely discussed among some economists in the

1 literature, hotly contested in the litigation and in
2 the public controversy about it.

3 People actually wrote articles taking issue
4 with the story -- one of the fables about that that
5 was used to tell the story of network effects was the
6 qwerty typewriter keyboard. The notion was it was
7 really inefficient and it was just first mover
8 advantage that the original developer of the keyboard
9 that was developed for a very different purpose game.
10 And there were people who went in and said, well,
11 that's not true, that's really not the story of the
12 keyboard, as if that had anything to do with the
13 vitality and importance of the theory.

14 So that was contested and now it's a part of
15 everybody's everyday vocabulary. The notion that
16 antitrust laws maybe shouldn't apply to dynamic, high-
17 tech industries -- Schumpeterian competition, winner
18 take all. Hotly contested. The court resolved that
19 and now we don't argue about that.

20 Is intellectual property a trump card
21 because they are protecting their intellectual
22 property rights? Well, the DC Circuit said that
23 boarded on the frivolous so people don't make those
24 arguments anymore. Product design, part of -- an
25 important part of the case was the court's finding

1 that a critical part of the design of the operating
2 system, mainly the commingling of operating system
3 and browser code, was anticompetitive. There had
4 been a tremendous argument in some precursors in the
5 law suggesting that product design is sort of safe
6 harbor from an antitrust point of view -- points of
7 view.

8 The most important significance, I think, of
9 the case beyond the specific findings of that type are
10 basically this. The court analyzed the facts at a
11 very fine level of granularity. It did not say this
12 is a case about product design; this is a case about
13 intellectual property. This is a case about putting
14 the -- having the browser packaged with the operating
15 system. It got down to very fine details. It had to
16 do with moving the browser from the add/remove
17 utility, thus making it harder for OEMs to distribute
18 other person's browsers. At that level of
19 granularity.

20 It is about principles rather than rules.
21 And every point that a party argued that there was a
22 rule of thumb that should decide the case, whether it
23 was the Government arguing for a per se tying rule in
24 one of its theories or defendants arguing exclusive
25 dealing can't be regarded as anticompetitive unless it

1 entails a 30 or 40 percent foreclosure, the court
2 said, no, we are not interested in legal rules like
3 that, in effect.

4 A key sentence in the opinion, which I
5 happened to read over the weekend when I was preparing
6 for this, is the following. The court said in this
7 quote, "It is difficult to formulate categorical
8 antitrust rules absent a particularized analysis of a
9 given market," a caution that I wish the Supreme Court
10 in the AmEx case had borne in mind.

11 Okay, just two other things and I'll end
12 quickly. Causation. Hugely important causation
13 theory. It's interesting that Dan said the unknown,
14 it was a kind of a laughable position for Microsoft to
15 point to. But a lot of people used that very argument
16 against the Government and said what's your story?
17 What difference would it have made? It's all
18 speculation, doing in Netscape, this is just
19 theorizing. Why do we think it's actually going to
20 matter?

21 And the Government, of course, didn't have
22 the answer because one never knows what innovations
23 would take place in the but-for world. But the
24 Government's theory was quite different than that. It
25 was that by eliminating these potential facilitators

1 of new entry, they were raising the entry barriers and
2 in a probabilistic sense, reducing the likelihood of
3 new competition.

4 It was a theory available only in a monopoly
5 maintenance case, it wouldn't suffice in a creation of
6 monopoly case. And it was a theory that by its very
7 terms embraced and depended on concepts of
8 Schumpeterian competition.

9 So the big lesson in my view from the
10 Microsoft case. It's not about its particular
11 holdings. It is about the proposition that I -- we
12 were all taught the first day of law school right?
13 It's all about the facts. The antitrust principles
14 were proven to be robust in that case in part because
15 the court didn't get hung up on last year's rule of
16 thumb developing a different factual context for
17 different problems, and rather applied the principles
18 to a careful analysis of the facts.

19 MR. ADKINSON: Thanks Doug. And I neglected
20 to ask the panelists to remove the microphone so they
21 can speak directly into it, please. Thank you.

22 MS. CREIGHTON: So my name is Susan
23 Creighton. I wanted to thank the FTC for the
24 privilege of getting to appear on this panel today.
25 So unlike Dan and Doug, who are kind of authoritative

1 about what does the Microsoft case mean and they were
2 critical in formulating the case, I was only -- I was
3 involved in the case in sort of the input phase. I
4 was representing Netscape, which was one of the
5 complainants at the time.

6 So in five minutes, it's hard to cover all
7 the things that the Department got right. Doug and
8 Dan have mentioned some of them. Some of the points I
9 was going to highlight overlap with some of the points
10 they did make, but Doug and I did not actually
11 coordinate but I wanted -- the meta thing I thought
12 that you guys got most right and drives a lot of the
13 rest of the analysis is clearly the Department took
14 the time to actually look at what the evidence was
15 showing regarding the nature of competition in the
16 operating system market.

17 And what it showed, I think, was that while
18 browsers were a complement to Windows for users, they
19 were a potential threat to Windows for application
20 developers. So the browser was a potential competitor
21 as an applications platform. And then trying to --
22 rather than take that simple fact pattern and then try
23 to jam it into some preexisting set of boxes like
24 leveraging, the Department actually followed the
25 evidence where it led and reached a number of

1 conclusions that I think have remained foundational
2 for how we should think about platforms 20 years
3 later.

4 Let me highlight just four. First, DOJ
5 recognized the products that may have the potential to
6 compete even if they don't look like each other. I
7 think that's really important because even to this
8 day, regulators can find it a challenge to recognize
9 the company as maybe actual or potential competitors
10 even if they look different or if in some respects
11 they are complements. That tendency to narrow the set
12 of competitors only to those that just look the same
13 can result in under-enforcement, or over-enforcement,
14 Microsoft itself being a great example of how if you
15 had just looked at saying do browsers compete with
16 operating systems, the answer is obviously no, end of
17 case.

18 Second, as both Dan and Doug, I think, have
19 mentioned, the Department recognized that the key to
20 the operating system competition was the indirect
21 network effects between users and app developers so
22 the OEMs and ISPs were important distribution
23 channels, but the key dynamic by which operating
24 system platforms competed was by the number of
25 applications written for OS, which in turn depended on

1 attracting users on one side and app developers on the
2 other.

3 The third feature I think that was really
4 critical was that they focused on platform competition
5 as a horizontal rather than vertical problem. So
6 internet browsers were a threat not because they were
7 a profitable complement. They were very simple pieces
8 of software that eventually everyone gave away for
9 free. Rather, Microsoft itself recognized the
10 browsers in Java threatened to make it much easier for
11 app developers to write across platforms than having
12 to engage in the cumbersome ports from one OS to
13 another that were characteristic then.

14 And that multiplatform access in turn would
15 make it much easier for users to switch devices and
16 thus operating systems. Think about how much easier
17 it is to switch devices, for example, if you're
18 streaming music rather than trying to port your music
19 downloads from one device to another.

20 Finally, the DOJ recognized the platforms
21 were dynamic, as Doug mentioned, so they needed to
22 understand which business practices were problematic
23 without chilling those that were not. In the process,
24 they advocated for a test that asked whether
25 Microsoft's conduct would make business sense but for

1 its tendency to exclude rivals. Although I'm not sure
2 that this test is always and everywhere the best one,
3 it works well in distinguishing between procompetitive
4 innovation and anticompetitive conduct when dealing
5 with dynamic innovative markets.

6 It thus enabled the Government and
7 ultimately the court to distinguish, for example,
8 between bundling IE with Windows at no charge, which
9 was permissible, versus implementing restrictions that
10 had no possible benefit to any platform participant
11 and served only to make it difficult to load rival
12 software on the machine and hence for users to
13 multihome.

14 Now, the court did not agree with the
15 department on all things, but the department's
16 analysis laid the basis for it to be affirmed on all
17 of its key points. First, the court didn't adopt the
18 Department's no-business-sense test, but it did strike
19 down product design changes that served no legitimate
20 purpose, and which Microsoft did not show a plausible
21 competitive justification.

22 On the other hand it permitted those for
23 which Microsoft did offer a legitimate benefit. The
24 court took the Department one better in its horizontal
25 analysis by rejecting a Section 1 tying approach to

1 product integration given the ubiquity of bundling on
2 software platforms and the plausible procompetitive
3 benefits of such integration.

4 And, finally, the court affirmed the
5 department's key insights regarding the nature of OS
6 platform competition for users and developers and a
7 threat to cross-platform switching posed to
8 Microsoft's market power. Thank you.

9 MR. PICKER: Hi, thank you. Thanks for
10 having me here. I'm Randy Picker, a professor at the
11 Chicago Law School. So I'll note as everyone, I would
12 assume, saw that Paul Allen died yesterday. The
13 Microsoft story is a great story, and Paul Allen was
14 so central to it, so I'm sorry to see him gone.

15 When I teach the Microsoft case in my
16 antitrust class, I start with the Internet Tidal Wave
17 memo, which is the memo -- it was Government Exhibit
18 20 in the case. It's really Gates at his best in the
19 sense that he is looking forward in the industry,
20 seeing where it is right now and where he thinks it's
21 going to go. And I think he makes two critical points
22 there.

23 So I thought what Dan said about, you know,
24 we don't need to talk about two-sided markets. That
25 may be fine. Gates obviously understood powerfully

1 the interaction between what was going on on the
2 developer side and what that meant for the consumer
3 side. So his first point is he says, look, Netscape's
4 got a 70 percent usage share and what they are doing
5 is, as he puts it, is they are moving Key API, the
6 application's programming interface, into this
7 middleware layer, and the great risk to Microsoft
8 there is is that that will commoditize -- his word --
9 the underlying operating system, and no one will care
10 what operating system they're using.

11 The question I always ask in class is what
12 brand of plumbing do you have in your house? Not
13 faucets, we Americans have a peculiar fascination with
14 faucets. I mean actually the plumbing, and no one
15 ever knows. It's not that plumbing's unimportant,
16 right, but it's a commodity, okay. So Gates saw that
17 Netscape posed this risk of changing where competition
18 was taking place with regard to developers and the way
19 in which this browser, sort of this adjacent market,
20 was going to maybe then or in future generations going
21 to directly compete with Microsoft in the OS market.
22 That's the story the Government told.

23 I think that was exactly the right story but
24 that's what Gates saw as well. The second thing he
25 says is, and this is where Dan talks about these

1 unknowns, Gates says, oh, some people are talking
2 about this really frightening -- that's his word --
3 possibility where someone will come up with a kind of
4 device that you can use to browse the internet, and it
5 will be a lot cheaper than a PC, and you won't need
6 the Microsoft operating system. It is really hard to
7 imagine what that world might look like, right, so
8 other than today, right?

9 So Gates understood exactly what was going
10 to happen and saw that and the threat that that posed.
11 It's not that I think -- I don't know what Microsoft's
12 current market share is on PCs, I suspect it's pretty
13 high still. What's happened to Microsoft is not that
14 somehow their position has been lost in PCs, but
15 rather this whole other world of computing devices has
16 exploded and the PC is just, you know, a piece of it
17 but not the dominant position it was.

18 So Gates saw all that and responded to
19 Netscape in a powerful way because of that. The
20 Government's case, I mean, we've talked about the
21 success of it. I want to hear more about some of the
22 failures. So there was an attempted monopolization
23 claim of the browser market, that died. How we think
24 about what an incumbent -- a dominant incumbent does
25 with regard to new adjacent markets, I think that's a

1 really important platform issue, and the attempted
2 monopolization claim was in that spirit.

3 So I'd love to hear more from -- what did
4 you say they were, that they were the definitive
5 sources -- on that. And then obviously the tying
6 claim, which again relates to this question of to what
7 extent are we going to constrain an incumbent into
8 moving into these adjacent markets. That issue
9 dropped on remand, and I thought that was exactly the
10 right strategic choice, but from a standpoint of
11 knowing what the law is, that remains a little
12 frustrating.

13 I think the question we should ask today is
14 now with the benefit of all this development of two-
15 sided markets is to ask, well, if we bring that
16 analysis to bear on the Microsoft case, do we get any
17 different insights into the behavior that we saw
18 there, right? So when you teach two-sided markets in
19 class, I have this very simple sort of example of why
20 pricing below marginal cost might be very sensible in
21 two-sided markets. We don't usually allow that in
22 one-sided markets. You build it up, and what you're
23 trying to convey to students is, is that you can't
24 just apply your single-market intuitions to two-sided
25 markets. You've got to be more sophisticated.

1 So go back and ask the questions. If we
2 look at what Microsoft did through a two-sided market
3 lens, does it look any different? I think the answer
4 to that is sort of no. I thought what Doug said was
5 right, which is the granularity with which the case
6 was presented and which the DC Circuit found
7 compelling, I talk about add/remove in class, too, you
8 know, the commingling of code, the embedding of the IE
9 icon.

10 Microsoft didn't offer a procompetitive
11 justification for any of those. And I think even in a
12 world of two-sided markets it would struggle to do
13 that now. Oh, I'm out of time, so I should stop.

14 I do think, you know, the bolder story would
15 be to argue if you're Microsoft back then as to why
16 fragmentation in these markets would be bad, that's
17 what Google has tried to do unsuccessfully in Android.
18 And I think if you made those arguments in a two-sided
19 market maybe you'd be able to try to bolster their
20 position. I think ultimately those are losers, but
21 that's the direction I would want to go, I think.

22 But I do think it's interesting to relook at
23 what they did, ask what could they have done had they
24 simply tied and not engaged in all these other silly
25 behaviors, what would the case have looked like and

1 how would we see that through a two-sided framework.

2 MS. BRANNON: Hi, I'm Leah Brannon. I want
3 to thank Bill and the FTC for inviting me to join on
4 this panel. At the time of the case, I clerked for
5 Judge Ginsburg on the DC Circuit. So I'm really
6 excited that we're talking about the case 17 years
7 later, that it's held up pretty well over time. It's
8 been cited -- I checked in Westlaw the other day --
9 it's been cited more than 1,500 times in cases and law
10 review articles, including twice by the Supreme Court
11 in Trinko and linkLine, more than 100 times by the
12 Federal Courts of Appeals, around 300 times by the
13 District Courts, and 1,200 law review articles. So
14 it's been cited many times. I like to think that's
15 because it was groundbreaking, but it's probably also
16 because it was just a really long opinion and it
17 covered a lot of topics.

18 So as you probably all know, the opinion
19 touched on monopoly power, the standard for
20 monopolization, licensing restrictions as an active
21 monopolization, predatory product design, exclusive
22 dealing, deception, attempted monopolization, tying,
23 course of conduct, causation, and that's just the
24 antitrust discussion. It actually gets cited -- a lot
25 of those citations are for the judicial misconduct

1 section, which was an odd sideshow part of the case.

2 I think, you know, my opinion is that one of
3 the most important contributions of the case was the
4 court's decision to apply the rule of reason, just the
5 basic rule of reason, to monopolization claims. There
6 were other standards. I think Susan touched on this,
7 and Doug. There were other standards floating around
8 at the time. Even in connection with Microsoft, a
9 couple of years earlier, Judge Williams in the consent
10 decree case, had written an opinion basically
11 indicating that if the defendant has any
12 procompetitive effect for its conduct, no matter how
13 small, that immunizes all of its conduct. That was
14 one possible standard.

15 There was also the test the Government was
16 pushing that Susan called the business sense, you
17 know, does something -- does conduct make no economic
18 sense but for a tendency to monopolize. So there were
19 a lot of other standards, and the court adopted and
20 applied the rule of reason. So I'll turn it over to
21 Tim.

22 MR. WU: Thank you very much. Tim Wu, and I
23 want to thank Bill and also the FTC. It's a pleasure
24 to be here. My involvement in the actual Microsoft
25 case was somewhat tangential. I was a research

1 assistant for Larry Lessig right when he became the
2 special master and then later was a clerk for Dick
3 Posner, right about when he -- so if anyone remembers
4 the strange chapter when all these guys got involved,
5 but, of course, that all amounted to nothing and so
6 that was that.

7 I have studied -- actually maybe more
8 important is I was working in Silicon Valley when the
9 decision came down. And that's what I think is -- and
10 felt some of the after-effects. And that's what I
11 want to focus on in my comments here. I think -- you
12 know, I think there are many lessons from Microsoft.
13 But I think it teaches us something very important
14 about enforcement policy in particular. And the --
15 essentially the courage and the determination and the
16 -- as was already described, the great care with which
17 the Government brought its case is I think an
18 important model for the agency, for FTC, for the
19 Justice Department, for anyone who is serious about
20 enforcement of the antitrust laws.

21 You know, to make the point obvious, the
22 antitrust laws don't have any effect unless they're
23 enforced, and they go through periods of great quiet
24 and calm when enforcement doesn't happen. You know,
25 in the very beginning of the law's passage, it wasn't

1 seriously enforced for almost a decade. And so it
2 always takes, you know, a certain, I'd say, courage to
3 bring these cases.

4 I think it's worth remembering that the
5 Microsoft case, I happen to think it was antitrust at
6 one of its finest hours, maybe along with AT&T, and I
7 think other people have said that. But at the time,
8 there was enormous resistance to the idea of bringing
9 this case. Doug already highlighted some of the
10 reasons. People said it's a new and dynamic industry,
11 you know, someone else will come along and swallow
12 Microsoft in ten minutes.

13 There was also -- and I want to emphasize
14 this -- no really clear price effects for what they
15 were doing. Explorer was being given away for free.
16 You know, Microsoft was like a charity, giving this
17 new product to everybody. You know, so why would
18 anyone argue with that? Bill Gates was kind of a
19 darling at the time, a symbol of American
20 entrepreneurship. And so it required sailing into the
21 headwinds to some degree to bring this case.

22 And I think that was an act of courage, and
23 I think the lesson for today's enforcers is that they
24 need to have the courage and also have the -- let me
25 make three particular points about this -- have the

1 courage to take cases in these kind of situations. So
2 here are the three things I think are particularly
3 important.

4 One is the fact that Microsoft was brought
5 without clear, at least as far as I know, clear
6 evidence of price effects. So, you know, it wasn't
7 obvious that the campaign against Netscape was
8 actually inflating prices to consumers. And,
9 therefore, the case was brought -- you know, had to
10 be brought in this more complex theory that, in fact,
11 that it was affecting competition for the platform
12 and was monopoly maintenance.

13 And, so, you know, that took a certain -- I
14 think we've in subsequent years sometimes been too
15 nervous, unwilling to bring cases when we don't have a
16 clear price effect, and it's worth going back to
17 Microsoft to notice, even if the product is given away
18 for free, that doesn't necessarily tell us the whole
19 story.

20 Second and related to that is the
21 observation -- and everyone knows this -- is that the
22 greatest benefits for successful antitrust enforcement
23 have to do with dynamic benefits with innovation
24 effects, for example. And that means the
25 beneficiaries may be unknown, in fact, and not

1 obvious. This is my second point. So when you look
2 at the aftermath of Microsoft -- actually it didn't
3 really help out Netscape very well. Netscape plunged
4 in market share, Explorer did, in fact, gain a
5 monopoly. It was at something like 95 percent in 2002
6 or so. So, you know, it wasn't -- I mean, Netscape
7 became Mozilla and so forth, but it didn't actually
8 save that company.

9 The real beneficiaries at the time when you
10 look back were the companies that were beginning and
11 starting to make -- to view the web as a development
12 platform to try to make their fortunes on top of the
13 HTML protocol and on the internet. In other words,
14 the great beneficiaries are really Google, Facebook,
15 Amazon, and some other companies who might have been
16 in a very different situation with an unpoliced
17 browser.

18 And I think -- you know, I don't think,
19 maybe -- I think people were thinking about that in
20 abstract terms, but Google was a college project when
21 the -- or grad school project when the case was begun.
22 So it was impossible to realize some of the value that
23 might be created but required the sort of faith and
24 not just faith but some ability to realize that the
25 dynamic benefits might be lost.

1 I realize I'm out of time, so I'll just say
2 my third point. The last lesson, I think, for
3 enforcers or, frankly, innovation policy from
4 Microsoft, I think, is taking a careful effect -- a
5 careful look at the effect of what I call the
6 policeman at the elbow for the conduct of a
7 monopolist. Many people have noticed, sometimes
8 said, well, you know, no one -- they didn't break
9 up Microsoft. It kept a monopoly.

10 But one of the most -- I really think the
11 most important effects, as I've suggested, was the
12 fact that Microsoft after the suit was chastened and
13 operated with a policeman at the elbow and therefore
14 never did some of the most obvious moves they could
15 have on an unregulated browser, such as making sure,
16 for example, that their search engine was a default
17 and was impossible to remove or any of the other
18 things you might have done with a completely
19 unsupervised browser.

20 So I've used up my five minutes but those
21 were some of the things I thought.

22 MR. ADKINSON: I want to thank the panelists
23 for keeping it on time. That was a great job. I also
24 want to thank my colleague, Derek Moore, for having
25 thought of this topic for a panel. He deserves a lot

