00:00:54.640 --> 00:00:56.789
David Autor: I can't vote. Huh! In this poll.

00:00:58.500 --> 00:01:01.409
David Autor: Oh, I don't know I doesn't seem to want to let me.

00:01:02.080 --> 00:01:03.489
I thought I had a head. Start

00:01:07.060 --> 00:01:08.789
Markus Brunnermeier: the same for me. Actually.

00:05:13.600 --> 00:05:22.379
Markus Brunnermeier: Hello, everybody! Thanks for joining us for another
Webinar organized by Princeton for everyone worldwide. We're very happy
to have David Otter with us from Mit. Hi, David.

00:05:26.210 --> 00:05:28.089
David Autor: Hey, there! Thank you very much for inviting me.

00:05:28.310 --> 00:05:37.060
Markus Brunnermeier: Okay, David, have you and David will talk about the
unexpected compression competition at work in the low wage economy. It's
trying to work with one

00:05:37.090 --> 00:05:39.580
Markus Brunnermeier: Aven, Dubai and Annie, me crew.

00:05:39.850 --> 00:05:56.720
Markus Brunnermeier: and we're very excited to learn more today what's
happening currently with the low wage income, whether it's compressing or
not, and why, and he will tell us all about it. And we also very grateful
for saying the poll questions and let me today just go to the poll
questions directly.

00:05:58.160 --> 00:06:00.790
Markus Brunnermeier: And the first question was.
Markus Brunnermeier: You know, which group has seen the largest nominal wage games during the Covid recovery. Is it all the college creates that's what 29% thought of you younger college graduates. Only all the high school grades.

Markus Brunnermeier: correct 20% and young high school creates 41%.

Markus Brunnermeier: second question was the inflation. Losses are not offset by wage gains. For what group of workers for high wage workers, 31% thought this.

Markus Brunnermeier: for low wage workers, 24%,

Markus Brunnermeier: and for either 44, so the majority

Markus Brunnermeier: so 44% or not for item.

Markus Brunnermeier: and fully offset for both. It's only one. I thought this.

Markus Brunnermeier: The third question was, the wage growth is faster among chopstairs.

Markus Brunnermeier: That's what 5% thought faster among job changes. That's 89. So almost 90%

Markus Brunnermeier: or comparable for both groups 5. So the big maturity said for drop changes. It's the biggest one, and the final question was.

Markus Brunnermeier: Has a market for low wage workers simply has the demand. The supply curve shifted outwards, or in what's depending, whether the demand or supply. That's 41% thought.
Markus Brunnermeier: or is it become more competitive? So let's see if sleep a supply is changed. The monopsony power of for labor supply is changed. 59%. So 40, 60, roughly so that's a you know that's the outcome.

Markus Brunnermeier: So let me give you a few thoughts on my own, and then we pass on the floor to David.

Markus Brunnermeier: So, after the Covid crisis, the recovery, we have the skilled premium, and you could think of if the blue color worked as actually got the higher wage increase that the white collar workers

Markus Brunnermeier: one it could be that. Actually my color workers are just compensated for something different. So now they can, instead of getting higher wages they can do, working from home to get more flexibility. So, rather than getting dollars. They're getting some flexibility or some other compensation in form of

Markus Brunnermeier: non pecuniary the compensation, and you know they have essentially more than desire to get more flexibility working from home. And if you know, there was a shift in the preferences among the workers, there's a search for meaning. What do I do in life? And perhaps I don't want to work so much anymore.

Markus Brunnermeier: And of course we also have a lot of the core Labor Supply side. The Service Act in particular. We have a long Covid problems, and that's, you know, makes it harder to rebuild the labor participation which we see you're building, but it takes longer. So it's labor short that just everywhere that the the question is, is a Covid preview, and coming there

Markus Brunnermeier: the next slide. I would like to talk a little bit about skilled premium and inflation.

Markus Brunnermeier: you know you can sometimes see the argument made that whenever the economy it covers, and the workers will gain on bargaining power, and will get higher in a higher wages. The central bank steps in with high interest rates and cools down the economy, and with it the cool down, the bargaining powers of the workers as well.
Markus Brunnermeier: But if you think about it, it's, you know it's connected to the wage price spiral. Of course the central bank is concerned that higher prices will also translate into higher wages, and she wants, or they said, the bank wants to constrain the wage growth in order to get all the completion under control.

Markus Brunnermeier: and primarily you would like to constrain the wage growth of the high Mpc. Workers to high martial propensity consume households.

Markus Brunnermeier: and that actually it hits the pool much more than the rich. So if you look at the wage biased barrel across different workers for rich workers which have potentially a low module for the consume was as high

Markus Brunnermeier: our income workers, which have a low, low much of depends consumers as poor workers which have a high amount of potential to consume. There might be a differentiation there.

Markus Brunnermeier: On the other hand, if you like, interest rates. You also heard the growth stocks, and that actually, we saw already that led to our re evaluation of the tech sector that led to a lot of layoffs, and it might actually load its skill premium.

Markus Brunnermeier: And because high income tech workers that might get a less of the income, so that's can go either way. But the you know the inflation lies in the place there as well.

Markus Brunnermeier: Let me give you a finally to the skilled premium during the German inflation in the 19 twenties and our hyperinflation. So I have a recent paper which, coming out on the financial Phillips curve and One component is what you see very clearly is when inflation is high. You see low, skilled workers, real wages go up while high-skilled workers is not going up. So there's a clear way that low-skilled work has been high inflation environment. They actually a benefit compared to the
Markus Brunnermeier: the low-skilled workers benefit compared to the high skilled workers.

Markus Brunnermeier: But it's not the case anymore. Once you go to hyperinflation, this differentiation is going away, so it's. It's only for high inflation, but not for hyperinflation.

Markus Brunnermeier: So with this I pass on the floor to David, and we're looking forward to your presentation, whether we see some unexpected compression, and it's competition to get it to work. Follow away from the low waiting economy.

David Autor: great. Thank you so much so I should say, by way, You know we didn't. I I don't know if we're going to score the score of the quiz. but in 3 or 4 cases the modal answer was the correct answer.

David Autor: and you'll i'll, and you'll see going forward. But let me put up my slides

David Autor: so the wisdom of crowds very much at work here.

David Autor: this is so I mentioned as as as Marcus mentioned. This is a joint work with R. And D. Bay. It was Professor Emails and and him grew. Who is a promising Phd student at that same institution?

David Autor: And I during the pandemic. I wish i'd actually brought thought to bring the bring the the the screen shot with me wrote an article about the post pandemic labor market, in which I said, too few low wage jobs. I was quite pessimistic about the trajectory, and I thought, you know, because of the reallocation out of cities because of the client for demand for in person services we would actually see a slack labor market for low wage workers.

David Autor: and I couldn't have been more wrong, I proud to say. And in fact, what we've seen is something quite the opposite.
David Autor: And the question of this paper is to try to understand what's going on, not from the macroeconomic perspective of why has demand reason or supply phone. But how is that changing the way that labor markets are operating?

David Autor: and in particular, how is it interacting with or changing the nature of competition.

David Autor: So the textbook model of you know, perfect competition that you're all familiar with is static. There's no unemployment. There's no labor shortage wages automatically. Just the value marginal product of labor

David Autor: evidence on labor market competition tells us something different. we see, you know there's now a vast and growing body work that says employers don't face personal, perfectly elastic labor supply for a variety of reasons. It's not that they're you know, one company towns. But just, you know, workers have preferences. There's distances there's in perfect information.

David Autor: And in such a market similar workers are paid differently, just due to frictional wage inequality in particular. Each firm has some

David Autor: labor market power each, you know. There's a set of workers who will work in some weight range, and so they can adjust prices in quantity simultaneously.

David Autor: And so we want to ask, how does a tightening of labor market of the labor market interact with the state of competition.

David Autor: and we think that the post pandemic labor market, or the you know, maybe post is too strong a word, but the current labor market offers an opportunity to find out how things change.
David Autor: and we're going to distinguish between 2 notions of labor market tactics.

00:13:49.060 --> 00:14:02.579
David Autor: One is starting from perfect competition. Labor demand shifts out relative to labor supply or vice versa. Employment and wages rise. There's no change in competitive conditions. You're moving from one pareto efficient allocation to another.

00:14:03.170 --> 00:14:19.019
David Autor: how we're starting from infer competition. It's also the labor supply curve becomes more elastic. Job Changes become more responsive to wage levels and workers reallocate from bad to good jobs, or, you know, doing the same thing, and yet earning a higher wage, working at a a different employer.

00:14:19.240 --> 00:14:22.690
David Autor: And this distinction has normative implications, because

00:14:22.700 --> 00:14:44.630
David Autor: in the latter case, if we actually seeing reallocation due to a change in the elasticity of labor supply, that would actually mean workers are moving from less productive to more productive employers, and the wage gains are are not simply a transfer. Actually, they they reflect in part gains in surplus from improved efficiency. So it matters this distinction.

00:14:45.900 --> 00:14:51.230
David Autor: So here's the kind of plan of attack of my talk, and we start with some some unexpected facts.

00:14:51.250 --> 00:14:55.420
David Autor: a sharp reversal and inequality driven by rising wages among low-paid workers.

00:14:55.510 --> 00:15:06.010
David Autor: we offer a simple conceptual model, actually 2 versions of it a graphical one, and then a more formal one that tries to distinguish between changes in demand versus changes in competition, or what those look like.

00:15:06.380 --> 00:15:15.529
David Autor: Then I present 4 piece of evidence that we inform this one is just descriptively rising transition rates, showing you that that's a going on and showing you
David Autor: labor market tightness, and how it relates to weight growth.

David Autor: They want to look at who's quitting, and particularly the role of low pay, and the question I want to ask there is, has to quit elasticity risen. In other words, the probability that someone separates from a low weight shop relative to any other job.

David Autor: And then, if so, why is there actually a payoff to job change? In other words, there you for the quid elasticity to be meaningful. It needs to be the case that people are moving to better jobs. They want to to show evidence on whether that is occurring.

David Autor: Of course it would. No seminar talking about wage growth would be complete if I didn't also talk a bit about inflation.

David Autor: So I will talk about real wage growth versus nominal wage growth and show how those are connected as well.

David Autor: and then finally i'll i'll wrap up

David Autor: so.

David Autor: first of you. I know we did. You guys don't want to along there for you. But let me just make a few points there is a a literature going back on the effects of tied labor markets on earnings on job switching on job satisfaction.

David Autor: So unemployment the cyclicality of job switching work Well, no work by that on the high-pressure labor market of the 1,900 and Ninetys by Cas and Kruger.
David Autor: and we're thinking specifically about quit last disease, and Job flows

David Autor: and or so our work is certainly relate to the work. By do they? And I do by Moscarini and post with an a what I think what we bring this distinct is a focus on this period of sort of sharp change that allows us to inform some of these implications.

David Autor: there's also, of course, a growing body workout you mentioned on monopoly power and a little bit of work on how labor market pressure interacts with that. that we are contributing to

David Autor: I will not spend time on it, but it's also work on wage pressure and price pressure. There's a a paper, a working people by 2 Berkeley, Phd. Students, Ferrato and Geti that shows that labor market pressure does appear to be related to price changes at the State level, and i'll just say we benchmark our results against theirs, and confirm or confirm our results or confirm their results. So we're definitely in the same ballpark.

David Autor: ballparks.

David Autor: Finally, there's a bunch of recent work on the post pandemic labor market that we're related to. One is about rising remote work, as Marcus mentioned, and I'm just going to be talking about wages here, not about quality of work.

David Autor: And and we could have a discussion about that, because they make a very important point. That kind of job quality has probably improved for high wage workers who can work from home and probably gotten worse for a lot lower paid workers, because we all saw the horror stories about what happens in airplanes and what happens in overcrowded restaurants and so on. So maybe jobs have gotten harder. I'm looking at
David Autor: pecuniary compensation.

And it's worth thinking about that.

There's also work on missing workers, and how much they contribute what's going on. It's actually very nice recent that paper this week by I should go to he and Bart Hogan, I just saying, there, actually aren't as many missing workers as you think.

And then I will finally talk about inflation, inequality, and very end just by referencing the recent paper by. And I think that relates to interpreting what we found here.

But let me start with just a kind of a quick helicopter tour of some facts that we found quite striking.

One is unemployment, and the other is on wages. So let me just start with participation.

Participation rates plummeted during the pandemic. Not surprisingly. and that's well known. but they have risen. So employment rates have almost fully rebounded, and the labor force fell in the group. And so this would imply. Actually, the unemployment rate is slightly lower now than it was immediately here, because the the employment rate has resume even more than the labor force participation rate.

If we look by education.

The you know the pandemic was a, you know, a you know, an incredibly efficient machine for creating inequality employment fell much more
David Autor: among the low educated

but it's actually rebounded just as strongly

So this is high school. This is people. Some people the college agree. So those groups that saw these incredibly steep falls have seen equally and correspondingly steep rebound, which is, was certainly not what I was predicting.

if we look by occupational level, and I think that makes a lot of sense to do so. Given how different occupations were affected so differently and look at low versus medium versus highway taxpayers and me. Low wage occupations are really good. Many of them are going to be personal services, right food service, cleaning security transportation things like that. Even home health aids

those saw by far the in fall of 17 percentage points relative to their start of pre-pandemic level, and again.

have, you know, have rebounded just as strongly in correspondence to their decline.

So this reconvergence is is really remarkable. And yeah, really remarkable.

Now, when they turn to wages, that was just employment.

So this shows you, as our best estimate. So these are nominal wage games over the 36 month period from July, 29 through September, 2,022 this is the most recent 24 months. This is the most recent 12 months. When I say most recent. By the way.
David Autor: I should say, our data go through September of 2,022. We are using the current population survey for F. The current population survey has the virtue of being recent and representative.

David Autor: It has the disadvantage of being a relatively small sample relative to the big data that we're used to nowadays, and it doesn't have much of a longitudinal component, which limits what we can do. But it's a great place, we think, to start on this.

David Autor: So what you see is that if you know, there was a lot of real wage growth if we look over 36 months, particularly below the median. If we look at 24 months it's only below the twentieth percentile, and if we look over the last 12 months it's even only a small, even smaller fraction of the distribution seems to be gaining. So the bottom 15 of the distribution has seen real wage gains even over the last year.

David Autor: Another way to see that, by the way, is here we calculate regional. We calculate wage levels, using consumer price index inflators that are metro area, specific.
David Autor: the Cpi their metro area, or if they're not in the metro area, we sign them a rest of state level.

114
00:21:55.620 --> 00:22:01.429
David Autor: And so this tries to actually adjust for, because prices are rising at different levels in different places.

115
00:22:01.700 --> 00:22:21.270
David Autor: and you reach, much the same conclusion, slightly more favorable. The bottom quartile, it appears, is experiencing real wage gains, not enormous ones, but real wage gains over last year even adjusting for local cost of living. Now, I should say, this is the cost of living. Assuming everyone in the area faces the same cost of living.

116
00:22:21.280 --> 00:22:33.970
David Autor: You may be worried that you know different components of that basket, or you know, food, energy, transportation, housing, or moving differently. So it's worth thinking about. The inflation inequality which i'll talk about at the very end, referencing to work by.

117
00:22:34.590 --> 00:22:37.900
Markus Brunnermeier: I can ask you something, David, about this?

118
00:22:37.940 --> 00:22:47.919
Markus Brunnermeier: It seems like, is it because the first figure that to the left is over 3 years? So the difference is that these are. I'm: sorry these are annualized.

119
00:22:48.120 --> 00:22:55.210
David Autor: Yeah. A politics. They're annualize, she said, that. But this is over 3 years. This is the most recent 2, and it's most reason one.

120
00:22:55.490 --> 00:23:03.649
Markus Brunnermeier: So then it means, like the 2,019 effect was the most of the compression effect was biggest of 2,019 compared to 2,000,

121
00:23:03.780 --> 00:23:11.080
David Autor: from 2,019 to 2,020, it really would in 2,000 22,021 is where that's really coming from. But yes.

122
00:23:11.690 --> 00:23:17.799
David Autor: okay, it's the case that there was a lot of compression nominally, and not much inflation. Initially.
And now the compression has largely plateaued, but the inflation has accelerated.

Markus Brunnermeier: Is it important to keep this in mind that in compression, as blood, thought

David Autor: I recently, it is, I think this is worth keeping that in mind. I mean it's not reversed

David Autor: right. We are at a different place, but it's it's not getting more it pronounced. But even so this is, you know, as you can see in this figure, so these are real wage trends by at the tenth, fiftieth and nineteenth of the distribution right? And you can see.

David Autor: that that you know the tenth is actually rising here. I'll come back to in one Sec. The fiftieth and ninetieth are kind of, you know, moving in parallel. And then there's this big jump of about 7 percentage points. This is in real terms adjusting for inflation. And all these we are using monthly Cpi to do this. And then the tenth has basically been holding its own

David Autor: right since the middle of 2,020. The median has fallen.

David Autor: and the 90 percentile has fallen a little more

David Autor: as well. So this this is a both a real and nominal compression

David Autor: of the wage distribution. in this, this, this, this, this this thing, differentiation, happened way before the labor hoarding story started, and all that, I guess.

David Autor: yeah, I mean, this kicks in like this jump happens as soon as people that's a lockdown, and essentially
David Autor: and then

David Autor: and but inflation kicks in, and then the 10 percentile continues to be in some sense compensated.

David Autor: and and these other quantiles not as much. Not that there's no wage increase, but it's not growing as fast as as measured inflation.

David Autor: I One thing I will actually call your attention is you might be looking at this 10 percentile and saying, oh, I see. Well, that was already happening. This is just sort of we're just, you know. We just we weren't paying attention to. But you know that to the pandemic just got it drew our attention to a line that we were overlooking.

David Autor: It turns out that that was only this rising temperature that was only happening in states that were raising their minimum wage.

David Autor: and it was not happening in states that were not increasing the minimum wage.

David Autor: But they both do the same thing after the pandemic, which is the 10% how it really jumps. And I just actually I just can't resist showing this figure. This shows you the relationship between the 10 percentile, the changes 10 percentile between 2,015 and 2,019, and the change in the log minimum wage at the State level.

David Autor: and it's it's really remarkably strong. So there was a lot of there's been, and this has been carefully stayed by our and day among others, My, our do they? the minimum wage has had, you know, 104. There' been 140 State minimum wage increases since 1,980, only 2 Federal ones every 3 and they really have a lot of bite at this point.

David Autor: But so just so. You don't think this is a kind of pre-existing trend when we look at the States where we could see the unmasked
10 percentile. It wasn't really rising. It was certainly was rising faster than any other percentile.

David Autor: if we look by occupational level, you know, you can see this again. These are lowest paid medium paid, highest paid, and we saw they had these quantity rebounds.

David Autor: and we also see a reduction in the black Hispanic wage penalty

David Autor: on the order. So if you've normalized that at one we should normalize the 0, it declines by 5 to 7 percentage points.

David Autor: and I let it in. The i'll focus in very shortly.

David Autor: The wage growth is also fast. If we look at among the young under 25

David Autor: then 25 to 39; and then, if we look at the older young who are 40 and over and even the the oldest on core. 55. And over we can see the wage growth is not as sharp so all signs point to people, you know, towards the bottom, the earners distribution.

David Autor: And here I finally distinguish high school versus college grads with who are under age 40. So these are These are high school, and below

David Autor: these are bachelors and above. So i'm not including some college in this figure, and for most of what I do I'm just going to contrast high school age 40 below versus BA. The complementary group.
David Autor: But so both, if we look at the older workers, they both experience jumps, but we don't see a separation between them. There's no reduction in the gap.

David Autor: and of course they experience a lot more erosion due to inflation than these 2 younger groups.

David Autor: Okay, great. So those are. Those are the unexpected aspects of the compression, or at least the compression itself May. maybe you're expecting it. I was not. now let me offer a kind of Can you give us some perspective? How big is that in your view is this: oh, sure, yeah. Oh, good. Thanks very much for asking that. Yeah, it's. This is really large.

David Autor: Let's see. We put a way to put it

David Autor: How much I should know this number off the top of my head, because I I've done so much work on it, but I can't off the top of my head. I'm going to say that the

David Autor: like to say that 50, 10 you know, expanded between, let's say 1980 and 2,000 by on the order of maybe 15 log points. That would be, you know. So it's a very large so 15% increase in that gap. And so this is I'm doing maybe third it

David Autor: in very short order, and maybe I may be overstating the extent of the expansion, so I should. I should have more statistics on that. So thank you for asking that question. But this is dramatic, and and it also should bear in mind. We we're at the you know, at the end what hope we hope is the end of 4 decades of rising inequality right since the very beginning of 1980 S. We've seen, you know, by any metric, you know, wages of the less educated at the bottom of distribution, measured by job stability measured by you know
David Autor: It's a

00:29:08.120 --> 00:29:15.799
David Autor: conditions have relatively deteriorated for lower wage
workers, and in real terms for men with high school or lower education.
So

00:29:15.870 --> 00:29:17.620
David Autor: this is this extraordinary.

00:29:18.120 --> 00:29:21.570
Markus Brunnermeier: Do you look for men and women separately, too? No.

00:29:21.810 --> 00:29:31.750
David Autor: in this paper we do not. We will do that. but we get. We
don't haven't done that so far, and but we could, and we should. In fact,
we should be doing that.

00:29:32.370 --> 00:29:42.979
David Autor: because to leave it to angles, Stephen. And and case. That's
right. And the death of the spare component. Yeah, so we should. And in
fact, you know, the growth of the quality has been very pronounced in
both.

00:29:43.030 --> 00:29:54.569
David Autor: Among both sexes, however, only men have seen the real
earnings declines, and also the steep labor force declines at the bottom.
So yeah, I you, you make an excellent point. We should. We should have
figures on that already.

00:29:55.740 --> 00:30:00.670
David Autor: Okay. So I want to distinguish rising demand from increasing
competition.

00:30:01.080 --> 00:30:17.720
David Autor: so let me start with the your Econ 101 book you know,
figure. So this is just i'm gonna imagine an inward shift in labor
supply, because it is the case that labor supply there is less labor
being supplied now than prior to the pandemic. There may. There's also an
outership for labor demand, but we only need one of those.
the perceptual individual employer. Quantity of employment falls with equilibrium rate. Wage rises.

David Autor: If you think of this from the respective of an individual employer, and it is perfectly competitive labor market, right? As far as they are concerned. There's no upward sloping labor supply, because they're just at a mystic on this huge curve. And so the price the wage they have, the equilibrium wage rises and quantity employed false.

David Autor: very familiar.

David Autor: Now let's consider another setting where firms face somewhat over upward labor's labor supply. Now, this does not have to be an exotic setting where you have a company town where everybody works for employers just needs to be that you know every infirm notices that. Well, if it pays a little more more people show up and apply for its job. Right? so the firm is, of course, pricing on the demand curve or the marginal revenue product for labor curve.

David Autor: This is the labor supply curve in log term. So this is the marginal cost of labor. There's a constant gap given by the fact that you have to raise wages of new for marginal workers as you raise the way to the marginal worker. I I can't just pay the last guy in the door. More I need the assumption. I need to pay everybody bit more if I raise the wage.

David Autor: and so the firm chooses. But what the excuse me it chooses the quantity to me. It it's quantity by equating marginal cost to the marginal revenue product labor, and then it chooses the wage that calls for that number of workers. And so this gap is the markup.

David Autor: right? So the this is. This is the equilibrium amount of labor demanded and the wage paid. So now imagine there is a rotation
David Autor: of the labor supply curve. It becomes more elastic. Shower.

Right?

David Autor: Well, what is that going to do for this low wage employer?

Now consider a higher wage employer.

David Autor: and this firm is again doing the same thing. It it chooses quantity according to the marginal cost of labor. It chooses its wage to call forth that number of workers. And now we have this rotation.

David Autor: On the other hand, it means that the firm has less in for marginal weight setting power. It doesn't have to raise wages as much when it raises its wages because, the labor supply curve is more elastic. If this were perfectly, linear would have no market power whatsoever.

David Autor: And so in that case that firm could see a
David Autor: slight increase in employment, and it's like increasing the wage simultaneously. And this is sort of the same magic of how a minimum wage can actually, in some cases raise employment and wages simultaneously by reducing the exercise of an obstacle power.

David Autor: So in this model, what could what you might expect

David Autor: is that?

David Autor: if firms are competing each with some market power. When the labor supply be cut, curve becomes steeper, the low wage employers will just lose workers and pay more. So we would see a re allocation of workers from low wage to high wage employers without necessarily changing what they're doing, but just a movement across employers markets. Do you have a question

Markus Brunnermeier: I just wanted to ask you, because is it in the literature? I guess it's normal to assume that the firm has all the sky setting power or the wage stepping power and the work it doesn't, or the bargaining power is totally on the firm side, you know

David Autor: E. So

David Autor: the literature is moving so fast. I don't want to say what is normal. It has become like conventional to think that basically workers are on their supply curve

David Autor: and firms are choosing the wage, and this is in kind of these

David Autor: I/O style models where the labor supply curve comes from preference.
David Autor: And the firm is just so. We're yeah, the firm, the last workers and different, and the other the others are not. But it wouldn't qualitatively change if bargaining power was splitting the difference between workers and firms on this.

David Autor: But you also make certain assumption on the elasticities for high-productive high wage workers compared to no productive low wage workers. Right? So we're not this these in here. There's just labor. I'm not distinguishing among skill levels. the in the formal model. I give you a minute there is a little more of that.

Okay.

David Autor: But before I go deeper into that, let me say, you might say, Well, why would that so? This is what could happen if the labor supply curve became more elastic and mobile labor market, where some of them an obstac? Why would it become more last? Right? So I mean you 4 plausible explanations one, is it? There are numerous and voluntary separations to the pandemic. So it

David Autor: Quite possibly this has reducing workers attachment to employers. It's raised their foot with looseness. It's just gotten. People used to the idea of changing jobs

David Autor: a second possibility. And I When I listen to this, I want to be clear. I'm not going to be able to test them. I can't. I won't. Be able to distinguish them. I'm. Only suggesting why this might be true.

David Autor: Second is a liquidity. Pandemic savings are not yet exhausted. It's easier for people to change jobs when they're not living hand to mouth. there's less risk involved.

David Autor: A third is potentially word of mouth itself. Everyone knows everyone else is moving to a better job, right? And if we all believe that everyone's going to hold out for a higher wage that will work right that will effectively increase our bargaining power.
David Autor: and then a fourth possibility is in the formal theory. This actually will drop out of a canonical job ladder model a model where people search for new jobs well on the job and take higher wage offers.

David Autor: So, Marcus, you tell me I can spend 5, 7 min going through this model, or I can skip it give it in the interest of time, whatever you prefer. Let's spend 5 min, because there also some questions about you know. How should we think of the rotation of the Ls Curve and all this? And I think this would explain that so excellent how to do that.

Markus Brunnermeier: So several questions great.

David Autor: So you're welcome to the frat party part of the talk with the brief letters.

David Autor: so separations are in this job search ladder, lab moderator model. They're a function of the wage.

David Autor: there's an exogenous outflow to non-employment.

David Autor: There's exogenous e to e shocks where you just move another job. Maybe even a lower wage shop is what people call the godfather shock and offer. You cannot refuse.

David Autor: and then there. These it exhaust endogenous job changes what they are. Is lambda, e is your contact rate with outside employers? That's actually a parameter, an internally determined parameter. The model, and then F. Of W. Is a cumulative distribution of wages. So one minus F. Of W. Is all the wages that are above the wage that you're being paid

David Autor: right. So you effectively. In this model you have some probability of having contact, and then your probability of getting a higher wage. Initial on contact is proportional to how low your wages?
David Autor: so these are the 3 forces giving rise to separations, the latter 2 of which are ede separation, deployment to employment jockey job.

David Autor: and we're notice by the way, this lambda e times one minus 7 W. These are to better paying jobs. So these are not random moves. They're directed, moves towards better paying jobs.

David Autor: The separation rate depends on how high you sorry into better jobs depends on how low you are on the distribution.

David Autor: So the elasticity

David Autor: the LED elasticity with respect to an increase in the wage

David Autor: right is the shape of this outside offer function.

David Autor: divided by the initial level, which is, in part a function of the exogenous separation rate. The the frequency of godfather shocks. So as the wage rises, the share of flows that are from lower way to higher wage actually increases. Because if this row is constant, right, then the proportion of better these

David Autor: positive shocks are will be rising now.

David Autor: Now.

David Autor: where does Lambda e come from? This is the contact rate.
David Autor: Well, it's going to be a function of job searchers and vacancies.

And so the way we've written, and this is standard up board at we're going back all the way to a diamonds and diamond mortality is a constant returns to scale matching function.

So it depends on the ratio of jobs of vacancies to job searchers. The higher is that ratio, the tighter is the labor market, the higher the contact rate will be higher. So theta is this tightness measure.

and we have job seekers that are coming out of both the unemployed

and the employed

but as the labor market tightens, more of them will be coming out of the employed, meaning, more of them will be searching. Would it be the secret? So there'll just be fewer unemployed. As there is.

So the implications, this data is monotonically rising in both your conventional measure of tightness, which is just vacancies to unemployment. And in this broader definition of tightness which includes all job searchers.

including people who are searching on the job.

So the key points is that that as either we see an increase in demand which is basically a movement of that wage distribution that f distribution over.

or a lower unemployment rate.
David Autor: the employment to employment, separation, elasticity, is going to rise right. So we're going to see more job changes.

David Autor: and it's gonna happen more at the bottom of the distribution, because there's more people who have room to go up from there because more they their their probability of getting a higher shock. A higher wage offer is, intrinsically higher.

David Autor: Now we haven't told you where f of that we're at W is coming from. You can endogenize this in the model and make a function of productivity. It doesn't change the analytics of the model.

David Autor: So the main thing this model says is,

David Autor: as tightness increases, more of the people leaving a job will be leaving for, because they can get a higher wage, and more. The overall search in the labor market will be coming from people who are on the job already.

David Autor: And so it naturally or unnaturally depending on how you think of the model gives rise to this tightness, changing the elasticity of labor supply that employers face.

David Autor: all right. Great. So now I want just to make sure it's all this homogeneous, totally homogeneous. There's no differentiation between high-skilled low skill. It's that's correct. This is homogeneous so you could think of when I say these wage. Obviously you would think these wages given to people the same skill level, right? You could sort of think of this a residual wage.

David Autor: right? And so yeah, you could then say, Well, look, there's a market for computer room which is market for burger flippers, and they face different F. Of W. That's right. So it's not.
David Autor: It says within that group within a group that lower wage workers will be more likely to separate, and then that separation has to see will rise to the layer market. Titans. It doesn't really make a strong prediction for which groups that would be right. Whether that's going to be the computer programmers or the burger flippers.

David Autor: This is within a given group. It will be the lower, the let the lower pay workers who will start doing more of that.

David Autor: Good. The inflation aspect is, it's a pure, real model, not this inflation that's correct. Is it purely a real model. although actually no, it's not actually it's not important.

David Autor: Because, let's say I we're all experiencing inflation right? And all those f Ofw. Experience. I still right. Prefer the higher novel wage.

David Autor: Okay,

David Autor: Okay, good. So now let me present some evidence on the on, on related things. So first I want to just present evidence. On describing the transition rate.

David Autor: I rise in transition. Then I want to look at how labor market tightness is related to wage growth, which is what we would expect out of a framework like that the tigers labor market. The more people are making these transitions, the more we will see upward movement in in wages.

David Autor: Then I want to talk about who is quitting the quid elasticity.

David Autor: and I finally the pay off to job change, because obviously quitting wouldn't be useful unless it it. You know it got you somewhere better.
David Autor: Okay. So let me just come back to the model because you said initially, you want to make some welfare statements. Oh, well, okay, they will be welfare. Statements are very easy with this model. Because, yes, okay, cause that's improved. Allocated efficiency. are they easy in this model? Well, sure. Okay. So

David Autor: if I really view these F. Of W. As reflecting productivity, right then there are. People are moving to more productive jobs right now. Again, you know that in that

Yup

David Autor: it it looks more convincing in the model for work, but, in fact, it's totally arbitrary. Right? So it's a in some sense this one. You can sort of get behind right that if i'm working for you know

David Autor: a terrible, you know. moment. I don't mean terrible a low paid, you know, unproductive mal and pop setting, and I move to a higher paid, more sophisticated setting right that is, that is, again in productivity company by game wage. In this model it's assumed that W. Reflects productivity, so that's also going on, but it is purely by assumption.

David Autor: Okay.

David Autor: great. So first thing is just transition rates. So this shows you the overall month to month job transition rates from the current population survey. So the current population survey, you know, is a is a a, you know, a incredibly important and well designed instrument that has limitations. It's been around for you know, more than 70 years, and it's pale structures. You see people in the data for 4 months. Then they come back in for 4 more months. It's called the rotation structure

David Autor: for month to month, you know. If they they they're asked if they change jobs from the previous month only, but you only they're only asked about their wage. Well every fourth month that they're in the sample.
David Autor: so what you get to see varies so you can see Job change more easily than you can see wage change.

David Autor: right? So we change for a person who can only see over a one-year interval.

David Autor: right. So I find me. If I'm asked about my wage if I if I enter January, February, March, April, I'm. Asking my legs in April. Then they ask me again the following April, so you can see if I change jobs in January, February, March, March to April, and then the same the following year.

David Autor: but you can't see my wage changes month to month.

David Autor: that will become important. So the the pattern is because of a school year that most of the

David Autor: chop same design this summer. Is this, or do we read this correctly? Or, yeah, there are more job changes in the summer? let's see if it's that. That seems to be a pattern. Yeah, it is. I do think it partly it has to do with the any of the end of school year reshuffle, and if that's right, then we should see it

David Autor: among high school educated workers and we see even more of that at least in 2,021, although I guess that can't be distinguished for sure from pandemic. But we do see among high school educated workers. It's actually about 30% higher, so overall it's about 15% higher.

David Autor: among

David Autor: less than hey workers is risen by a third. So that's a substantial increase in this. These are monthly job to job transition rate. So a 3 monthly job to job transition rate, you know. Roughly, it means a third of people are changing jobs every year.
David Autor: in among this groups. That's a a pretty sizable number.

David Autor: so if we do this, just here's high school. Here's our young High School workers are kind of primary for our focal group, right? This this is a group that's now their job job. Transition rates are 4% a month which is pretty steep. if we look at older high school or younger college, really really not as visual, so it does. It is concentrated among this group of workers.

David Autor: so now say, okay, Well, how does you know? So we see more people changing jobs. But how does that relate to way? So what i'm still puzzled. I can't expect that during the pandemic there was a lot of switching into. But you saying it's even higher now the 2,022

David Autor: about. Yeah, a little bit higher, I mean so initially, it was called the Great Reshuffle, right. And now people call it the great reshuffle right, and it does seem to be that the and i'll show you in a variety of ways that that this really is going on

David Autor: that people are moving around a lot more. Now. Part of it is because, you know, we know they've exited the hospitality sector, for example.

David Autor: But it it does seem, and I and i'll argue that this is the case, or at best evidence, you know. I think it's. It has limitations, but our best evidence is that people are quitting more from low-way shops.

David Autor: So so we're going to look at the relationship between labor, market tightness and weight growth right? This is the kind of connection in the in the formal model. I showed you right. It's the tightness that gives rise to this Ede switching to higher ways jobs

David Autor: nominal or real. It's just you also look at instead of wage clothes, any subsidy
Markus Brunnermeier: certain people got during the Covid crisis

David Autor: that we are not doing now. Most of this is about Post Covid. Now. People still have money in the bank. yeah.

David Autor: But I mean, there is, you know, fascinating work on that topic for sure, and there was an amazing, amazing amount of subsidy.

David Autor: not that it all went to the people. We hope it would go to

David Autor: So the way we're going to do this is, we're gonna again. We're limited in the precision of what we can do with the current population survey. That's the limit the downside. We're measure labor market tness in 2 ways, either as the unemployment rate in a State labor market or the job to job separation rate, or we're going to. Typically, we're going to take the average of the 2.

David Autor: That's an efficient way to combine them right just to power up.

David Autor: We look at the wage growth of this is not a person level wage growth. It's the the wage growth of individuals in State s and time t

David Autor: as a function of tightness. So we're looking at the change between the first half of 2,021 and the last 2 quarters of 2,022 or quarters, 2 and 3 in the last 2 quarters of our data.

David Autor: So this is a you know a 15 month period.

David Autor: We're going to measure tightness in the intervening months. The second half of 2,021
David Autor: and we're just and then we're gonna have a an interaction. So there's a level of tightness that's related to the wage. And then the change in wages related to tightness and

David Autor: and we're going to control. We're going to use wages from person level micro data. We're going to clust our standards at state level. We're control for variety of things, education, age, group, sex, race, sector union covered, and even the State Covid death rate, just to make sure that we're not getting something serious.

David Autor: So first let me show you what our tightness measures look like.

David Autor: Right? This is the red line is the Ede separation rate, the job to job separation rate, which we measure. As you can see, it rises considerably after 2021.

David Autor: The unemployment rate this is the negative of the unemployment rate. So higher numbers are lower unemployment right? It was quite, quite low

David Autor: towards the end of the trump Administration right? That was a very good labor market. and then it rose a lot, meaning, you know, the negative fell, and then is rebounded. It's basically back where it was so. This doesn't this contributes to the Time Series property. The red line the Blue does not, but of course they do at the State level.

David Autor: They they both contribute because there's a lot of cross State variation. Yeah, just to get an idea about the separation rate. If I look at the late nineties.
David Autor: is this an outlier what we observing now, or it's a really
goood question. And this is also on our to-do list is to really is to go
back to the you know the high pressure labor the roaring nineties

00:50:16.670 --> 00:50:33.499
David Autor: as as cats. And excuse me a solo, and Kruger refer to them
in the in the off the book of the high pressure labor market. And and see
how this compares. We're not making any claim that what we're seeing here
is anomalous, but it happened so fast.

00:50:33.510 --> 00:50:38.930
David Autor: and it's it's very things are really tight. But, we don't.

00:50:39.100 --> 00:50:43.520
David Autor: This may be what normally happens when we find ourselves in
these abnormal conditions.

00:50:43.800 --> 00:50:45.690
David Autor: but we rarely get to see that.

00:50:46.040 --> 00:50:50.050
David Autor: and we hope we maybe we hope to see more of it depending on
who you are.

00:50:51.060 --> 00:50:54.000
Markus Brunnermeier: Is there a way to measure it? Is this an efficient
switch

00:50:54.260 --> 00:51:12.309
Markus Brunnermeier: that you know that that move to better Yet you know
in your model it's always which. In which within the same sector, but
there might be sector sector. Yeah, i'm going to present some evidence on
that. Yeah, not not not fully satisfactory. But we're very much thinking.
So I mean, I think the question you're asking is, are people moving to
better

00:51:12.320 --> 00:51:16.369
David Autor: types of jobs. Are you moving up to Job? Are they just
moving to better employers

00:51:16.450 --> 00:51:29.120
David Autor: right now? They're both interesting, and they and they both
of them as they? They both. They probably both good. But we're going to
present evidence that we think most of it is coming from job to job
switch. That’s not purely coming from switching sectors.
David Autor: although there is sector switching going on. So people are moving up the the sector ladder.

David Autor: But we can't. That doesn't seem to account for most of what we're going to see.

David Autor: which I think is again consistent with this kind of an optionistic market in which you could get different wage levels, doing the same thing at different firms. Not no factor of 2 wage differences, but you know, 5, 10%

David Autor: so this is the tightness I just to show you this, this your substantial cross-state variation. That's important, because if this was just time series, we'd be pretty under identified

David Autor: right? So you know, in some of the older labor markets lessons, labor markets tend to be tighter, but the main thing is that this variation exists. It's it's not? it's it's enough to work with.

Markus Brunnermeier: Do you have an exploration? Why, it's so different across the country.

Markus Brunnermeier: The tightness?

David Autor: Well, I mean, we know that the lockdown States had a slower recovery.

David Autor: right? So the South in general did better. Here's you know Ron Desant is waiting you from the bottom of the figure and the and we know some States that have very old populations like Maine in Vermont, New Hampshire, have particularly affected. And then, Of course these are low density states. I just I don't think anyone's home.
David Autor: the so here is the State level wage fails curve on average. So it says, a a one unit increase in the standardized measure of unemployment and tightness is associated with the 2 and a half log point gain in wages overall at the State level. These are nominal. I want to be clear. This is nominal.

David Autor: This is for the bottom quartile of workers. People who start at the bottom.

David Autor: and this is the other 2 quartile, so you'll notice it's 5 times as steep.

David Autor: Here's similarly. If I show you high school under 40 versus all other groups.

David Autor: It's much steeper, in fact, for the for the older worker, older college for ads and for the upper port tiles it's either 0 or negative.

David Autor: So this is again consistent with compression as we discussed. But the compression is much more powerful in states that have low unemployment and high ee changes. Now those are an outcome. I don't want to say one is causing the other, but they're correlating the way that the model would expect Point a predict that they would be.
David Autor: we've done lots of verse. Oh, well, I'm taking way more time than I think you planned the so okay, we've done lots of cuts of the data. I won't. I won't show you any of them.

Markus Brunnermeier: Take a little bit more time. Don't worry

David Autor: so that's so. That's the our good evidence.

David Autor: and it just says, look states where we see labor markets tightening. We see more job change. we see. Sorry we that was. That was a to logical States. Through the layer mark is tightening. We see more wage growth. The wage growth is at the bottom.

David Autor: so who's quitting?

David Autor: So we're gonna look at separation rates and the quick elasticity, the likelihood of leaving as a function of your wage level is kind of a key measure of labor market power, in fact.

David Autor: in kind of steady state, the quick elasticity and the the joiner elasticity which should be equal to one another.

David Autor: it is twice the labor supply elasticity. It's a sort of a. Anyway, it doesn't matter. It's a manning identity. But basically it says this is related. This is related to how much labor market power firm has the hires of Quebec quid elasticity. The less. We've setting power. It has

David Autor: so, using the current population survey, we can estimate quits in the 12 months following the first ways observation, so we can either use your own wage
David Autor: and ask whether you change jobs or we can also use the industry wage premium and ask whether you change jobs. The reason to use the industry weight screen is, then we can go month to month for own wage. We can only go year to year because of the structure of the cps. And again, we're going to include a bunch of controls.

00:55:26.560 --> 00:55:33.100
David Autor: and we're going to. yeah. So I I think that sort of gives you the the general picture.

00:55:33.260 --> 00:55:43.859
David Autor: Oh, i'm sorry. Yes, we do. We could do it linearly or quadratically. But the the the job ladder model predicts that the effect would be concentrated at the bottom

00:55:44.020 --> 00:55:53.309
David Autor: of the even the waste distribution. So it does motivate it kind of nonlinear relationship, and i'll show you the evidence that that seems to be going on.

00:55:53.580 --> 00:56:02.129
David Autor: the but good question. And in the appendix of the non-existent paper we also have the or Us. In the pending some slides. We also have the linear version of this.

00:56:02.620 --> 00:56:04.679
David Autor: I should say

00:56:04.860 --> 00:56:18.880
David Autor: that using industry and occupation to proxy annual job changes standard practice in the current population. Survey done by the commonly used Atlanta Fed. We tracker suffers from the fact. There's lots of false positives

00:56:18.890 --> 00:56:25.220
David Autor: and full state. So people don't change industry and occupation and do change jobs. People do.

00:56:25.330 --> 00:56:36.060
David Autor: Our recorded is having changed industry and occupation and not having change shots. Let me qualify. What do I mean by this? Well, they're asked, Where are you in the same job you were in a month ago, so that we're going to retreat. That is ground truth.

00:56:36.580 --> 00:56:48.589
David Autor: The reason, you say, why would someone have an industry occupation change if they didn't change jobs? Well, the way the cps in the census code. That information is when you're asked your industry in occupation. That's a free form text field.

And then there's a person who's a census coder who have classifier, who has to take what you wrote, and they have to classify using industry and occupation. But one you we, you might be classified as as a cler or another, as as a word, processing or data entry, worker, and so on. So you're going to see a lot of false changes that are due to measurement, error, and so that actually dampens the signal.

The wage changes associated with industry and occupation change are actually a dramatic underestimated.

The wage changes associated with job change, because so many of those are actually false or changes didn't happen.

And so we make a measurement, error, correction for that in the paper to adjust for that.

Here's the aggregate wage separation, elasticity, pooling all education levels, right? And it Hasn't changed very much. you know, it goes from Point 6 to May basically point 6, both periods the the

Why are they slightly different? The the baseline level has reason a bit, but not the sensitivity.

If we then look at high school only
David Autor: right. We see evidence of seeping and notice this deepening, and this is corresponds. This quadratic point

360
00:58:01.550 --> 00:58:04.269
David Autor: is in the bottom of the industry wage premium

361
00:58:05.030 --> 00:58:13.350
David Autor: so people who appear to be in the in low wage industries and occupations. And again, we're using because we can't use individual wages, for this is why we're using industry occupation.

362
00:58:13.870 --> 00:58:18.769
David Autor: So we're estimating the premium associated with the industry and occupation, and using that as our kind of

363
00:58:19.100 --> 00:58:20.390
David Autor: measure of wage.

364
00:58:20.550 --> 00:58:25.349
David Autor: And if we look at high school under age 40. This is where we see the biggest

365
00:58:25.520 --> 00:58:34.220
David Autor: change. Now I want to say, I don't think this contrast is is discernible at the 5% level. So it's suggestive. But this is not

366
00:58:34.230 --> 00:58:46.660
David Autor: hard and fast evidence. I wish we had stronger evidence we're limited by power, but it's it's suggestive of of this story. We think it's. It's you know kind of the smoking. I don't want to say that where the smoke there might be far.

367
00:58:48.440 --> 00:59:05.679
Markus Brunnermeier: Can I ask a of question which is, might not be directly related to this? It's like, Are there a lot of switches to the gig economy or people coming back from the gig economy back to a regular job arrangement. Good question. So the one sector we focused on. I'll show you in just a moment is

368
00:59:05.910 --> 00:59:07.149
David Autor: the hospitality sector.

369
00:59:08.040 --> 00:59:10.840
David Autor: and there we see large net outflows.
David Autor: the gig economy. Unfortunately, in the Cps people don't report gave work at all accurately. It's really missing, and so you couldn't even use these data very well to sort of answer that question. Unfortunately, and of course.

David Autor: many people who work in the economy, and by some definitions, of course, are not employed or their self-employed. I guess, by the way. The main thing is, the Cps has had a long standing problem that for non-standard work arrangements, it just don't seem to register.

David Autor: like. For example, if you were for tent agency.

David Autor: You may say your employer is the warehouse to which the tem agency sends you, rather than you know Kelly services.

David Autor: but they Don't appear as chops with us, because i'm in the gig economy, and I will be sent to a different way out every month, and that will be seen as a so we it's not that they're not necessarily. It's not so. Let's say you're in the transportation industry. Yes, I don't know if your gig worker or not.

David Autor: So if you transfer from transportation to you know personal care.

David Autor: it could be that you switched out of the Eig economy and into, you know, working in home health a work plan. But I wouldn't be able to tell if that was. Keep work from these data.

David Autor: We don't see any change among

David Autor: the older and better educated workers.
David Autor: Okay, so let me or you better give me a schedule because I don't want to. I don't want to. we didn't go another 15 min. But there's one question. Do you look at the High School dropouts for this high school people? Those are pooled with high school. Grad.

380
01:00:44.190 --> 01:00:56.750
David Autor: Okay, you you can't separately look at it. We know we can, we can. And we, we for this kind of the data. I don't think you'd see too much. But we, if we do look at the wage patterns, for example, the wage growth has been

381
01:00:56.770 --> 01:01:06.969
David Autor: pretty robust among high school dropouts or people with that high school degree. Not everyone dropped out. They may have come for another country where it wasn't common and even all the way up to some college.

382
01:01:07.810 --> 01:01:16.309
David Autor: Oh, so yeah, it does. It is, present at all at low education level, so that we haven't done the gender split, and that's really an oversight of an our

383
01:01:18.270 --> 01:01:27.330
David Autor: So now I might say, Well, what's the payoff to job Change like job changes All go. Well, good if it gets you somewhere. but that's what we would, you know. That would sort of complete the circle. We think

384
01:01:27.720 --> 01:01:29.249
David Autor: So Here is

385
01:01:30.520 --> 01:01:35.650
David Autor: wage gains conditional on job change or can wage gains. So here are the people who stay in their job.

386
01:01:35.870 --> 01:01:38.649
David Autor: you are the people who are newly hired

387
01:01:38.870 --> 01:01:49.110
David Autor: right. So Nama wages were growing, you know, 4 or 5 now. They're growing it, you know, 6 or 7, but on average they're being swamped by inflation among stairs.

388
01:01:49.930 --> 01:01:58.379
David Autor: Among levers they definitely are not right. They're averaging almost 18 log points nominally. with a very steep change
David Autor: increased, and then, if we split this out

David Autor: by call the high school below versus college, plus what you can see. I let me see if I can draw your attention is, these bottom lines are the stairs.

David Autor: and inflation is is definitely swapping the wages for the college stairs. It's about even with the high school stairs.

David Autor: Wage growth is much larger among switchers and even much larger still. Among college switchers.

David Autor: However, switch rates are higher and have risen by more.

David Autor: High School young High School workers.

David Autor: right? So the conditional one switching. It appears that the wage gains are even larger.

David Autor: for college grads. However, they're large for everybody and young workers switch more in general, and their switch rate has increased by more.
David Autor: So they benefit more from this phenomenon.

Markus Brunnermeier: Generally the case that young, less educated. Have a higher switching rate in general. Absolutely. That's right. And that's what you see in the first part of this figure.

David Autor: not much going on with people 4 years and older.

David Autor: So let me. So I say, okay, Well, why, where are these wage gains coming from? Right? It's hard, because elimination data. It's hard to know exactly. It's hard to really PIN this down. So one thing we can look at is mobility out of and into the bottom half of the waste distribution where we're using Again, your industry wage as a proxy and your issue wage premium. So we know people in mining people manufacturing all else equals seem to earn more than people in retail or people in restaurants, and that, you know decades of evidence is just, you know that's not all illusory. Those are real differences.

David Autor: that aren't just purely, you know, a measure a measured scale in other words.

David Autor: so we look at mobility out of and into the bottom half of the waste distribution.

David Autor: Right? So, on average.

David Autor: it's reason the pro exit rate has risen a little bit, the entrance rate has risen, and a little bit more of these are not really very quantitatively or quantitatively, or quantately different.
David Autor: If we look at high school under 40, they always have a higher exit rate from the bottom half the distribution, because they're on this deep part of the earnings or age earnings profile.

David Autor: But that's risen right. It's risen, you know, by about 25%.

David Autor: And there

David Autor: downward mobility rate has not changed right? So we definitely are seeing net outflows

David Autor: an increase in it out. For, as I say.

David Autor: if we do this for the bottom quartile of the waste distribution

David Autor: right? We see everybody there's an acceleration of movement out of bottom quartile

David Autor: that again the quartile exit rate is always lower for the less educated. I just because and young because they're especially young. They're on the upper part. But there's been a big jump

David Autor: in the exit rate the escape rate, and and no change in the reentry rate.

David Autor: So again we're seeing, and this is just based purely on your industry. So more people are moving to higher or paid industries

David Autor: higher, you know. Residual pay, not just higher pay to say more education or within the industry. These are across industries. So.
And this is really reflect what you're saying. Why are you doing this? Why, You're just looking at wages, and it's really because.

David Autor: you can't do this at monthly rates using wages because you don't see it. So These are using industry. We do see your industry. We we know if it's, if it's a real change, and then we can use that as our measure.

David Autor: And then finally, here's the escape rate from the hospitality sector.

David Autor: right? So the exit rate, on average, has risen. So the host hostile employment among higher educate workers phone a lot.

David Autor: But even among low H Uk workers who are much more represented, we also see a big jump.

David Autor: so it's a lot of evidence that people are moving to higher weight industries.

David Autor: they may say, Well, how much does that account for these growth and wages among job changers?

David Autor: And the short answer is, this is. this is for everybody. Let me just focus on the young High School High School under 40.

David Autor: This is the wage premium that people of the industry people are leaving from. This is the way to premium. The industry they're going to.

David Autor: This is the gap.
David Autor: So what this says is, there's a very modest increase in the they're moving up, you know, maybe a half or a percentage point on average, when they switch industries. So, although on average they are moving up the ladder.

David Autor: It's not very large. It's measurable. It's justly significant, but it doesn't appear to be a major contributor, at least not the bulk of the gains we've seen.

David Autor: So it's within those 3, so that you know, in our sort of simple story, and say, look, you're just moving to a better employer right with it. You're doing the same thing. But now you're working for a more productive firm.

David Autor: You know this is not is not a definitive test of that.

David Autor: but you know the evidence is, you know, consistent with that hypothesis.

David Autor: So, just to summarize what we have, your wage growth is faster among in high school graduates than among others.

David Autor: among nice young high school stairs, wage growth is keeping pace among BA. Stayers which growth is falling short of inflation.

David Autor: The Ede transitions, are actually appear to be more remunerative for the high educated in it just descriptive sense.

David Autor: however, the the rate of Ede transition is higher among the young, less educated, and is risen by more.
David Autor: and the premium has risen a lot for both. So High school educators are gaining a lot from these transitions

01:07:36.960 --> 01:07:38.350
David Autor: in our evidence is that.

01:07:38.930 --> 01:07:42.929
David Autor: most of the waste gains are coming from transitions, not from staying in place.

01:07:42.960 --> 01:07:48.480
David Autor: and, as far as you can tell, it's not mostly coming from moving to higher wage industries per se, although that's part.

01:07:49.580 --> 01:07:55.439
David Autor: yeah. So consistent with this sort of notion of just greater competition.

01:07:55.510 --> 01:07:59.969
David Autor: It's it's plausible that workers are moving to higher ways, jobs doing similar work.

01:08:01.240 --> 01:08:08.849
David Autor: but it is important that they have to move right. So when people say, Well, look, you know i'm sitting here in place, and i'm getting killed by inflation that you

01:08:08.870 --> 01:08:15.889
David Autor: that's probably true. Right? You shouldn't say, oh, no, You're in the bottom quartile. You're fine. You're probably not fine unless you've changed jobs.

01:08:16.180 --> 01:08:21.420
David Autor: Okay, so just in the last couple minutes, how much does wage pressure contribute to inflation?

01:08:21.779 --> 01:08:24.290
David Autor: So here we're going to ask. We're going to estimate

01:08:24.399 --> 01:08:28.170
David Autor: price and wage Phillips curves at the State level.

01:08:28.319 --> 01:08:33.840
David Autor: and we're going to use price levels for metro areas, 21 metro areas for which they're available.

01:08:33.979 -- 01:08:46.520
David Autor: for workers and other metro areas. We'll use the average of State metro so once those are not those 21, and for workers and States, with no metro price index at all we'll use the PIs regional price index. So this is just, you know, working with the data that is that are available.

01:08:47.380 -- 01:08:49.439
David Autor: So, on average.

01:08:49.670 -- 01:08:54.329
David Autor: wages and prices are increasing by about the same amount.

01:08:54.479 -- 01:08:56.190
David Autor: for a given level of tightness.

01:08:56.359 -- 01:09:06.290
David Autor: So a one unit increase in our standardized measure tightness associated with one percentage point growth in both average wage levels and average price levels.

01:09:07.160 -- 01:09:10.440
David Autor: Now, of course, the growth is much steeper.

01:09:10.700 -- 01:09:13.220
David Autor: for young High School. Educated?

01:09:13.560 -- 01:09:18.060
David Autor: yeah, it's also much deeper the bottom quartile. So

01:09:18.140 -- 01:09:30.229
David Autor: it's definitely the case that you know these things are moving in tandem, but the gains are much more concentrated at the bottom. In fact, if you look at our data. Where do we see it?

01:09:30.630 -- 01:09:33.710
David Autor: here? This here you can see it. So here's our estimate.

01:09:33.729 -- 01:09:37.539
David Autor: for the real wage. Phillips curve right here for high school under 40.

01:09:37.750 --> 01:09:39.810
David Autor: Here's for high school 40, plus

01:09:40.109 --> 01:09:46.400
David Autor: what? So let me just summarize you. Some of you probably not. Don't use any regression tables as I do this says that the

01:09:46.450 --> 01:09:51.549
David Autor: There are real games among high school under 40, among some college under 40,

01:09:51.680 --> 01:09:54.119
David Autor: but among people over 40,

01:09:54.170 --> 01:09:59.979
David Autor: and among people with BA's. These are, you know, weekly positive or significantly negative.

01:10:00.340 --> 01:10:06.259
David Autor: right? So after inflation, high educated older workers are not or appeared to be losing.

01:10:07.370 --> 01:10:24.010
David Autor: Okay, so we can't reject that labor market time. It has the same impact on local price levels and on mean local wages, it's consistent also with that's improved 99 paper, although they actually pose that, but seem like probably probably a good assumption consistent with this working paper. By these 2 Berkeley students for local prices.

01:10:25.600 --> 01:10:35.380
David Autor: that's what's imply. That rising tightness contributes about one percentage point to post pandemic inflation. That's just looking at that time Series Figure of tightness. I don't think that's a very strong test.

01:10:35.690 --> 01:10:51.740
David Autor: but it is associated with real wage growth among the 2 bottom 2 quartiles of workers. So the last question you might ask is, what about inflation, inequality, or low wage workers subject to disproportionate inflation? Because that would sort of reverse the valence of this story?
David Autor: So I'm gonna here just turn to the recent working paper by Zabi as well of the London School of Economics, and he plots inflation by income percentile by household income percent. And you get this inverted you saying inflation is steepest for the middle class.

David Autor: and lowest for low income households, and then somewhat lower than the middle for high-income households.

David Autor: So we might say, Well, where is that coming from?

David Autor: the answer in His data is

David Autor: gas and vehicles so basically low-income households don't tend to own as many vehicles and don't tend to spend as much on personal transportation.

David Autor: And so they are not feeling the brunt of those price changes high income houses. Obviously, there's a percentage of the expenditure that's the that's what his data suggests. And he's working with internal current population. Us. D: I did. I'm sorry that's right. He's using the data

David Autor: that those is the basis of the current price index within the Bureau of Labor Statistics. So yeah, it's a very. It's a very striking result.

David Autor: Typically, we would have expected the opposite that you would say like, and especially if you say, well, food and rent, and so on. So it's not clear. And the other thing about rental courses are you using imputed rent is house prices gone up, or actually negotiate, you know, contracting brand, which probably Hasn't moved as fast.
David Autor: It makes me think that you know, if I had a prior, that the low wage workers were most is subject to more inflation. My prior, my posture is.

01:12:25.040 --> 01:12:27.320
David Autor: you know, it could be closer to even.

01:12:28.490 --> 01:12:35.859
Markus Brunnermeier: I mean, the other component is, of course, you wipe out the savers of the savings and normal savings. No, that's a huge impact to.

01:12:35.920 --> 01:12:43.989
David Autor: that's right. So people are. That's that's correct. All I mean, I guess low income households typically have very little.

01:12:44.750 --> 01:12:46.710
David Autor: Okay, so just to summarize

01:12:47.270 --> 01:12:48.590
David Autor: and

01:12:48.790 --> 01:13:07.350
David Autor: yeah, pleasure to have an opportunity to talk about this. By the way. So thank you. for the first time time in 4 decades reached, and the quality is falling due to rising lower tail, and despite inflation, real wages are rising among young high school grads among the first, and they've been second quartile workers. so that itself is, you know, unexpected to me.

01:13:07.440 --> 01:13:23.119
David Autor: and I think it's like, yeah, we, you know, somewhat heartening. especially some of the some. It's real. It's not just. You know. Your boat is thinking less slowly than someone else's. it's tempting to attribute this change to tight labor markets. But what does that mean in practice

01:13:23.170 --> 01:13:37.710
David Autor: one of you? Is it's just. You know we're on a different point on the demand curve. no normative implications to that. the. But we think that explanation is too simple. We think that you know the evidence suggests that competition intensified, and this distinction is crucial.

01:13:37.780 --> 01:13:51.839
David Autor: because rising competition means higher wages that better reflect productivity and higher aggregate productivity sort of a double dividend if workers are virtuously reallocating to better employers, right? And and that wouldn't be crazy right when Germany raises minimum wage.

01:13:51.850 --> 01:14:01.519
David Autor: we say, see evidence from from until Lindner and co-authors that actually people moved out of smaller lower, paid, established, tended not to survive and move to higher paid jobs.

01:14:02.020 --> 01:14:19.209
David Autor: the next step on this agenda, other than the many helpful suggestions. In addition to many helpful suggestions we received here is to use worker firm match data to study these changes at the individual local local labor market level, and we are working with a major payroll provider to do that research as the second state for our project.

01:14:20.370 --> 01:14:27.310
Markus Brunnermeier: but they do it also imply that actually the market power for the firms is going down compared to the workers.

01:14:27.490 --> 01:14:32.840
Markus Brunnermeier: But it would then imply that the profits are going down for the

01:14:33.660 --> 01:14:35.980
David Autor: well. They have more market power with consumers.

01:14:36.090 --> 01:14:58.919
Markus Brunnermeier: Perhaps it has to be overcompensated with the so. If you've I mean my Amazon charges suggest. There's a lot of market power there's a clarification question I would like to know. So how do you define reint in the bottom quantity which in the earlier slide you used. Oh, sure, who are you? Including? Obviously it's always a quota, you know, if it's a quota.

01:14:59.050 --> 01:15:06.210
David Autor: how is this? Yeah, Well, the so we're using

01:15:07.060 --> 01:15:09.689
David Autor: they they the recent changes because these are industry
David Autor: things. And so if an industry grows, and it's a upper quartile industry. Then that that

01:15:18.250 --> 01:15:30.389
David Autor: changes so. And of course, at the individual level right, there's always people moving out of the bottom quartile, and it's disproportionately, you know, comp comprised by the young lowway young it at any point in time.

01:15:30.650 --> 01:15:47.700
David Autor: So but it's true that they should be, and you might say, oh, and I see one thing. It's confusing about this figure I is i'm not adjusting these, or actually you want to go back to this one, what? The 25, and then you make the move, and then there might not be 4 to 25, then there's somewhere else.

01:15:47.710 --> 01:16:09.670
David Autor: Yes, but i'm not what I should do, you know, and I just. We just didn't get around to doing this. This should be scaled up by a factor of 3,

01:16:09.680 --> 01:16:17.079
David Autor: right, because the exit rate, if the ex are from the top 3 core tiles is one-third is high, that would still be steady state. And here it's slightly different again. With there there is definitely a net change, but the figure doesn't

01:16:17.890 --> 01:16:29.720
Markus Brunnermeier: So if throw in a last question, give it that we run over time. So you did this for the Us. So if any inkling how it is for other countries, the house is a tight labour market in many countries in Europe, and all this

01:16:29.830 --> 01:16:35.070
David Autor: I know. I know they in general

01:16:35.160 --> 01:16:42.200
David Autor: My understanding is that yes, labor markets are extraordinarily tight throughout, You know the Oecd.
David Autor: But weight growth has been much less robust at the bottom, even though inflation has been quite robust. So I think that I think that's accurate for the Uk. Where I was just last weekend. I think that's true in Netherlands.

David Autor: so yeah, it's it is.

David Autor: if the Us. Is behaving unusually and you know many things were different about the Us.

Labor market during the mandemic. One of them is, we through many, many, many more people at work. Most other countries essentially insulated workers through you know, short time arrangements where they continue to be paid through their current employer, even if they weren't working.

And in the Us. We actually had policies that encourage separations, particularly the extremely generous on pandemic unemployment benefits. That may be one reason you'd be what we'd like to know, and where your question points to is.

And I don't know the answer yet, though I I hope to find out more about that.

Markus Brunnermeier: because you would expect, if you, in doing the corona crisis, if if you prevent, chop the allocation because you keep the the link, the matches between the workers and forms. You might have more changing subsequently.
David Autor: Well, you know many people aren't you the opposite that the Us, you know, broke all these ties, and and they're in, you know the degree there was like, for in a relationship capital that you know some sense. We, you know we unglued all those bonds, and and I think there was a concern that that was highly highly unproductive.

521
01:18:12.170 --> 01:18:29.970
David Autor: Right? They actually, you know that capital was worth something human capital. And now you've just, you know, wiped off map. So I don't know. But then you wouldn't see the way to increase. If if you have destroyed all the efficiency suddenly. Well, so I mean. But I guess the alternative is, you destroyed all these. You reduce all these frictions

522
01:18:30.140 --> 01:18:40.200
David Autor: right? They were preventing people from reallocating, and maybe the you know. Maybe the the frictional costs were higher than the kind of productive benefits that people were not at the job that would have used them even more efficiently.

523
01:18:40.670 --> 01:18:45.090
Markus Brunnermeier: So we have a tradition, this Webinar series that we end with a positive note.

524
01:18:45.100 --> 01:19:02.500
David Autor: I, in doing your presentation, I don't know, is to any negative aspect to it. Or, yeah, yeah, for sure. So I mean, you know a few things. One is, you know. The inflation is is, you know, is a very serious issue, and of course it's definitely afflicting people who are in the upper half of the distribution.

525
01:19:02.650 --> 01:19:07.029
David Autor: so that's not a positive. It's also the case that you know.

526
01:19:07.120 --> 01:19:20.589
David Autor: If you're not changing jobs or evidence, just You're probably not really benefiting from this right? So it's really so. It's. You know someone from the bottom quartile, you know. High School. LED. Your 40 says, look I'm just getting screwed. I don't know what your papers about

527
01:19:20.600 --> 01:19:30.859
David Autor: or I. I wouldn't say. Well, look at my regression. It says that you're doing fine, I would say, yeah, you probably didn't change jobs and and most people aren't. And so that's not you very much. if you're staying in place
David Autor: you probably are losing ground.

David Autor: so I don't think it's. It's. You know it's. I think it's that it's. If we're correct that the labor market is behaving more competitively. That's great.

David Autor: but the inflation is not good in any sense.

David Autor: and certainly it it poses a tax on people who are not able to take advantage of those, you know, of the kind of mobility opportunity.

Markus Brunnermeier: Very good.

Markus Brunnermeier: So thanks a lot. it was really insightful, and I appreciate the 30% and hopefully, and I always appreciate for all the questions you gave us, and we could pass on to David.

Markus Brunnermeier: And I hope to see you next week again, all of you. And thanks again for David for giving such a great talk

thanks for having me.

Thanks.