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**Understanding the Incentives to Work for Children with Disabilities as They Age  
Out of the Supplemental Security Income-Disabled Children Program**

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## **Abstract**

This paper demonstrates that since the early 1980s automatic changes embedded in SSI-disabled adults and SSDI program benefit formula together with some specific changes in program rules have resulted in the unintended consequence that less work is required for each new cohort of children transitioning off the SSI-disabled children program to earn SSDI benefits greater than their SSI-disabled adults program benefits. This does not appear to be matched with systematic increases in the work of categorically eligible youth, suggesting that the full returns to work may not be fully understood by young adults and their advocates.

Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI), are the two most important government transfer programs providing cash benefits to people with disabilities deemed unable to work. SSDI is a social insurance program that provides cash transfers to working-age men and women based on their past labor earnings. Because it is an earnings replacement program, to maintain a constant replacement rate (benefits as a share of average lifetime earnings) average benefits to new cohorts of beneficiaries are designed to increase as their cohort's real average earnings rise. Individuals who have contributed to the Social Security system sufficiently to be covered by SSDI and who demonstrate that they recently worked but are now unable to perform any substantial gainful activity because of a medical or functional limitation can receive these benefits.

SSI includes two programs for disability, one for adults and one for children. The SSI-disabled adults program is a categorical, means-tested welfare program that provides cash transfers to adults who meet the same substantial gainful activity test as SSDI recipients but whose total family income and assets are below a certain maximum. Because it is a poverty elimination program, its guaranteed minimum benefits are increased over time in the same way as the official poverty line is increased—based on increases in the inflation rate. Hence the benefits it guarantees to new cohorts of beneficiaries are constant in real terms but fall relative to average SSDI benefits when real average earnings rise. The SSI-disabled children program, like the SSI-disabled adults program, is also a categorical, means-tested welfare program. It provides cash

transfers to low-income families of children who since the 1989 Zebley decision meet the child version of the SSDI substantial gainful activity test. Its benefits are also increased over time with the inflation rate and they continue being paid to the family until children age out of the program at age 18.

In this paper we document the unintended consequences of these unsynchronized automatic changes embedded in the SSDI and SSI-disabled adults programs' benefit formula together with some specific changes in SSDI program rules. We show that since the early 1980s these changes have resulted in almost continuously less work being required, for each new cohort of children transitioning off the SSI-disabled children program, to acquire the option for SSDI benefits that are greater than their SSI-disabled adults benefits. We do so using two alternative life cycle work and retirement objectives:

1. How much do such young adults have to work to earn an SSDI pension that, when they stop working, will be greater than the pension they would receive if they never worked and simply aged onto the SSI-disabled adults program?
2. Assuming such young adults are capable of sustaining some level of real earnings until retirement age, at what earnings level is it in their interest to be on the SSI-disabled adults program, at what earnings level is it in their interest to move onto the SSDI program, and at what earnings level should they do neither and work until retirement?

But as we will briefly discuss below this almost continuous increases in the returns to work for new cohorts of children aging off the SSI-disabled children program does not appear to be matched with systematic increases in either the work of these categorically eligible youth or their eventual movement off the SSI-disabled adults rolls and onto to the SSDI rolls. We suggest that one explanation for this lack of a behavioral

response may be that the increasing rewards to work for succeeding cohorts of young adults with disabilities may not be fully understood by these young adults or their advocates (parents, teachers, counselors). If this is the case, some intervention that better informs them of the value of work could substantially increase the lifetime work and labor force attachment of these young adults and hence their disability benefits, once they either stopped working or stabilized their work efforts until retirement age.<sup>1</sup>

### **The Transition of Children off the SSI-Disabled Children Program**

Hemmeter, Kauff, and Wittenburg (2009) found that in 2001 nearly two-thirds of children aging out of the SSI-disabled children program transitioned directly onto the SSI-disabled adults rolls. Once this transition was complete, less than 30 percent of these young adults receiving SSI benefits were working at age 19 (Hemmeter, Kauff, and Wittenburg 2009). Thus, most SSI-disabled children beneficiaries still age out of this program into what is likely to be a permanent state of relying for their income on participation either in the SSI-disabled adult program or other welfare programs in the event of denial of SSI-disabled adult benefits.

This is costly to both the beneficiaries who live their lives at or near the poverty threshold and to taxpayers who are funding their benefits. In April 2005, approximately 776,000 youth aged 14 through 25 were receiving either SSI-disabled children or SSI-disabled adults benefits totaling more than \$340 million each month (MDRC, 2008). The cost of providing such a low level of economic well-being to a growing number of young adults, most of whom have aged onto the SSI-disabled adults rolls, has raised concerns

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<sup>1</sup> In work funded by the Social Security Administration we have put this research into practice and developed a prototype of a financial literacy tool called the Work Pays Calculator. This calculator was presented at the FLC conference in Washington, DC November 18-19, 2010.

among policymakers (Social Security Advisory Board, 2006) and resulted in a large scale attempt by the Social Security Administration to support work among young adults on the SSI-disabled adult program (SSA Youth Transition Demonstration Project, 2010).

As Figure 1a shows, children represented over 15 percent of SSI recipients in 2009, compared to less than 2 percent in 1974 and this growth primary occurred after the 1989 Supreme Court (Zebley decision) ruling required SSA to make it easier for children whose disabilities did not meet the medical listings to become eligible for benefits. As a result the number of children aging out of the program has been growing. (See Daly and Burkhauser, 2002 and Burkhauser and Daly forthcoming for a history of the SSI-disabled children program). Their movement onto the SSI-disabled adult program is documented in Figure 1b which shows that beneficiaries aged 18-21 on that program have grown from under 100,000 in 1974 to 350,000 in 2010. In contrast, Figure 1b also shows that the number of SSDI beneficiaries aged 18-21 over this same period has remained constant at around 10,000. Figure 2 shows that since 1993, employment among young adult SSI recipients ages 18-21 has averaged 11.1 percent, hitting its highest level of 13 percent in 2000, when Hemmeter, Kauff, and Wittenburg (2009) studied this population but by 2009 it had fallen to 9 percent, its lowest level over the entire period.

Below we will show that:

- a) the post-Zebley reduction in the severity of the average child on the SSI-children program;
- b) the large share of children moving directly from the SSI-children program to the SSI-adult program;
- c) the substantial increase in young adults on that program especially in contrast to

the smaller and constant numbers that age on the SSDI rolls, and

d) their very low and relative stable employment rates,

that we document above are all somewhat surprising, given the continuous increase in the returns to work at these ages that we find since the early 1980s because of evolving SSI-disabled adult and SSDI benefit formulations.

### **The Evolution of the SSI and SSDI Programs and Their Effect on Returns to Work**

To understand how returns to work have been changing over time for succeeding cohorts of young adults aging out of the SSI-disabled children program who are categorically eligible for SSI-disabled adult and SSDI benefits, it is important to first see how these programs were developed and how they have evolved over time.

*Supplemental Security Income.* The federal SSI-disabled children program is a categorical means-tested transfer program that provides income to the family of a child with a health condition that prevents him or her from performing age-expected tasks, as well as providing Medicaid eligibility to the child. These federal benefits—\$674.00 per month in 2010 (individual states may supplement these benefits)—available from birth, continue until the child reaches age 18. At that point he or she is deemed an adult and is required to undergo a redetermination to test eligibility for the SSI-disabled adult program. The SSI-disabled adult program is a categorical means-tested program for adults whose health condition prevents them from performing any substantial gainful activity. Once on the program, benefits continue indefinitely, unless the recipient earns or receives enough income to reduce these benefits to zero.

Hence, since SSI's passage in 1972 and its implementation in 1974, the US federal government has provided a guaranteed income floor for disabled children,

disabled adults, and to all persons once they reach age 65. But the level of the guarantee was limited. It together with Food Stamps and other in-kind transfers like Medicaid were only meant to be enough to lift “those not expected to work” out of poverty. The view was that the SSI benefit population would fall, especially for older persons, as a greater percentage of older persons became eligible for Social Security retirement and disability benefits. (Berkowitz 2000; Final Report of SSI Experts 1992). This has turned out to be the case for older persons. The SSI-Old Age population has decline both absolutely and relatively since the 1970s.

In contrast both the SSI-disabled children and SSI-disabled adults program populations have grown substantially over time, despite the fact that the real value of these benefits has not grown over time. Since 1975, the federal SSI benefit guarantee has increased each year based solely on the growth in the consumer price index (CPI-W) which, since 1975, has not grown as fast as average wage earnings.<sup>2</sup> Figure 3 shows the National Average Wage Index, the basis for calculation of a beneficiary’s AIME, growing substantially faster than the CPI-W beginning in the mid-90s. Thus all succeeding cohorts of children and adults coming onto the SSI-disabled children or SSI-disabled adults rolls since 1979 have received the same real value of benefits even though the average American worker’s wage earnings have increased substantially since then.

*Social Security Disability Insurance.* The majority of Americans who experience the onset of a disability do so well after they have passed into adulthood and have a work history substantial enough to have earned them SSDI program coverage: in 2009, about 7.8 million SSDI disabled beneficiaries received benefits based on their own work

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<sup>2</sup> Before 1975, COLAs were set legislatively. See <http://www.ssa.gov/oact/cola/colaseries.html> for more details.

history, compared to 6.5 million recipients, of all ages, of SSI funds based on disability (Annual Statistical Report of DI 2009, SSI Annual Statistical Report 2009). SSDI is the major source of protection provided to workers whose health condition prevents them from performing any substantial gainful activity. Unlike SSI, which is a pure welfare program, SSDI has characteristics of both a private insurance system and a redistributive system.

SSDI does not provide universal coverage. Rather like a private insurance program, coverage is provided only to those with a sustained tenure in the workforce. And SSDI benefits, like private insurance benefits, are structured to replace a worker's average earnings. In addition, to maintain the same replacement rates for successive cohorts of workers over time, SSDI, like the Social Security Old-Age (SS-retirement) benefit program, uses a wage index, the National Average Wage Index, to establish a worker's "average indexed monthly earnings" (AIME) on which both SSDI and SS-retirement benefits are based.

But because of their redistributive goals, both SSDI and SS-retirement benefits are made progressive by requiring fewer quarters of work for younger workers to gain insurance coverage than are required of older workers. In addition, younger workers are permitted to use fewer work years in the formula that calculates their AIME. But more importantly for redistributive purposes, the final component of the formula that determines the actual benefit that a worker receives as a function of their AIME—the Primary Insurance Amount (PIA)—has two bend points (around which there are three rates:  $.9AIME$ ,  $.32AIME$ , and  $.15AIME$ ) that ensure that lower average wage earners receive higher replacement rates from their lost average earnings (see the Appendix for

the specifics of the calculation). But, most importantly for our purposes here, the points at which the .32 and the .15 multipliers begin each year is determined by the same wage index that adjusts past wages in the AIME formula.

Thus, this AIME to PIA formula not only ensures that the replacement rate for low average wage earners is higher than the replacement rate for those with higher average wage earnings but also that each successive cohort of workers moving onto the SSDI or Social Security-retirement program will receive the same replacement rate as previous cohorts. That is, unlike the SSI program, as real wage earnings have increased in the United States over time, real SSDI and Social Security-retirement benefits have increased.

And importantly, the PIA bend point formula that ensures that lower wage earners continue to disproportionately gain from this growth does so by increasing the level of real earnings covered before the first bend point from .9AIME to .32AIME. As we will show, the seemingly unintended consequence of this growing reward for work at low earnings levels in the SSDI program, together with the small number of years needed to establish SSDI coverage and calculate an AIME for those who begin work before age 22 and take benefits before age 25, has made it increasingly easy for successive cohorts of children who age-out of the SSI-disabled children program to become eligible for an SSDI benefit in excess of the benefit available to them via the SSI-disabled adults program.

In 2010, the average earnings necessary to become eligible for an SSDI benefit equal to the federal SSI monthly benefit of \$674 once you stopped working, that is, the no-work “breakeven point” was \$750 per month, or 1,242 hours of work per year at the

current federal minimum wage of \$7.25 per hour. Average earnings above this amount would have resulted in an SSDI benefit that exceeded the federal SSI benefits. To become eligible for this SSDI benefit, a young adult who started working before age 22 only needed to work for two consecutive calendar years and those two years were all that were considered in the AIME calculation of benefits if they then applied for SSDI benefits at any age up to age 25. (For a more detailed discussion of the SSI-disabled adult and SSDI program rules see the Appendix)

### **A Comparison of SSI-Disabled Adults and SSDI Program Benefits**

In this section we focus on the question—How much do youth aging out of the SSI-disabled children program who are categorically eligible for SSI-disabled adult and SSDI benefits have to work to earn an SSDI pension, such that they can stop working and receive SSDI benefits greater than the benefits of the SSI-disabled adults program?

To answer this question, we examine the returns to work for young adults who age out of the SSI-disabled children program at age 18 and who could meet the categorical requirements for either the SSDI or the SSI-disabled adults program, that is, persons who would be eligible on medical grounds for either of these programs if they did not work but who could work to some degree despite their impairment. We do so by first finding the number of years they would be required to work to be covered by the SSDI program and the number of years that would be used in calculating their AIME benefits and then by finding the earnings level that would make these potentially disabled workers eligible to receive an SSDI benefits that exceeded their potential SSI benefit once they left the labor force.

Figure 4 presents the years-of-work requirements for both SSDI eligibility and

full benefits. In addition to the medical eligibility requirement, an applicant also needs to satisfy a recent work requirement. This requirement is 5 years of work – 20 Quarters of Coverage<sup>3</sup> - in the 10 years preceding disability application for applicants age 31 or older. However, because younger disabled workers have less time in which they could have worked, their recent work requirement is lower. Those under the age of 24 need only 1.5 years of work – 6 QCs – out of the past 3 years. Between the ages of 24 and 31, the recent work requirement increases from 1.5 to 5 years of recent work, at the rate of an extra 0.5 years for every year older. Hence, an applicant who just turned 26 and is applying for SSDI must have earned 2.5 years worth of QCs in the past 5 years.

Although these rules apply at the time of SSDI application, the solid black line in Figure 4 answers an alternate question: if an individual started working at a given age, how long must he or she work before satisfying the recent work requirement. For those starting work under the age of 22.5, 1.5 years of work, 6 QCs, would be earned before the applicant turned 24, fulfilling their recent work requirement. However, consider a different scenario: for someone starting work at age 23.5, after 1.5 years of work, the individual would now be 25, and thus would require 2 years of recent work. They would have to continue to work until they turned 26 to earn SSDI insured status, having worked the 2.5 years necessary for SSDI eligibility at that age. This increase in required recent work continues at a rate of 1 extra year of work required for every year later that the young adult enters the workforce,<sup>4</sup> until reaching the maximum of 5 years of recent work.

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<sup>3</sup> A Quarter of Coverage (QC) was earned for every \$1,180 of earnings in 2010, with a maximum number of QCs earned in a year of 4. This dollar amount is indexed to wage growth.

<sup>4</sup> This rate comes from the fact that a young worker who starts late must both earn at least 2 QCs per year of work, plus, their requirement for QCs increases at the rate of 2 QCs per year older, hence, their requirement for recent work increases at a rate of 4 QCs per year of delay in employment commencement, or a rate of 1 year of recent work for every year older.

By the work-start age of 26, after 5 years of employment, that worker would be 31 and subject to the 5 out of the last 10 years of work requirement.

The solid black line mapping the work-start age to the recent work requirement is displayed as having a constant slope between ages 22.5 and 26. This year requirement actually increases discretely by a quarter of work every quarter of age older, but for the purpose of this graph, this quarterly increase is approximated by a straight line.<sup>5</sup>

The gray, dashed line represents a distinct component of the SSDI program benefit calculation. Like Social Security retirement benefits, an individual's monthly benefit is calculated based on the average indexed monthly earnings (AIME) from a set number of "computation years" – in the case of retirement benefit, the highest 35 years of indexed earnings are averaged to establish a beneficiary's AIME. If a retiree has only 34 years of earnings, their "missing year" will be averaged in as a 0 in the AIME calculation, reducing the retiree's benefits accordingly.

For the SSDI-AIME calculation, the number of computation years is normally less than 35, since disability onset can occur anytime in a worker's career, rather than just near retirement. Since younger disabled workers haven't had the opportunity to work for 35 years, the number of computation years ranges from 2 years for those applying for benefits at age 23 or younger, to 35, for those applying for benefits at age 61 or older. The number of computation years increases at a rate of one computation year for every additional year older, with one exception: every fifth year between the current age and age 21, an applicant accrues one "dropout year," allowing them to omit their lowest year

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<sup>5</sup> We've assumed that the worker in question is born on January 1<sup>st</sup>; hence, this graph prevents the lowest amount of work that would be required. For the purposes of the recent work requirement line, there is only a 3-month range that the year requirement can change; however, for the full-computation-year line, discussed below, there is a 1 year range in which the year requirement can change.

of earnings from the AIME averaging process. A maximum of five dropout years can be accrued. So, a 24-year-old applicant's AIME is based on 3 computation years, while both 25-year-old and 26-year-old applicants' AIMEs are based on 4 computation years, since the 26-year-old has accrued one dropout year.

The gray dashed line in Figure 4 answers the parallel question as the recent work requirement question: if a potential applicant starts work at a particular age, how long must she work before there are no zero-earnings years used to calculate her AIME? For example, those starting before the age of 22, after two years of work, are still under the age of 23, and thus these two years are sufficient for no missing computation years.

However, if she starts work on her 22<sup>nd</sup> birthday, after two years of work, she is age 24 and for that reason her AIME is calculated based on 3 years of earnings. If she works another year, she is now 25 with 3 years of earnings, but at that age, her AIME is calculated based on 4 years of earnings and thus she still has a year of zero earnings in her AIME calculation. But if she works an additional year, she is 26, with 4 years of earnings and has accrued one dropout year, so her years of work catch up with her AIME requirement of just those 4 years of earnings. This explains why the years of work necessary to insure that there are no zero years in an AIME computation for those starting work on or after their 22<sup>nd</sup> birthday jumps from 2 to 4.

This pattern continues if she had started work on her 23<sup>rd</sup> birthday, which means she has missed two years of work and thus must earn two dropout years to catch up, but dropout years are only accrued every fifth year. So she will have zero-earnings years in her AIME unless she works for 9 full calendar years and applies for benefits on or after her 32<sup>nd</sup> birthday. The pattern continues: for every year later that she starts work, she

must work an additional 5 years to accrue a dropout year to eliminate that missed year of earnings. However, this steep ramping up of computation years continues only until starting work on or after her 27<sup>th</sup> birthday. Since she has missed 6 years of work, but can only accumulate 5 dropout years, she must work until she reaches the 35 computation year maximum – the same as in the Social Security retirement program.

While the number of years needed to satisfy the recent work requirement rise somewhat, the later an individual starts working, the number of years of work required to avoid a zero year in the AIME benefit calculation rises even more quickly. However, in the latter case, the more years one has already worked, the smaller will be the negative effect of an additional zero year on one's AIME. Nevertheless, there is a pronounced advantage for young adults to start working before the age of 22<sup>6</sup> if they are aiming to satisfy both recent work and no missing AIME benefits calculation years. Further, once these two requirements are satisfied, they will continue to be satisfied as long as the individual continues to work.

In figure 4 we assume that when working, the worker earns on average at least \$373 per month (\$4,480 per year) which is enough to earn four Quarters of Coverage per year - thereby satisfying the SSDI recent work requirement of 6 QCs in 1.5 years. Insured status can be obtained at a lower earnings level, but would require more time in the work force; an individual would satisfy this requirement in 2 years by earning at least \$280 per year. However, the SSDI benefit based on an AIME this low is much smaller than the SSI benefit otherwise available. Furthermore, after a \$20 general income exclusion, this SSDI benefit will be offset by a dollar-for-dollar reduction of the individual's SSI benefits.

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<sup>6</sup> Or more generally, in the calendar year before one's 22<sup>nd</sup> birthday.

Figure 5 shows just how much categorically disabled persons (those who would be judged eligible on medical or vocational grounds for benefits if they were not working), who begin work before age 22, must earn over these two years to establish an SSDI benefit that exceeds the available SSI benefits. In the 26 states and in the District of Columbia their total monthly SSI benefits in 2010 was \$674 since they do not provide state supplements to the Federal SSI payment. In another 10 states the state supplement is quite small, an additional \$50 or less per month. But in some states the state supplement is substantial.

Figure 5 compares SSDI benefits to the federal SSI-disabled adult benefits level and the benefit for states with the largest SSI-disabled adult supplements, plotting the relationship in 2010 between AIMEs and corresponding SSDI benefit levels for each AIME for an individual who works for two consecutive calendar years between the ages of 18 and 24. As can be seen in Figure 5, the slope of the SSDI line is 0.9 from \$280 to \$761, corresponding to the PIA rate of 0.9 AIME over that range. The slope then falls to 0.32 as the first PIA bend point value begins and eventually falls again to 0.15 AIME at the second PIA bend point. Because the SSI program is a welfare program and work prior to benefit receipt does not affect the maximum value received, that value is not affected by how much a potential disabled worker works prior to taking such benefits. Hence the four SSI benefit lines in Figure 5 are all horizontal, with the lowest SSI line showing the federal SSI value of \$674 per month and the higher lines representing the values for the states with the highest supplement values—Alaska, California/Colorado, and Massachusetts, respectively.<sup>7</sup>

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<sup>7</sup> Colorado, the state with the third highest supplement, is not pictured here since it is only \$8.00 per month less than California's benefit. Illinois has a SSI state supplement where the benefits are assessed on an

The AIME line intersects the Federal SSI benefit line at \$750, an AIME value that is within the initial PIA formula of 0.9 AIME, where the redistribution component of SSDI is most powerful. Hence, a young adult aging out of the SSI-disabled children program would need only an AIME of \$750 (\$9,000 per year or 1,242 hours of work per year at the federal minimum wage of \$7.25 per hour) to earn a PIA equal to the federal SSI-adult monthly benefit line of \$674. Since most states do not provide supplements to federal SSI benefits, earnings above \$9,000 would generate a SSDI benefit larger than the SSI benefits available to the worker once the potential beneficiary stopped working. Furthermore, these SSDI benefits would not be subject to an asset test or a means test for non-wage earnings. However they would be subject to the \$1,000 per month (in 2010) Substantial Gainful Activity (SGA) test which will be discussed in more detail below.

Note however that it would take more hours of work at the state minimum wage to hit the federal plus state supplement line in Massachusetts where at \$8.00 per hour a minimum wage worker would need to work 1,635 hours (closer to full time over the year) to hit the breakeven point. The amount of earnings required in the two most generous SSI state supplement states of Alaska and California is even greater. It would take a full time (2000 hours) wage rate of \$11.16 per hour to hit the breakeven point in Alaska and \$9.00 per hour for a full time worker to do so in California. These substantially larger wages are necessary because these two states lie well above the \$0.90 per dollar zone of the PIA bend point and hence the marginal gain for an additional dollar of earnings falls to \$0.32 per dollar. For instance, although Alaska's SSI state supplement is only \$186 per month higher than California, monthly earnings in Alaska would have to be over \$581 higher than the breakeven in California to earn a SSDI benefit equal to Alaska's SSI benefit

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individual basis, and thus can vary greatly from recipient to recipient.

because every dollar of earnings increases SSDI benefits by only 32 cents. This suggests that it is the relationship of the SSI benefit to the first zone of the PIA bend point that is most important in affecting the returns to work for low-skilled young adults aging out of the SSI-disabled children program.

The relatively low levels of breakeven AIME values that we observed for the federal SSI-disabled adults program have not always been so low. Figure 6 shows the minimum AIME value necessary to generate an SSDI benefit that equals the federal SSI-disabled adult benefit for all years from 1974 when the SSI program first began to 2010. The values are all in 2010 dollars and the value for 2010 is \$750 per month, the value first shown in Figure 5.

The breakeven point has changed dramatically since the SSI program was first established in 1974. The breakeven point was quite low in 1974 requiring workers to only earn \$600 per month (in 2010 dollars) to generate an SSDI benefit in excess of their SSI benefit. The breakeven point continued to fall to a program low of \$454 in 1978 as double indexation in a high inflationary environment increased the replacement rate of SSDI and dramatically reduced the amount of real wage earnings necessary to move above the breakeven point. After 1979, the SSDI benefit formula was drastically changed to a far less generous formula as part of the Social Security Amendments of 1977.<sup>8</sup> For instance, in 1978 it was possible to receive a PIA over 1.6 times the beneficiary's AMW, whereas from 1979 onward, this fraction cannot exceed 0.9, the PIA rate applied to an applicant's AIME up until the first bend point.

This formula change resulted in a massive increase in the breakeven point,

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<sup>8</sup> This formula change, part of the Social Security Amendments of 1977, was intended to stabilize replacement rates and prevent them from rising, as was projected under the previous "double indexation" benefit formula – see the appendix for more information

representing an increase in the relative generosity of SSI compared to SSDI, dramatically raising the amount of work necessary to generate an SSDI benefit in excess of one's SSI benefit, eventually reaching its real maximum in 1983 at \$1,031 in 2010 dollars. This breakeven point between 1979 and 1983 increased as consumer prices grew faster than average wages, which is documented in Figure 3. However since the breakeven peak in the early 1980s, growth in real wage income has resulted in a drop in the breakeven AIME point, in particular in the mid-1990s as wages grew much faster than general prices, also observable in Figure 3. Hence the current breakeven earnings level of \$750 per month, well below the \$1,000 substantial gainful activity line for SSDI, is now sufficient to generate an SSDI benefit that exceeds the federal SSI-disabled workers benefit.

It is unlikely that policymakers intended the breakeven line for SSI vs. SSDI benefits to vary so much for different cohorts of disabled workers. Rather, as discussed above, the reason for this movement is that SSI benefits rules require that benefits be held constant in real terms for each succeeding cohort of beneficiaries and hence are indexed to a general price inflation index (as measured by the CPI-W) while SSDI benefits are required to produce a constant replacement rate for each succeeding cohort of beneficiaries and hence indexed to changes in real wages. When average real wages grow, as they did in the mid 1990s, as shown in Figure 3, the breakeven value of earnings required to qualify for SSDI benefits falls. Moreover, since the PIA benefit formula is progressive, the 90 percent rate used for income below the first bend point applies to a growing real portion of a beneficiary's AIME. This growth, being wage indexed, has since the early 1980s exceeded the growth in the SSI benefit, leading to the currently low

breakeven point.

Figure 7 demonstrates more clearly how dramatically the breakeven point has changed over time because of how the wage indexing formula shifts the point where the 0.9 bend point phases out. It shows how the relationship between AIME and PIA in 1979, 1989, 1999 and 2010 has changed in 2010 dollars. The breakeven point for each of these four years is shown on the x-axis—\$933, \$913, \$832, and \$750 per month respectively—correspond to those reported in figure 6. As can be seen, as real earnings have risen over this 30-year time span, the initial 0.9 bend point zone in the PIA formula has grown in real terms from an AIME value of \$620 dollars in 1979 to \$750 dollars in 2010. Because the federal SSI-disabled worker benefit has remained constant in real terms at \$674 in 2010 dollars over this entire period,<sup>9</sup> it is only in 2009 that the SSI benefit level is completely below the 0.9 bend point and hence each dollar earned by low skilled young adults like the ones for the most part aging-out of the SSI-disabled children program are more powerfully increasing their potential SSDI benefits. When the SSI benefit is in the 0.32 bend point zone the power of an additional dollar of earnings is far smaller in increasing the SSDI benefit.

### **Considering Work Together with SSI-Disabled Adults and/or SSDI Benefits**

In this section we focus on the question—assuming youth aging out of the SSI-disabled children program who are categorically eligible for SSI-disabled adult and SSDI benefits are capable of sustaining some level of real earnings until normal retirement age, at what earnings level is it in their interest to be on the SSI-adult program, at what earnings level is it in their interest to move onto the SSDI program, and at what earnings

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<sup>9</sup> SSI COLAs have slightly deviated from the CPI-W over the past 30 years, but Figure 4 deflates each year's SSDI benefit schedule by the SSI COLA index, allowing for comparability across years.

level should they do neither and work until they reach retirement age?

The above results document the potential for low-skilled young adults who age out of the SSI-disabled children program and start a two-year work spell before the age of 22 to receive an SSDI benefit after they stopped working that is substantially above the SSI-disabled adult benefit they would receive if they were not working. Since the early 1980s, this goal has become more easily attainable as the earnings necessary to achieve it have increasingly been “supercharged” as they increasingly fell within the 0.9AIME zone of the PIA formula before the .32 PIA bend point.

But how has this changed for the vast majority of low skilled youth who age out of the SSI-disabled children program and move directly onto the SSI-disabled adult program? Is it in their interest to work while staying on that program and can additional work while on that program mean that eventually they will become eligible for an even higher total benefit via the SSDI program? The answers to these questions are a bit more complicated since now we must consider the way that both programs treat work.

SSDI allows beneficiaries to earn up to \$1,000 per month without penalty. But for SSDI beneficiaries who earn more than \$1,000 per month all benefits are eventually lost.<sup>10</sup> In contrast to SSI-disabled adults, after an \$85 disregard (the \$65 earned income disregard plus the \$20 general income disregard), \$0.50 of benefits are lost for each \$1.00 of earnings until benefits are completely phased out at a monthly income level of \$1,433 in 2010. Although the SSDI values have changed in real terms in the past 30 years, the

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<sup>10</sup> While exceeding SGA will eventually lead to loss of all benefits, all beneficiaries are allowed nine “months of service” – months during which a beneficiary earns more than a given trigger-earnings level (\$720 in 2010) – over a 60-month rolling period before they exit the Trial Work Period portion of their SSDI benefits and enter the Extended Period of Eligibility. If the beneficiary then earns above SGA, they will stop receiving benefits; however, if they cannot sustain this level of earnings, they can reapply for DI benefits and immediately start receiving benefits.

SSI phase-out has not.

In Figure 8 we now look at the relative advantage of permanently working at various AIME levels for those who have the option of being on either the SSDI or SSI-disabled adult program in 2010. The scenario described by this chart is that of a current SSI-disabled adult beneficiary considering whether to start a job providing a particular level of monthly earnings (represented on the horizontal axis). The graph then demonstrates the total income available to the beneficiary if he or she can continue at this level of work and either receive SSI-disabled adult benefits or, after qualifying for coverage at this AIME level, receive SSDI benefits based on the above monthly earnings. For instance, individuals with no wage earnings are ineligible for SSDI benefits, but can receive the full federal SSI-disabled adult benefits of \$674.

Once the individual can earn enough to accrue a sufficient number of Quarters of Coverage, he or she will be eligible for SSDI benefits equal to the \$252. This SSDI benefit level corresponds to the AIME of \$280, also shown in Figure 5.<sup>11</sup> If the individual decides to receive SSDI benefits, for every dollar of earnings above \$280, he or she increases their AIME earnings by \$1 and their SSDI benefits by \$0.90 (the first PIA rate) thereby increasing total income by \$1.90, as well as increasing eventual SS-retirement benefits by \$0.90, regardless of whether receiving a SSDI benefit. This rate of increase continues until the first bend AIME point at \$750, when the PIA rate falls to \$0.32 and thus total income increases at a rate of \$1.32 for every extra \$1.00 earned. However, once an individual earns over the Substantial Gainful Activity level, which was \$1,000 per month in 2010, he or she loses all SSDI benefits and falls back to the 45-

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<sup>11</sup> This earnings level is the minimum necessary for SSDI coverage and no zero-earnings AIME computation years after only 2 years of work.

degree line, the earnings-only income line.

If the beneficiary decides instead to continue receiving SSI-disabled adult benefits, for every extra dollar earned, his or her SSI benefit drops by \$0.50 after an initial income exclusion of \$85 per month, yielding only an additional \$0.50 in total income. Eventually, at a monthly earnings level of \$1,433, the SSI-disabled adult benefit has been fully phased out, and the former beneficiary is on the earnings-only income line. As is apparent, there is a sizable range of earnings when working while receiving SSDI benefits provides more total income than working while receiving SSI-disabled adult benefits. The health-based impairment that makes this youth categorically eligible for either of these disability programs will of course impact the AIME that he or she can earn. But so also will the program rules. What Figure 8 demonstrates is that there are many AIME values that will lead to a mixture of permanent work and permanent enrollment on either the SSI-disabled adult program, the SSDI program or both (in some AIME ranges the SSDI benefit would not be high enough to offset all of the SSI-disabled adult benefits for which the worker was eligible). This program benefit plus work options if fully understood by all categorical eligible youth transitioning out of the SSI-disabled children program should make work a much more valued option.

Figure 9 demonstrates how this range has changed since 1979. Once again all our values are in 2010 dollars. And as in Figure 7, our results are quite sensitive to where the SSI-disabled adult benefit plus work curve crosses the 0.9 range of the PIA bend point zone—the breakeven point. Because in all years the SSI-disabled adult plus work curve hits the SSDI benefit plus work curve below the ending of the 0.9 bend point zone there has been no change in this point over time. It is always better to remain on the SSI-

disabled adult program when your AIME is below \$500 and to continue to work at that level of earnings.

However if your earnings are above that amount but below the SGA that triggers the loss of all SSDI benefits, it is better to shift to the SSDI program and keep your earnings below the SGA. However for potential earnings past SGA for SSDI, it is better to remain on the SSI-disabled adult program.<sup>12</sup>

Note that here, because of changes in the SGA over time, as well as the extension of the 0.9 bend point zone up the real earning distribution, the AIME zone where it is advisable to shift to SSDI has changed since 1979. In particular, the zone appeared similar in 1979, if smaller, to the present situation. Throughout the 1980s, the nominal SGA was kept fixed, shrinking this SSDI plus work advantage range, until in 1989, it had nearly vanished. In 1990, the SGA was increased, but through the 1990s, the nominal SGA remained fixed and a similar shrinking occurred. In 1999, the SGA was increased, but was also tied to wage growth. Since then, the zone has stayed relatively fixed in the 2010 configuration observed in Figures 8 and 9.

Eventually, at much higher AIME values, it is preferable to continue to work until retirement without moving onto either program.

## **Conclusion**

The premise on which this paper is based is that a significant number of children on the SSI-disabled children program could—with the appropriate education and training—work after aging out of this program at age 18. Furthermore, that these numbers have been growing as the population aging out of this program has grown and since Zebley are both increasingly likely to live longer and have medically-based

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<sup>12</sup> This result will not hold if the individual has accumulated enough savings to fail the asset test.

impairments that do not completely prevent any possibility of work. Because of these changes, former SSI-disabled children recipients who are categorically eligible for both the SSI-disabled adult and the SSDI programs face stronger incentives to work and gain SSDI coverage when doing so and SSDI benefits when they stop working. But this has not been the case, possibly because these complex program rules have not been properly understood. In fact, the vast majority of these young adults do not attempt to work even though the SSI-disabled adult program would allow them to do so.

We suspect that this outcome may be more related to their lack of information about the relative economic returns to their choices than to a well conceived plan, as anecdotal evidence from the Youth Transition Demonstration suggests (Luecking and Wittenburg 2009). We show that a few years of work starting before age 22 may be the best choice even for relatively low skilled part time workers, since in addition to additions wages they receive they will become eligible for substantial SSDI benefits once they are unable to work. The may also be the case for those already on the SSI-disabled adult program since not only will work lead to higher total income for them, but over a certain range of work choices they would be better off on the SSDI program.

As complex as our analysis is, it abstracts from many potentially confounding effects experienced by applicants and beneficiaries of SSI and SSDI, especially with regard to returns to additional work. First, we model the returns to work of young adults in terms of specific program benefits but do not take into account the many potential benefits that accompany investment in human capital or joining the labor force outside of government programs. Alternatively, both SSDI and SSI rules were established to exclude those capable of working from receiving benefits, and thus additional work prior

to application for these programs may lower, in some cases substantially, the probability of acceptance on either, making the choice of entering the work force costly by increasing the probability of losing the future income stream of these benefits. However, we also show that while this cost associated with work has long been a part of both programs, the return to work in terms of entry into the SSDI program with benefits greater to those of SSI has been increasing since the early 1980s.

Finally, we do consider SSI or SSDI interactions with other programs such as the Supplemental Nutrition Assistance Program (SNAP), or the tax code more generally. Thus, the increase in PIA may overstate the benefits of working if SNAP benefits are reduced as a result of these higher earnings (or if all benefits are lost because the individual is deemed able to work). Perhaps more significantly, we do not take into account the value of Medicaid, which SSI adults are eligible for immediately, while SSDI beneficiaries are only eligible for Medicare two years after benefits begin. That said, this concern may be attenuated in light of the Affordable Care Act of 2010, in which all individuals below 133 percent of the poverty line will be eligible for Medicaid even if working (and possibly even if they are on SSDI). These reforms are due to begin by 2014 and would greatly reduce the Medicaid/Medicare tradeoff for young adults moving off SSI-disabled child program and attempting to work.

Despite these caveats, it still appears that there are substantial gains to work before the age of 22 that the vast majority of young adults who have aged out of the SSI-disabled children program are not fully considering. This suggests that greater efforts to better inform them and their parents of these opportunities could substantially increase their work over their lifetimes and the size of their disability benefits when they finally

are unable to work.

**APPENDIX: SSI-Disabled Adult and SSDI Program Rules, SSI State Supplements,  
and the Social Security Amendments of 1977**

*Supplemental Security Income-Disabled Adults Rules*

The Supplemental Security Income (SSI) program is a categorical negative income tax program, limited to disabled children, disabled adults, and those aged 65 and over. No prior work history is required to receive SSI benefits. It is a straightforward exercise to determine categorical eligibility for the SSI-old age program—provide evidence of being aged 65 or over. This is not the case for the SSI-disabled adults program. There is substantial controversy over the criteria used to determine eligibility and how and why it has varied over time. (See Burkhauser and Daly, forthcoming, for a discussion of this controversy in the context of Social Security reform.) To meet the categorical definition of disabled in the SSI-disabled adult program an applicant must provide medical evidence that their disability will prevent them from engaging in Substantial Gainful Activity for at least 12 months or is expected to result in death. If the applicant's impairment is sufficiently severe according to the “Listing of Impairments” criteria, then he or she satisfies the inability to participate in SGA test. If not, then the applicant must show that he or she cannot engage in previous work or perform any SGA in the economy.

The maximum benefit for a non-blind individual in 2010 was \$674. Benefits are indexed to inflation. Because SSI is a means-tested welfare program, benefits are reduced as income rises. Non-wage income including SSDI benefits reduce SSI benefits dollar-for-dollar after a \$20 general income exclusion. For every dollar of wage earnings, SSI

benefits fall by \$0.50 after a \$65 monthly exclusion. In addition to these income tests, SSI has a strict assets test. Countable assets cannot exceed \$2,000 for individuals or \$3,000 for couples (these values are not indexed to inflation and were last adjusted in 1989). State SSI supplements vary and the majority of states have no supplement. Of those states with additional benefits, these programs increase the maximum benefit but do not change the benefit reduction scheme. (For a fuller discussion of SSI benefit rules see: U.S. Social Security Administration (various years). State supplement information is available from the Social Security Administration website.<sup>13</sup>)

### *Social Security Disability Insurance Rules*

SSDI has the same categorical test for disability as the SSI-disabled adult program and its use over time is subject to the same criticism. But because it is a social insurance rather than a pure welfare program, being determined to be disabled alone does not determine eligibility and once eligible, benefits are based on past earnings.

All SSDI applicants must be fully insured and disability insured before they apply for benefits. Both of these conditions are tested by calculating the Quarters of Coverage (QCs) an individual earns in a given year, where a QC is earned for each \$1,120 of earnings in 2010, up to four QCs per calendar year. These credits accumulate regardless of the distribution of earnings within the year. To be fully insured, an applicant must have earned one QC for each year elapsed between age 21 and the year the applicant turns 62, becomes disabled, or dies, exclusive of these endpoint years. If this number is

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13 Rules are available at <http://www.ssa.gov/ssi/text-benefits-ussi.htm> and <https://secure.ssa.gov/apps10/poms.nsf/lnx/0502302200>.

less than six, it is automatically raised to six.

To be disability insured, an applicant must be fully insured and have recently earned a certain number of QCs. Over the age of 30, to be disability insured, a worker must have earned at least 20 QCs in the past 40 quarters. For example, a worker who is over age 30 must have earned five years' worth of QCs over the previous 10 years.

For younger workers, the system is far more generous. For example, between the ages of 24 and 30, an SSDI applicant's required QCs are equal to working half the number of years between his or her current age and age 21. For those under 24, the work requirements are even lower. Such workers need only have accumulated six QCs in the last 12 quarters. Because we will focus on this age group—those who begin to work by age 23, the “recent work requirement” for disability directly implies full insurance status, so the recent work requirement is the only binding eligibility requirement.

Given disability insured status and medical verification, benefits are calculated by first finding the applicant's Average Indexed Monthly Earnings (AIME), determined by multiplying previous earnings by an annual wage index that tracks the average wage in each year.<sup>14</sup> Next, the highest years of indexed earnings are summed, where the number of years used is determined by the applicant's number of computation years, and then divided by the number of months summed over to determine AIME. Computation years equal the number of elapsed years—years between the applicant's current age and the year he or she turned 21—minus the number of dropout years, where an applicant earns one dropout year for every five elapsed years. No fewer than two computation years can be used in calculating the AIME. Two calendar years are used to calculate the AIME of someone who begins work by age 23, but if that individual waited until age 25 to begin

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<sup>14</sup> For specific index factors and the process that generates them, see the Annual Statistical Supplement.

working, it would take three years to be disability insured, and 13 years of indexed earnings to have no zero-earnings years in the calculation of their AIME.

The final step in determining the monthly benefit paid to a worker eligible for SSDI benefits—the worker’s Primary Insurance Amount (PIA)—is to adjust the worker’s AIME by the PIA formula. In 2010, this formula was: 90 percent of the first \$761 of the AIME, plus 32 percent of the next \$3,825 of the AIME, plus 15 percent of AIME over \$4,586. The numbers defining the PIA brackets are referred to as bend points and are indexed to average wage growth, hence maintaining the initial value of PIA benefits relative to average wage constant across cohorts. That is, each successive cohort of workers who become disabled is assured of receiving the same average replacement rate as previous cohorts because benefits not only adjust to increases in real wage earnings over time but the bend point adjusts so that the higher return to lower wage earnings is maintained in real terms over time. Once benefits are established, beneficiaries receive annual Cost of Living Adjustments to their PIAs to keep the value of their initial benefit constant in real terms as they age.

Although for any given applicant, the number of QCs required and computation years employed may be large, applicants who begin work before age 24 need only 1.5 years of QCs earned in the past three years, and their AIME is based on their highest two years of earnings, hence SSDI eligibility and a high PIA relative to earnings can be achieved with just two years of work. (See: U.S. Social Security Administration (various years) for further details.)

For those aging out of the SSI-disabled children program, the combination of a two year base for the calculation of their AIME and a six QC recent work requirement for

SSDI coverage means that for those who begin working before age 24, even modest amount of work at relatively low wage rates will allow them to establish an SSDI benefit that exceeds their SSI-disabled adult benefit should they then become unable to work at all. This has not always been the case but it has become increasingly easy to achieve because of the difference in the way SSDI and SSI benefits have changed for successive cohorts of younger persons since the establishment of SSI in 1974.

*State Supplements*

**SSI State Supplements for Individual, Non-Blind, Disabled Adults**

State	Supplement	State	Supplement
Alabama	0.00	Montana	0.00
Alaska	362.00	Nebraska	5.00
Arizona	0.00	Nevada	36.42
Arkansas	0.00	New Hampshire	40.00
California	176.00	New Jersey	31.25
Colorado	25.00	New Mexico	0.00
Connecticut	168.00	New York	87.00
Delaware	0.00	North Carolina	0.00
DC	0.00	North Dakota	0.00
Florida	0.00	Ohio	0.00
Georgia	0.00	Oklahoma	46.00
Hawaii	0.00	Oregon	1.71
Idaho	53.00	Pennsylvania	27.42
Illinois	Individual Specific	Rhode Island	39.92
Indiana	0.00	South Carolina	0.00
Iowa	0.00	South Dakota	15.00
Kansas	0.00	Tennessee	0.00
Kentucky	0.00	Texas	0.00
Louisiana	0.00	Utah	0.00
Maine	10.00	Vermont	52.04
Maryland	0.00	Virginia	0.00
Massachusetts	114.38	Washington	46.00
Michigan	14.00	West Virginia	0.00
Minnesota	81.00	Wisconsin	83.79
Mississippi	0.00	Wyoming	25.00
Missouri	0.00		

Source: <https://secure.ssa.gov/apps10/poms.nsf/lnx/0502302200>

This table shows the state supplements to the SSI Federal Benefit Rate for disabled, non-blind adult individuals. 26 states and DC have no SSI supplements, while only 10 had a supplement over 50 dollars in 2010. Illinois does not have an official state supplement, but instead determines the amount of a supplement on a case-by-case basis.

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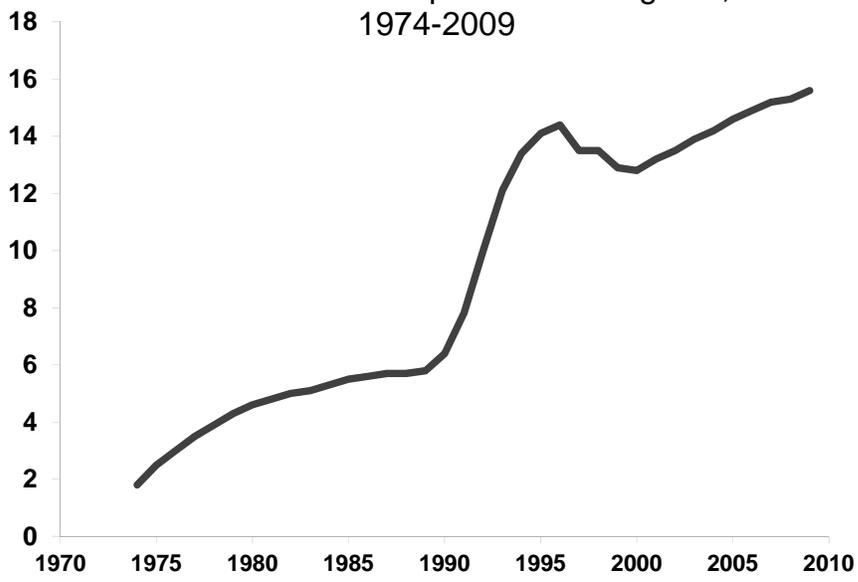
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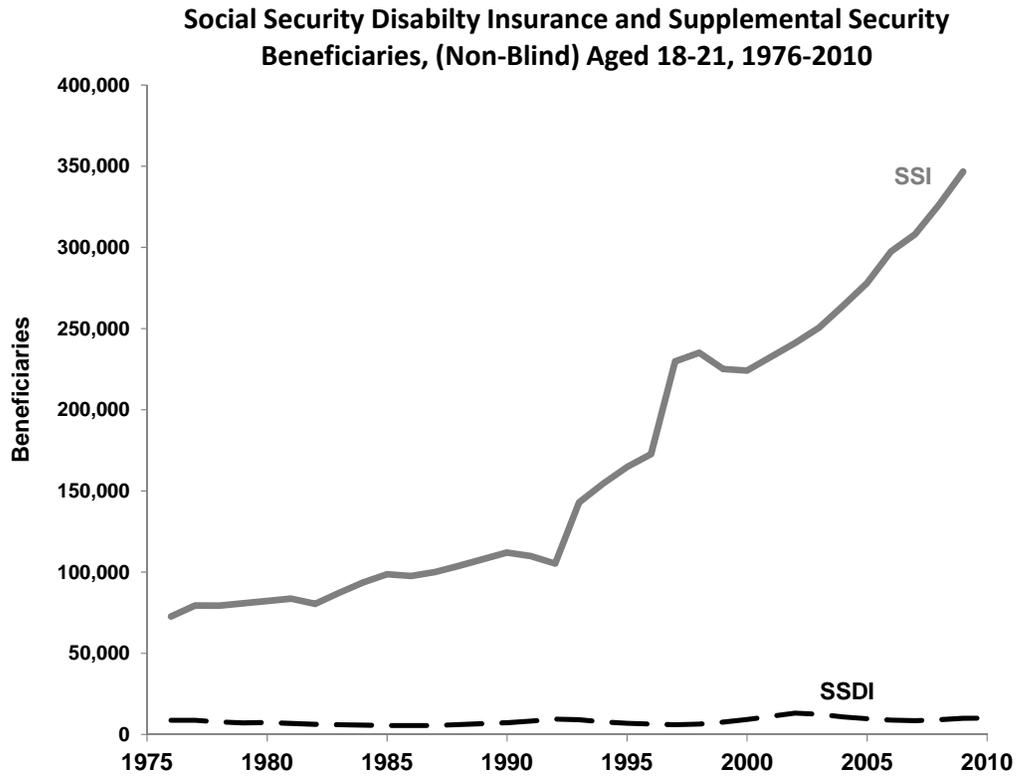
Figure 1a

Percent of SSI Recipients under Age 18,  
1974-2009



Source: SSI Annual Statistical Report, 2009

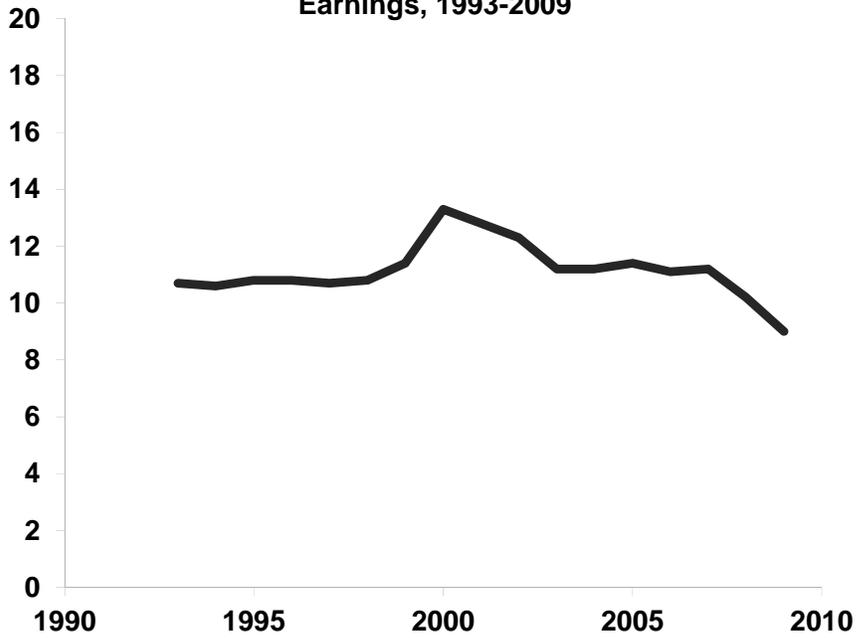
Figure 1b.



Source: Social Security Annual Statistical Supplement, Various Years

Figure 2.

**Percent of 18-21 Year Old SSI Recipients with Earnings, 1993-2009**



Source: SSI Annual Statistical Reports 2007-2009,  
SSI Disabled Recipients who Work, 1993-2006

Figure 3



Figure  
4

### Years of Work Required, by Age at First Year of Work

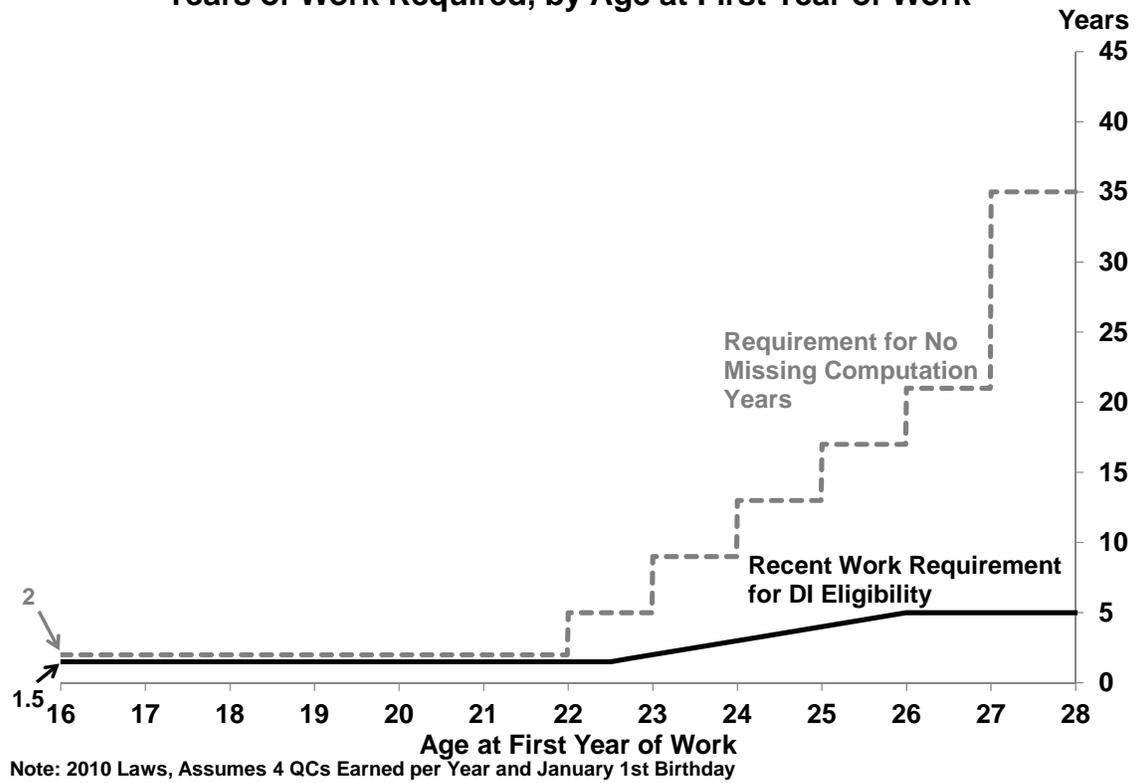


Figure 5

DI Benefits vs. Federal and State SSI Benefits for Different AIME, 2010

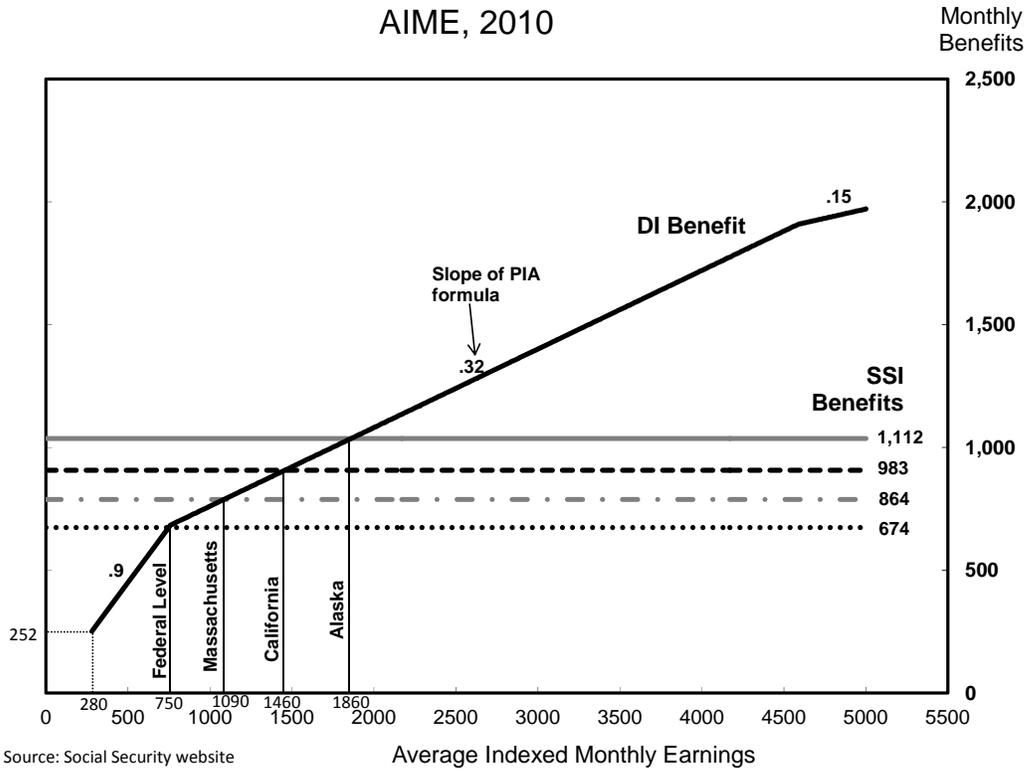
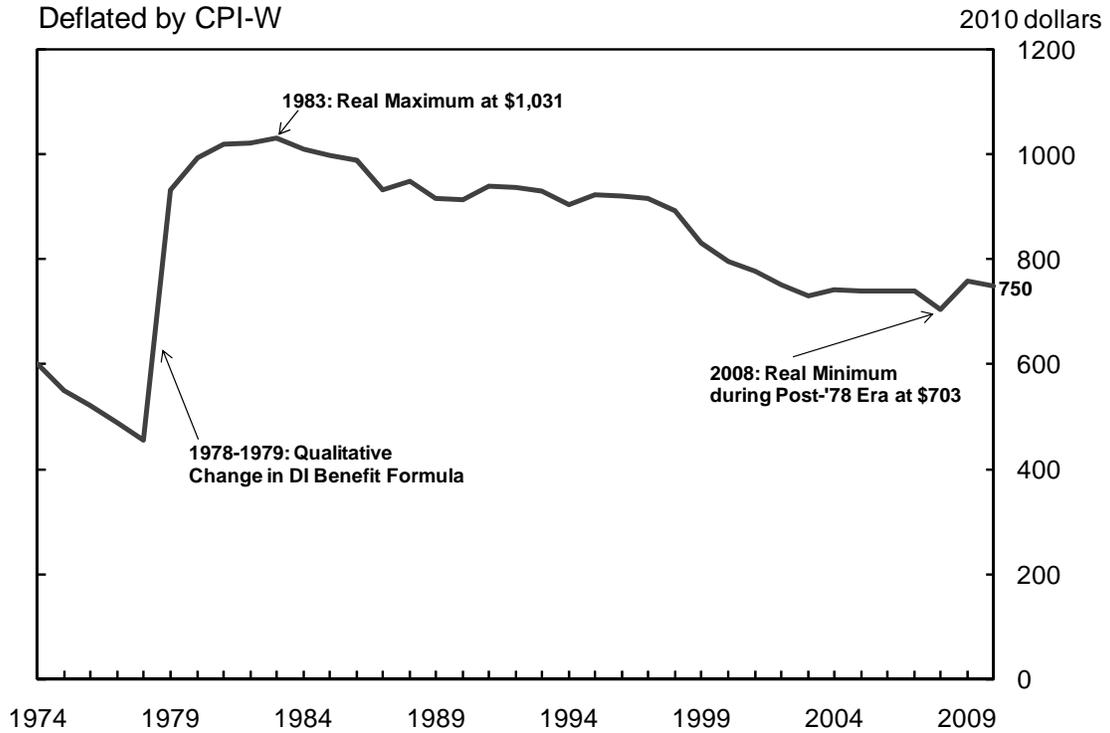


Figure 6

### AIME required to break-even with SSI

Deflated by CPI-W



Source: Social Security's Annual Statistical Supplement, 2009

Figure  
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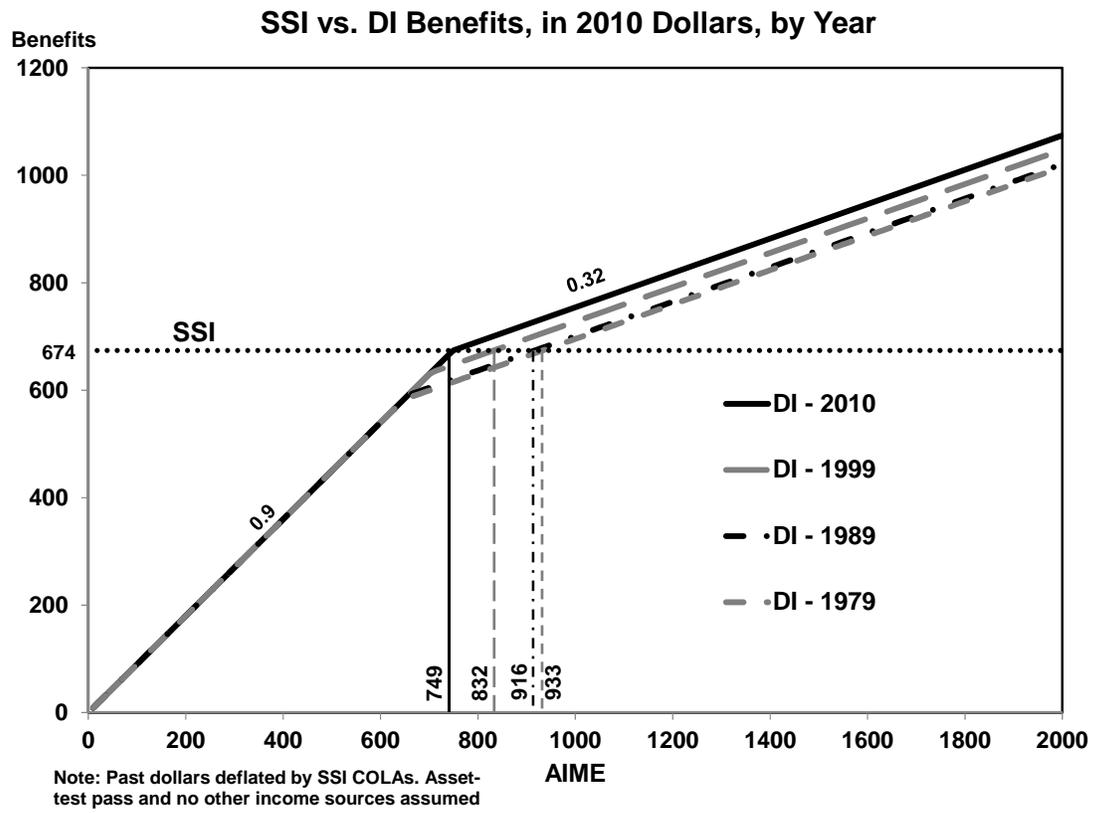
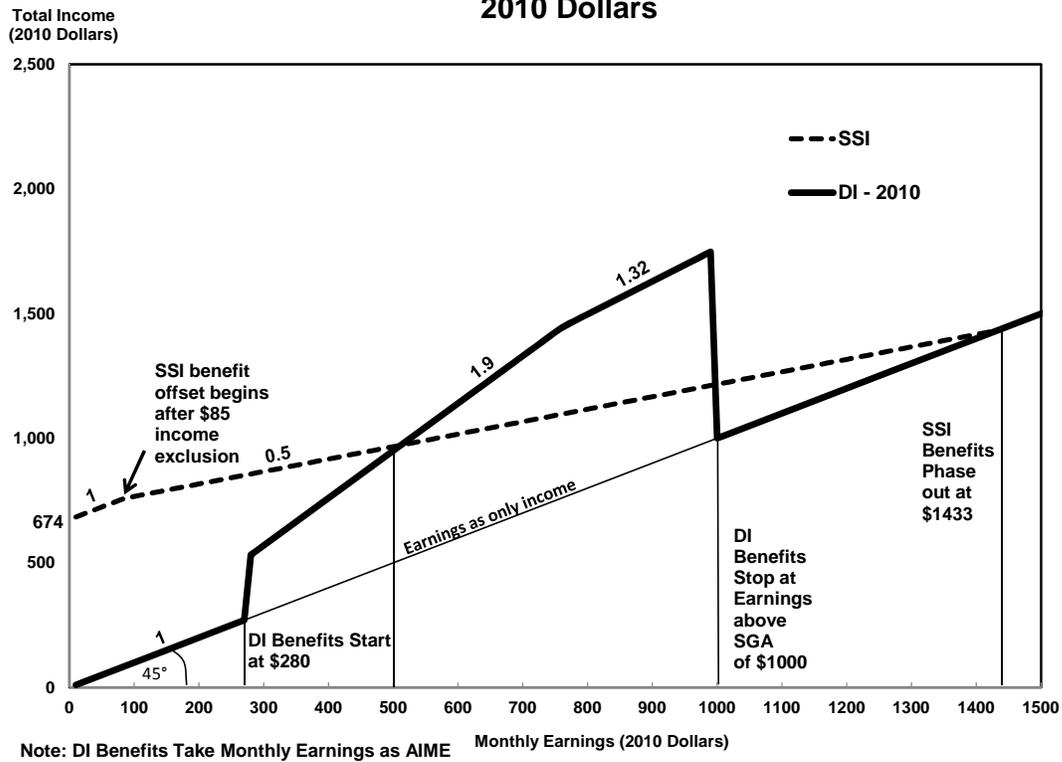


Figure 8

**Total Income of Work Plus Benefits, by DI or SSI Participation,  
2010 Dollars**



Figure

9

