It is a pleasure to be with you today.

I am an economist who studies, among other things, the economics of education and the economics of creating flourishing lives, starting from the early years and going into the college years and beyond.

In many ways, my quest is not unlike that of the average parent. I address the questions they seek to answer each and every day: What are the best investments I can make in my child to ensure that he/she grows up to be a healthy, well-rounded, productive and highly valued adult?
The answers I have found are the same as those intuitively deduced by good parents. Invest in a strong family and home environment. Make health and nutrition a priority. Provide a constant stream of intellectual and emotional stimulation from day one. Socialize the child with other children and adults. And foster their cognitive and character skills from infancy to young adulthood and beyond—in the home, through formal schooling, in college and on the job.

The vast majority of parents can and do make these investments in young children and they pay off in productive citizens. The problem is that some cannot, don’t know how or don’t have the means because of a wide range of personal, social, economic and global factors. Unfortunately, this population is growing both absolutely and as a fraction of all families, and it is causing growing inequality at the same time that political and ideological polarization has spread through policy-making like a cancer on common sense.

What every good parent knows about investing in human capital is ignored by governments and societies. What is intuitively obvious and widely known is still largely ignored in public policy: the
value of supplying families and children who need help with parental resources: knowledge of parenting, early childhood health, nutrition and learning. The reasons are clear. The price is steep and the benefits are thought to be uncertain. In addition, the policies are thought to be intrusive on the sanctity of family life—the early years—where values are set. Also, it is politically sensitive to talk about the serious problems facing families in America, although they are being actively discussed.

Despite these challenges, we see genuine, bipartisan movement toward investing in early childhood education on the state and federal levels—and among Democrats and Republicans. Reauthorizing Child Care Development Block grants and Home Visiting have had strong bipartisan support. The one thing President Obama and the Republican Congress can agree on is increasing child care tax credits. And, Senators Isakson and Murray recently collaborated on encouraging the alignment of early learning with K-12 schooling in an amendment to ESEA reauthorization, the Every Child Achieves Act of 2015.
All of this is encouraging—but our policymakers aren’t close to actualizing the potential value of early childhood. The episodic focus on specific programs and investments often misses the full case for investing in comprehensive early childhood resources for disadvantaged children from birth to age five:

1. Quality early childhood programs are both socially fair and economically efficient.

2. Successful early childhood programs are voluntary; they work with families and bolster them, creating better outcomes for parents and children.

3. They promote family values—they enhance the capacities of parents and children’s abilities to function. They do not force parents or children into a mold—they enlarge opportunity and the choice set of parents and children, but they do not force choices on anyone. They do not undermine basic family values.

4. That strong early foundations in cognition and socio-emotional skills percolate over enhanced achievement in multiple domains: health, crime, education, earnings.
A large body of evidence shows the benefits of investing in early childhood stimulation and nurturing for disadvantaged children. Numerous rigorous empirical studies, including those of the Perry Preschool program, the Abecedarian program, Head Start and the Nurse Family Partnership program, consistently show the value to the economy and society of investing in the human capital development of children from birth to age five. Numerous studies of the features of family life that contribute to developing children who lead flourishing lives point in the same direction. They show the harm that ensues when such investments are not made.

Today, many policymakers, advocates, business leaders and philanthropists are now embracing the evidence-based wisdom of investing in high-quality early childhood programs and bolstering American family life. But progress is slow and investment too small given the evidence and the significant opportunity to do better. Today, I want to review the strong evidence supporting these initiatives to address how we can make a fairer, more productive society.
The data provide clear guidelines for action. First, American policy should acknowledge the power of the accident of birth. A child does not choose the family he or she is born into; but society can enrich the opportunities of disadvantaged children to flourish. We can do this by supplementing the parenting resources available to children and scaffolding the lives of disadvantaged children by giving to them the nurturing and stimulating environments available to children in more advantaged families.

Society and the programs launched by today’s initiatives should recognize that good parenting is paramount to life success. Without doubt, the family is the greatest contributor to the success of children and to upward social and economic mobility. And, without doubt, in many quarters of our society, the American family is under great stress. The way parents interact with their children, the amount of time they spend with them and the resources they have to provide intellectual and social stimulation greatly affect their children’s potential for leading flourishing lives.
Children Under 18 Living in Single Parent Households by Marital Status of Parent


Note: Parents are defined as the head of the household. Children are defined as individuals under 18, living in the household, and the child of the head of household. Children who have been married or are not living with their parents are excluded from the calculation. Separated parents are included in “Married, Spouse Absent” Category.

Mean Achievement Test Scores by Age by Maternal Education

Each score standardized within observed sample. Using all observations and assuming data missing at random. Source: Brook-Gunn et al. (2006).
Hart & Risley, 1995

Children enter school with “meaningful differences” in vocabulary knowledge.

1. Emergence of the Problem
In a typical hour, the average child hears:

<table>
<thead>
<tr>
<th>Family Status</th>
<th>Actual Differences in Quantity of Words Heard</th>
<th>Actual Differences in Quality of Words Heard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welfare</td>
<td>616 Words</td>
<td>5 affirmatives, 11 prohibitions</td>
</tr>
<tr>
<td>Working Class</td>
<td>1,251 Words</td>
<td>12 affirmatives, 7 prohibitions</td>
</tr>
<tr>
<td>Professional</td>
<td>2,153 Words</td>
<td>32 affirmatives, 5 prohibitions</td>
</tr>
</tbody>
</table>

2. Cumulative Vocabulary at Age 3

<table>
<thead>
<tr>
<th>Cumulative Vocabulary at Age 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Children from welfare families:</td>
<td>500 words</td>
</tr>
<tr>
<td>Children from working class families:</td>
<td>700 words</td>
</tr>
<tr>
<td>Children from professional families:</td>
<td>1,100 words</td>
</tr>
</tbody>
</table>

Parental Investment Over Childhood Across Ethnic Groups

Girls & Boys: Cognitive Stimulation

Source: Moon, 2014
The evidence shows dramatic differences in achievement test scores and in social and character skills across children from different economic and social groups. Children of college-educated mothers achieve at a far higher rate than children whose mothers have a high school degree or less. These gaps emerge long before children enter kindergarten.

Twenty years ago, the developmental psychologists Hart and Risley showed that the achievement gap opens as early as age three. In a typical hour, a child living in a disadvantaged family hears roughly 600 words. By contrast, in that same hour a child in a professional family hears over 2,100 words. By age three, the cumulative vocabulary of a child living in a disadvantaged family is 500 words, far below the 1,100 word cumulative vocabulary possessed by a child from a professional family. This early inequality of basic skills tends to persist throughout life and leads to economic and social inequality in the capacities to act that are difficult to close later in life.

Taking the long view, Americans can most effectively address inequality in society with a strategy of predistribution—by enriching
the parenting resources for young children in disadvantaged environments, not by redistributing income to adults. Child disadvantage is not properly measured by a lack of money available to the parents of children. Unconditional income transfers to poor families are not nearly as effective in producing upward mobility and lifetime success of their children as is a strategy of enriching the nurturing environments available to young children that promote a child’s physical, mental and social development. Investments that bolster the parenting capacities of families are the most effective way to promote social mobility and foster equal opportunities for all. They empower children with the capabilities to flourish as dignified and engaged citizens and workers throughout their lives. Such investments provide significant returns to individuals and society, provided that we invest in quality systems throughout the critical years of birth to age five.

Early investments are important because skills beget skills. Does preschool have a positive effect in promoting skills? Yes, according to analyses of Perry Preschool, ABC and other quality programs. But the study by Hart and Risley also shows that the gaps
between advantaged and disadvantaged children are already large at age three. Skill building begins at birth and each skill learned provides a foundation for other skills.

When it comes to skill development, America has educated itself into ignorance with its single-minded focus on solely boosting cognitive skills. We see this in the endless debates over K-12 education and the succession of initiatives from No Child Left Behind to STEM that place little or no value on building and measuring non-cognitive skills—social skills—that are just as important, and in many cases, more important than cognition.

It’s empirically documented and now rigorously established as common sense that people need multiple skills to successfully navigate all of life’s challenges. There is a strong body of research that documents how important social and emotional skills are for life success.

For too long, the conventional wisdom has been that I.Q. and cognitive skills as measured by achievement tests like PISA were the major social and economic determinants of life success. In the past, early childhood interventions were judged by their success in
boosting I.Q. On this dimension, many fail. Yet disadvantaged children participating in quality early childhood programs have had far better life outcomes on a number of measures than children who didn’t. We have learned that I.Q. isn’t everything and it doesn’t explain very much of the difference between those who succeed and those who do not. For many tasks in life, both in the economy and in larger society, socio-emotional skills—character skills—are as important or more important for success. Socio-emotional skills are highly malleable, especially at a young age. Impulse control, persistence, “grit,” self-awareness and sociability can and should be taught at the very earliest ages—and throughout the school years. These skills drive the engagement, motivation and achievement that promote successful lives as measured by full-time employment, higher wages, healthy lifestyles, less participation in crime, and engagement in a variety of socially productive behaviors.

Essential elements for successful childhoods include engaged, supportive parents and teachers, and early health, nutrition and learning. We should not underestimate the role of the parent and the power that comes from providing parents with information,
resources and choice. Ensuring that parents have the knowledge and resources for providing a stimulating home environment is just as important, if not more important, as anything that happens in the classroom when children enter school. This is where home-visiting programs and other efforts to productively engage the parent in the life of the child come into play. They foster parental attachment, positive interactions and hence greater parental investment in children.

It has long been established that programs such as Abecedarian and Perry Preschool produce better educational, social and economic outcomes for the children enrolled in them. More recent evidence shows that quality early childhood programs can also prevent chronic disease and substantially lower healthcare costs.

Until recently, nobody had analyzed the health effects of the Abecedarian program for its participants who are now at or approaching age 40. From birth to age five, treated children in the Abecedarian program received nutrition, early learning and health services in the form of periodic check-ups and health screenings, referral for treatment and management of compliance with medical
protocols. Through center visits, their parents received advice on how to create a nurturing home environment, and there is evidence that parents of participants did so. There is similar evidence from other studies.

The effects on adult health of a program originally designed to boost cognition are remarkable, particularly among males. This evidence shows the benefits of boosts in character, self-control and cognition that percolate across all domains of life. Treated males had higher “good” HDL cholesterol and substantially reduced levels of hypertension, systolic and diastolic blood pressure, and metabolic syndrome, which dramatically increases one’s risk of heart disease,
diabetes and stroke. Treated males had no metabolic syndrome.

None! Zero! Incidence among males in the control group was 25%.

There were also positive effects for women in the treatment group. They were less likely to suffer from pre-hypertension and obesity and were at significantly lower risk for total coronary heart disease than those in the control group.

A program originally designed to boost I.Q. worked, in fact, by boosting both the cognitive and non-cognitive skills of participants, giving them greater control over their lives to make healthy lifestyle choices. It started shortly after birth and also created permanent gains in I.Q.
The evidence shows that it is much more effective to invest in high-quality early childhood programs than to remediate later in life. For early childhood programs targeted to disadvantaged children, there is no trade-off between equity and efficiency as there is for most other social programs. Every dollar invested in high-quality early childhood programs for disadvantaged children produces a 7-10% annual return on investment through increased productivity and lower social costs. This estimated return accounts for all of the social costs and distortions that arise in taxing people to raise revenue, and passes the market test of even the most fiscally conservative.

Quality early childhood programs for disadvantaged children are not entitlements or bottomless wells of social spending. They are not government boondoggles. The investments we make today in disadvantaged young children promote social mobility, create opportunity and foster a vibrant, healthy and inclusive society and economy. Investing in the lives of disadvantaged children is a strategy that appeals to Americans across all economic, social and partisan lines. It promotes family values. It strengthens the American family
by offering voluntary programs that enrich the lives of children and builds in them the skills that create successful lives, while at the same time respecting diverse cultural and religious values. It fosters social inclusion and the productivity of the American workforce, and creates a healthier society for all.