

Welcome you are listening to the UC Davis Center for Poverty Research Seminar Series, I'm the center's director, Ann Stevens. This series brings scholars and policy experts from around the country to discuss their work on poverty, and poverty research. In May, 2012, we visited Ariel Khalil, who is a professor in the Harris School of Public Policy, and director of the Center for Human Potential and Public Policy at the University of Chicago.

Here is Khalil presenting her seminar, Diverging Destinies, Maternal Education. And the gradient in time with children.

>> This is a great, such a nice invitation. So nice to be here. Just wanna acknowledge my co-authors, Rebecca Ryan who is an assistant professor at Georgetown University in the Psychology department and Michael Corey, who is a graduate student in sociology.

At Chicago. And, is working with me on these projects. As, as Marianne said, I have recently discovered the merits of time use data, for thinking about investments in children. And, and, trying to think about, how can we ask questions,. That are relevant to developmental psychology using time use data.

you know, which is these data are not gonna, give us the kinds of. Deep measurement of parenting and they aren't gonna give us any measures of child outcomes. But I'm going to, you know, try to show you today how I think they can be used in a really interesting way to think about differences and the kinds of investments that parents make and especially parents with different characteristics and social backgrounds.

This is the, the motivation, for this paper, which is was actually part of Sarah McClanahan's Presidential address at the PAA meetings a couple years ago, and sort of that's the PAA meetings start tomorrow in San Francisco. As you may know, Sara McClanahan is a sociologist and, and what she was documenting here is what she observed and of course many other have observed as this striking increase in inequality in many different dimensions across the kinds of investments that children were getting.

To promote their achievement in health and well being. And in particular she pointed to parental education as the sort of key driver of, of inequality. Both in terms of parents time, and also in terms of a kind of economic or financial investments that kids were getting. And so, and that she argued,.

You know we're just seeing this bifurcation in the sense that more advantaged children with more advantaged parents were increasingly getting more of everything. In terms of parents' time and money and all the other kinds of resources that those investments come with, whereas the children born to the least advantaged mothers were getting increasingly.

Fewer, of all those other, of those same kinds of investments. So as I said, what I really want to, to focus on in this paper is parental time. And specifically, the kind of parental time that's spent in active, interactive, engagement with children. The kinds of time in other words that developmental psychologists think is the most fruitful and the most beneficial for children's development.

>> So were certainly not the first people to think of parental time as an important input into child development. In fact I think this is actually one of the most interdisciplinary kinds of frameworks you could imagine in the sense that many different fields have. Forgot about parental time as a key resource and I can just tell you briefly, you know, what I think economists and sociologists, and what I know a little bit more of in terms of what developmental psychologists have to say about parental time as a resource, so, you know the standard model in economics of household production views, child development.

Or the sort of production of child quality in economic terms. As this output of parental investment in both time and money. Parents invest time and money in their children because they derive utility from the child quality that it produces. I mean, this actually is You know very similar to the views that these other fields, hold.

So just slightly different, terms but really the same concept. In terms of actually studying parental time use, I would say that's been largely the purview of sociology. So these big time-use datasets have been developed by sociologists,

people like Suzanne Bianqui. Who's now at UCLA are really the leading experts in looking at parental time.

And sociologists view parents time as the primary means by which parents socialize their children and pass on values and social norms and information and social capital to their children. And this is really, Jim Coleman really addressed this point. Originally, in saying that the home environment, and the, the specific ways that parents interact with their children in the home is really the root of inequalities that we see later in development.

And developmental psychologist have long been interested in what we maybe more simply call parenting and the ways in which parents and children interact. And, We've long regarded parents as key figures in the development of children. At a much more micro level studied I mean that doesn't sound like you know, sounds pretty straightforward doesn't it?

That parents would be important. And we have studied in great detail the kind of parent child interactions that, that the field believes promotes child wellbeing. And in particular, has identified certain types of parenting, that arguably reflect better kinds of time, and higher quality time, in the sense that they produce superior child development in different realms.

So, one of the key things that we know about parental time with children is that it varies regularly. Across different levels of parental education. And largely the time use data has shown that its the quantity of parental time that varies across levels of parental education, and. Going back, you know, many years, Frank Stafford and others who are, some of the original economists looking at time use data have shown and this is kind of a puzzle, that high.

SAS mothers spend more time overall with children and I say that's a puzzle it's because arguably their time would be more valuable outside them home. But they nevertheless show, you know, regularly higher levels of time spent with their children inside the home. And in this kind of, basic correlation has been replicated really in time use studies all around the world.

And more recently, people like John Green. Frank Furstenburg and others have shown that not only do parents with higher levels of education spend more time with children, they spent more time in, quote unquote, enriching activities with their children. And so this falls along the lines of sort of teaching and educational kind of stimulation.

Oh, Hilary. Is that, act about by the time use differences by education. Does that hold for women that are both married and single? So in other is it is partially a

>> A married phenomenon of being married?

>> Right we know they have higher test rates among higher educated women.

>> Exactly, yeah.

>> They have their time balanced on the fact.

>> Yeah. You know, there's, I should say, I don't know. Because, these studies I mean, obviously, less educated women are going to be more over represented among unmarried women. So there's not. I don't know of a study off hand that has looked at this so called education gradient looks like.

I mean, you can imagine that it would be less steep.

>> Right.

>> because, but but, it's not I don't know. We are you know, here we're looking at the total effect. We're looking at, I'll be showing you the kind of total population of married and single mothers together so.

Yeah, yeah, yeah. Kristan. Oh. Other end of the spectrum.

>> So that extremely. So we're looking at education.

>> Thus very wealthy that some of these things might go away.

>> Yeah. I don't, I don't know that either. Mm-hm. Because there Right, Right. I mean I dunno are these the risks she's talking about vis-a-vis parents time with the children.

Yea. Okay, yep, yeah, okay, and then, you know, just finally one interesting thing is eh, there's some new a new paper by the You may know of it, that has suggested that this quote unquote education gradient in parental time has actually increased over time, which is sort of relevant to the general phenomenon I'm talking about.

There's you know, people debate whether this is true and in fact the time. The time diary data we have at our disposal in fact, are not totally ideal for looking at these secular changes in time. But if you, you know, they're paper offers some provocative hypothesis and there's is largely that there has been this sort of increasing demand among the high educated for producing like super high quality kids to get them into super competitive colleges.

And that that has driven. Ever increasingly these kind of you know, hysterical parent time investments in children. so, you know, and that's their argument and I should say also this is just to let you know that I, and I don't think anyone has a particular theory about whether there's some ideal amount of time to be invested in children.

I mean, developmental psychology and no other field that I know of has sort of mapped out whether they're you know, what's the actual relationship between number of minutes in some particular activity and some particular level of child outcome that we think arguably represents some distinct. Difference from some other level of that child outcome.

So I'm going to be talking throughout about basically you know more or fewer minutes of time. But, I'm not working towards any kind of final assessment about what, and no one else either, about sort of what's the you know ultimate package of parental time we should be striving for.

Okay so that as I said lays this the the lay of the land for talking about what I said is called this education gradient in frontal time and as I've said it's really indisputable at this time that this correlation exists but what we want to introduce here is this notion of what we're calling the developmental gradient in parental time.

Which argues, and I'll tell you why I think this is plausible in a moment, that maternal education shapes not only the amount of time that parents, spend with their children, but possibly also it's composition. And in, in other words that highly educated mothers alter the composition of their time to respond to children's developmental needs.

And by definition children's developmental needs change as children grow older. And so what we're arguing here, is that this education gradient, that other's have observed in the data, can actually be characterized by, a developmental gradient, and that more educated mothers will. The pattern of time use that more educated mothers will display will be character by, characterized by this developmental grading to a greater extent than their less educated counterparts.

And I'm gonna tell you a little bit more about what I mean by all this. But you know, we will argue that this sort of developmentally sensitive kind of parenting time is another important element in, the inequalities that we observe across groups of children. Okay. So, again, trying to draw from a couple of different fields, in terms of, why should education relate not only to the levels of time investment, but, to it's composition.

Here again, I think we can draw from economics, sociology, and again, developmental psychology. So again in very broad terms, in economics, education is arguably related to individuals efficiency. So that choices in time use are made to maximize certain goals and, and certain outcomes. Bob Michael, Gary Becker, and others have argued that this kind of efficiency in non-market behavior can be observed in kind of home production.

And so we argue that that could equally well be observed in terms of parents time with children, which is a big component of, of home production. And one way of thinking about that, again in very broad strokes is to say that if you think about, parental efficiency, or parental effectiveness we say parenting efficiency.

People don't really like that, the way that sounds. So, can say kind of parental effectiveness. How might we observe that in, in time use data? We, we could observe it if we think that parents are minimizing the amount of time they spend on activities that are arguably less relevant.

For children of a particular age, and maximizing their time on activities with children that are arguably more relevant, in here we're using children's age as sort of the benchmark for what is and isn't relevant but, you could think of other

dimensions of Of children that you know, could be equally plausible and of course there's lots of individual differences in children.

So simply saying three year olds needs this and ten year olds needs that is is really broad, is super broad from a developmental psychologist perspective cuz there's lots of individual differences but you know, that's the framework we're, we're operating it with in this paper. So we don't, we haven't found any paper in economics that, that has kind of looked at parenting behavior from this kind of efficiency perspective.

But Annette Leroux, in sociology, has done a lot of qualitative work that kind of draws on these same themes. In her qualitative work she you know, finds that middle class parents engage in very different kind of parenting style than their working class counter parts. In which essentially middle class parents do this, what she calls, concerted cultivation of children's spending.

The kinds of time with children and promoting their participation and activities that will be rewarded in the, the schools and arenas in which those children will eventually go on to inhabit. And in a very, as the term implies, a very concerted way. so, a particular set of activities to promote What children you know, will eventually hope to accomplish whereas she reports that working class parents adopt what she called this accomplishment of natural growth strategy where parents certainly attend to their children's emotional and physical needs, but otherwise, sort of assume that children will, will develop just fine, you know?

Will, will, you know, as long as you know, lots of. Again, not to imply that, that all parents aren't focusing on the well being of their children. But that for this one group of parents, there's no need for this elaborate strategy and plan. And she argues that this perpetuates the cycl, the sort of inequality in the kinds of opportunities that children will go on to have because certain of these characteristics that children will develop will go on, as I said, to be rewarded in school and the labor market and so forth.

And again, that's a kind of, very small scale qualitative study. Yeah, Ann.

>> That's a slightly random question.

>> Okay.

>> I've never worked there. Ethnographic quality of research on what parents are doing.

>> Yeah.

>> I've always wondered if one thing about more educated parents is that they spend their time use differently when they write down in a time diary.

>> Oh yeah.

>> And so I wonder if we know anything about how time diary evidence lines up with the more sociological, observation driven, you know, with an outside observer characterizing and you think there's a gap there you have to worry about?

>> I think that the time-use patterns that I will show you today will, you know, line up with some of these qualitative observations, but the limitations of time diary data in terms of what parents say they do is.

I think very real and I think the problem is you're suggesting is they can vary systematically across parents with different levels of education. So you know, parents actually rarely are doing only one thing. As it turns out in the data. They are doing and, and the kind of time that they spend with children in quote on quote; primary time minutes, is, is very small relative to the amount of time their spending in terms of, kind of secondary time minutes.

We don't actually know which one those is better for child development, so you know let say that, but you know, if, if as, I'm gonna, you know, I'm gonna show you primary time minutes and I'm gonna argue that there's these differences. But it could very well be that parents with different characteristics differentially report what they're doing.

I mean if you're watching TV and talking to your child or your doing the dishes and talking to your child. Which one of those is the thing you say you're doing? You can, yeah, I mean I'll tell you about the data in a minute. One can, yeah, they ask which is the main thing you were doing, and then they say, were you doing anything else?

So, that's the kinda choice point, where I think we have very little information on who reports what. But it's a good, so you should definitely bear that in mind. And then finally as I said you know, thinking about the parenting literature from developmental psychology, really the hallmark of what we would call effective parenting, is sensitive parenting.

and, you know, what do we mean? I mean, we could say that sensitive parenting, to be a sensitive parent, means that you respond contingently to your child's needs, and in principle, children's needs change as they go through different developmental periods. So that parents who kind of respond in these dimensions we observe in the time diary data.

To what we argue are the needs of children in broad strokes in those different developmental periods, could be thought of as more development sensitive than their counterparts who don't. And again it's sort of a regular ob, observable correlation in many different studies that high SES parents interact more sensitively with children on average and this is across a variety of ways of defining sensitivity.

All right so as I said, this will be be just sort of a little detour into developmental psychology. I often give this talk to audiences where there are no other developmentalists in the room so just spend one minute and as I said. You know, children require different types of parental interactions in different periods of their development.

And you know, we distinguish in our data across four. You know, very broadly defined developmental periods. So in infancy really the paramount concern of parenting is to provide basic care for children. So, in the first year of life really, you know, the central tasks are to. Help infants establish regular sleeping and eating routines and develop those initial capacities for self regulation.

And where does that come from? That comes from regular sensitive interactions from parents and feeding, bathing, soothing, physically caring for children. A whole suite of activities that we can just call basic care. And not only do those, interactions attends to children's physical needs but are also extremely important arenas for the development of social and emotional attachments to parents.

So, if their socio-emotional developments comes out of these interactions, very much, as well. As children age, they obviously become capable of initiating and maintaining social interactions having representational thoughts that allow them to engage in symbolic or pretend play, and this is a very important developmental skill for children.

In promoting their cognitive and social development. And parents, one of parents' major roles during this developmental stage is to help scaffold. And engage and encourage children in those early kinds of activities which, as I say, will promote attention, vocabulary, numeracy, and literacy, creativity. And really I mean, the foundations of all the kinds of things we think of as school readiness.

And the kind of building blocks of, of learning that you know, many of us study at later stages. And so how do parents do this? We argue, it's really through play. So playing games creative activities like art projects, pretend play, these are the kinds of parent child interactions that we argue facilitate these cognitive needs and capabilities at this stage of life.

During the pre-school period as children advance in their cognitive and attention skills they have an increasing appetite for sort of education-like activities in book reading, problem solving doing puzzles and the like. And again, I mean, many people know that these kind of early skills are a critical element of what developmentalists and others call school readiness.

We know, in the data, that there's already big gaps in school readiness by the time children, across SES groups, by the time children even begin their formal schooling. And so we argue that, you know, what we could call teaching is a paramount parental activity during this stage of life.

And we can observe this, again, in the time you stated, but in other studies as well, with activities like reading with the child, simply talking and engaging in conversation homework is not really relevant for a preschooler. But you know, as I said mainly these kind of school readiness activities.

And then finally in a developmental period that we're characterizing very broadly here. We're sort of leaving out you know, there are developmentalists would take more fine grained approach to a period we're calling middle childhood, which spans from six to 13 years. We're really calling management the primary activity.

So maybe everyone can relate to that. I mean, children increasingly have. Worlds that expand outside the home to peers and schools and extracurricular events. Parents need to monitor those social networks they need parents play a big role in helping to select their children's peers and the activities they participate in.

And children, you know, begin to learn the tasks of forming relationships with others beyond their parents. Learning self control adopting a sense of code of personal efficacy in the choices that they make and this kind of parental behavior in terms of really managing children's lives outside the home, we argue, becomes relevant at this stage.

Yeah Mary Ann.

>> I guess the benefits of what you know what children require, so is this sort of what's thought of as needed for good emotional ability?

>> Both actually.

>> Like attachment theory.

>> Mm-hm.

>> I don't think this a lot of personal.

>> Mm-hm.

>> Something on that list would make me think of that attachment theory.

>> Those are also things you could do with a child with attachment theory. Is this about what we need to do the formula for a child succeeding academically or.

>> No, no, I would say very much both, I mean, what I would say is that these are sort of, these are the, the key that these different developmental periods, as I said, sort of require or demand different kinds of parental inputs.

Which are more, or, and many of them are the same. I mean, basic care. Children need you know, until, they're teenagers. I mean, until they leave the house and have to feed themselves. But you know, that certain of these developmental or parenting tasks are more or less relevant at these at these different ages because.

The kinds of interactions that go along with the kind of interactions that parents and children engage in when they do these different activities is you know, responsive, sort of it provides the avenue or the, the opportunity for parents to support their children's development in a variety of realms.

I think there's nothing here that it says that this is only about academic achievement or cognitive development. It's very much about, these are the kinds of activities that will help to promote children's emotional and cognitive development. but, but it's really more that the you know, the partic, so you know, I think you know, reading to the child you know, in utero has been you know, pretty much in the developmental, I mean, that's sort of silly.

I mean, there's no argument you know, developmentally, that says that, that's sort of an effective use of time. But reading to the child, you know, in toddler-hood and, and preschool-hood, is very much an effective use of time cuz children have the capabilities to respond to those parental investments and that their capability is.

their, their ability to respond changes as they, as they get older. Yeah?

>> So outside of the scope of this specific study,.

>> Okay.

>> But I was wondering what the, theoretically activity would be after this management once it an adolescent? Or, does it

>> Yeah, now that's a very good question.

I mean, as you'll see from the data I'm going to show you, the kind of, the, the level of parent primary time that parents actually spend with children, diminishes greatly as children get older. And by the time they're in this six to 13 year old

group. It's actually a fairly minimal number of minutes.

I mean I could certainly argue that there's other kind of parenting time that would be relevant for 14 to 18 year olds. You know, much of this I also have to admit is data driven. Okay? So we have a limited set of things we can observe in the time use data.

And, you know, we're trying to map it on as best we can to what we think is a kinda sensible, theoretical framework. and, you know, that sort of drove our, you know we, we just don't have as fine grained, kinds of time use as, as we might hope to be able to say You know, anything more than beyond these sort of broad, and as I'm gonna show you in minute, we're actually gonna collapse the sort of toddlerhood and preschool period.

It's also a question of sample size. We, we don't have. Actually enough. You know, if we had a bazillion people, we could, you know, make much more fine grained groupings. Because we would have a sufficient number of parents of children at, at, at much narrower age spans.

>> Hovering yeah, eavesdropping yeah, right, right, right.

[INAUDIBLE} Yeah. Okay so, let me just say, you know, again, what kind of hypothesis we would, we would then develop based on what I've told you so far. So, if there were to be a quote unquote developmental gradient, I mean, how, how would we know it when we see it?

and, and the first is that we would argue that, that, this developmental gradient could manifest in two different ways. The first is that highly educated parents would invest more time in an activity when it is developmentally important then at other stages of development. Okay? So given what I've just told you is the sort of what's appropriate when that we should see that highly educated parents, for example, would invest more time in basic care during children's infancy than they would during the children's preschool or middle childhood period.

Okay? Which is, again, not to say that basic care isn't important at other stages, but that given our theories, that this is the paramount concern of parents, of infants, that's when we should the emphasis on basic care. The other way that we could see this developmental gradient is that highly educated parents should tailor their child rearing time to their children's developmental needs to a greater degree than their less educated counterparts.

So, in other words, just because highly educated parents sort of concertedly cultivate or efficiently allocate their time across different development stages doesn't mean that their less educated peers wouldn't do the same thing. But if this developmental gradient exists, then we should find, you know, gaps in the developmental gradient across parents education groups.

So highly educated parents could invest more time in basic care in infancy, relative to the time they spend on basic care with children of older ages. But during infancy, if we then look within the period of infancy, we should see highly educated parents doing more of that activity relative to their less educated peers.

And similarly for these other kind of activities for children at different developmental stages. We should see that the gap between highly educated parents and less educated parents should change over time. In other words, for children of, of different ages. And I'll just give you a preview. That's what we, that's what we find.

And if we, you know, having now as I will show you that, then we will conclude that this education gradient that has been observed in the data historically is actually characterized by what we're calling this developmental gradient in turn. Alright? Okay? So let's get to the, I'm sorry, the seminar goes til?

1:30. Okay. Plenty of time, and interrupt all you want. So we're using data from the American time use survey. Which is an ongoing national survey conducted by the Bureau of Labor Statistics. we, let's see. The data are actually available now up to 2010. So this is these are just cross sectional data sets conducted every year.

We're pooling together the data from 2003 to 2007, which reflects when we started this paper. And the, the way the data are collected is that telephone interviews ask a randomly selected person age 15 or older to recount how he or she

spent the previous day. The sample covers all days of the week, and all months of the year.

It collects, and you can account for the fact for whether the time diary was a week day or a weekend interview. the, the data distinguishes primary from secondary activities. But actually, the, the level of detail on the secondary activity is not as great as the level of detail on the primary activity.

So we restrict our focus here just to primary activities with children. And also because we think, by definition, a primary activity requires the parent to be actively engaged in an interaction with the child. And, I should say, as I said before, that it's not clear, from research, whether that is more beneficial to children's development, than is sort of just being there and interacting.

Being around for the child in a secondary kind of activity. But we're starting, you know, we, we're starting here with the primary activity cuz we, we, you know, we, good, we can say what it is more specifically with these data. There's also high quality demographic information, so the, the AT U.S. is fielded in conjunction with the current population survey.

So those data sets are linked. So you have all the high quality demographic information that's available in the CPS. We're gonna control for just a handful of kind of exogenous covariates in our regressions, but the data, you know, by virtue of its size and knowing what everybody did over a 24-hour period, we think really offers a very rich opportunity to answer these kinds of questions.

Okay, so, because, we are actually we're just looking, at, at mothers here. But one could easily do this same paper with fathers. And we actually have done that we're working on that now. And I can just tell you now we, we see the same pattern of results but much weaker when we look at whether there's a developmental gradient for fathers.

So we restrict our sample here to women who have at least one child age 13 or younger in the home. We are only looking at time on the weekend here because we think that, given the number of mothers who work, that weekend days sort of offer the greatest number of possible minutes to interact with your child.

I should say when we combine weekdays and weekends we see the same pattern of results. And then we exclude households who have step-children because there's a number of theories about why parental investments in step-children would differ in systematic ways than parental investments in own biological children and so we exclude those, those small number of children.

And so we have then about 6,600 and 6,640 mothers here. Whom we divide into these four levels of education, as you can see here. And what we do is not only do we look at mothers with these different levels of education, but we then group children into these different age groups.

Now here's a an important problem with the data is that when mothers report who they're interacting with in a parenting activity, you don't actually know which child the parent is interacting with. So this is, you know, from a developmentalist perspective, this is a big problem. And we know that parents are doing these activities, as I said, but not with whom they are engaged.

So, what we do, is we use the the youngest age of the child in the household as our sort of, our grouping variable. So, mothers with children ages zero, with at least one child in the zero to, who's youngest child is in the zero to two, or any of the other two groups in the household is, is grouped into that group with the argument that at least there's a child in the relevant age range for whom mothers might be interacting.

but, you know, mother's may be saying they're doing basic care and it could be that they're doing basic care for their teenager, and we don't actually know that. So this is a formula that Eric Hurst followed in a previous paper and as I say, we follow it here.

What we have done is we've tested the sensitivity of these results to one child families in which case we know that that's the And the sample is much smaller and we're, you know, the basic pattern of results is the same. But, you know,

we didn't think that that bigger restriction made sense for talking about these kind of population level trends.

And then as I said, given sample size, you know, I told you there was something special about you know, the first year of life, the first 12 months. It turns we can't really even look at that first year separately given our limited number of cases. So we have these three age groups here, you know, zero to two, three to five and six to 13, yeah.

>> It is good to know.

>> I think, that your results hold for me, at hall days, because we know that young

>> Yeah.

>> Less educated.

>> Are more likely to work weekends. That's exactly right. That has come up before. That's exactly right. So, we could be, you know, privileging, you know, the highly educated mothers who don't have to work on a Saturday or a Sunday.

That's exactly right. And, so that's, you know, we wanted to make sure that they held. Yeah, and so,

>> Pathway maybe.

>> That's right. That's right. And you know, we're not looking at any mechanisms or pathways here so we're not gonna control for income or maternal employment or, or any of that.

>> Right.

>> But that's that's excellent point and we have thought of that.

>> On that, on that. As I said that out loud I started to think about, would there be any value in, as another way of measuring the input, what if you did something like, I was just thinking about the mom on a Saturday thing.

>> Mm-hm.

>> And if I looked at the time she spent with her child as a share of her expressionary time.

>> Yeah.

>> That might yield something.

>> Right. And i'm not sure It is kinda of an interesting.

>> It is.

>> Between sort of an un-normalized hour.

>> Exactly. We have thought of that, and we have, you know, we started out looking at shares.

>> Right.

>> Of time here, instead of levels.

>> Right.

>> And we just. Shares after taking out for something.

>> Exactly. And it just, it it gets complicated.

>> Right.

>> But it's an equally valid way to look at this. As I say, you know, yo know, we're just sort of comparing these mean number of minutes but right, you know of the number of hours you're not working, how do you allocate that? Right. I mean the concept is, yeah.

I totally agree.

>> Preferences or, or, or views of parenting or something then maybe, you know, shares his, right. Right. Yeah. Ross. Okay.

>> Say it again? In other words care giving by someone who's qualified.

>> Yeah, no.

>> Right. Right because somebody else might be. No, no I totally agree and I'm very interested in that kinda question.

For that, what you need is a time diary from the child's perspective. Which exists. So, you have the PSID child development supplement, which we were talking about this morning, has a time diary attached to it. And there you can look at all the inputs that the child is receiving from anyone who's making, who's interacting with the child.

And you can very much see who's doing what, how that package of investments differs across different groups. But here it's the time diary of the adult so, right, you should absolutely not take this to mean, to, as any sign of what children are getting. But rather it's what parents are doing.

And that, you know, brings me to the next slide; because when I show this slide people are always really shocked at how few minutes parents are engaged in quote unquote what I'm calling parenting as a primary activity. Okay? So, the total number, this is now just pooling everybody together.

Those 6600 people respondents in my, in my study. Just taking all those kids, across all ages and showing you, you know, the number of minutes that these mothers are engaged in primary activity that involves one of those activities that I told you about. And you can also see an example in the, in the middle column of the kind of time use codes that we're using to kind of count parents as doing one of these four basic genres of parenting.

And it, you know, it's certainly debatable that we, they would kind of coding this differently. We actually, again, followed John and Eric Hurst. They have a really nice paper in the, in the, with Melissa Kearney in the Journal of Economic Perspectives that just shows us education grading and we actually use their code.

and, and, you know, the ATUS doesn't get a lot more detailed than this so there aren't many more choices for re-coding. but, you know, so you can just see for yourself what kinds of, of time activities fall into basic care, play, teaching and management. And you can see, and again, these are weekend days but you know, the numbers that mothers are engaged in these kind of activities are higher on weekends than week days.

And you can see that mothers spend the most time in basic care and then in decreasing order play and teaching and management. I'm Ann Stevens, the Director of The Center For Poverty Research at UC Davis, and I want to thank you for listening. The center is one of three federally designated poverty research centers in the United States.

Our mission is to facilitate nonpartisan academic research on domestic poverty. To disseminate this research, and to train the next generation of poverty scholars. Core funding comes from the US Department of Health and Human Services. For more information about the center, visit us online at poverty.ucdavis.edu.