EPISODE 1:
THE RAISING OF AMERICA - Signature Hour

TRANSCRIPT

TRT 58:19 MIN

00:00 DVD Chapter 1: It All Begins in Infancy

A father and mother help dress their son—put on his shoes, zip up his jacket.

MARLIS BALDERAMMA: It's cold outside.

Brooklyn walks with his parents, Marlis and Ron, through the streets of Boston.

DR. RENÉE BOYNTON-JARRETT, Pediatrician and Epidemiologist, Boston Medical Center, VO: Like most adults, I've never met a child that I didn't think was full of tremendous potential.

BROOKLYN: And that's our secret way!

BOYNTON-JARRETT: The question is, what aspects of the environment are invested in the child being strong, resilient, confident and capable?

BROOKLYN (counting at Make Way for Ducklings statue): ...three, four, five, six

BOYNTON-JARRETT: What worries me the most is that I see many instances where a child has been let down by the fragility and inconsistencies of their environment. Have we decided that we're OK with the fragility of this system? The fact that it's gonna fail kids. Isn't the investment, early, in the lives of all children the long-term investment in our social wellbeing and success as a society?

01:38 RAISING OF AMERICA TITLE SEQUENCE

Parker sits at coffee table and draws house

NARRATOR: To imagine how the US will do tomorrow, we need only ask how its children are doing today.

Graphic: Child Well-being rankings report

NARRATOR: International data sounds a warning. Across multiple dimensions, the wellbeing of our children ranks 26 out of 29 nations.

It all begins in infancy.

PARKER ,VO: A baby has a brain! We all have brains! They make you think… make you talk, make you walk…

JACK P. SHONKOFF, MD, Director, Center on the Developing Child, Harvard University: The development of the brain is laid down in the early years well before children start school, even before they start talking. Everything starts from the bottom-up.

PARKER: The base holds everything up.

SHONKOFF: If we don't do it right early, it's harder later. We pay more for it later and we don't get as good an outcome.

Graphic: Animated text of statistics

NARRATOR: 40% of our five year olds are not ready to learn when they enter kindergarten.

75% of all young adults are not qualified for military service.

In 1970, the U.S. ranked 1st in high school and college graduation rates. Today we've fallen to 23rd in high school graduation, 19th in college graduation.

JOHN A. POWELL, Director, Haas Institute for a Fair & Inclusive Society, University of California-Berkeley: We say we're a country that care about children. We may care in some abstract way but we won't structure our economy and our systems to actually support them.

JUDITH LITCHMAN, Senior Advisor, National Partnership for Women & Families: The damage to our youngest children is just incalculable, and the costs to society therefore are incalculable.

JAMES HECKMAN, Nobel Laureate in Economics, 2000, University of Chicago: These children right now are 3 and 4 are going to be 23 and 24 in 20 years. It's not that far away. So yes we have a crisis, but we have an opportunity at the same time.

BOYNTON-JARRETT: As a society, we have the potential to do so much more than we realize we could do to support children. We can win by thinking as a larger village.

04:28 DVD Chapter 2: 700 Synapses Per Second

Boston Medical Center, Boston, MA

NARRATOR: Dr. Renée Boynton-Jarrett is a pediatrician and researcher at Boston Medical Center.

AIDEN: Dr. Renée look at my socks!

BOYNTON-JARRETT: Pretty scary! How are things going at home with raising two little ones?

TINA BRUNO: They're just growing too fast.

BOYNTON-JARRETT: Every day something new.

TINA BRUNO: Absolutely, I love it.

Aiden growls. Aiden and Cara climb on exam table.

TINA BRUNO: Aiden thinking he's the boss.

BOYNTON-JARRETT: So he's the big brother…

NARRATOR: Dr. Boynton-Jarrett has supported 4 year-old Aiden and 3 year-old Cara's development since infancy, as she has hundreds of children.

BOYNTON-JARRETT: We as a society value productivity; we value engagement and civic participation. We value education.

Cara shows Dr. Boynton- Jarrett an illustration she has drawn.

BOYNTON-JARRETT: This is an amazing picture.

05:26 **BOYNTON-JARRETT:** Often the work that we do to support those outcomes occurs very far out from the time in life that is laying the foundation for achieving those outcomes.

Aiden counts out loud and Cara follows along

BOYNTON-JARRETT: If we look at the actual scientific literature, what predicts high school graduation rate? Third grade reading level is actually a very strong predictor of high school graduation.

Aiden shows off his writing to Dr. Boynton-Jarrett.

BOYNTON-JARRETT: Well, third grade reading level is predicted by the number of words you know when you're two or three years old.

Dr. Boynton-Jarrett shows Cara a book.

CARA: Um, they're dancing…

BOYNTON-JARRETT: So what predicts the number of words you know when you're two or three years old?

TINA BRUNO (in scene): Was he jumping on the bed?

BOYNTON-JARRETT: We can track that back to the enrichment of your environment at the very earliest moments of your life…the very earliest stages of your brain development.

Family poses for camera.

OFF-CAMERA VOICE (in scene): Say cheese!
GROUP (in scene): Cheese!

Graphic: Animation of brain cells

NARRATOR: More than 80 billion brain cells. That's how many a baby is born with. But it's the connections between cells that matter. And most connections are not yet formed at birth.

06:40 **SHONKOFF:** Beginning from the moment of birth, 700 new synapses or connections between brain cells are being formed every single second in all parts of the brain…that are responsible for everything from being able to regulate your feelings, to begin to learn language…

Baby Joehly coos.

NEHMIAS CALIXTO (in scene): Oh, yeah?

BOYNTON-JARRETT: Talking to daddy!

SHONKOFF: …to begin to understand how to interact with other children, to begin to solve problems.

Joehly reaches for a toy above her.

BOYNTON-JARRETT: She's thinking to herself, "How do I get it?"

SHONKOFF: Connections that basically become the, the architecture and the foundation of who we are as people.

NARRATOR: Johely is four months old. By the time she is three, her brain will have built trillions more connections than all the stars in our galaxy. Those intricate circuits start getting paved into wider, stronger highways, building the foundation for more complex skills like reasoning, impulse control, even compassion and trust.

Nehemias Calixto tickles Joehly.

NEHEMIAS CALIXTO (in scene): How do we play, huh?

NARRATOR: But Johely's brain connections aren't built on automatic pilot.

BOYNTON-JARRETT: They are reinforced by characteristics of your environment.

KARLA CALIXTO: Como que presta mas atención a todo lo que uno...a todo la gente…

NEHEMIAS CALIXTO: She pays attention to everything, everything that you do.

BOYNTON-JARRETT: They are reinforced by experiences that you have.

Joehly's parents play with her on exam table.

NARRATOR: Especially through the exchange of small everyday interactions between an infant and her caregiver.

NEHEMIAS CALIXTO (in scene): You happy, eh?

08:23 DVD Chapter 3: Serve & Return

NARRATOR: One type of exchange, called 'serve and return', is crucial.

BOYNTON-JARRETT: You are the most important people in her world right now.

BOYNTON-JARRETT: Serve and Return is a very powerful interaction on a biological level.

Johely's father bounces her on the exam table

BOYNTON-JARRETT: I see this in clinic all the time. It's really an amazing thing to watch.

Dr. Boynton-Jarrett speaks to parents and watches their interactions with Johely.

BOYNTON-JARRETT: I'm talking with the parent and to get the parent's attention, the child babbles…

Johely coos and father responds, "What?" in playful voice and mother smiles at her.

BOYNTON-JARRETT: And the parent turns from me and begins to smile at the child and encourage them, say something to them, the child smiles back at the parent. And the child will be delighted because they've succeeded; they've captured the attention of their parent. Um, they've gotten this wonderful engagement that's reinforcing the way in which the child is developing.

Joehly's parents play with her as Dr. Boynton-Jarrett looks on.

BOYNTON-JARRETT: And the more practice you have at activating those circuits, the stronger they become.

Graphic: Animation of neural circuits/brain cells

BOYNTON-JARRETT: It's a use it or lose it phenomenon.

09:36 **NARRATOR:** But what happens when a baby doesn't have that practice, when serve and return is limited or disrupted or withdrawn?

Archival: Still Face Experiment

STILL FACE EXPERIMENT MOTHER (Archival): Mommy's right here. Oh, yes!

NARRATOR: We can see one important response in the classic Still Face Experiment first conducted by Professor Ed Tronick and colleagues.

Archival: Edward Tronick speaking with mother and child participants.
EDWARD TRONICK (Archival OC): Everything new in the room and she uses it as a way…

Archival: Mother and child engaged in experiment.

EDWARD TRONICK, University of Massachusetts Boston; Harvard Medical Center: In the still face experiment, what the mother did was she sits down and she's playing with her baby.

STILL FACE EXPERIMENT MOTHER (Archival): Yay, so good!

TRONICK: And then we asked the mother to not respond to the baby.

Still Face Experiment (sound up): Mother puts on blank face and child squirms in seat

TRONICK: The baby very quickly picks up on this. And then she uses all of her abilities to try and get the mother back.

SHONKOFF: I can guarantee you that baby was not given a course in child development. That baby was not told: if you don't get good response, do everything you can to indicate distress. Babies pick up on that right away because their brains are wired to expect responsiveness.

Archival: Mother and child engaged in experiment.

10:47 **SHONKOFF:** At a moment that a baby is not getting responsiveness, that is triggering a stress response.

Graphic: Animation of body's stress response

SHONKOFF: Automatically instantly our heart rate goes up, our blood pressure goes up, our blood sugar goes up, our inflammatory system is activated. It's the basis of the flight or fight syndrome. It's life-preserving.

NARRATOR: When the threat has passed and a baby feels safe, secure, and nurtured again, her stress reaction returns to normal.

STILL FACE EXPERIMENT MOTHER (Archival): Good girl.

SHONKOFF: The problem is the chronic repeated activation of that stress system takes all of these physiological changes and over time instead of being helpful, they start to have a wear and tear effect on your body.

Archival: Child becomes upset by her mother's "still face."

Graphic: Animation of stressed regions of brain

SHONKOFF: The parts of the brain that early on are associated with memory and simple learning, focusing attention, being able to solve problems. Those parts of the brain are very vulnerable to disruption from chronic activation of the stress system.

Archival: Mother restores responsiveness.

11:56 DVD Chapter 4: The Growing Squeeze on Parents

NARRATOR: In the Still Face Experiment, unresponsiveness was temporary. No harm done. Some stress even promotes healthy coping skills.

SHONKOFF: The last thing that I would want to communicate here to parents is that they're doing harm to their children. No, they're not doing harm to their children, um, if in the midst of all that there's a fair amount of supportive responsiveness.

STILL FACE EXPERIMENT MOTHER (Archival): And what are you doing?

NARRATOR: Which is what this mother restores, and what most parents try to sustain…

STILL FACE EXPERIMENT MOTHER (Archival): I love you.

Father in work outfit picks up crying baby from crib in day care.

NARRATOR: That's if they can...in the midst of the mounting demands and stressors on their daily lives.

BOYNTON-JARRETT: The stressors in the lives of parents affect attachment, they affect the ability to engage in serve and return; they affect the ability to provide and meet all the needs of the child.

Mother wipes baby's mouth.

CYNTHIA CHANG: It's hard to try to make everything work. You feel pulled in all different directions.

ANN WATERMAN ROY: There's this feeling of constantly being on attentful alert.

YAMINETTE DIAZ-LINHART: It's just too much, I can't do it.

DAVID LINHART: Feeling security—I don't really know what that feels like.

Boy jumps and screams in kitchen.

13:09 **NARRATOR:** Parents and caregivers are scrambling to fulfill their responsibilities in a society that's unresponsive to family needs.

JOHN A. POWELL: We've made public problems into private problems, without resources. So you have to fix everything yourself.

Elizabeth Wright walks through parking lot with daughter, Marilyn.

ELIZABETH WRIGHT: Funding was cut. We had to cut two or three classrooms.

Mother walks daughter and baby carriage across streets while on phone

POWELL: And so we have parents who are strapped for time, for money, for resources.

MILTON MCCABE: My position was transferred overseas. We didn't have any income. That's any parent's worst nightmare.

Graphic: Graph of labor productivity v. hourly compensation

NARRATOR: Thirty-five years ago, wages were rising in tandem with productivity, but since then—while labor productivity continued to rise—the gains of that productivity have been shared less and less with average Americans.

TINA BRUNO: He got called in last night to pick up another shift and we need the money.

Graphic: graph of corporate profits v. median wage v. minimum wage

14:08 **NARRATOR:** Over the last 40 years, corporate profits reached record highs. Middle class wages have remained stagnant. The value of the federal minimum wage has actually fallen.

ASHLEY WALKER: You can't survive on minimum wage and take care of two kids. It's just not possible.

Graphic: Graph of median wage v. minimum wage v. costs of living

NARRATOR: As wages for most have stagnated, the cost of housing doubled, medical care quadrupled, and the cost of education increased eight-fold.

Graphic: Parent web message board

Marilyn and Elizabeth Wright work together in the kitchen

MARILYN: Sometimes she cries and she's stuck and she needs somebody to help her.

Marilyn gives mother hug

15:02 **ROBERT DUGGER, Managing Partner, Hanover Provident Capital; Co-Founder, ReadyNation:** Parents. They're the beginning of the process. We do not invest enough in parents.

Archival: Robert Dugger speaking on economic panel.

DUGGER (CSPAN Archival): I'm Rob Dugger. I'm a partner in a ...

NARRATOR: Rob Dugger is an economist and for 15 years was a partner in a multi-billion dollar hedge fund.

Archival: Robert Dugger speaking on early child development panel.

NARRATOR: Today he is dedicated to persuading policymakers and business leaders to improve conditions for young children and their families.

DUGGER: When you invest in all kids, all families you get on a higher growth path, a growth path which provides more opportunity, more revenues and enables a sustainable economy to generate the kind of jobs and growth that we need.

Arthur Rolnick arrives at business leader reception.

NARRATOR: Like Dugger, Art Rolnick and a handful of other leading economists have calculated the many benefits the nation would enjoy if its policies assured every child a strong start.

ARTHUR ROLNICK, Former Senior Vice President and Director of Research, Federal Reserve Bank of Minneapolis: The kids were more likely to be literate by the third grade, graduate high school, get a job, pay taxes, stay off welfare, and the crime rate between the two groups goes down 50%.

NARRATOR: They're zeroing in on America's family policies.

16:04 DVD Chapter 5: Paid Parental Leave?

A mother walks her daughter and infant down a quiet Boston street.

DUGGER: Our policies actually actively discourage parents from being able to take care of their children when they're very young. They may instinctively want to do it, but we don't make it easy for them.

ANN WATERMAN ROY: That way! No, you silly girl! That's not the way we go, we go this way.

NARRATOR: Ann lives in Boston. She gave birth to little Sylvie just four months ago.

ANN WATERMAN ROY: Can you reach it?

NARRATOR: She faced the same difficulty most American parents face from the

moment their baby is born.

ANN WATERMAN ROY: There was no paid maternity leave, but I am allowed to use sick and vacation time to get pay while I'm out. There's no pay just for being on maternity leave.

ANN WATERMAN ROY: Hey, are you awake now?

Graphic: World map showing the U.S. as outlier

NARRATOR: Every major economy on the planet guarantees paid maternity or family leave—except the United States.

Mother hands her infant to day care caregiver

NARRATOR: The result? 40% of new mothers return to work by the time their infants are only three months old—some because they want to, most because they have to.

ANN WATERMAN ROY (to baby): There you go! What's that? Who are all these people?

17:18 **NARRATOR:** This is little Sylvie's first day in child care. She will be here for eight hours until Ann returns from work.

ANN WATERMAN ROY (to baby): Here we go, sweetie.

ANN WATERMAN ROY: I am going to miss my baby. I'm a little bit more of a human being in this last month so I get to be actually awake and aware of the fact that I've got this amazing little thing who's starting to smile, and giggle, and coo. I'd love to spend more time with her.

Caregiver rocks Sylvie.

ANN WATERMAN ROY: It's just phenomenal to see every day something changes and something's different that she couldn't do before. Or we notice that she's crying in a different way now, that it's louder and her coos are, they sound different than they did a week ago. And what does that mean? I don't know is that vocal chords? Is that something different? I don't know what it is but it's, it's exciting to see her do something more every time. So you can just her little brain working, "What? Oh, ooh!" As a mother, it's kind of the thing, the little things that make you go, "Oh! yay!"

Graphic: World map showing parental leave in the U.S. vs. other countries

18:10 **NARRATOR:** If Ann lived 250 miles north in Quebec, Canada, she and her husband

could share 9 months of paid leave; in Germany, 14 months; in Hungary, more than 2 years. With the exception of three states, parents in the U.S. are guaranteed only 12 weeks of unpaid family leave, and then only if a parent has worked for a company of 50 or more employees for at least a year. Even these benefits were hard won…

Archival: Congressional hearing on family leave

NARRATOR: The result of a 9-year battle waged by family advocates, beginning in the 1980s.

Archival: Women in workplace circa 1980s

NARRATOR: At the time, the number of mothers with young children in the workforce was soaring. But in most states a woman could be fired if she took time off to have a baby.

Archival: Congressional hearings on family leave

FAMILY LEAVE ADVOCATE 1 (Archival):
Newborns need their parents and their parents need their jobs…

FAMILY LEAVE ADVOCATE 2 (Archival):
We see the effect of stress on the mental health of family members…

JUDITH LICHTMAN (Archival):
They face job loss, soaring health insurance costs…

NARRATOR: Family advocates proposed only unpaid leave.

19:09 **JUDITH LICHTMAN:** We eliminated the idea of going for paid leave, not because none of us wanted paid leave; but because it was so beyond what people thought politically, realistically we could get.

Graphic: Newspaper headlines depicting opposition to family leave legislation

NARRATOR: But even the idea of unpaid leave brought fierce opposition from the business community and its political supporters.

OPPOSITION ADVOCATE 1 (Archival): Don't force the benefits down our throat or theirs.

OPPOSITION ADVOCATE 2 (Archival): I am not opposed to babies or mothers or fathers. The real issue here is whether the programs described should be federally mandated.

REP. ROBERT WALKER (Archival): This very bill, this mandated bill, will impose such costs on American business that it will render them even more unable to compete in the world economy.

LICHTMAN: We were going to bring down the free enterprise system as you know it. We were going to end capitalism.

ELLEN BRAVO, Executive Director, Family Values @ Work Consortium: I can show you the same quotes when we talked about legislation to ban child labor, to establish a minimum wage. The sky will fall. It will kill jobs.

Archival: Congress in session circa 1990

NARRATOR: Twice the Family and Medical Leave Act, or FMLA, was passed by Congress. Twice it went down to presidential veto. The objection? Government intrusion in the so-called private business…of business.

Archival: New York Stock Exchange

20:28 **DUGGER:** The most powerful political voice in the United States is the American business community—without question. Always has been. Most of corporate America is short-term decision-making because the bottom-line gets converted immediately into profits that gets immediately converted into stock price, translated immediately into values of tens of thousands of stock holders. As a consequence of the sort of short-termism that is pervading our economy, pervading our politics, we are opting to make the wrong decisions, very consistently; the wrong decisions for the lifetime success of our American kids.

Archival: Rose Garden Ceremony at FMLA signing

JUDITH LICHTMAN (Archival): This is a very poignant moment and my heart is very full…

NARRATOR: Congress passed the FMLA a third time and it was finally signed into law in 1993. Even its advocates were disappointed.

BRAVO: First of all half the workforce isn't covered by the Family and Medical leave Act. And most of all it's unpaid! So every year you have nearly three million people who are eligible for family and medical leave and can't afford to take it.

21:44 DVD Chapter 6: Parental Stress, Infants' Brains

ANN WATERMAN ROY (to baby): You have a good day little one!

MARILYN ESSEX, Director, Life Stress and Human Development Lab, University of Wisconsin-Madison: When you understand that those first few months or that first year of life when the mother needs to provide that very sensitive care taking, to not provide with policy what women need to choose how to do that for themselves is saying that you're gonna not pay careful enough attention to these children.

CU portraits of infants

BOYNTON-JARRETT: Is this a safe world? What will happen when I feel afraid? What will happen when I feel hungry? What will happen when I feel scared? Can I count on you? Stressors that a parent may feel that they do not have adequate resources to buffer or cope with can be experienced by the child or influence the child's wellbeing.

Exterior of University of Wisconsin

ESSEX: There's no doubt about the fact that if a parent is stressed, that it affects the child. I mean, there's no doubt about that. We're talking about processes here that are at a biological level.

23:11 **NARRATOR:** How could parental stress during pregnancy and the first years of life leave a lasting biological imprint on a child?

Marilyn Essex and team gathered around computer

NARRATOR: That's the question Professor Marilyn Essex and dozens of colleagues at the University of Wisconsin-Madison have been asking in a ground-breaking 20-year study.

ESSEX: Our basic hypothesis was women needing to go back to work for financial reasons sooner than they were ready was not good for either them or their families or their babies.

Mother at home with newborn, older children

NARRATOR: The Wisconsin study recruited more than 500 expectant parents, mostly white and mostly middle class. By the time the babies were 4 months old, data showed a pattern starting to emerge…

ESSEX: They were stressed. They were stressed, you know, economically, they were stressed by having to work two jobs. That's when they showed a lot less of that kind of sensitive and contingent behavior that, that is really, really important for moms to show with their babies to have healthy babies.

JEFFREY ARMSTRONG, Researcher, Life Stress and Human Development Lab, University of Wisconsin-Madison: On to location number two…

Camera follows Armstrong through study archives

NARRATOR: When children were 2 years old, the study widened its lens.

ESSEX: We began to turn our attention to say now let's look at longer-term effects on the child. But we broadened it to say, let's look at stress more generally.

Study questionnaire b-roll

24:32 **CORY BURGHY, Postdoctoral Fellow in Developmental Neuroscience, University of Wisconsin-Madison:** The things that we tapped were financial stress; we also look at role overload. One of the big issues is time and making sure you have time with your children and the resources to give your children a good life.

Camera follows Jeff Armstrong through study archives

NARRATOR: Would early life parental stress continue to have an impact on the parents' children as they grew up? To find out the Wisconsin team measured the presence of cortisol in the children's saliva when they were 4.

ARMSTRONG: We do have a freezer full of saliva samples.

Boy spits into test tube. His siblings doing the same.

ESSEX: We had what we called "family spit times" where the mom, the dad, and the child they would spit at the end of the day. And the kids thought this was a lot of fun.

NARRATOR: Cortisol is a powerful hormone whose presence in saliva indicates activation of the stress response.

BURGHY: What we see is that when moms are reporting a high level of stress in the first year of life…As their child gets older, if we look at their cortisol late in the day, we see that they have higher cortisol levels.

Graphic: Study report animation

ESSEX: And then those kids with the higher levels of the stress hormone had more difficulties adjusting to school.

Shy/upset toddlers cling to caregiver.

ESSEX: They tended to be more anxious…

AIYAUNA TERRY: Come on, Buddy, let's come…

Scene of child in Ellis Memorial classroom who sits away from his peers and dumps out a bucket of toys and throws bucket down.

ESSEX (continued): …kind of withdraw. They tended also to be more impulsive; they tended to be more aggressive. They had a wide variety of behavior problems.

NARRATOR: Another fourteen years of evaluations, videotaping, and testing followed.

ARMSTRONG: We have the files from the preschool through first grade. In the file cabinets are the records from third grade.

RASMUS BIRN, Assistant Professor of Psychiatry and Medical Physics, University of Wisconsin-Madison: Ok, so we're going to run a short localizer scan now…

Young woman is set up in MRI

26:25 **NARRATOR:** Recently new neuro-imaging technology enabled the Wisconsin team to see whether or not parental stress might impact the very architecture of their adolescent children's brains. The team especially wanted to look at one critical brain circuit.

Graphic: Pre-frontal cortex-amygdala brain circuit animation

NARRATOR: The connection between the amygdala and prefrontal cortex. The amygdala recognizes threat and sounds the alarm. In turn, the prefrontal cortex signals the amygdala whether the alarm is justified.

BURGHY: We want to see a good flow of traffic on that highway because that's a highway that's helping that child regulate their emotion on a moment-to-moment basis…how to deal with emotions, when is it appropriate to express emotions, what are good things to feel, what are bad things to feel.

Wisconsin team in MRI Lab

BURGHY: So we can get right in the middle of the amygdala there. That looks fantastic.

NARRATOR: So was there a difference in these two parts of the brain in those adolescents who had experienced early-life parental stress?

BURGHY: When we look at it now that they're 18 years old, we see lower connectivity between the amygdala and prefrontal cortex.

GRAPHIC: Pre-frontal cortex-amygdala low connectivity animation

ESSEX: For the kids with early stress exposure, it was just way out of whack. What we

found was a pattern that absolutely fits with the rest of our data.

BURGHY: It was an amazing thing to see and to see such strong associations throughout. And this whole pattern then predicted anxiety in these adolescent girls.

ESSEX: It really is setting up a system that responds differently to stress in the future.

BURGHY: When we're stressed out, we're not taking in as much information; we're not functioning as well in our daily lives. We might be getting everything done but maybe we're not learning as well.

Young woman gets up out of MRI machine

ESSEX: And so it does have an effect on later achievement and academic outcomes. In terms of health and functioning we know that they do worse than kids who are less stressed.

NARRATOR: And the ball can keep bouncing. These adolescents are America's future parents.

ESSEX: For the girls in our study who have been exposed to a lot of early life stress and who have some kind of dysregulation in their stress response system, that prenatal environment for their child is going to be different and puts that child at risk. Then that continues generation after generation.

28:58 DVD Chapter 7: Searching for Child Care

YAMINETTE DIAZ-LINHART: Ok, you gotta wait until I'm done. I'm almost done. Oh the rice isn't done.

NARRATOR: Fast on the heels of their child's birth, parents confront another stressful obstacle…

YAMINETTE DIAZ-LINHART: Alright, Naham, we're coming!

NARRATOR: …the lack of quality, affordable, childcare.

DAVID LINHART: We were first looking at daycare when Yaminette was pregnant.

YAMINETTE DIAZ-LINHART: …For over a year

Graphic: child care rankings report

NARRATOR: Of 45 nations, the United States ranks 31st in availability of childcare, 16th in affordability, and most alarmingly for our children's development, 22nd in quality.

YAMINETTE DIAZ-LINHART (with Nikha and Naham): I love you brother!

NARRATOR: Yaminette and David are just starting life as a family, raising their son Naham and daughter Nikha.

YAMINETTE DIAZ-LINHART: Tomorrow's a really hectic day. I have a training. I have to be there at 9 o'clock.

NARRATOR: Yaminette works full-time and more…

YAMINETTE DIAZ-LINHART: I bring work home with me. It's just what I do so that I don't feel as overwhelmed.

YAMINETTE DIAZ-LINHART: You need a fruit, Naham. Raspberries?

NARRATOR: David is on a fast track to finishing his education.

YAMINETTE DIAZ-LINHART: I'm the breadwinner. I'm the sugar momma.

YAMINETTE DIAZ-LINHART (to Nikha): Hi honey! Are you ready to try something new? Yeah?

30:18 **DAVID LINHART:** The clock is ticking in a lot of ways. The clock's ticking because your bank account's running low, the clock's ticking because you have to build your career, but also, you know, once you have kids, you really want to invest in those early years, you don't want to treat that time cheaply.

NARRATOR: Most parents don't want to think of their baby's wellbeing in terms of dollars, but how can they not? Nationwide, center-based childcare generally averages more than $10,000 a year per child.

YAMINETTE DIAZ-LINHART: With Naham, our first, we've consistently paid more for childcare than for rent.

DAVID LINHART: Oh, yeah.

YAMINETTE DIAZ-LINHART: With Nikha, my name's on the waiting list at two places. For Ellis, we were told we're around number 40. I'm really, really holding out for Ellis.

Exterior of Ellis Memorial

NARRATOR: Ellis is Ellis Memorial child development center. One of Boston's best and most affordable.

Maria Teixeira (to toddler): Where's Henry?

Toddler points

Maria Teixeira: There's Henry!

NARRATOR: Demand for a spot here is high.

31:22 **MARIA TEIXEIRA, Director, Ellis Memorial Early Education Center:** This is our waitlist and this is the wait list just for infants and toddlers. It's that crazy, but it's a different world that we live in. They have to get to work.

AIYAUNA TERRY: Now you guys are going to think about what you're thankful for. Cyanne, do you want to share?

Child shakes head "no."

AIYAUNA TERRY, Preschool Teacher, Ellis Memorial Early Education Center: You don't have to if you don't want to. That's OK.

NARRATOR: Ellis provides nurturing, child-centered care by skilled teachers, like Aiyauna Terry.

TERRY: Would you like to share? Go ahead, Lilly, what are you thankful for?

LILLY: My mommy and my daddy…

TERRY: That future inventor, doctor, nurse, whatever this child could be, now is the time that their brains are at work.

AIYAUNA TERRY: And can you tell him where the road is going to take you?

JACK: It's gonna take you to Boston all the way down here.

Children and teachers in child care classroom

NARRATOR: Teachers are rigorously evaluated. Ellis is safe, clean, and offers a stimulating environment for the early years.

CHILD CARE WORKERS (singing in scene): If you see an alligator, don't forget to scream!

NARRATOR: It's not only licensed, it's nationally accredited.

JAMES HECKMAN: Child care can't be some kind of warehouse, because it's more than just taking care of the child for 8 hours a day.

TERRY: *I need to find a wig for that. Should I wear a curly wig?*

HECKMAN: Quality early childhood program is opportunity to invest in the child and to promote the capabilities of the child.

Preschoolers in Ellis classroom play dress up

Off Camera Voice: Who are you?

CHILD: Fireman!

33:01 **NARRATOR:** Studies by Heckman, Art Rolnick, and others show that children who receive quality care are on average better educated, healthier, more productive, and earn higher pay…

PRESCHOOLER: Fire! Fire!

TEACHER: Oh, where is there a fire?

PRESCHOOLER: Way over there!

NARRATOR: …while lowering the cost to society of unemployment, social services, health care, and incarceration.

HECKMAN: These kids actually have what economists call a higher rate of return. For each dollar invested you get back 7 percent to 10 percent, somewhere between 7 and 10% per annum over the lifetime of the child. Which is a huge rate of return. In the US stock market, a good portfolio, an average portfolio would earn about 6% a year. So if you were a financial planner, investor, or if you were a government or somebody asking, "Where should I put my money? In the stock market or in a young child?" You'd say in a young child."

Children's photographs in daycare mural

NARRATOR: But that's not where the nation is investing. Across the country only 1 in 10 childcare centers is accredited.

Cut to cemetery, cut to bad daycare images, cut to childcare worker photo

NARRATOR: In California, cemeteries are inspected more often than childcare centers.

Staff training is often not required and oversight is lax. The annual median wage for American's childcare workers in 2013 was only $19,600 – less than poverty level for a family of three.

David and Yaminette Linhart sit down to dinner with their children.

YAMINETTE DIAZ-LINHART: Are your dinosaurs joining us?

YAMINETTE DIAZ-LINHART: The back up plan is to get into Ellis. And if, come September, that doesn't work out. Then David and I will figure something else out…

YAMINETTE DIAZ-LINHART: Stack 'em up for her. One, two, ...

34:48 DVD Chapter 8: A Federal Role?

NARRATOR: Yaminette and David, and millions of American parents, would not have to "figure something else out" if the nation had done what it was on the verge of doing almost 45 years ago.

Archival: Mother with young child circa 1970s.

Graphic: Comprehensive child development program

NARRATOR: Back in 1971, Congress passed legislation called the Comprehensive Child Development Act or CCDA. It offered universal, high quality childcare, preschool, and other services for children from birth to age 5 to any and every American family that wanted them. The legislation awaited only a presidential signature to become law.

Archival: CBS news report on CCDA legislation

DANIEL SCHORR (Archival OC): The word is now that the Administration will announce its position next week. And the day of daycare may be approaching in America.

Graphic: Animation of opposition editorials and headlines

NARRATOR: But opponents recast the bill as government intrusion into the individual rights and responsibilities of the family.

Archival: Nixon at State of Union address

NARRATOR: And at the 11th hour, President Nixon vetoed the bill. Since the veto, millions of a families have gone without the kind of quality, affordable care all young

children need to flourish.

Southern California.
Child care workers set up center for the day.

36:16 **NARRATOR:** But one of America's largest employers does receive federal funding to provide high quality, affordable childcare to its employees' families. It regards that care as a top organizational priority.

Parents drop their children off at daycare center.

MAJOR GENERAL VINCENT COGLIANESE, Commanding General, Camp Pendleton (2011-2013), United States Marine Corps: The most important thing to us is always that our families are taken care of. If our families are taken care of, there's a sense of security out there that we don't have to worry about 'em and we can concentrate on the mission.

Soldiers march and helicopters fly by

NARRATOR: Here at Camp Pendleton, Marine families can send their children to high quality on-base child development centers. And not just at Camp Pendleton. The same is available to every branch of the military, to all military personnel regardless of rank.

MARGARET BARIKBIN: Show daddy!

NARRATOR: Here fees are based on a sliding scale.

MEHRDAD BARIKBIN: We looked at everything from a nanny to a daycare out in town. We wouldn't have been able to afford it. Our non-military friends, they're amazed that we only pay what we pay.

MARIA LANGLEY (to baby): Hi Caleb...Hi Caleb! What is that?

NARRATOR: Child care workers receive continuous training and here they are paid about 50% more than the national civilian median.

CAREGIVER: We also have our child assessment portfolio. And we communicate daily with our parents.

MARIA LANGLEY: Are you guys all going down for naps?

Children are tucked in for nap on classroom floor

NARRATOR: All centers undergo regular surprise inspections. And most all are

accredited. But it wasn't always this way.

Graphic: Animation of GAO Report on Military Child Care

NARRATOR: In 1982, a scathing report found that military's child care was among the worst in the nation.

Archival: Military film about its childcare

NARRATOR: So in 1989, eighteen years after the CCDA would have become law for civilians, Congress passed the Military Child Care Act. Military childcare is now widely recognized as among the best in the nation.

Mother drops child off at Pendleton childcare center

JODELICE ROLON (in scene): Give me a kiss.

JODELICE ROLON: I don't know if I could transition them into a civilian CDC after being here. This is just—I don't think anything can compare to the care you get here.

NARRATOR: If we as a nation can support the families who protect our national security, why not our civilian workforce which protects our national prosperity—and their children who will advance our future health, equity and success?

39:07 DVD Chapter 9: Stealing Time - Work and Family

Mother and child waiting for train; cut to them on train; cut to them exiting train.

TAMARA HOLLOWAY: Big jump!

JACK HOLLOWAY: I didn't need your help!

ROBERT DUGGER: We talk about people should be able to succeed on their own. This is what this country's all about. But we make it very, very difficult for most of our population.

B-roll of people in different workplaces

BOYNTON-JARRETT: Parents are working really hard to care for their children, to support their families, to be engaged and productive citizens and members of the community. At the same point in time, it can be like the dice are loaded against them.

DUGGER: The set of workforce policies we now have in place are a crushing burden on parents.

Mother, father and child in Boston Medical Center pediatrics office

NARRATOR: Maintaining family and work-life balance is one of American parents' greatest stressors.

Boynton-Jarrett walks through double doors of her pediatric office

BOYNTON-JARRETT: DaNayah! DaNayah!

NARRATOR: With the overwhelming majority of our youngest children living in households where all resident adults work, this is a critical concern.

Dr. Boynton-Jarrett's patient, DaNayah, and her parents walk toward the exam room; Dr. Boynton-Jarrett chats with parents.

DaNayah looks at her father's iPhone

ERICA BURKS-CUMMINGS: I work 40 hours a week. Leroy works sometimes 60 hours a week. He works a split-shift, so like 2:00 in the afternoon to about—

LEROY CAMPBELL (Interrupting): When I'm done.

ERICA BURKS-CUMMINGS: 1:00, 2:00 in the morning.

40:27 **NARRATOR:** Leroy is a driver and mechanic. Erica a nurse. Combined they work more than 100 hours a week. In fact, American's work more hours annually than most all of our peer nations.

LEROY CAMPBELL: In today's day, we all gotta work. I can remember back in like my grandfather's days, you know, the men work, the ladies, the woman stay home and take care of the house and, you know, family things like that. In today's day, it surely can't happen. Everybody's gotta go and work and, you know what I'm saying, bring it in.

NARRATOR: A growing percentage of Americans work unreliable, precarious schedules, which can change from week to week depending on employers' demands.

Child on examining table

ERICA BURKS-CUMMINGS: In society today, it's hard. I do rotating nights, so I'm on nights this week, so then next week though I'll be on days. So it kind of balances out that way…

DANAYAH: Da da!

BOYNTON-JARRETT: Parents are juggling, shifting, trying to balance a variety of competing demands that there just don't seem like there are easy or reasonable solutions. It leads to a level of tension and stress. Is this what we've decided as society, that this degree of tension, these complex trade-offs are the norm, to be expected, just a part of raising a child?

Graphic: 'No Vacation Nation' report chart

NARRATOR: Again America's work policies fail to offer relief. The United States is the only rich nation that does not guarantee by law a single paid vacation day or holiday.

Examination room with family

ERICA BURKS-CUMMINGS: My mom still works 40 hours a week. But she helps out when she can. You know, she's a little active for me to leave her with her now. But I also have a sister who has two boys and she's totally stepped up to the plate. That helped a lot. If I'm not there, I'm entrusting someone else to keep her safe, to teach her, to help her grow in all areas, developmentally, spiritually. We have that, I call it "the village." Like if they laugh at me at work 'cuz they're like who has the baby and I'm like, "Someone in the village!" You know, that kind of thing. Because we can't do it alone.

42:42 DVD Chapter 10: Segregation and Disinvestment

Mattapan, MA

Erica, Leroy, and DaNayah walk through their neighborhood

LEROY CAMPBELL: Do you want to go far out?

DANAYAH: Yeah, all the way.

LEROY CAMPBELL: All the way out?

DANAYAH: Up, up, and up and up.

SHONKOFF: Nobody does this alone. Nobody does this in isolation. The environment that the family lives in matters.

Campbell family walks down sidewalk.

BOYNTON-JARRETT: Neighborhoods may simply not have an adequate opportunity structure to support the families optimally and the children optimally.

Montage of scenes of Mattapan

NARRATOR: Erica, Leroy and Denayah live in the Boston neighborhood of Mattapan, which has struggled with disinvestment and racial segregation for decades. Here unemployment is more than twice the national average. The banks have thrown 500 homes into foreclosure. 1 in 5 adults here reports living in persistent sadness.

Mattapan montage

POWELL: Some people live in neighborhoods where there are not good schools, where there's no tax base, that's the structure that they live in and we look at how we've structured race in America, blacks and Latinos are more likely to live in those structures. And if you live in that structure, your life outcomes are severely truncated. We know that if we take the same family and expose them to high opportunity areas, the kids will do better.

HECKMAN: What we've seen is a tremendous disparity, a growing disparity between the haves and the have-nots, and with it disparities in the environments of children, so for the next generation, so it looks bad. And the problem is that if we don't address those inequalities, we're gonna find ourselves living with the consequences of those inequalities.

44:49 DVD Chapter 11: 1 in 4 Born into Poverty

Cut to wintery, rural Maine neighborhood – Sanford, ME

Woman closes door of friend's car.

ASHLEY WALKER: "Thank you! Come on girls."

NARRATOR: Those who suffer most from this systemic inequality are the one in four American children born into poverty.

ASHLEY WALKER: Brrr. It's cold out, huh?

NARRATOR: Ashley's children, Amelia and London, are among them.

ASHLEY WALKER: You know, I'm definitely struggling, but people tell me, "You're not poor, you're broke, you're not poor."

POWELL: The United States, because we're so individualistic, when we see poor people, we're more likely to think, "It's their fault." Europe tends to think if you're poor it's bad luck and there's a structural problem. The United States tends to think if you're poor, it's your problem.

NARRATOR: Ashley and her daughters live on $1,100 a month, about $13,000 a year—well below the poverty line. This is the public assistance Ashley relies on because she's unable to work due to illness—and it's not enough.

ASHLEY WALKER: My food stamps last me about 3 weeks. I go through my house and sell what I can, anything that I can do to get money. Everybody thinks that you get state assistance, well you're just lazy and you don't want to work. That's not the case or the majority and that's sure not the case for me.

NARRATOR: Ashley became a single mother and fell into poverty when she left her husband.

ASHLEY WALKER: When Amelia was 3 months old, he became physically abusive towards me.

ASHLEY WALKER: Amelia, what's this one?

AMELIA: No hitting.

ASHLEY WALKER: Yeah.

ASHLEY WALKER: Amelia was present during all of the assaults and was right next to me.

AMELIA: Stay with mommy!

ASHLEY WALKER: Stay with mommy.

NARRATOR: She was pregnant with her second daughter, London.

ASHLEY WALKER: While I was working, I ended up going into pre-term labor because I had a large uterine tear from him kicking me down the stairs and kicking me in the stomach. And she made it, but she was six weeks early and during my over 12-week stint of being hospitalized, I did a Family Medical Leave, but those are only good for 12 weeks. And then when that ended my job told me I had taken up too much time and they just didn't have use for me. And they let me go. So I was here with two children and no job. It's been one thing after another, unfortunately.

AMELIA: Where's my butterfly nightlight? Oh, I found it!

Graphic: Child poverty rate chart

47:51 **NARRATOR:** The U.S. child poverty rate ranks 34th among 35 nations, with only Romania behind us.

ASHLEY WALKER: I'm running out of things to sell… I just worry how amI going to pay my bills. How am I gonna to take care of everything that they need. If I'm stressed, when I'm feeling upset or feeling down, they're really good, I think, about sensing it. Because they'll come up and they'll give me a hug or my daughter London, she'll come up and she'll tell me she loves me. And I worry every day if that's going to affect them.

Graphic: Pre-frontal cortex-amygdala low connectivity animation

NARRATOR: The Wisconsin study found that stress experienced even by middle class parents can alter the architecture of their childrens' developing brains. When parents are poor and struggling, the stress and anxiety they experience can be even greater. And so can the possible impact on their children.

SHONKOFF: There are many low-income families who do a magnificent job raising their children.

LONDON: This one.

ASHLEY WALKER: That's sharing, right?

LONDON: Sharing.

48:43 **SHONKOFF:** It's the pile up: low education on top of low income on top of exposure to violence, the cumulative burden of all of those forces create a sense of chronic crisis, chronic activation of the stress system, what we call toxic stress.

NARRATOR: The Wisconsin study found that the stress experienced even by middle class parents can alter the architecture of their childrens' developing brains. When parents are poor and struggling, the stress and anxiety they experience can be even greater. And so can the possible impact on their children.

BURGHY: Why is mom upset? Now why are mom and dad yelling? Do I have any food? You have all of these things going on that you don't really have any more cognitive or physical energy to deal with anything else.

Ashley Walker, Amelia and London playing cards on living room floor.

LONDON: I can't find it!

ASHLEY WALKER: You'll find one. We all gotta find one eventually. Your turn Mia.

ASHLEY WALKER: Amelia is so bright. She's just hilarious and London is also so funny [Laughs] and so adorable! But, but she is facing with her own struggles. She's dealing with hypersensitivity.

LONDON: Stop!

ASHLEY: Amelia, you're upsetting her.

ASHLEY WALKER: If you look at her the wrong way, she'll cry. Uh, if you tell her to wait a minute, hold on, one second, she'll cry.

ASHLEY: Oh so close!

LONDON: I told you I can't find it!

ASHLEY: We'll find one.

NARRATOR: Children who've faced the uncertainty of poverty and other adversities may often have a hair-trigger stress response. Being constantly on alert makes sense in a precarious world. But it has consequences.

ASHLEY: No, we're not gonna get mad and do that.

BOYNTON-JARRETT: The adaptation of the individual is functional for dealing with those adversities, but comes at the expense of your ability to then engage in other things, to learn productively in your environment, to engage with others or form relationships. So it comes at a cost. The biggest question is what do we do after a child has faced an adversity and what are we doing to prevent future adversities.

ASHLEY WALKER: I'd like to think they're doing really well. I worry every day that I might not be enough for them. I worry are they happy? Do they feel enough love? I'm trying my best to give them everything that I can. If I could give them more, I would. It's hard.

BOYNTON-JARRETT: The brain has the ability to grow and develop. It also has the ability to heal. If we can create a reliable, structured social environment that is safe and secure, the capacity of the brain and the human spirit to continue and thrive and develop is beyond what any of us could predict.

52:21 DVD Chapter 12: Invest in Us

Graphic: Brain cell animation

Montage of children and their parents

SHONKOFF: What do we all want for our children? We want them to be healthy and

thriving. We want them to be growing and learning and being all they can be.

AIDEN: My name starts with an "A"
BOYNTON-JARRETT: That's right!

SHONKOFF: We want them to be happy. What could we be doing to strengthen the capacity of everyone who interacts with children to be able to provide more of what they need? What could do to be smarter?

Children on playground

DUGGER: Smart societies look ahead and if they see a cliff, they turn the car and drive this way. They don't need the accident to teach them, "need to turn the car, need to change direction." We know we got a crisis, but we're choosing to try to perpetuate the old way of doing things. We've got to make different choices.

SHONKOFF: How can we strengthen families?

ANN WATERMAN ROY: Where's my other child? Oh there you are.

SHONKOFF: How could we strengthen the capacity of this community to provide a safe and nurturing environment to raise children? What kind of role could business play to help support the family life of the people who work for them?

ART ROLNICK: There's a policy gap in this country…

Ellen Bravo walks through DC

REP. ROSA DELAURO (in scene): How many signatures do you have here?

VICKI SHABO: We have more than 46,000 signatures...

SHONKOFF: Instead of blaming government programs we ought to say how could we do a better job.

Brooklyn and his parents walk streets of Boston

MARLIS BALDERAMMA: What do you want to be when you grow, hun?

BROOKLYN: A fireman!

BALDERAMMA: A fireman! So you want to help people?

54:10 BOYNTON-JARRETT: There is strong and overwhelming evidence that's all saying the

same thing: investing early in the lives of all children is not only cost effective for the whole society, but it improves well-being for all members of society.

Brooklyn and classmates build with wooden blocks
BROOKLYN: We're building a house! Do you want to help us?

Brooklyn and classmates put on hats with country flags showing their heritage

POWELL: If we worked out the problem of actually being inclusive and fair for all children in terms of their productivity as future workers and their productivity as future citizens and member of society, America would explode in terms of creativity, in terms of growth, in terms of ingenuity. If we play with a full deck, this country would explode.

Brooklyn runs around in the gym and finds his mother

AIYAUNA TERRY: If you think about our future and what America's going to look like, this is the future right here. Invest in their parents.

Montage of parents and their children at home and dropping them off at daycare.

TERRY: Invest in these children. They're not going to fail you, but we can't fail them now.

Brooklyn walks hand-in-hand with his parents.

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