SERVICE YEAR

Resource Hub

The Service Year Resource Hub is a searchable database to discover resources that will help organizations start, improve, and grow programs; help corps members and alumni during and after service; and help other interested stakeholders find relevant information. We are committed to bringing the service year field the best resources available, including those created by our partner organizations, such as this resource here.

PARTNER RESOURCE

The Economic Value of National Service

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SEPTEMBER 2013

In 2013, Voices for National Service, Civic Enterprises, and the Franklin Project at the Aspen Institute commissioned this cost-benefit analysis (CBA) of national service. The Franklin Project was one of the three founding organizations that merged together to form Service Year Alliance.

This study found that national service has a return on investment for the country of $3.95 for every $1 spent. Furthermore, it found that expanding national service would increase this return on investment, as the benefits increased more than proportionally and per-member costs fell.

About Service Year Alliance

Service Year Alliance is working to make a year of paid, full-time service - a service year - a common expectation and opportunity for all young Americans. A service year before, during, or after college gives young people the chance to transform their lives, make an impact in their community, and become the active citizens and leaders our nation needs. Expanding service years has the power to revitalize cities, uplift and educate children at risk, and empower communities struggling with poverty.

The Economic Value of National Service

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September 2013

In association with Voices for National Service and Civic Enterprises for the Franklin Project at The Aspen Institute.

SUMMARY

National Service

Service – intensive and formal programs to support communities – is an important commitment to the nation's social well-being. It also has important economic consequences. Communities with more extensive service initiatives have better civic infrastructure, stronger labor markets, and more human and social capital. The initial benefit – services provided – leads to future benefits as participants build skills and move toward economic independence. National service is an investment in future prosperity.

This report examines the economics of formal and intensive national service programs by youth and seniors. For youth, there are several formal and intensive service programs. The main program is AmeriCorps (State and National, VISTA, and the National Civilian Community Corps), which is funded through the Corporation for National and Community Service (CNCS). AmeriCorps provides support for many well-known programs, such as City Year, YouthBuild and Teach for America; and there are other service programs such as National Guard Youth ChalleNGe. These programs perform a vital service in giving youth productive competencies, human capital, and social skills, while at the same time helping communities. They provide immediate services of value, as well as build human and social capital for the future. For seniors, the largest program is Senior Corps (including RSVP, the Foster Grandparent program, and the Senior Companion Program), which is also funded by CNCS. Seniors perform important tasks as senior companions and foster grandparents, as well as make significant contributions to their local community.

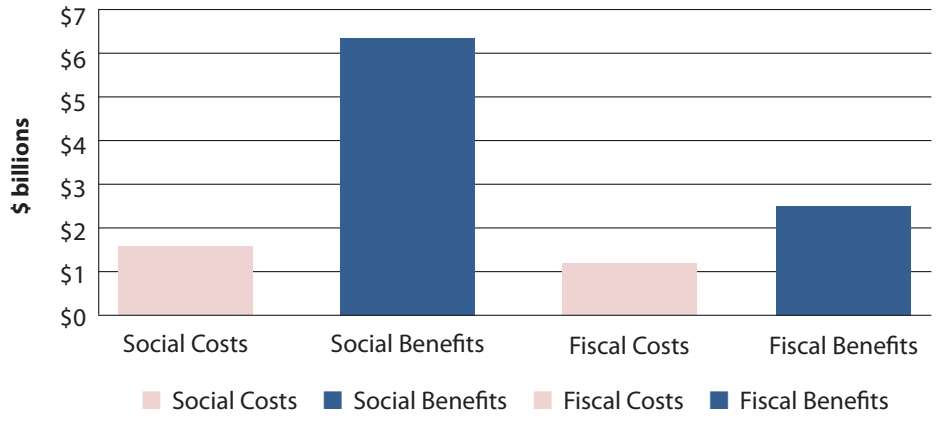
Currently, there are approximately 125,750 individuals (full-time equivalents) in these formal national service programs. We calculate that the annual social investment needed to ensure these individuals can serve totals $2.0 billion. This amount includes government funding and contributions from all other sources, as well as tax distortions. The annual investment by the taxpayer is $1.4 billion. By comparison, there are estimated to be 9 million (full-time equivalent) volunteers in less formal service roles and total charitable spending across the U.S. is over $300 billion. At present, national service programs are only a small fraction of overall volunteering but the passage of the Edward M. Kennedy Serve America Act of 2009 means there is considerable scope for expansion of national service programs.

The impact of the Serve America Act will depend on the economic value that national service creates. Existing research suggests that the economic benefits of national service are greater than its costs. But these studies are conservative estimates of the value of national service and are based on programs from over a decade ago. In this report we calculate social and taxpayer benefits of national service using current data and including a wider array of gains across a range of different programs. We use national datasets and existing studies of the association between service, education, and long-term impacts to calculate the economic value of national service programs.

National Service by Youth

We estimate national service by youth at 80,450 member service years annually. This total covers the three AmeriCorps programs, including YouthBuild, Teach for America, and National Guard Youth ChalleNGe. The total social cost of youth national service – including federal funding, matched funding, and tax burdens – is $1.7 billion annually (see Figure ES1). The total social benefit of youth national service – including the value of output produced and the longer-term gains from greater human and social capital – is $6.5 billion. For society, the benefit of national youth service is 3.95 times greater than the cost.

Figure ES1
National Service by Youth: Costs and Benefits



For the taxpayer, the commitment to national service programs for youth – including federal funding and matched funding from other public sources – is $1.1 billion annually. Over the long term, the taxpayer recoups – in terms of higher tax

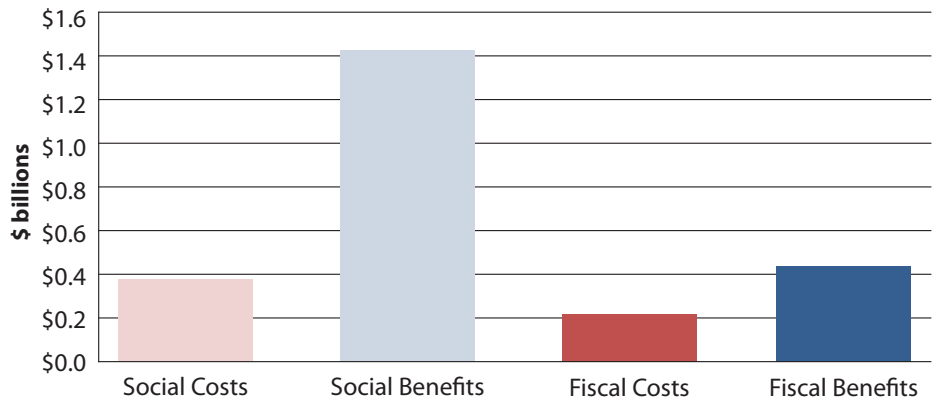
revenues from increased output and productivity and lower spending on social programs – an estimated $2.5 billion. The net difference is a taxpayer gain of $1.4 billion. For the taxpayer, every dollar spent on youth national service yields over two dollars in savings.

National Service by Seniors

For seniors, we estimate 45,300 full-time equivalent years of national service. In population numbers, over 350,000 seniors participate in national service, but most do so part-time. As well as providing important services to their community, these participants improve their financial security and obtain boosts in health status from volunteering.

Figure ES2

National Service by Seniors: Costs and Benefits



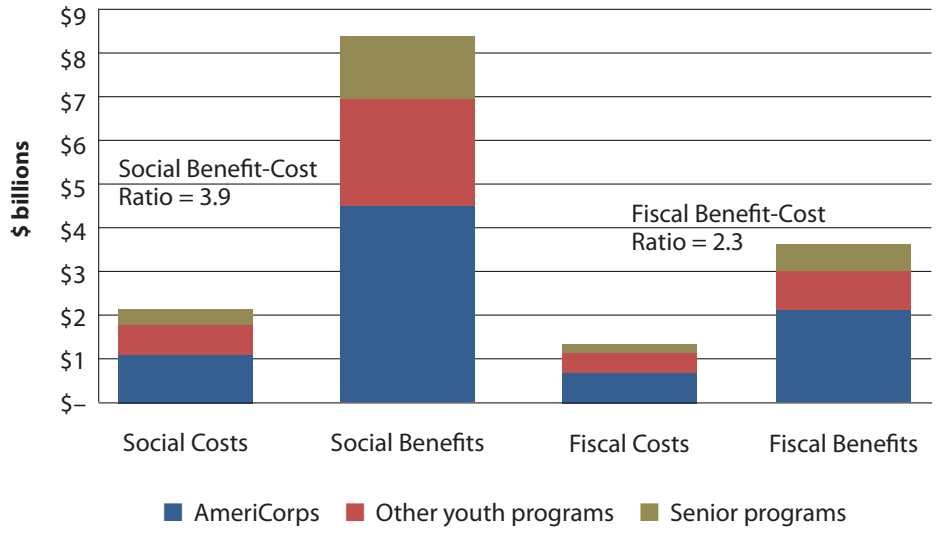
The total social investment in national service senior programs – including federal and matched spending and the tax burden – is $0.4 billion; the social benefits – including the value of services provided and the gains to participating seniors in health and financial security – are estimated to be much greater, however, at $1.4 billion (see Figure ES2). The social benefits of participation in national service programs by seniors are therefore $1 billion greater than the costs (or almost four times as large). The returns to taxpayers from these programs are also substantial: many seniors participate in programs to help struggling readers and these services generate economic value over the long-term in raising tax revenues and lowering government spending. The taxpayer costs of national service programs for seniors are $0.2 billion; the taxpayer benefits are $0.4 billion (see Figure ES2). Overall, every tax dollar invested yields almost two tax dollars in return.

The Aggregate Value of National Service

When viewed in the aggregate, the economic value of service by youth and seniors is significant – both for broader society and the taxpayer. Across the 125,750 full-time equivalent national service members annually, the total social cost is $2.0 billion and the total social benefit is $7.9 billion (Figure ES3). The benefit-cost ratio is 3.9: for every dollar invested in the network of national service programs currently operating, there is a social return of almost four dollars.

The returns to the taxpayer are also substantial. In the aggregate, total taxpayer spending on national service is $1.36 billion; the total benefits from this investment for taxpayers are $2.94 billion (Figure ES3). The fiscal benefit-cost ratio is 2.2. For every dollar invested in national service by the taxpayer, over two dollars is returned in taxpayer savings.

Figure ES3
Aggregate Costs and Benefits of National Service



Expanding National Service to Reach 1 Million Participants

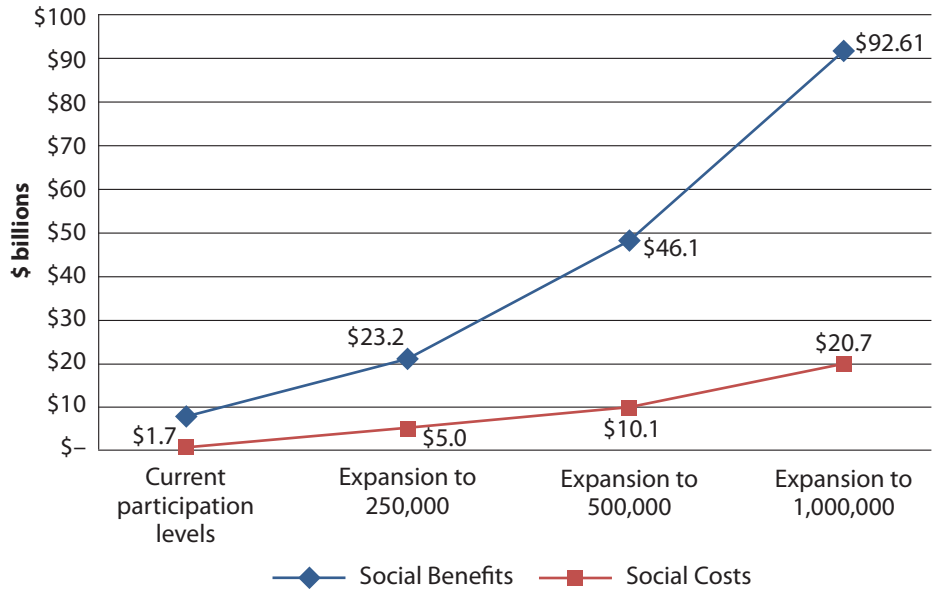
There is a strong case for further investments in national service and the Serve America Act of 2009 is a commitment to make that investment by expanding provision across many dimensions. To illustrate the economic consequences of expansion, we simulate five scenarios for national service populations up to

1 million youth participants. Although these expansions are relatively large, they entail less than 3% of all youth enrolled in national service programs.

We find that an expansion of national service for youth would be cost-effective. Based on a series of cost-benefit simulations we find that: benefits are likely to increase more than proportionally as more youth participate; and, because of economies of scale, unit costs are likely to fall. The overall effect is to make national service programs more efficient when more participants are involved.

Figure ES4

Expanding National Service to Meet New Challenges



To reach a participation level of 250,000 persons would have a social cost of $5.0 billion (which would be split across individuals, government agencies, and private groups). At this level, social benefits would be $23.2 billion (Figure ES4). To reach a participation level of 1 million individuals, the social burden would have to increase fourfold to $20.7 billion; benefits would increase to $92.6 billion. At these scales of operation, the benefits would exceed the costs by a factor of 4.5. Expanding national service programs would therefore increase their cost-effectiveness.

Funds for Expanding National Service

Based on the current costs of National Service programs it is possible to calculate the funds needed to reach one million participants. See Table 1.

Table 1
Funding to Expand National Service ($ millions)

	Additional Annual Amount for 5 Years	Total Amount Each Year when 1 million Participants
Federal spending	$2,101	$11,641
State/local match and private funding	$1,930	$10,690
Total	**$4,031**	**$22,331**

To expand National Service to one million participants requires additional funding of $4 billion annually over five years. Additional federal spending on National Service would be $2.1 billion (net of the additional tax revenues from the goods and services produced by work by participants). Matched funding, from state/local and private sources combined, would be $1.9 billion (also net of additional tax revenues).

After five years of additional funding, one million youth would be participating in National Service on. The total amount of federal spending would be $11.6 billion. The total amount of matched spending would be $10.7 billion.

Financing National Service Expansion

The financing required to expand National Service should be sourced from many groups using a range of financing models.

Currently, CNCS funding for national service programs is approximately $0.8 billion (with additional funding authorized through the Edward M. Kennedy Serve America Act of 2009). Given that National Service programs generate benefits for many sectors of the economy, the additional funding requirement may be sourced from several departments of the federal government, including the Department of Labor, Department of Education, and Department of Defense.

Similarly, state and local governments already support National Service programs and these investments generate substantial benefits across many sectors of the local economy. Given the value to local communities of National Service, additional funding should be sought for expansion of programs.

To reach one million participants will also require more private contributions. Presently non-federal sources provide about $1 billion in matching funds to the programs run by the Corporation for National and Community Service. But private charitable donations in the US exceed $300 billion annually. New private support could be leveraged through many different approaches, including tax incentives and public-private partnerships. Two new approaches are crowd-funding, which may be successful when the program has a clear social value, and Social Impact Bonds, which spread the risk of investment across the private and public sectors.

Supporting National Service into the Future

There are many different ways in which people serve and so create social value. Yet, many more people would serve – or would support others to serve – if they were aware of the economic value of these contributions. An economic framework paints only a partial picture: not all the benefits of national service can be expressed in dollars, and little is known about how to improve community infrastructure and social capital over the long term. Importantly, participants do not view service in money terms but instead value the experience and opportunity to give back to their communities. Nevertheless, national service programs require organizational resources and need funding to persuade people to enroll. This analysis indicates that the economic value of national service far exceeds its costs. This conclusion holds for the participant, the taxpayer, and for the broader society; it holds for each formal service program for which we have credible evidence; and it is predicted to hold even if national service were expanded substantially beyond its current size.

Looking forward to the economic and social challenges over the next decade, the need for national service is likely to grow. Youth, who now bear an increasing proportion of the cost of their postsecondary education, may feel economic pressure to earn more than to serve. For seniors, there are many new opportunities through encore careers and experiences: national service offers a way to make the most of these opportunities as well as improving health status and financial security. Overall, the economic case for further investment in national service is therefore compelling. Encouraging national service makes economic sense.

Through the Serve America Act and other policy reforms, encouragement for national service should be multifaceted and include the public and private sectors. Implementing these policies represents an opportunity to revitalize national service for the future.

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1. Introduction

Individuals contribute to their local communities in many ways – through direct volunteering, financial supports, and helping others. They provide services across many sectors including education, housing, health care, and environmental – often where private market or direct government provision is missing (VNS, 2012). These contributions are of enormous value in creating social capital, both by providing services of immediate value to recipients and by developing skills for the volunteers (Sagawa, 2010). Yet, the prospect of declining civic engagement and community involvement remains. This decline might arise from social changes (Putnam, 2000; Levine, 2007; Light, 2008). But it also has an important economic component: with the Great Recession, budgets of non-profit and community agencies have fallen even as the need for social supports has risen (Bridgeland et al., 2009).

It is in this context that the Edward M. Kennedy Serve America Act of 2009 was passed. The Act substantially increases opportunities to serve. It significantly expands AmeriCorps programs, as well as making available more educational awards to AmeriCorps members; and it increases Senior Corps, as well as introducing new ways for older citizens to serve. With additional funding, the Act means greater investments in social programs for low-income communities and in civic infrastructure to help non-profit agencies grow. The Act is a commitment to make service a greater part of American life.

The success of the Serve America Act will depend on how economically valuable these service contributions are. Economic evaluations of service programs are important – they clarify the extent of the benefits from participating in national service and allow these benefits to be compared against the costs of incentivizing individuals to serve. Investments in national service need to be cost-effective so that they have as strong an impact as possible.

Here, we address this key issue by calculating the economic value of national service, by which we mean formal and intensive community service programs such as AmeriCorps and Senior Corps. We begin with a description of existing service programs and their funding. We then review the evidence evaluating the impact and economics of service programs. Typically, economic evaluations of service programs have found benefits that exceed their costs. This result is found even when – as it usually the case – the benefits are considered only in terms of services provided rather than the overall long-term effects. Indeed, many prior evaluations are incomplete, very conservative, or based on evidence from over a decade ago; their usefulness for reforms of national service policy is therefore debatable. To complement this economic evidence and to give a full evaluation of the net benefits of service, we undertake a series of empirical investigations. Using a series of national datasets and extant studies, we identify key impacts from service and then assign these an economic value. We calculate the public costs of supporting these programs and the economic benefits of participation. We count both the immediate benefits – the hours of output provided by participants – and the long term benefits that arise from the new skills and competencies acquired by the participants. We express these costs and benefits in

a consistent way that allows them to be compared directly and so determine a benefit-cost ratio or return on investment. We calculate these ratios both for society as a whole and for the taxpayer.

National service by any group is valuable but we emphasize the value of service for youth and senior citizens who are at life 'transition points'. For youth, it is critical to invest in skills-building as early as possible. The Great Recession has only heightened this imperative to ensure youth have skills that will help them secure work (McBride et al., 2004; Bell and Blanchflower, 2011). There is now substantial literature on disconnected or opportunity youth, individuals who are neither in education or working and who have limited prospects. Effective investments are needed to help these youth (Belfield et al., 2012). For seniors, the benefits of service are also powerful. These include the opportunity for 'encore' careers, as well as greater financial security, improvements in health, and greater integration into the community (Freedman, 2010; Morrow-Howell and Tang, 2004; Bridgeland, Putnam and Wofford, 2008). Seniors also have valuable career skills that make their volunteer contributions especially productive. Demographic changes – the aging of the baby boomer generation – mean there is an increasing need for productive endeavors for seniors to participate in. Our analysis therefore focuses on national service by youth and seniors.

Finally, we consider specific policy commitments – to progressively expand national service so that up to one million individuals are participating on a full-year equivalent basis. We project forward both the marginal costs and benefits of expansion under different scenarios. These projections are useful for predicting the likely effects of the Serve America Act.

Overall, we find very strong benefits from investments in national service and these benefits exceed the costs of implementing service programs. From the perspective of both society and the taxpayer, national service programs represent a worthwhile investment. As well, we find that the economic case for expanding national service is powerful. Under all scenarios, the economic value of expanding national service is very high and significantly exceeds reasonable policy costs. By complementing evidence on the social consequences of service, this economic evidence strengthens the case for investments in national service.

2. Who Participates in National Service?

2.1 Defining National Service

There are many different ways to serve the nation. In formal organizations, such service might be compensated and follow routines that resemble traditional employment (although the cost for such service is below market rates – that is part of the service and is typically a function of labor agreements on employment). This type of full-time national service is often to address a specific objective or to build up the capacity of an organization to use more volunteers to meet a goal. Alternatively, service may be equated with volunteering: this is typically unpaid, informal, of shorter duration and may be motivated to address a specific local need (e.g. clean up of environmental damage). Both types of service can convey strong economic and social benefits.

In this analysis, we focus on more formal and full-time (or full-time equivalent) programs and we refer to these collectively as 'national service'. Recognizing the many avenues through which people contribute to their communities, we emphasize the goal-directed nature of service (rather than for the purpose of finding employment or social interactions) and activities that are regular and substantive. Other forms of volunteering may be equally beneficial but identifying their benefits is more challenging for researchers because these forms are highly varied and little data is available. Thus, we look primarily at service in a 'Corps-like' organization but include programs beyond those at the federal level.

2.2 Measuring National Service

Across the population, general volunteering rates are significant. In 2011, over 64 million individuals volunteered. The growth in volunteering rates occurred most dramatically from 2001 through 2005, although since then rates of general volunteering have largely been flat. The Bureau of Labor Statistics estimates that over one-quarter of all adults over 25 volunteered during 2010, with the median contribution being 52 hours. This equates to a volunteer 'full-time equivalent workforce' of almost 9 million persons annually. However, the nature and intensity of volunteering varies: most of this volunteering was within a religious community, with educational or youth service volunteering (including parental participation in schools) next in scale, and then social or community service.[1] Also, many volunteers participate intermittently and temporarily over a period of time.

Beyond general volunteering, there are many formal and intensive service programs and these comprise our national service group. In contrast to general volunteering, applications for these programs have been steadily increasing.

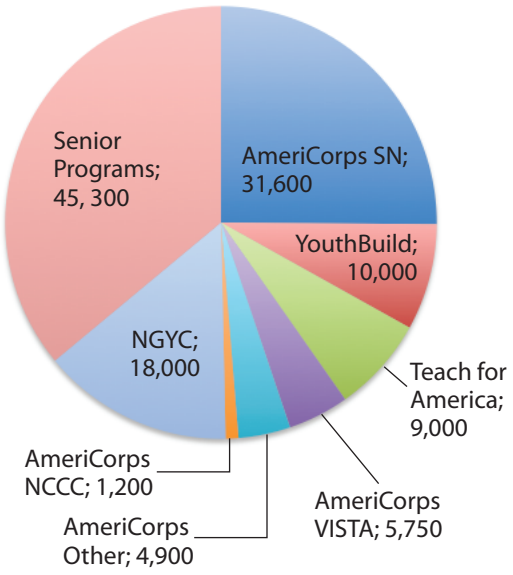
At the federal level, these programs are AmeriCorps (State and National, VISTA, and the National Civilian Community Corps), and, for older adults, Senior Corps (including RSVP, the Foster Grandparent program, and the Senior Companion Program). These programs are primarily supported by the Corporation for National and Community Service (CNCS). In addition, CNCS provides funds to promote economic opportunity, healthy futures and youth development as well to improve civic infrastructure (through its Social Innovation Fund and Volunteer Generation Fund, respectively).

Important national service programs include state Conservation Corps and Habitat for Humanity (annual volunteer rate 250,000) and City Year (over 2,500 members in 2012-13), both of which are funded under CNCS. After 9/11, a disaster preparedness and response infrastructure called Citizen Corps was developed, including: a new Medical Reserve Corps (more than 200,000 volunteers at nearly 1,000 sites); expanded Community Emergency Response Teams; Volunteers in Police Service; Fire Corps; with Citizen Corps Councils to organize these efforts. These agencies are organized through the Department for Homeland Security. For youth and young adults, programs include: Teach for America; Teen CERT; Student Conservation Association; Preserve America Stewards; as well as local Youth Corps groups. Many of these programs overlap with AmeriCorps participation and receive funds through

CNCS and the Department of Homeland Security (and Department of Labor). So to avoid double-counting we subsume most of them into our count of AmeriCorps members.[2] There are also programs that share similar features of community service as per the AmeriCorps model. One example is National Guard Youth Challenge, which is an intensive residential program. Another important program is YouthBuild, which engages youth in a comprehensive service program that is equally weighted toward community service (e.g. affordable housing) and toward academic classes to help students complete their high school education and prepare them for college.[3] For older adults, Experience Corps literacy programs are offered in selected cities across the U.S.. Many of these senior programs are supported by CNCS also. Across this sector, many programs coordinate with each other. All these programs leverage participation from local businesses, schools, and community groups.

Figure 1

National Service Annual Participation
Member Service Years / Full-time Equivalents



Overall, we estimate that – expressed in member service years or full-time equivalents –approximately 125,750 persons annually participate in formal and substantive national service commitments. The distribution of national service participation by program is given in Figure 1.[4] The umbrella of federal AmeriCorps programs are the largest, with participants spread across a range of programs. For analysis, the State and National AmeriCorps member enrollment of 31,600 does not include AmeriCorps participants in YouthBuild and Teach for America. These latter two programs have 10,000 and 9,000 participants annually, many of whom receive funding through AmeriCorps. Finally, for youth there are 18,000 National Guard Youth Challenge participants. For older service members, there are 45,300 full-time equivalents across Senior Corps and Experience Corps.

These estimates reflect the specific unit of measurement – member service years (for youth) and full-time equivalent service years (for seniors). Many groups do not participate full-time year round. Across all AmeriCorps members in 2012, 46% were classed as full-time, 12% were part-time, and 42% participated at reduced part-time. For Senior Corps, in headcount numbers there are over 350,000 participants. However, our unit of measure allows us to calculate the economic consequences of service and to model the economic consequences of its expansion. Notably, when expressed in these units, it is clear how relatively small national service programs are. The total youth population is over 35 million; just counting those not in education or working the youth population is over 7 million. The retired population is over 40 million. General volunteering is

over 9 million full-time equivalent persons. Currently, national service programs cover only a few percent of eligible individuals. Thus, there appears to be considerable scope for expanding these formal national service programs.

2.3 Funding for National Service

The biggest single commitment to national service comes from the Corporation for National and Community Service. The CNCS total budget in 2011 was $1.1 billion, although this includes spending on items outside our analysis.[5] Direct federal program funding for CNCS was $685 million in 2011 (excluding administrative costs and education awards). AmeriCorps is the biggest program in terms of federal appropriations: its budget is $349 million, of which two-thirds is allocated by competitive grants and one-third by formula. VISTA has a budget of $99 million to provide grants and support volunteers for community organizations, and NCCC has a budget of $29 million for programs that give young people opportunities. Senior Corps has a budget of $206 million which is allocated to organizations providing services.

These are baseline amounts that reflect only direct federal spending. Plus, there is significant federal funding that is allocated as educational awards to national service members. Given this federal support, agencies that operate national service programs (such as City Year or Teach for America) must raise significant additional funding to implement effective and comprehensive programs. Based on a review of the financial statements of these agencies, we calculate that these agencies leverage an additional 47% in funding beyond the federal commitments. Most of this additional funding comes from private donations, but some also comes from state or local government grants.[6] Finally, to make a full accounting of the social costs of investments in national service it is necessary to include the marginal excess tax burden, i.e. the economic cost associated with raising taxes to pay for national service programs.[7]

Figure 2
Total Social Cost of National Service Federal Spending, Matched Spending, and Tax Burden ($ millions)

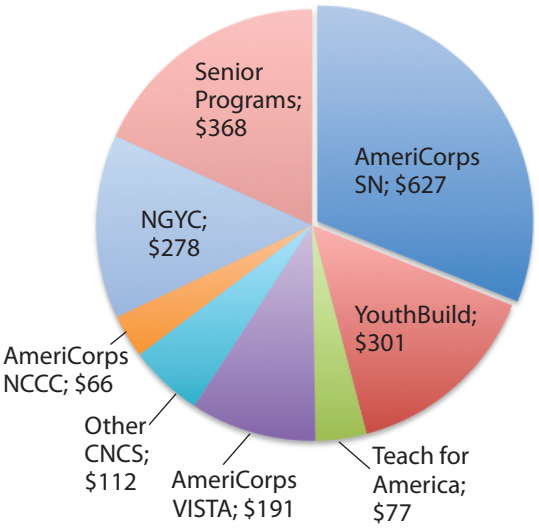


Figure 2 shows the total social cost of national service programs for youth and seniors in 2012. These total social costs include all federal spending (including administration), education awards, matched spending, and the tax burden. Disaggregated estimates are given in Appendix I. In total, this social investment in national service programs is $2.02 billion, significantly more than the direct federal expenditure on national service. We measure costs using this social perspective so they can be compared to the social benefits of national service. The taxpayer or fiscal cost

of national service is much lower. It excludes any private donations required to support the programs. Expressed purely in terms of what the taxpayer commits to national service, total annual spending is estimated at $1.36 billion. (Appendix I gives more details).

These commitments to national service are substantial amounts, but they should be set in context. By comparison, total charitable donations last year represented over $300 billion in 2012.[8] This disparity suggests, first, that public spending is unlikely to displace private contributions and, second, that effective national service programs might significantly expand provision by leveraging even a fraction of these private donations.

Critically, these social and taxpayer expenditures do not measure the economic value of national service. They do not tell us the economic benefits of participation and so whether national service is a good public investment. As we show below, the full economic value of national service far exceeds these spending amounts.

3. The Evidence for National Service

3.1 Prior Evidence: The Impacts of National Service on Participants

There is considerable literature on the positive impacts from service (Frumkin and Jastrzab, 2010). There are immediate benefits from the delivery of services to groups in need. As well, participants in national service also obtain valuable skills, become more involved in civic activities, and progress further in their education.

Several studies have looked specifically at AmeriCorps. For example, a detailed empirical investigation of a large sample of AmeriCorps participants identified gains in: civic engagement; members' connection to the community; and knowledge about problems facing the community (Frumkin et al., 2009). Community-wide spillover benefits have also been found from these programs. For older participants, such as those in Experience Corps, there is evidence of gains in health, self-esteem, life satisfaction, financial help, and civic capital.[9]

For youth, corroborating evidence comes from programs that share these objectives, such as City Year and YouthBuild. Programs with educational service goals have also been found to be especially effective, such as Teach for America, Citizen Schools, and City Year programs.[10] For environmental and conservation programs, there is less evidence beyond calculation of their direct role in providing services.

However, there are challenges in identifying the benefits of service. Many of the impacts are multi-faceted (on the 'Swiss Army Knife' metaphor, see Perry et al., 1999); some are overlapping. Others are very hard to measure: individual effects, such as a tolerance for diversity, may be hard to verify; as might community-wide effects, such as improved civic infrastructure, when programs are small. Few participants have been followed over a long time frame: despite its emphasis on developmental skills, little is known about the formative benefits of service over time. Together, these challenges make it hard to put together a comprehensive picture of the aggregate benefits of service from existing evidence.[11]

3.2 Prior Evidence: The Economic Value of National Service

There are some economic evaluations of public service. In their review, Perry and Thompson (2004) catalog 14 cost-benefit analyses (CBAs). Summarized in Table 1, these CBAs show how the benefits of service programs exceed their costs. There have been eight CBAs of AmeriCorps. All have found benefit-cost ratios greater than one, i.e. the benefits exceeded the costs. Three CBAs of Conservation Corps programs have been performed. One found benefits that were less than the cost of the program but the difference was very small. Two CBAs of housing programs have found very strong benefits that easily exceed their costs, as did the lone CBA of a care program. These analyses suggest that investments in service programs easily pay-off for society.[12]

Table 1
Cost-Benefit Analyses of National Service Programs

	Number of Studies	Range of Benefit-Cost Ratios
AmeriCorps	8	1.23 – 2.51
Conservation Corps	3	0.96 – 1.59
Housing programs	2	2.40 – 3.90
Care programs	1	1.20

Sources: Perry and Thomson (2004); Aguirre International (1999).

Evidence from other sources is also supportive. Studies of workforce development programs and job growth programs identify positive labor market effects (Sagawa et al., 2008; VNS, 2012b). In a review of training programs, Holzer (2012, Table 3) calculates benefit-cost ratios using evidence from the Sectoral Employment Impact Study. Even with rapid fade-out of effects and graduation rates of only one-half, these training programs yield earnings benefits that exceed program costs.[13]

Evidence from the recent CBA of National Guard Youth ChalleNGe (NGYC) is also supportive. This federally-funded program offers a comprehensive set of supports within a quasi-military structure and emphasizes community service. Participants in NGYC experienced significant and durable gains, with benefits both of more human capital and better labor market outcomes. Benefits to NGYC participants were estimated at 2.7 times the costs of the program.[14] Finally, community-level economic impacts of service have also been calculated. Using aggregated national data, NCOC (2011) found service rates to be associated with lower unemployment rates: an increase of one point in volunteering within a locality is associated with 0.192 percentage points less unemployment. Similarly, NCOC (2012) looked at civic engagement: having one more nonprofit agency per 1,000 residents was associated with an unemployment rate that was lower by 0.5 percentage points. These are very strong effects.

3.3 Moving Forward with Economic Evidence

Although the evidence is promising, a number of gaps remain in making a full economic case for national service. The CBAs listed in Table 1 are persuasive but they vary in important dimensions: they include different sets of benefits; and the evidence is projected over different time periods using different discount rates. These results therefore cannot be pooled into an average return on investment. Moreover, all these studies were based on service participation

during the 1990s or earlier. Most importantly, much of the economic literature has adopted the participants' perspectives rather than calculating the aggregate economic effects of investing in national service programs.

A full economic evaluation requires several steps. First, it is important to count all benefits so they can be compared to the costs of implementing the program. As noted above, it is difficult to itemize all the gains from national service. Evidence on job growth programs is useful but national service conveys significantly more extensive benefits, especially socialization for youth and social re-engagement for encore citizens (Bartik, 2010). Benefits to the wider community are also important. For example, conservation projects or crime prevention projects may raise property values and promote investments in civic infrastructure. Educational mentoring programs may encourage students to invest more in their education and communities to invest more in their schools. Relatively little is known about the latter benefit but the strong returns to accumulating more human capital are well-established. Second, economic evaluations require evidence that can be expressed in money terms. Certainly, some of the established gains, such as self-esteem and tolerance for diversity, are difficult to put an economic value on. Yet, even education and labor market gains are sometimes not expressed in ways that allow them to be monetized.[15] Finally, benefits should be measured over an appropriate time frame: national service has a strong influence on personal development and so its benefits are likely to endure over time. Much of the existing literature uses cross-sectional evidence collected either during participation or within a couple of years after participation. Longer term gains (such as earnings) are therefore likely to be undervalued.

For simplicity, economic evaluations of national service have typically focused on the value of the time committed by the participants in relation to the services provided. This 'supply-side' approach assumes that the value of national service is reflected in whatever it would have cost to purchase the service privately. An Experience Corps reading program is therefore valued in terms of how much the school would have had to pay for teachers to provide the same program.[16] But this market wage valuation neglects the fact that volunteers do not regard their time as work time and so do not implicitly price it in the same way. Many volunteers enjoy participation and so gain a 'consumption value' that workers performing a similar service do not. This consumption value is one of the benefits of service. Thus it seems likely that the most common wage-based measure is a conservative estimate of the economic value of the time of volunteers.[17] Moreover, the more appropriate way to value an investment is to compare these to the opportunity costs to the full set of benefits that flow from the investment. In the case of education, the value of having an educated population is much greater than the cost of providing education. Thus, the supply-side approach, although useful, almost certainly undervalues national service.

Lastly, several gaps remain in economic evaluations of particular public service programs. For example, despite evidence on their effectiveness, we are not aware

of any research studies that calculate the cost-effectiveness of Teach for America or programs such as City Year or Big Brothers Big Sisters. Direct economic evidence on programs for senior citizens is also limited.[18]

Overall, prior cost-benefit analyses appear to have been very conservative in their estimates of the benefits of national service. The fact that these studies nevertheless find benefits that exceed the costs suggests that the case for national service is probably even stronger. Below, we evaluate the case for national service based on the full benefits and costs.

4. An Economic Framework To Value National Service

An economic framework looks at national service as an investment or capital project. National service programs will help communities and participants during the period of service but, by building capital, they will provide a stream of benefits over a much longer time frame. National service should therefore be appraised using either cost-benefit analysis (CBA) or a return on investment analysis (Belfield and Levin, 2007; VNS, 2012a). Programs where benefits exceed costs are good investments.

Cost-benefit analysis does not compel policy decisions; it can only establish whether national service is a good investment. The decision on how much to invest in national service must be made by policymakers, taking account of financing constraints, social factors, and political considerations. National service could easily be justified even if it does not pass a cost-benefit test: encouraging citizens to help their communities might be something other taxpayers are willing to pay for. However, CBA is an appropriate method for helping policymakers determine whether to expand or contract national service programs and how the burden of funding for such programs should be balanced. So, if the ultimate beneficiaries are taxpayers, then taxpayers should be encouraged to fund national service. CBA places the investment decision in its proper context, allowing decision-makers to see not only what has been considered but also what has been omitted.

Our CBA distinguishes between investments in youth national service and senior adult national service – programs for these two groups differ in focus, content, and form. Of course, these investments are not substitutes: encouraging youth to undertake national service in no way undermines the case for encouraging seniors to do so. For other groups, we expect gains that are somewhere in the mid-range between these two. We cannot possibly put an economic value on each type of service or volunteering, so we focus on the two main forms for which we have evidence and create an overall aggregate estimate.[19]

4.1 Gains from National Service by Youth

Our economic framework for evaluating youth national service is set out in Figure 3. In the initial time period the youth is participating in a national service program. This program will require resources to be implemented (*C*) but the participants will generate some services, which will have economic value (*V*). It may be the case that *V* exceeds *C*, i.e. that the activities of the

participants are worth more than the outlays needed to support them, and the case for national service is obvious. This is possible if the services are highly valued but cannot be provided either by government agencies or by private companies. It is also possible if the alternative to participation in national service has a large negative economic effect, e.g. if the youth would have otherwise engaged in delinquent activities such as crime or substance abuse. It is also possible if participants in service would have been willing to pay to participate (rather than needing to be paid). As noted above, many arguments for national service rest on the contention that *V* exceeds *C*.

The full economic case for national service must account for the total returns to this capital investment. This total return includes the difference between *V* and *C*, as well as a set of private, community and social/fiscal gains from national service. These gains accrue after the participant has completed their national service and most of them can be given a monetary value. National service programs differ in their objectives, covering areas such as disaster services, economic opportunity, education, environmental stewardship, health and support for veterans. For each objective we anticipate private gains to the participant and social/fiscal gains to the community.

The private gains (*P*) accrued by the participant include: gains in education, earnings, and employment, as well as gains in behavioral skills, delinquency avoidance, and sense of worth. The AmeriCorps educational awards may be especially helpful in boosting participants' human capital. On top of these private gains come social and fiscal benefits (*S* and *F*). These are not gains to participants *per se* but flow either to the broader community or taxpayer over a time frame beyond the

Figure 3
Investments in National Service for Youth



period of service. Depending on the type of national service, social gains might include improvements in community infrastructure (safer neighborhoods, improved housing stock), expanded local amenities (libraries, parks) and environmental clean up of public amenities (e.g. roads, waterways). A subset of these social gains accrue to the taxpayer in terms of: higher tax revenues (from increases in earnings and employment and other induced economic activity); and lower government spending (e.g. on crime, welfare, and public safety programs). There are two important components of the social gain that are hard to observe. One is greater civic engagement, which both improves the functioning of government and creates social cohesion (e.g. if families of veterans are given more supports). The other is greater equity especially if services are directed toward disadvantaged communities (perhaps offsetting the general increases in income inequality over recent decades). A final element of both the social and fiscal gain is that initial participation induces further national service and leverages others to participate in or invest in national service. This creates a virtuous circle of investment.

Separating out the fiscal gains from service yields the net impact to the taxpayer from public funds committed to national service programs. In addition, taxpayers gain when the opportunity cost of not participating in service (part of *V*) is included. These gains should be compared with service that is funded through taxes (rather than philanthropic sources). To calculate a taxpayer return, all these factors must be accounted for.

In total, the full value of national service to society is the discounted stream of net benefits (*NB*).

(1) $NB = V - C + P + S$

This stream is discounted, i.e. it accounts for the fact that benefits and outlays are accrued at different times. Alternatively, the value of national service to society can be expressed as a benefit-cost ratio:

(2) $BC\ Ratio = (V + P + S)/C$

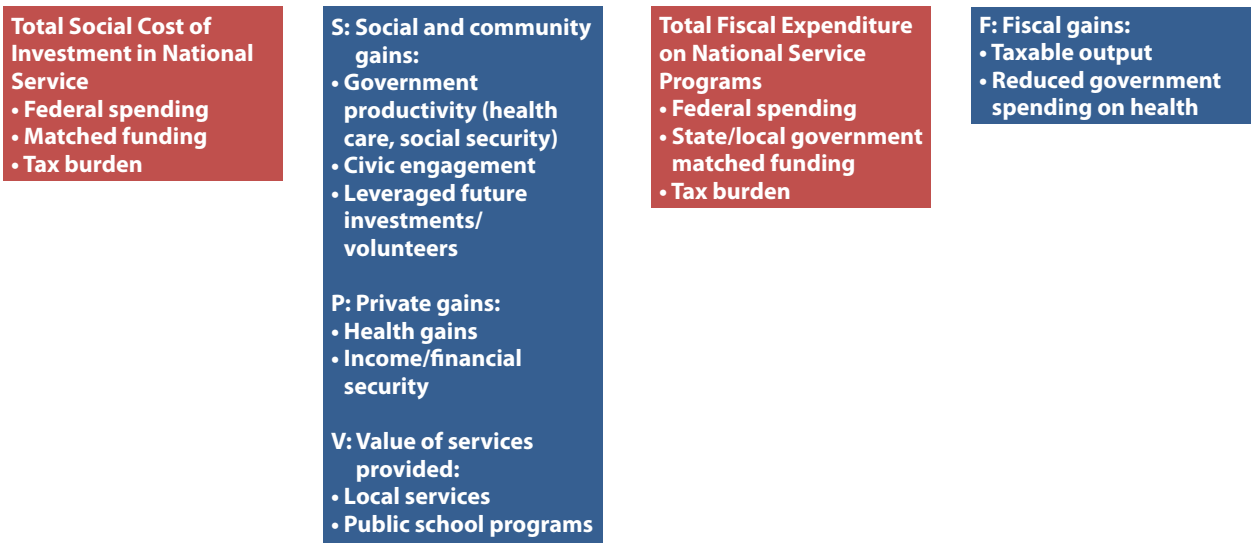
Net benefits and benefit-cost ratios for the taxpayer can be calculated in a similar fashion: we compare only the costs to the taxpayer with the benefits in terms of additional tax revenues and lower government spending.[20] To calculate the economic value of national service for youth we focus on the domains where we anticipate large benefits and where we have robust methods for estimating the money values with some precision. For youth, this means we focus on the value of national service per se, the labor market returns, and the returns to the community over time.

4.2 Gains from National Service by Seniors

Our economic framework for evaluating service programs for seniors follows the same pattern as for youth. For seniors, though, the benefits of service are quite different and the economic framework is depicted in Figure 4.

First, we estimate the value of national service net of the outlay of public funds. We then calculate the longer-term economic returns for private individuals, for taxpayers, and at the social/community level. These calculations allow us to estimate the net benefits and the benefit-cost ratio from various perspectives.

Figure 4
Investments in National Service for Seniors



This cost-benefit framework is similar to that for youth. But the domains differ in their importance and weighting. Youth and seniors have very different opportunity costs, in terms of what they could be doing instead of national service, and the outlay of public funds needed to encourage participation are very different. In terms of benefits of service, the evidence suggests that the gains for seniors center around the health advantages – both physical and psychological – of participation. There are also gains in terms of financial security for those who go into service; these gains are not primarily from the income received whilst performing national service but from expanded employment opportunities subsequently. For the community, the gains are concentrated in improvements in local services, most notably in the school system as many seniors provide tutoring and educational supports. The social and fiscal gains reflect these effects: society and the taxpayer gain from a healthier population, as well as from a more civically-minded and a more highly-educated population.

5. The Return on Investment to National Service

We now place economic values on the benefits and costs of national service by youth and seniors. Together, and accounting for the numbers of participants, these two estimates of net benefits represent the full economic value of national service.

We use conventional methods to value benefits and costs in terms of 'willingness to pay' and 'shadow prices.' That is, we identify a robust impact of national service (as per Figures 3 and 4) and then assign it a money value. To get the full benefits of national service we add up all these money values. Each value is derived from the best available evidence or from direct investigation of appropriate datasets. We express all money

values in 2013 dollars and in present values discounted to the time when the individual participates in national service. Following convention, we apply a discount rate of 3.5% (Moore et al., 2004). To check the robustness of our assumptions we apply sensitivity testing.

5.1 Valuing National Service by Youth

Based on our economic framework and national research evidence, we calculate the benefits of national service for youth. We begin with the three AmeriCorps programs and then look at related programs for youth. Returns for these related programs are calculated separately (they are distinct programs and there is independent evidence on their benefits).

Across the youth population national datasets show strong associations between participation in volunteer service and outcomes. First, we see a strongly positive association between volunteering and income in the most recent national Current Population Survey (September 2012). Based on regression analysis of almost 90,000 adults (see Appendix II, Section A), there is a strongly positive correlation between volunteering and higher income, even after controlling for education levels and age. This correlation also holds for just the youth population: for youth aged 16-24, incomes are approximately 12% higher across volunteers versus non-volunteers (sample size 13,200). The size of this effect can be compared to the effect of education on income: volunteering has approximately the same effect as an additional year of postsecondary education. Equally strong are the effects of volunteering on subsequent outcomes. Using the National Longitudinal Survey of Youth 1997 (NLSY97), we see much better health status among youth who had reported volunteering two years prior (see Appendix II, Section B). Whereas 70% of volunteer youth report very good or excellent health two years later, the rate for non-volunteers is 62%. Using the NLSY97, we also see much higher rates of volunteering in subsequent years by those were already volunteers (see Appendix II, Section C). Of those who had not volunteered two years ago, only 30% volunteered in the current year; of those who had volunteered two years ago, 67% were still volunteering in the current year. These general associations are indicative of the powerful effect of service commitments by youth. We use this evidence and other datasets to calculate the full benefits from participation in national service by youth. Full details of the calculations and source information are given in Appendix III.

Table 2 summarizes the costs and benefits of investments in the three AmeriCorps programs (state/national, VISTA, and NCCC). These programs provide 38,550 member service years annually across various sectors of the economy (health, education, disaster services, and environmental damage). Estimated conservatively using market wages, the value of services provided across all the sectors is $712 million. The primary beneficiaries from national service are the participants themselves: by augmenting their human capital they have much greater labor market prospects over the lifetime. In addition, youth gain from reduced delinquency (crime and substance abuse) over the years immediately after participation and from improved health: these private gains are estimated at $1,878

million in present value terms. The social and fiscal gains from AmeriCorps are also sizeable. These include: the value of improved health status that is publicly funded; the reduction in the burden of delinquency that would otherwise be paid for through the crime justice and welfare systems; productivity gains from having a more skilled workforce; and leveraged gains from subsequent national service. These social gains amount to $526 million. The taxpayer gains, which are calculated separately, include the taxable value of service output as well as changes in public spending on health and education programs. These taxpayer gains amount to $1,449 million.

Table 2
Net Benefits of National Service by Youth: AmeriCorps

	Economic Value ($ millions p.a.)
Full-time equivalents	*38,550*
Value of services provided [V]	$712
Private gains (economic well-being, delinquency, health) [P]	$1,878
Social gains (delinquency, health, education, productivity, leveraged gains) [S]	$526
Fiscal gains (taxable output, health and education spending averted) [F]	$1,449
Total Social Benefits [=V+P+S]	+$3,116
Total Social Cost	–$884
Net Social Benefits	$2,232
Social Benefit-Cost Ratio	*3.53*
Total Fiscal Benefits [=F]	+$1,449
Fiscal Cost to Implement Programs	–$586
Net Fiscal Benefits	$862
Fiscal Benefit-cost ratio	*2.47*

Sources: See Appendix I for costs and Appendix II and III for benefits. Present values with 3.5% discount rate in 2013 dollars.

In total, the social benefits of these three AmeriCorps programs are estimated at $3,116 million. These benefits can be compared to the social costs of these programs, which are $884million. The net benefits are therefore $2,232 million. The social benefits of AmeriCorps exceed the costs by a factor of 3.53. The economic effects for the taxpayer are smaller than for society. The aggregate fiscal benefits are $1,449 million and the fiscal cost is $586 million. The net effect for the taxpayer is therefore $862 million in savings. The benefits to the taxpayer exceed the costs by a factor of 2.47. From both a social and fiscal perspective, therefore, national service in AmeriCorps represents a good economic investment.

For other youth programs we perform a similar economic analysis. This allows us to estimate the gains from national service in its varied forms rather than an estimate for general AmeriCorps programs. Specifically, we look at YouthBuild, Teach for America, and NGYC; the first two are partially funded through CNCS and the last is partially funded by the Department of Defense. Details of the calculations for these programs, based on direct evidence for each, are given in Appendix IV. In total, these youth programs provide 41,900 member service years annually. Independently, each program generates social and fiscal benefits that exceed their costs. Together, they create social benefits of $3,400 million, with a social cost of $768 million; and they yield taxpayer benefits of $1,051 million from a taxpayer commitment of $549 million. Thus, for programs for which we have stronger and more detailed evidence, the returns are even greater for national service.

Table 3
Net Benefits of National Service by Youth

	Economic Value ($ millions p.a.)
Member Service Years	*80,450*
Total Social Benefit	+$6,516
Total Social Cost	–$1,652
Net Social Benefits	$4,864
Social Benefit-Cost Ratio	3.95
Total Fiscal Benefit	+$2,500
Total Fiscal Cost	–$1,135
Net Fiscal Benefits	$1,365
Fiscal Benefit-Cost Ratio	2.20

Sources: See Appendices I-IV. Programs include AmeriCorps; National Guard Youth Challenge; YouthBuild; Teach for America; FEMA Corps; other CNCS-funded programs. Present values with 3.5% discount rate in 2013 dollars.

We combine all the evidence on national service by youth, weighted according to the numbers participating. This summary is given in Table 3. Across the 80,450 full-time equivalent youth spread across all programs, the total social benefits are valued at $6,516 million. The social costs are $1,652 million. This yields a net social benefit of $4,864 million. The social benefits of youth national service exceed the costs by a factor of 3.95. From the taxpayer perspective, the fiscal benefits are valued at $2,500 million as compared to a fiscal commitment of $1,135 million. The net gain to the taxpayer is therefore $1,365 million and the benefit-cost ratio is 2.2. In the aggregate and across the diverse service programs for youth, therefore, the returns to investment significantly exceed the initial investment.

5.2 Valuing National Service by Seniors

We perform similar economic calculations for national service programs for seniors. Our estimates of the net benefits of participation in national service by seniors are summarized in Table 4. Full details of the calculations and sources are given in Appendices I and V. These calculations show sizeable gains from participation both for society and the taxpayer.

Table 4
Cost and Benefits of National Service by Seniors

	Economic Value ($ millions p.a.)
Full-time equivalent participation	*45,300*
Value of services provided [V]	$870
Private gains (health, economic well-being) [P]	$360
Social gains (health, education, productivity, leveraged gains) [S]	$190
Fiscal gains (taxable output, health and education spending averted) [F]	$435
Total Social Benefits [=V+P+S]	+$1,420
Social Cost to Implement Programs	–$368
Net Social Benefits	$1,051
Social Benefit-Cost Ratio	*3.85*
Total Fiscal Benefits [=F]	+$435
Fiscal Cost to Implement Programs	–$228
Net Fiscal Benefits	$208
Fiscal Benefit-cost ratio	*1.91*

Sources: Cost data from Appendix I; benefits data from Appendix V. Includes all Senior Corps and Experience Corps programs. Amounts are present values with 3.5% discount rate in 2013 dollars.

The first benefit is the value of the services provided, which we estimate using the (conservative) comparable wage method at $870 million. In addition, we calculate further private benefits. These are the improvements in health plus two components of economic well-being: the greater likelihood of work and the financial security from delaying social security claims (not associated with

income earned from national service but from subsequent employment, see Morrow-Howell et al., 2011). These private gains are worth $360 million. There are four areas where there are extra social gains. The private health benefits generate social health benefits as many seniors are eligible for government-supported health care. As their health is improved, government expenditures are lowered. Where seniors provide educational tutoring for youth, this has a social pay-off that exceeds the direct outlay of time. Seniors also generate social benefits by sharing their career knowledge to others, resulting in social productivity gains. National service is also self-sustaining: as more seniors volunteer, this leverages additional service contributions in the future. Together, these social gains are worth an additional $190 million. Finally, there are fiscal gains to the taxpayer from increases in tax receipts from the extra output and reduced public spending on health and education. These fiscal gains amount to $435 million.

The total social value of national service by seniors is the sum of the output value, private gains, and the extra social gains. This amounts to $1,420 million. By comparison, the total social cost of providing these programs is $368 million (see Appendix I). Subtracting these costs, the net economic value is $1,051. Dividing the total economic value by its costs, the benefit-cost ratio is 3.85. Investments in national service for seniors yield social benefits that are almost four times the costs. The participants gain considerably from service, but the main beneficiary is society: it receives valuable output from service as well as spillover gains across a range of domains.

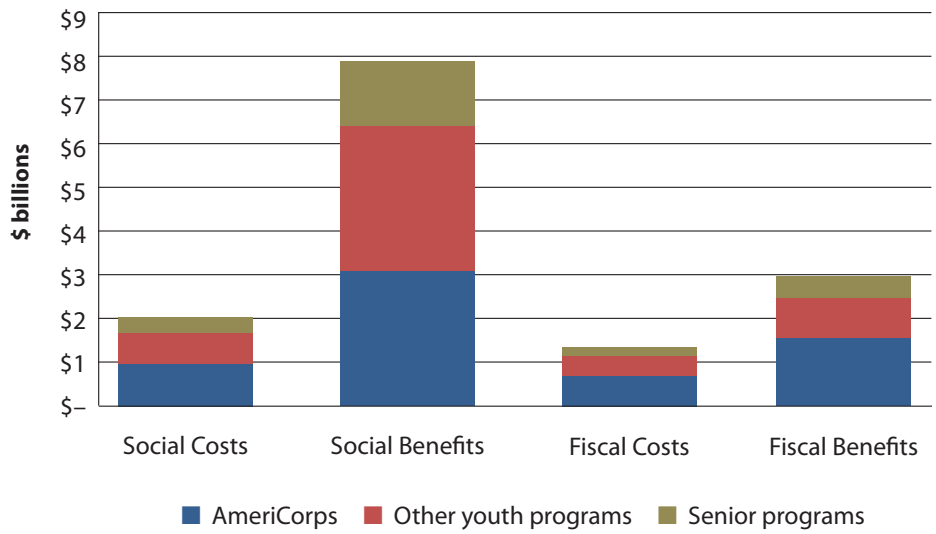
The fiscal calculation is based on the value of the returns only to the taxpayer, i.e. it excludes the private and social gains from service. The total fiscal gains are $435 million, compared to the taxpayer support for service programs of $228 million. Therefore, the taxpayer benefits from service by seniors are $208 million and the benefits exceed the costs by a factor of 1.91. Purely from the taxpayer perspective, service programs for seniors yield a return which is almost twice the size of the initial investment.

5.3 Aggregate Social and Fiscal Net Benefits of National Service

We now calculate the aggregate net benefits of national service by both youth and seniors. We use the evidence in Sections 5.1-5.2 above, weighted according to the numbers participating in each program. The results are given in Figure 5.

Overall, social spending on national service is $2.02 billion across the 125,750 full-time equivalent participants. This total includes not just direct funding but all other sources of funding and accounts for the resources required to implement and coordinate national service programs. By comparison, the present value social benefits of national service amount to $7.94 billion. This total includes not just the value of the services provided but also the long run benefits from having a more skilled and more engaged population. On net, the gain from national service is therefore $5.92 billion: for every dollar invested by society in national service programs for youth and seniors, there are 3.93 dollars returned to society in future benefits.

Figure 5
The Costs and Benefits of National Service



From the taxpayer perspective, the commitment to national service is $1.36 billion annually. This includes federal spending, state and local government spending and the initial tax burden effect. In return, the taxpayer receives extra income tax revenue and has lower spending on social programs to ameliorate disadvantage and poor health. These taxpayer returns amount to $2.94 billion. The net gain is therefore $2.15 billion. For every tax dollar spent, there are 2.15 dollars returned to the taxpayer as a result of national service.

5.4 Sensitivity Analysis

Our calculations rely on assumptions regarding participation in national service, subsequent outcomes and the economic valuation of those outcomes. These associations are derived from the best available research evidence. Here we consider how accurately they reflect the full effect of national service and how sensitive our estimates might be to changes in assumptions.

The full effect of national service is likely to be greater than the amounts reported here. As noted above, prior evidence typically underestimates the returns to national service: it looks only at the value of services provided; adopts a short-run perspective of the gains from participation; and neglects many spillover civic benefits. We address each of these issues, but not completely. Lacking sufficient data, our analysis omits some of the opportunity costs associated with under-employing the nation's youth. These costs include those borne by families, school systems, and state youth support programs. We also do not count the full value of increases in voting: these increases are likely to lead to improved government functioning, but the economic value of this is at present speculative. Our estimates do not include community-wide effects on

property and infrastructure, as well as social multipliers when more persons perform national service.[21] Many of these effects cannot be estimated precisely.

As well, we are deliberately conservative in our valuations of improvements in health status and the output provided by service members. For the value of health status, there have been several high quality studies which put a much higher value on health than the ones used above (see references in Appendices III-V). For the value of output, even as we do not rely heavily on the supply-side approach to value benefits, our economic approaches to valuing benefits are still partially derived from market prices. Yet by design national service meets social needs that the market – and conventional government programs – cannot easily meet. The market and government cannot always fully and sufficiently flexibly respond to environmental challenges, for example; nor do they typically provide the sense of personal support that volunteers provide (e.g. in reading to struggling students). In these important respects, market prices almost certainly understate the value of service. Another element in valuing programs is the 'option' or 'security' value associated with a cohort of national service participants. This is the value that comes from having a ready and prepared group of citizens who can respond to community needs, whether this need is driven by weak civic infrastructure, failing public schools, or environmental blight. Community service groups respond where the need is greatest (such as disaster relief) and do so flexibly. Finally, there is value in the social nature of service: by providing all citizens with an equal opportunity to serve, these organizations may promote more social cohesion (Stiglitz, 2010). If these elements were valued more accurately, then the benefits from national service would almost certainly increase.

Notwithstanding, we perform a series of sensitivity tests on the returns to youth national service. We use alternative assumptions regarding the value of output, the returns to education, and the costs of national service. We apply each new assumption singly and then in combination to generate a range of benefit-cost ratios. The lower bound of the social benefit-cost ratio is 3.41 (compared to the baseline of 3.95); the upper bound of the social benefit-cost ratio is 4.17.[22] Even in the worst-case scenario, therefore, the social returns are over three times the costs. More likely, the benefits are greater than those reported here because some valuable impacts from service cannot be monetized.

6. Expanding National Service

6.1 Getting to 250,000, 500,000 and 1 Million Individuals

The economic power of national service shows that it would be valuable to expand it from its current operations. Here we project forward the likely economic consequences from expanding service up to a goal of one million service-year equivalents in the programs for youth. This expansion would satisfy the objectives of the Serve America Act. This goal must be reached incrementally, so we first project forward the consequences of expansion to 250,000 and to 500,000 full-time equivalents.

One baseline projection would be to assume that the existing composition of service

programs is maintained. Each youth program would simply be expanded by the same proportion (Pritzker and McBride, 2005). With proportionality, all the numbers are larger but the ratio of benefits to costs is unchanged. Under this assumption, the case for further investment in youth national service is upheld. The only concern is if funding cannot be obtained but as noted above the taxpayer cost of national service is not large when viewed in comparison to government budgets or the available pool of charitable donations.

It would be more economically powerful to expand more intensively in programs that make a big difference and that have been found to be especially effective. Typically, more effective programs are those that are longer, have more resources for planning and recruitment, and devote more attention to participants (Epstein, 2009). Thus, the scale of each program will influence its economic value. As well, it would make more economic sense to expand disproportionately for groups with low participation rates and those who would gain especially from program structures and developmental investments. There may also be multiplier effects: increasing national service is likely to convey more positive benefits across the community – a greater recognition of the important role of service plays; and a likelihood that participants will encourage more co-participants (through peer effects and social norms). As more people participate, these gains increase more than progressively.

On the benefit side, a possible concern is displacement – service volunteers might replace workers – but the regulations for AmeriCorps prohibit displacement. Moreover, the proportions of volunteers are so small that any displacement would not be substantial. In fact, there is no evidence that increasing the number of older workers in the economy – or older workers providing community services – will displace younger workers. The dynamic nature of the labor market is such that there is evidence of a positive association between an improved labor market outcomes for younger workers and increases in employment of older workers (Munnell and Wu, 2012). Only if volunteers are 'perfect substitutes' for paid workers will displacement occur: the differences in ages, work hours, occupations, and industry sectors are such that few volunteers are ready substitutes for paid workers. Therefore, we project that 'getting to one million' will lead to average benefits that exceed those calculated above.

We also model the costs of providing youth national service programs. Potentially, expanding service programs might lead to diminution in quality or to rising average costs because it will be harder to recruit both participants and managerial personnel. Neither of these is likely to be a big concern, however. A notable feature of national service programs is that most are very small in absolute terms and many have far more applicants than places available.[23] Most programs are not therefore experiencing diseconomies of scale (i.e., being too big to manage). Instead, if they expanded, most programs would likely see their average costs falling, partly through savings in terms of co-location of different programs (GAO, 2011). Currently, most programs are tiny in comparison to the relevant populations, with only a few hundred or thousands of participants. Conservatively, less than half of one percent of eligible populations participate in national service. Most easily,

programs might expand geographically: existing programs do not cover every state and or city (NGYC operates in only 27 states, for example). Programs may also expand over time by encouraging more persons to re-volunteer: the rate of re-volunteering by youth is high (Appendix II) and over half of all Experience Corps participants re-volunteer. At an even more basic level, many individuals report "never having been asked" as their reason for not volunteering (Bridgeland et al., 2008). Finally, expanding the supply of programs appears possible based on surveys of service agencies. Most agencies report that they can readily absorb additional participants.[24]

In fact, our analysis below shows that average costs do fall as programs expand in size. These economies of scale mean that the unit costs of providing national service programs will fall as the numbers served increase.

6.2 Economic Value of Expanding Participation

The economic value of expanding service participation by youth is likely to yield higher benefit-cost ratios than the current estimate: benefits are likely to increase and unit costs are likely to decrease.

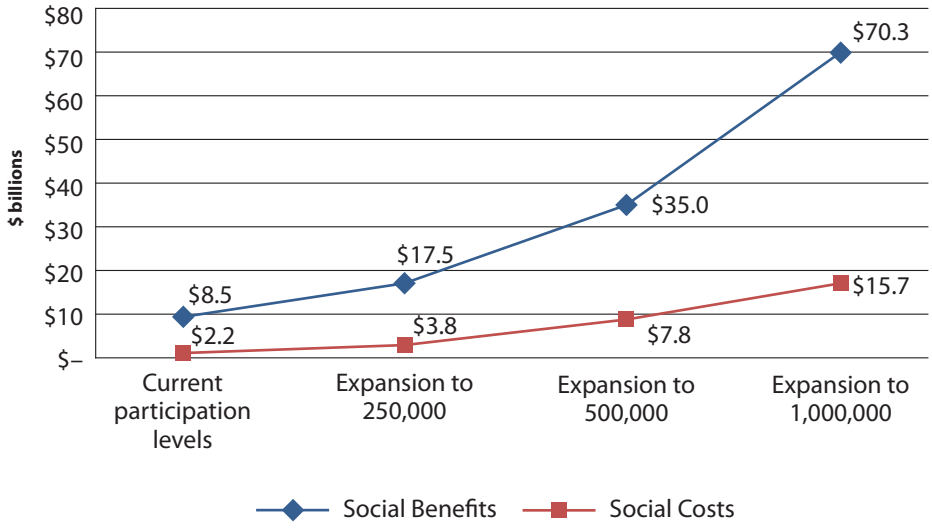
We project four scenarios for the economic value of expanding service participation. The first assumes that all youth programs are expanded proportionately. The second assumes that only CNCS programs are expanded, i.e. national service is promoted via investments in direct AmeriCorps programs. In the third scenario, benefits are increased more than-proportionately to reflect implementation of more effective programs. That is, we increase the weighting of programs in the top quartile of efficiency by a factor of two.

In the fourth scenario, unit costs are extrapolated based on estimation of a series of cost models. The cost models are based on state-level information on CNCS programs. For each state, we correlated CNCS expenditures against enrollment measures using CNCS data for 2011. We calculated four sets of correlations: we look at state-level spending per participant on Senior Corps, on AmeriCorps, and on only the competitive AmeriCorps grants; we also look at spending per participant per project for AmeriCorps competitive grants. As an additional check, we calculate the average cost per site for JOBSTART. For all these correlations, the association is the same: larger sites or states with higher numbers of participants have lower unit costs. CNCS programs therefore appear to exhibit economies of scale such that expanding programs is likely to mean that costs per member will be falling. Using the more conservative estimate, we calculate that unit costs fall by 11% when program size doubles; beyond this scale, we assume constant economies of scale.[25]

The social costs and benefits of expanding national service up to one million youth are shown in Figure 6. These estimates are the averages from all the scenarios (results in Appendix VI).

Currently, total social expenditure on national service for 80,450 full-time youth members is $1.65 billion. With social benefits of $6.52 billion, the net benefits of $4.86 billion are 3.95 times greater than the costs. Expanding national service to reach 250,000 members would be a significant expansion in relative terms. It would require a total social investment of $5 billion or more than triple

Figure 6
Expanding Participation in National Service
Social Costs and Benefits



Sources: Tables 2-4 and Appendix VI. Numbers rounded to nearest $0.1bn.

the current social commitment. The benefits of this expansion would total $23.2bn and the net benefits would be $18.1bn. This expansion would not only increase the total net benefits but it would increase efficiency: the benefit-cost ratio increases to 4.61. With increasing benefit functions and decreasing unit costs, expanding national service actually raises efficiency.

Further expansions of national service also have high benefit-cost ratios, as shown in Figure 6. To expand service to 500,000 million members would require $10.1bn but it would generate $46.1bn in total benefits. To expand service to 1 million members would cost $21.7bn and it would generate $92.6bn in returns. For both these significant expansions, the benefit-cost ratio is greater than that for the baseline. As national service programs expand, the benefit-cost ratio increases and is now consistently above 4:1.

On this evidence, the Serve America Act is likely to enhance the economic power of national service for youth. These expansions are large by comparison with the existing scale of operations. But they are small by comparison with the relevant populations and within the context of general volunteering across the country.

7. Conclusions and Recommendations

There are many different ways in which people serve and so create social value. Many people are motivated simply by the desire to help their communities. Yet, many more people would serve – or would support others to serve – if they were aware of the economic value of these contributions. This analysis has attempted to estimate the

economic value in a comprehensive manner of national service programs, i.e. formal and intensive contributions to local communities. We recognize that this economic framework is only partially complete: not all the benefits of national service can be expressed in dollars – and much more attention should be given to how service improves local community infrastructure and social capital, as well as how service can mitigate environmental damages. Also, participants do not view service in money terms but instead value the experience and opportunity to give back to their communities. Nevertheless, national service programs require organizational resources and need funding to persuade people to enroll. An economic approach can help policymakers decide whether the taxpayer is getting a good return on its investment and whether to encourage greater participation. The evidence and our results indicate that the economic value of national service far exceeds its costs. This conclusion holds for the participant, the taxpayer, and for the broader society; it holds for each formal service program for which we have credible evidence; and it is predicted to hold even if national service were expanded substantially beyond its current size.

Looking forward to the economic and social challenges over the next decade, the need for national service is likely to grow. Although many citizens will continue to be motivated to serve, incentives to serve may be weakening over time even as the need for structure – especially during youth – is growing. Youth, who now bear an increasing proportion of the cost of their postsecondary education, may feel economic pressure to earn more than to serve. More disadvantaged youth may need the social supports of service programs to help them transition to economic independence. Future cohorts of youth will face more economic pressures; and demographic and economic evidence, as well as the Great Recession, suggests growing adversity for those least prepared for adulthood.[26] With national service that is coupled with education awards, AmeriCorps programs represent an efficient way for youth to gain skills and human capital without accumulating excessive debt. For seniors, there are many new opportunities through encore careers and experiences: national service offers a way to make the most of these opportunities as well as improving health status and financial security. Overall, the economic case for further investment in national service – especially for youth – is compelling. Encouraging national service makes economic sense.

Through the Serve America Act and other policy reforms, encouragement for national service should be multifaceted. It should include direct programs but also public investments to leverage private supports through tax incentives, matching grants, subsidies, or public-private partnerships. Implementing these policies will make good on President Obama's pledge to "encourage a renewed spirit of national service for this and future generations."

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End Notes

1. Data from www.bls.gov/bls/12s0585.xls; www.volunteeringinamerica.gov/national; www.urban.org/UploadedPDF/412674-The-Nonprofit-Sector-in-Brief.pdf; and www.volunteeringinamerica.gov/assets/resources/FactSheetFinal.pdf.

2. For information on the Citizen Corps programs, see www.ready.gov/citizen-corps-partner-programs; and www.medicalreservecorps.gov. For information on youth conservation programs, see www.preserveamerica.gov/stewards.html; and www.thesca.org/.

3. See respectively, www.nationalservice.gov; habitat.org; ccc.ca.gov; cityyear.org; www.findyouthinfo.gov; www.aarp.org/experience-corps; and youthbuild.org. Federal Job Corps programs share some similar features that emphasize community service but their objectives are quite different so we exclude them from our analysis.

4. Figure 1 is based on full-time equivalents of 1700 hours p.a. (rounded to nearest hundred). Other CNCS-funded programs from Social Innovation Fund. Publicly-funded service programs only. Sources for participation data: www.nationalservice.gov/pdf/factsheet_seniorcorps.pdf; www.jobcorps.gov/home.aspx; www.ngycp.org/site/; www.aarp.org/content/dam/aarp/giving_back/volunteering/2012-11/evaluation-of-experience-corps-student-outcomes-aarp.pdf; www.teachforamerica.org/our-mission/fueling-long-term-impact; youthbuild.org/research; and www.nationalservice.gov/about/media_kit/factsheets.asp. These figures represent full-time equivalent numbers, which is typically the expected level of participation for these programs. These counts are conservative because some programs are partially funded by CNCS but they also raise donor funds to provide their own places. However, these donor funds cannot be separated from CNCS funds.

5. http://www.nationalservice.gov/pdf/300006-000CBJ_2012_final.pdf.

6. This match funding is an average across all agencies for which data were available. Some agencies raise considerably more in matched funding and this allows them to offer more places and larger programs. However, our assumed rate is higher than the average of the required match rate which strictly might represent the benchmark estimate of how much national service programs should cost (CNCS, 2012, Appendix D). See www.cityyear.org/AnnualReportFY11_web.pdf; www.cityyear.org/FY11 Audit Report.pdf; habitatforhumanity.org/financial_statements_2012.pdf; www.teachforamerica.org/Annual.Report.FINAL_pdf; We also appreciate data directly provided by City Year. For Experience Corps, www.aarp.org/~/aarp_foundation/2012_PDFs / Financal-Information/AARP%20Foundation_2011FS.pdf

7. Raising tax revenue to fund service programs distorts economic activity (away from the taxed good toward other non-taxed activities). This tax distortion has been calculated for various tax rates and levels of government. We apply the rates estimated by Allgood and Snow (1998).

8. Bridgeland et al. (2009). See also www.urban.org/UploadedPDF/412674-The-Nonprofit-Sector-in-Brief.pdf.

9. On AmeriCorps, see CNCS, 2004, 2008; Marshall and Magee, 2005; Epstein, 2009; and Abt Associates, 2012. On VISTA, see Abt Associates, 2008. On the benefits from community wide capital see the review of 37 studies in Perry and Katula (2001). On Experience Corps, see Morrow-Howell and Tang 2004.

10. On Job Corps and YouthBuild, Jastrzab et al., 1997, 2000; Price et al., 2011; Venable and Hammelmann, 2010. On Job Corps, see Schochet et al., 2008. For Teach for America, see Glazerman, Mayer & Decker, 2006; Xu, Hannaway, & Taylor, 2011. On Citizen Schools and City Year, see Morrow-Howell et al., 2009; Metz and Youniss, 2005.

11. Discussion of these issues is given in: Putnam (2007) on tolerance for diversity; in Sagawa et al. (2008) on formative benefits of service; and GAO (2010) on challenges to identifying benefits.

12. Notably, investigations by the GAO (2000, 2010, 2012) – despite being critical of some elements of CNCS operations – have accepted this conclusion.

13. Also, the federal Job Corps program, which the GAO (2000) has used as a benchmark for AmeriCorps,

has been successful in helping disadvantaged youth. In a rigorous evaluation, Job Corps was found to increase educational attainment, reduce crime, and increase employment prospects for youth; conservatively, the benefit-cost ratio of Job Corps has been estimated at 1.9 (McConnell and Glazerman (2001); Belfield et al. (2012)). Applying our method of analysis here, we estimate the total social cost of 59,000 Job Corps places at $1.6 billion and the total social benefit at $2.9 billion. This yields a benefit-cost ratio of 1.8, very close to existing estimates. Another example is Year Up, a six-month technical skills program. Participants in Year Up reported significantly higher earnings and hours worked after one year.

14. On impacts, see Millenky et al., 2011. For the CBA, see Perez-Arce et al., 2012.

15. For example, Frumkin et al. (2009) find no effect of participating in AmeriCorps on education and employment outcomes. However, the education measures are attitudinal (confidence and responsibility); these may not correspond to outcomes such as high school graduation or college progression, both of which have a ready economic interpretation. Similarly, the employment effects are not measured in terms of job placement or earnings gains that can be easily monetized.

16. For example, at two of the sites in the benefit-cost analysis of Washington Service Corps the benefits of the program were calculated using the supply-side method (Abt Associates, 2000). That is, the benefits of the program were simply what the Service Corps agencies would have had to pay in the private market to buy the services provided, which in this case was the restoration of public buildings. This supply-side method implies that the services have no value beyond the restoration itself.

17. Given that most volunteers enjoy participating, wage-based estimates are almost certainly lower bounds on the value of volunteer time. The Independent Sector estimate is conservative for other reasons. First, the wage estimate includes only 12% for fringe benefits; the full rate is over 35% (www.bls.gov/news.release/ecec.nr0.htm). Second, the estimate is based on wages across all workers even though volunteer workers tend to be more skilled than the average worker. Even if the volunteer is performing low-skill work, it is appropriate to value their time according to their opportunity cost not simply the market wage to hire someone for. Pho (2008) finds that the opportunity cost measure of volunteer time is approximately 20% higher than a measure based on market wages. An important caveat to this analysis, however, is that many these wage estimates do not include employer costs: not only hiring costs but also supervisory and managerial costs from having volunteer workers. Service organizations will therefore have to pay a manager, even if the volunteers do not require payment.

18. In 2013 CNCS introduced cost-effectiveness as a competitive criterion in grant awards.

19. For example, we do not know if service contributions that tend to be more formal have a greater economic value than volunteering; the latter may have greater benefits in terms of flexibility but fewer in that they are less intensive.

20. We assume that participants benefit because their participation is voluntary.

21. Other parameters in the model are conservative. For example, we assume only a 2% re-volunteer rate, which is considerably below that found in other studies and identified in Appendix II. For the fiscal analysis, we assume a marginal tax rate that is lower than the average tax rate on incomes.

22. For the value of output we use the wage estimate from the Independent Sector (mean and state-level variation) and the opportunity cost of time estimate (based on Pho, 2008). For the returns to education we use standard errors from the Current Population Survey. For the costs of providing service we use the range of estimates of matching funds, state and local governments, and managerial cost estimates from the financial statements of service providers (see Note 6 above). Separately, we apply evidence from a detailed study on the economic value of opportunity youth, i.e. youth who are neither in college nor working and so would be candidates for national service programs (Belfield and Levin, 2012). Using their estimates of the returns to investments in opportunity youth we estimate the total social benefits for AmeriCorps at $3.89 billion; compared to the cost of $1.12 billion, the benefit-cost ratio would be 3.47. The total fiscal

benefits of AmeriCorps would be $1.92 billion, with a benefit-cost ratio of 2.57. These ratios are very similar to our baseline specification which makes no assumptions about targeting particular youth groups.

23. Promising youth programs listed by Bloom et al. (2010) typically serve only a few hundred youth at a time. FEMA Corps, which has attracted considerable attention, has fewer than 300 graduates annually. More than half of all formal Experience Corp agencies operated at less than ten sites with fewer than 100 volunteers (Morrow-Howell et al., 2006). Also, volunteering periods tend to be short (e.g. a few months) rather than full-time commitments.

24. Based on survey responses by 100+ Experience Corps agencies, over 60% stated that volunteer positions were always available and that they did not have waiting lists for volunteering (Morrow-Howell et al., 2006).

25. The correlations are economically meaningful. If AmeriCorps enrollment goes up by 1000, average costs go down by 3.2%. But the association is not statistically significant. Mean enrollment per state is 5,830. So, if enrollment goes up by 10%, average costs falls by 1.9%. If Senior Corps enrollment goes up by 1000, average costs go down by 2.3%. Mean enrollment per state is 7840. So if enrollment goes up by 10%, average cost falls by 1.4%. Details available from the author.

26. The unemployment rate of 16-24 year olds was more than 18% or twice the overall unemployment rate; and for young African Americans and Hispanics it is 30% and 20% respectively. Less than half of the youth population are employed, a decline of 7 percentage points since 2008. Many who were not employed were neither looking for a job nor engaged in education or training (Bell and Blanchflower 2011).

References

Abt Associates Inc. 2008. *Improving Lives and Communities: Perspectives on 40 Years of VISTA Service*. Washington, DC: Abt Associates Inc.

Abt Associates Inc. 2012. Evaluation of the LISC AmeriCorps Program. Cambridge, MA: Abt Associates Inc.

Adler, N.E. & J. Stewart. 2010. Health disparities across the lifespan: Meaning, methods, and mechanisms. *Annals of the New York Academy of Sciences*, 1186, 5-23.

Aguirre International. 1999. *Making a Difference: Impact of AmeriCorps State/National Direct on Members and Communities*. San Mateo. CA: Aguirre International.

Allgood, S. & A. Snow. 1998. The marginal cost of raising tax revenue and redistributing income. *Journal of Political Economy*, 106, 1246-1273.

Bartik, T. 2010. Bringing jobs to people: How federal policy can target job creation for economically distressed areas. Discussion paper, The Hamilton Project, http://www.brookings.edu/~/media/research/files/papers/2010/10/job%20creation%20bartik/10_job_creation_bartik.pdf

Belfield, C.R. & H.M. Levin. 2007. *The Price We Pay: The Economic and Social Costs of Inadequate Education*. Brookings Institution: Washington, DC.

Belfield, C.R., Levin, H.M. & R. Rosen. 2012. *The Economic Value of Opportunity Youth*. Monograph, http://www.dol.gov/summerjobs/pdf/EconomicValue.pdf

Bell, N.F. & D.G. Blanchflower. 2011. Youth Unemployment in Europe and the United States. *Nordic Economic Policy Review*, 1, 11-38.

Blomberg, T.G., Bales, W.D., Mann, K., Piquero, A.R. & R.A. Berk. 2011. Incarceration, education and transition from delinquency. Journal of Criminal Justice, 39, 355-365.

Bridgeland, J.M., Putnam, R.D., & H.L. Wofford. 2008. *More to Give: Tapping the Talents of the Baby Boomer, Silent, and Greatest Generation*. Monograph, Civic Enterprises, Washington, DC. www.civicenterprises.net/MediaLibrary/Docs/more_to_give.pdf.

Bridgeland, J.M., Reed, B., McNaught, M. & M. Dunkelman. 2009. *The Quiet Crisis. The Impact of the Economic Downturn on the Nonprofit Sector*. Report, W.K. Kellogg Foundation.

Card, D. 1999. The causal effect of education on earnings. In Ashenfelter O & D Card (Eds.) *Handbook of Labor Economics*. North Holland: New York.

Cohen, M. & A. Piquero. 2009. New evidence on the monetary value of saving a high risk youth. *Journal of Quantitative Criminology*, 25, 1, 25-49.

CNCS. 2004. *Serving Country and Community: A Longitudinal Study of Service in AmeriCorps*. Washington, D.C.: Corporation for National and Community Service.

CNCS. 2007. *Youth Helping America: Leveling the Path to Participation: Volunteering and Civic Engagement Among Youth from Disadvantaged Circumstances*. Washington, D.C.: Corporation for National and Community Service.

CNCS. 2008. *Still Serving: Measuring the Eight-Year Impact of AmeriCorps on Alumni*. Washington, D.C.: Corporation for National and Community Service.

Cutler, D. & A. Lleras-Muney. 2010. Understanding differences in health behaviors by education. *Journal of Health Economics*, 29, 1-28.

Epstein, D. 2009. Evaluating the Long-term Impacts of AmeriCorps Service on Participants. RAND Pardee Graduate School, #249.

Freedman, M. 2010. "Choosing to Work During Retirement and the Impact on Social Security" Testimony, U.S. Senate Committee on Finance, www.encore.org/find/resources/testimony-marc-freedman#1A.

Frumkin, P. & J. Jastrzab. 2010. *Serving Country and Community: Who Benefits from National Service?* Cambridge, MA: Harvard University Press.

Frumkin, P., Jastrzab, J., Vaaler, M., Greeney, A., Grimm, R.T. Jr., Cramer, K. & N. Dietz. 2010. Inside National Service: AmeriCorps' Impact on participants.

Journal of Policy Analysis and Management, 28, 394-416.

Glazerman, S., Mayer, D. & P. Decker. 2006. Alternative routes to teaching: The impacts of Teach for America on student achievement and other outcomes. *Journal of Policy Analysis and Management*, 25, 75-96.

Government Accountability Office (GAO). 2000. Two AmeriCorp Programs' Funding and Benefits. Washington, DC: GAO/HEHS-00-33.

Government Accountability Office (GAO). 2008. *Disconnected Youth: Federal Action Could Address Some of the Challenges Faced by Local Programs That Reconnect Youth to Education and Employment*. Washington, DC: GAO 08-313.

Government Accountability Office (GAO). 2010. *Performance Measurement: Better Alignment to Strategic Goals and Data Verification Needed at the Corporation for National and Community Service*. Washington, DC: GAO-10-886.

Government Accountability Office [GAO]. 2011. *Multiple Employment and Training Programs: Providing Information on Colocating Services and Consolidating Administrative Structures Could Promote Efficiencies*. Washington, DC: GAO 11-92.

Government Accountability Office (GAO). 2012. *Measuring Performance: The Corporation for National and Community Service Faces Challenges Demonstrating Outcomes.* Washington, DC: GAO-12-310.

Green, R. K. & M. J. White. 1997. Measuring the benefits of home-owning: Effects on children. *Journal of Urban Economics*, 41, 441-461.

Haurin, D.R., Parcel, T.L. & R.J. Haurin. 2002. Impact of homeownership on child outcomes. In Retsinas, N.P. & E.S. Belsky (Eds). *Low-Income Homeownership: Examining the Unexamined Goal*. Brookings Institution Press: Washington DC.

Holzer, H. 2012. Raising job quality and skills for American workers: Creating more effective education and workforce development systems in the states. IZA Policy Paper No. 42, http://ftp.iza.org/pp42.pdf

Independent Sector. 2010. Value of Volunteer Time. www.independentsector.org/Volunteer_Time

Jastrzab, J., Ciurea, M., Cohen, C., Hostica, C., Small, D. & A. St. George. 2000. Evaluation of the Washington Service Corps. Cambridge, MA: Abt Associates, Inc.

Jastrzab, J., Blomquist, J., Masker, J., & L. Orr. 1997. Youth Corps: Promising Strategies for Young People and Their Communities. Cambridge, MA: Abt Associates, Inc.

Levine. P. 2007. *The Future of Democracy: Developing the Next Generation of American Citizens*. Medford, MA: Tufts University Press.

Light. P. 2008. *A Government Ill Executed: The Decline of the Federal Service and How to Reverse It*. Cambridge. MA: Harvard University Press.

Marsh, A. et al. 2000. Housing deprivation and health: A longitudinal analysis. Housing Studies, 15, 72-89.

Marshall. W. & M. Porter Magee. 2005. *The AmeriCorps Experiment and the Future of National Service*. Washington, D.C.: Progressive Policy Institute.

McBride, A. et al. 2004. *Youth Service: A Comprehensive Perspective.* St. Louis. MO: Global Service Institute. Center for Social Development, Washington University St. Louis, Working Paper 04-12.

McCarthy, G., Van Zandt, S. & W. Rohe. 2001. The Economic Benefits and Costs of Homeownership: A Critical Assessment of the Research, Research Institute for Housing America.

McConnell, S. & S. Glazerman. 2001. National Job Corps study: The benefits and costs of Job Corps. Mathematica Policy Research, Inc. Retrieved July 8 2012 at http://wdr.doleta.gov/research/FullText_Documents/01-jcbenefit.pdf

Metz, E.C. & J. Youniss. 2005. Longitudinal gains in civic development through school-based required service. *Political Psychology*, 26, 413-437.

Millenky, M., Bloom, D., Muller-Ravett, S. & J. Broadus. 2011. Staying on Course: Three year results of the National Guard Youth ChalleNGe Evaluation. MDRC, Report #599, retrieved May 22 2012 at http://www.mdrc.org/publications/599/full.pdf.

Moore, M.A., Boardman, A.E., Vining A.R., Weimer, D.L. & D.H. Greenberg. 2004. Just give me a number! Practical values for the social discount rate. *Journal of Policy Analysis and Management*, 23, 789-812.

Cohen, M. & A.R. Piquero. 2008. Costs and benefits of a targeted intervention program for youthful offenders: The Youthbuild USA Offender Project. Monograph, https://youthbuild.org/~ sites/ youthbuild.org/files/basic_page/2011/08/128/ Targeted%20Intervention%20Program%20 for%20Youthful%20Offenders%20-%20Full%20 Rtt.pdf

Morrow-Howell, N. & F. Tang. 2004. Youth service and elder service in comparative perspective. Working paper, Washington University – St. Louis, 04-10.

Morrow-Howell, N. et al. 2006. Older adults in service to society. CSD Research Report 06-05, Washington University: St. Louis, MO.

Harris, A.H.S. & C.E. Thoresen. 2005. Volunteering is associated with delayed mortality in older people: Analysis of the Longitudinal Study of Aging. *Journal of Health Psychology*, 10, 739-752.

Morrow-Howell, N., Jonson-Reid, M., McCrary, S., Lee, Y. & E. Spitznagel. 2009. Evaluation of Experience Corps: Student Reading Outcomes. Washington University: St. Louis, MO.

Munnell, A.H. & A.Y. Wu. 2012. Will delayed retirement by the baby boomers lead to higher unemployment among younger workers? Working Paper 2012-22, Center for Retirement Research, Boston College.

National Association of Community Health Centers (NACHC). 2010. Community HealthCorps Statewide Impact Report. Monograph: www. nachc.com.

National Conference on Citizenship (NCOC). 2011. Civic Health and Unemployment: Can Engagement Strengthen The Economy? Issue Brief: Washington, DC.

National Conference on Citizenship (NCOC). 2012. Civic Health and Unemployment II: The Case Builds. Issue Brief: Washington, DC.

Perez-Arce, F., Constant, L., Loughran, D.S. & L.A. Karoly. 2012. A Cost-Benefit Analysis of the National Guard Youth ChalleNGe Program. RAND Research Monograph, TR1193.

Perry, J.L. & A.M. Thomson. 2004. Civic Service: What Difference Does it Make? Armonk, NY: M.E. Sharpe.

Perry, J.L. & M.C. Katula. 2001. Does Service Affect Citizenship? *Administration and Society*, 33, 330-365.

Perry, J.L. et al. 1999. Inside a Swiss Army Knife: An Assessment of AmeriCorps. *Journal of Public Administration Research and Theory*, 9, 225-250.

Price, C., Williams, J., Simpson, L., Jastrzab, J., & Markovitz, C. 2011. National Evaluation of Youth Corps: Findings at Follow-up. Cambridge, MA: Abt Associates Inc.

Pritzker. S. & A.M. McBride. 2005. Service-learning and civic outcomes: From suggestive research to program models. Center for Social Development, Washington University St. Louis, Working Paper 05-12.

Putnam, R.D. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York, NY: Simon and Schuster.

Putnam. R.D. 2007. E Pluribus Unum: Diversity and community in the twenty-first century: The 2006 Johan Skytte Prize Lecture. *Scandinavian Political Studies*, 30, 137-174.

Rouse, C. 2007. The earnings benefits from education. In C.R. Belfield & H.M. Levin (Eds.) *The Price We Pay: The Social and Economic Costs to the Nation of Inadequate Education*. Brookings Institution Press: Washington, DC.

Pho, Y.H. 2008. The value of volunteer labor and the factors influencing participation: Evidence for the United States from 2002 through 2005. *Review of Income and Wealth*, 54, 220-236.

Borgonovi, F. 2008. Doing well by doing good. The relationship between formal volunteering and self-reported health and happiness. *Social Science and Medicine*, 66, 2321-2334.

Tyler, P., Warnock, C., Provins, A. & B. Lanz. 2013. Valuing the benefits of urban regeneration. *Urban Studies*, 50, 169-190.

Sagawa, S. 2010. *The American Way to Change: How National Service & Volunteers Are Transforming America*. Jossey-Bass: San Francisco, CA.

Sagawa, S., Connolly, A. & T. Chao. 2008. *Leaders for Every Sector: National Service as a Strategy for Leadership and Workforce Development*. Washington, D.C. Center for American Progress.

Schochet, P.Z., Burghardt, J. & S. McConnell. 2006. National Job Corps Study and Longer-term Follow up Study. Monograph, Mathematica Policy Research at www.mathematica-mpr.com/publications/PDFs/jobcorpimpactbenefit.pdf.

Schochet, P.Z., Burghardt, J. & S. McConnell. 2008. Does Job Corps work? Impact findings from the national Job Corps study. American Economic Review, 98, 1864-1886.

Stiglitz, J. 2012. *The Price of Inequality: How Today's Divided Society Endangers our Future*. W.W. Norton & Co.: New York, NY.

Sun, W. & A. Webb. 2011. Valuing the longevity insurance acquired by delayed claiming of social security. *Journal of Risk and Insurance*, 78, 97-929.

Thomas, C. 2006. How Senior Corps Volunteer Programs Strengthen Communities and Enrich the Lives of Volunteers. www.westat.com/news/news_archives_2006.cfm#gsm.

Venable, C. & C. Hammelman. 2010. Transforming Communities through Service: A Collection of 52 of the Most Innovative AmeriCorps Programs in the United States. America's Service Commissions and Innovations in Civic Participation.

Hong, S.I. & N. Morrow-Howell. 2010. Health outcomes of Experience Corps: A high commitment volunteer program. *Social Science & Medicine*, 71, 414-420.

Voices for National Service [VNS]. 2012a. National Service: Cost-effectively Delivering Critical Services to Americans in Need. Washington, D.C.; www.voicesfornationalserve.org.

Voices for National Service [VNS]. 2012b. National Service: Providing Pathways to Employment. Washington, D.C.; www.voicesfornationalserve.org.

Xu, Z., Hannaway, J. & M. Taylor. 2011. Making a difference? The effects of Teach for America in High School. *Journal of Policy Analysis and Management*, 30, 447-469

Appendix I: Social and Fiscal Costs of National Service

	Social Costs ($ millions)	Fiscal Costs ($ millions)
AmeriCorps State/National	$627	$427
AmeriCorps VISTA	$191	$118
AmeriCorps NCCC	$66	$41
AmeriCorps Other CNCS	$112	$75
National Guard Youth ChalleNGe	$278	$184
YouthBuild	$301	$240
Teach for America	$77	$51
Senior Programs (Senior Corps and Experience Corps)	$368	$228
TOTAL	$2,020	$1,365

Sources and Notes: For AmeriCorps, source http://www.nationalservice.gov/pdf/300006-000CBJ_2012_final.pdf. VISTA: CNCS funds, Table 6; matching, Appendix G; administration, Table 1. AmeriCorps State/National: CNCS, Table 4; matching, Appendix G; administration, Table 1; educational allowance, page 24; NCCC: CNCS, Table 10, matching, Appendix G; administration, Table 1; METB from Allgood and Snow (1998); marginal tax rate, 10% at www.irs.gov/pub/irs-drop/rp-08-66.pdf; state/local match, 20%. Other CNCS programs as per AmeriCorps programs. AmeriCorps programs exclude counts under YouthBuild and Teach for America. NGYC: Perez-Arce et al. (2012). YouthBuild: Costs include construction and stipends (Mitchell et al. (2003), cited in Cohen & Piquero (2008); CNCS, DoD, and matching funds estimates also included. TFA: Costs include TFA administrative costs only. Total Social Cost for Senior programs: Includes federal and matching funds; administrative costs apportioned proportionately (www.nationalservice.gov/pdf/300006-000CBJ_2012_final.pdf, Tables 1, 14, 16, 18, pages 26, 29, 31). All figures in 2013 dollars.

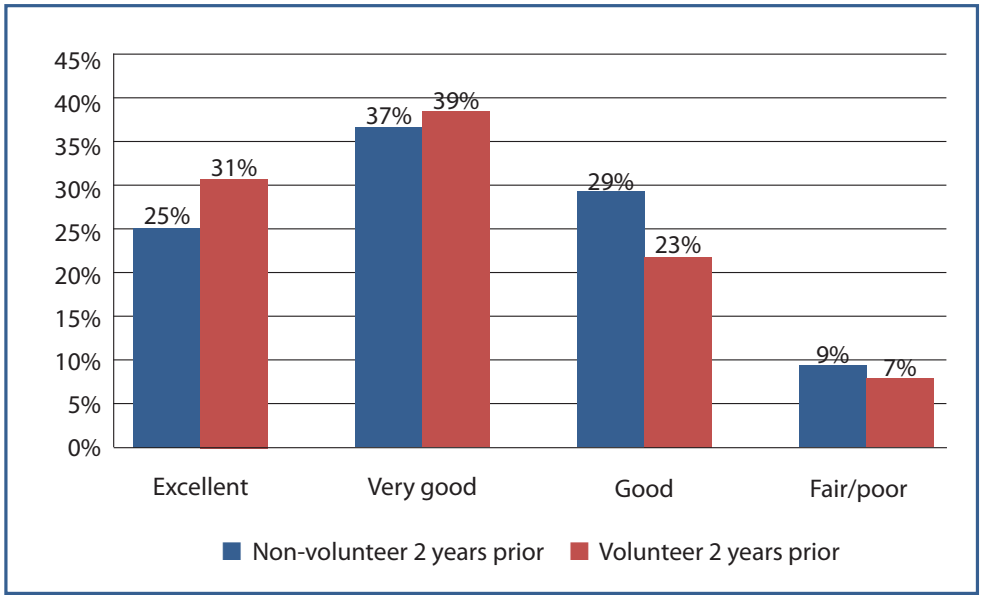
Appendix II: Evidence for Youth Volunteers

A. Association between Volunteering and Income

	Full Sample (Ages 16-70)	Youth Sample (Ages 16-24)
Percentage gain in income for persons who volunteer over non-volunteers	20.6	11.5
Percentage gain in income over high school dropout for:		
High school graduate	9.6	14.6
Person with some college	27.8	34.9
Person with BA degree or above	72.9	56.4
R-squared	0.13	0.04
Observations	89,968	13,199

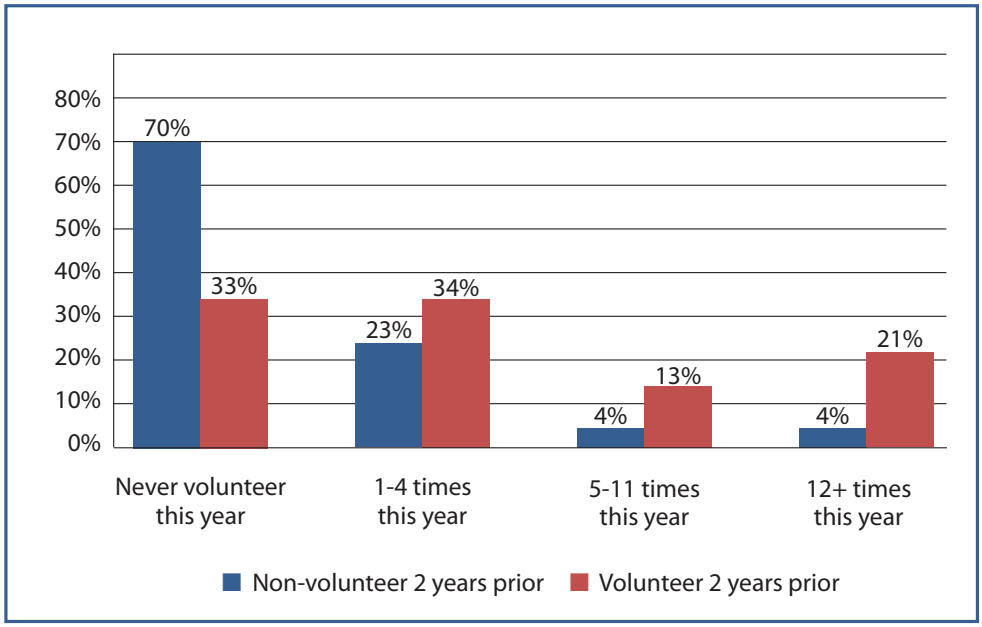
Sources and Notes: Current Population Survey, CPS Volunteer Supplement September 2012. Model also includes constant term, age, age squared. Volunteer status based on significant volunteer activities within last year.

B. Association between Volunteering and Subsequent Health Status



Sources and Notes: National Longitudinal Survey of Youth 1997. Volunteers identified based on participation within year (round 7). General health status based on self-report of youth (round 9).

C. Association between Volunteering and Subsequent Volunteering



Sources and Notes: National Longitudinal Survey of Youth 1997. Volunteers identified based on participation within year (round 7). Subsequent volunteer status based on participation two years later (round 9).

Appendix III: Evidence for AmeriCorps

	AmeriCorps			
$ millions Present Value	**VISTA**	**State/National**	**NCCC**	**TOTAL**
Full-time equivalents	*5,750*	*31,600*	*1,200*	*38,550*
Value of output[a]	$103	$581	$28	$712
Private gains:				
Labor market[b]	$248	$1,365	$52	$1,664
Health, juvenile delinquency[c]	$32	$175	$7	$214
Social gains:				
Crime[d]	$52	$285	$11	$347
Welfare[e]	$1	$6	$0	$7
Community spillovers[f]	$19	$102	$4	$125
Leveraged future service[g]	$7	$39	$1	$47
Fiscal gains:				
Taxable earnings[h]	$113	$624	$24	$761
Crime/health/ welfare[i]	$81	$447	$17	$545
Taxable output[j]	$21	$116	$6	$142
Total Social Benefits	$461	$2,552	$102	+$3,116
Total Social Cost[k]	$191	$627	$66	–$884
Net Social Benefits	$271	$1,925	$37	$2,232
Total Fiscal Benefits	$215	$1,187	$46	+$1,449
Total Fiscal Costs[k]	$118	$427	$41	–$586
Net Fiscal Benefits	$97	$760	$5	$862

Sources and Notes: All figures in present value 2013 dollars (discount rate 3.5%). a Wages for sector-specific work (6 sectors) part-time private industry employer costs per hour including benefits (ftp://ftp.bls.gov/pub/special.requests/ocwc/ect/ececqrtn.txt; ftp://ftp.bls.gov/pub/suppl/eci.echistrynaics.txt. Adjusted for managerial costs. b Earnings benefits from increased education using Current Population Survey data 2006-2010 (Belfield and Levin, 2007). c Health status gains and juvenile delinquency avoidance associated with high school graduation (Belfield et al., 2013). d Valuation based on opportunity youth profiles and crime costs (Belfield et al., 2012; Blomberg et al., 2007; Cohen and Piquero, 2009). e Valuation based on welfare avoidance by college graduates (Belfield et al., 2013). f Valuation of community spillovers from more secure and prosperous neighborhoods (Green and White, 1997; Haurin et al., 2002; Marsh et al., 2000; McCarthy et al., 2001; Perry and Katula, 2001). Protection against unemployment (NCOC, 2011, 2012). g Three Service Corps activities in Washington State; additional volunteer hours multiplier conservatively at 0.02, i.e. for every 100 hours of volunteer national service sponsored formally, 2 additional hours of volunteer labor will be induced (Abt Associates, 2009). i Valuation based on opportunity youth profiles and crime costs (Belfield et al., 2012). j Value of taxes on output produced (marginal tax rate: http://www.irs.gov/pub/irs-drop/rp-08-66.pdf). k See Appendix I. www.nationalservice.gov/pdf/300006-000CBJ_2012_final.pdf, Tables, 1, 4, 6, 10. This cost includes more items than GAO (2000). Marginal excess tax burden of 13% (Allgood and Snow, 1998). Excludes members in YouthBuild, Teach for America and other CNCS programs.

Appendix IV: Evidence for Other Service Programs by Youth

Program	CNCS programs (other)[a]	National Guard Youth Challenge[b]	YouthBuild[c]	Teach for America[d]	TOTAL
Participation (FTEs)	*4,900*	*18,000*	*10,000*	*9,000*	*41,900*
Total Social Benefits ($m)	$396	$738	$1,965	$301	+$3,400
Total Social Costs ($m)	$112	$278	$301	$77	–$768
Net Social Benefits ($m)	$284	$460	$1,665	$224	$2,632
Total Fiscal Benefits ($m)	$184	$212	$542	$113	+$1,051
Total Fiscal Costs ($m)	$74	$183	$240	$51	–$549
Net Fiscal Benefits ($m)	$110	$28	$302	$63	$503

Sources and Notes: All figures in present values in 2013 dollars. a Other CNCS programs assumed to have economic returns equivalent to average across three AmeriCorps programs (education awards only counted when distributed). b Cost includes all operating costs and METB; lifetime benefit based on earnings of NGYC graduates and value of community service (Perez-Arce et al., 2012). c Costs include construction and stipends (Mitchell et al. (2003), cited in Cohen & Piquero (2008). Benefits from value of YouthBuild construction (Mitchell et al. (2003), cited in Cohen & Piquero (2008); earnings and lower recidivism (Cohen and Piquero, 2008). d Costs include TFA administrative costs only (wage paid not included because value of TFA expressed relative to other teachers). Benefits measured as economic return to students from gain in test scores of 0.08-0.15 (Belfield and Levin, 2009); and value of willingness to accept lower paid teaching job by TFA participants relative to average college graduate wage (wage data: //nces.ed.gov/programs/digest/~ d11/tables/dt11_079.asp; www.census.gov/hhes/www/cpstables/032012/ perinc/pinc04_000.htm).

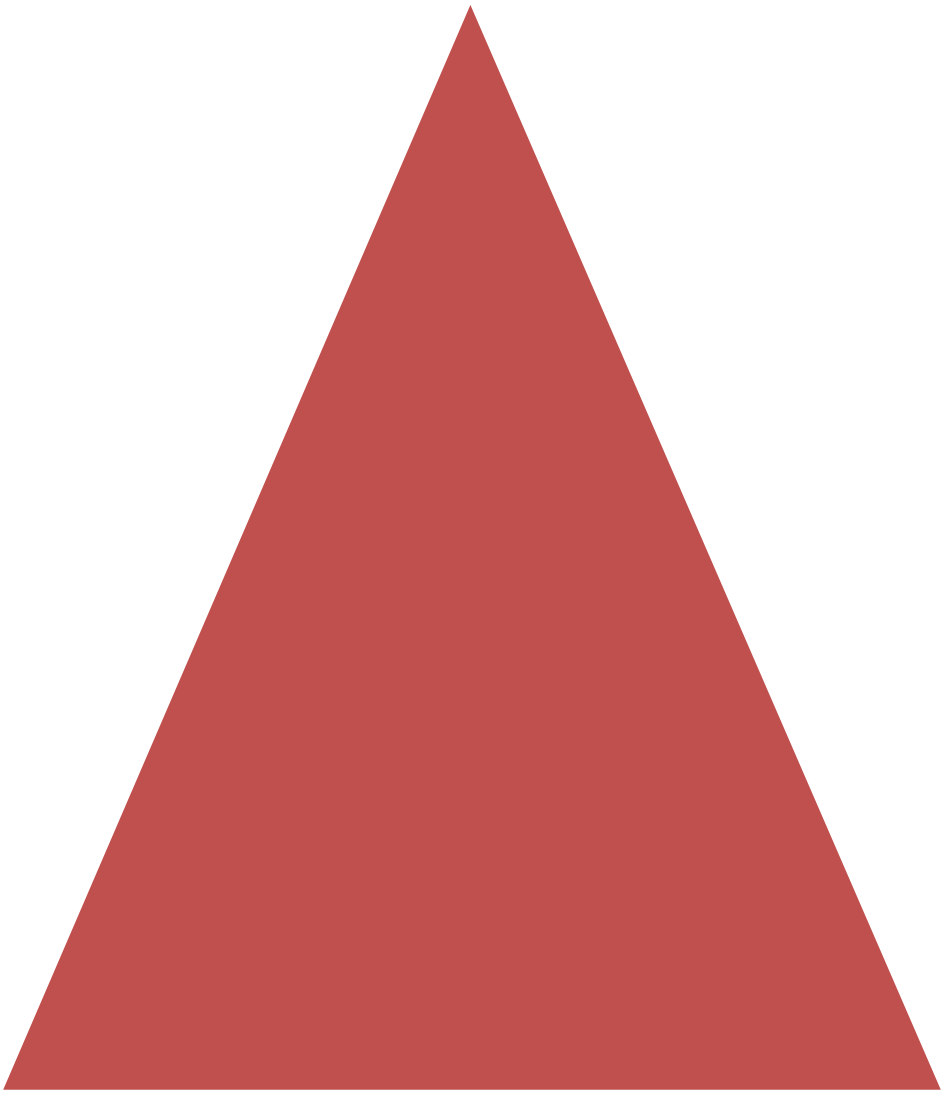
$ Millions Present Value	Senior Corps RSVP	Senior Corps Foster Grandparent	Senior Corps Senior Companion	Senior Corps Total	Experience Corps	Senior Program Total
Full-time equivalents	*35,550*	*1,440*	*7,910*	*44,900*	*400*	*45,300*
Value of output [V][a]	$600	$46	$217	$862	$7	$870
Private gains [P]:						
Health[b]	$256	$10	$57	$323	$3	$326
Labor market[c]	$34	$—	$—	$34	$—	$34
Social gains [S]:						
Health[d]	$26	$1	$104	$130	$—	$130
Education[e]	$22	$5	$—	$27	$1	$28
Productivity[f]	$3	$—	$—	$3	$—	$3
Leveraged gains[g]	$19	$1	$8	$28	$0	$28
TOTAL SOCIAL BENEFITS [B=V+P+S]	$960	$63	$385	$1,408	$12	+$1,420
TOTAL SOCIAL COSTS [TSC][h]	$121	$163	$82	$366	$3	–$368
NET SOCIAL BENEFITS [B-TSC]	$838	$(99)	$303	$1,042	$9	$1,051
SOCIAL BENEFIT-COST RATIO [B/TSC]	7.92	0.39	4.72	3.85	4.16	3.85
Fiscal gains [F]:						
Taxable output[i]	$60	$46	$143	$249	$1	$249
Health spending averted[j]	$102	$4	$58	$164	$1	$165
Education spending averted[k]	$17	$4	$—	$20	$1	$21
TOTAL FISCAL BENEFITS [F]	$178	$54	$201	$412	$3	+$435
TOTAL FISCAL COSTS [TFC][l]	$59	$117	$51	$227	$1	–$228
NET FISCAL BENEFITS [F-TFC]	$119	$(63)	$150	$186	$2	$208
FISCAL BENEFIT-COST RATIO [F/TFC]	3.03	0.46	3.95	1.82	2.84	1.91

Sources and Notes: All figures in present value 2013 dollars (discount rate 3.5%). a Value of service from sector-specific (8 sectors) part-time private industry employer costs per hour including benefits (www.seniorcorps.gov/pdf/06_0327_SC_RSVP.pdf; ftp://ftp.bls.gov/pub/special.requests/ocwc/ect/ececqrtn.txt; ftp://ftp.bls.gov/pub/suppl/eci.echistrynaics.txt; and average from www.independentsector.org/volunteer_time); managerial time at 20%; value for Foster Grandparent from average public spending per foster child. b Health gains based on average of QALY gains and health conditions estimates from Morrow-Howell et al., 2009; Harries and Thoeresen, 2005; Song and Morrow-Howell, 2010; Borgonovi, 2008; www.nationalservice.gov/pdf/07_0506_hbr.pdf; and QALY value of $80,000. c Earnings gain: re-employment post service and average wage rate (Morrow-Howell et al., 2011). Financial security gain: value of postponed Social Security claims for two years (annuity of 8% of earnings). d Gains beyond private health gains: MEPS data, Table=HCFY2008_CNDXP_CA. e Value of effect size gain in third grade on future earnings (Belfield and Levin (2007). f Productivity spillovers from educated workers (Moretti, 2009). g Based on re-volunteer rate of 2%. h See Appendix I. i Value of taxes on output produced (marginal tax rate: http://www.irs.gov/pub/irs-drop/rp-08-66.pdf). j Public cost-sharing of medical expenses: Cost-sharing under Affordable Health Care Act; Medicaid expenditures (MEPS) data; http://kff.org/interactive/subsidy-calculator/; http://meps.ahrq.gov/mepsweb/data_stats/tables_compendia_hh_interactive.jsp. k Proportion of spending by public on education (NCES, 2012). l See Appendix I.

Appendix VI: Expanding National Service Up to 1 Million

	Total Social Benefits ($ billions)	Total Social Costs ($ billions)	Net Social Benefits ($ billions)	Social Benefit-Cost Ratio
250,000 participants:				
Proportional to existing programs	$13.0	$3.3	$9.7	3.95
Only federal program expansions	$20.2	$5.7	$14.5	3.53
With cost-savings	$17.6	$3.3	$14.3	5.37
With more effective programs	$13.0	$2.9	$10.0	4.43
With cost-savings and more effective programs	$17.6	$2.9	$14.7	6.03
Average	**$16.3**	**$3.6**	**$12.6**	**4.48**
500,000 participants:				
Proportional to existing programs	$25.9	$6.6	$19.3	3.95
Only federal program expansions	$40.4	$11.5	$28.9	3.53
With cost-savings	$35.0	$6.6	$28.4	5.33
With more effective programs	$25.9	$5.9	$20.0	4.38
With cost-savings and more effective programs	$35.0	$5.9	$29.1	5.92
Average	**$32.4**	**$7.3**	**$25.2**	**4.45**
1,000,000 participants:				
Proportional to existing programs	$51.8	$13.1	$38.7	3.95
Only federal program expansions	$80.8	$22.9	$57.9	3.53
With cost-savings	$70.5	$13.1	$57.3	5.37
With more effective programs	$58.1	$12.6	$39.2	4.11
With cost-savings and more effective programs	$70.5	$12.6	$57.9	5.59
Average	**$65.1**	**$14.9**	**$50.2**	**4.37**

Sources and Notes: Tables 2-4 and Appendices I-V.



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