

INSIDE THIS ISSUE

- Overlapping Nursing Home Staff and the Spread of COVID-19
- The Bottom Line on Hedge Fund Performance Fees
- Employment Outcomes for College Graduates since the Great Recession
- Modern InfoTech and the Democratization of Security Filings
- Long-Term Benefits of Experience in a Youth Employment Program

Most Stimulus Payments Were Saved or Applied to Debt

The Coronavirus Aid, Relief, and Economic Security (CARES) Act, enacted on March 27, 2020, was designed to bolster household incomes and support consumer spending. It achieved the first goal, but had only a modest impact on consumer spending. Survey data on household behavior suggest that nearly 60 percent of the stimulus spending went to pay off debt or was saved. Of the roughly 40 percent that was spent on goods and services, consumers favored food and beauty products rather than large durables like cars or appliances. The averages mask considerable variation among households. Some 20 percent saved virtually all of their stimulus check; another 40 percent spent nearly all of it. Roughly 20 percent used most of their federal payment to reduce their debts.

These findings in **How Did US Consumers Use Their Stimulus Payments?** (NBER Working Paper 27693) reflect general patterns seen in 2001 and 2008, when the federal government also countered eco-

nomie downturns with direct transfer payments. The 2020 payments, however, were much larger and the recipients were some-

US households report spending approximately 40 percent of their stimulus checks, on average, with about 30 percent saved and another 30 percent used to pay down debt.

what less likely to spend than in the past.

Why didn't Americans spend more? [Olivier Coibion](#), [Yuriy Gorodnichenko](#), and [Michael Weber](#) put forward two possible explanations. One is that the pan-

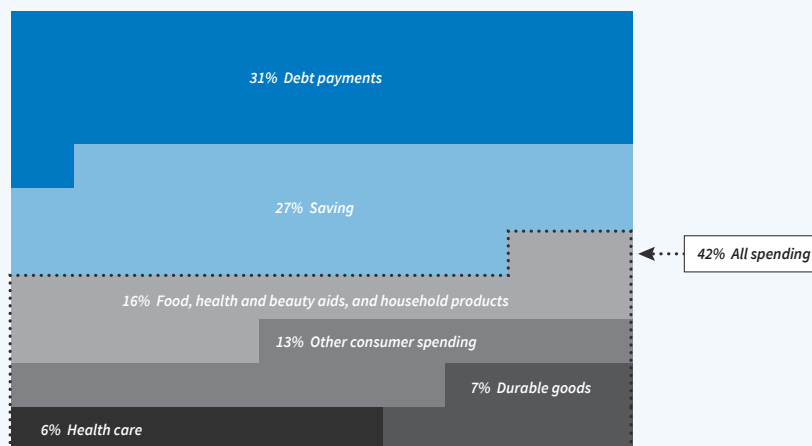
demic-induced lockdown closed down so many businesses and recreational and travel options that recipients could not spend the

whole transfer. The other is that the law of diminishing returns kicked in. They find that the larger the stimulus check, the less likely recipients are to spend it.

The researchers say this suggests that there is a bound on how much stimulus can be generated through direct transfers to households, and that in the face of large crises, decision-makers may want to consider a broad range of policies targeting aggregate demand, with direct transfers being only a part of the fiscal policy response.

Less than four months after the CARES Act provided one-time pay-

Recipients' Reported Use of CARES Act Stimulus Payments



Source: Researchers' calculations using data from the Nielsen Homescan Panel

ments of \$1,200 to each qualifying adult and another \$500 for each qualifying child, with payments phased out at higher incomes, the Nielsen Homescan surveyed some 46,000 people. The researchers added questions about the use of stimulus funds to the quarterly survey's usual battery of questions, which ask about spending, investment, labor status, and expectations about the economy. The survey was completed by about 12,000 recipients, a larger response pool than either the Survey of Consumer Expectations—about 1,500 respondents per wave—or the Michigan Surveys of Consumers Attitudes, with roughly 500 respondents per wave.

The researchers discovered a number of interesting patterns. Larger households leaned toward spending most of the money. Seniors tended to pay down debt while younger and more educated households were more likely to save the payments. Those who were out of the labor force or who lived with parents were more likely to spend. African Americans were more likely to use most of their stimulus money to pay down debts, and Hispanics were more likely to spend.

One of the most striking findings involved individuals in liquidity-constrained households, defined as those who reported that they could not cover an unex-

pected bill equal to their monthly income. While many economic models assume that this group has a high marginal propensity to spend out of unexpected income, the researchers found they were no more likely to spend than individuals who were not constrained. Instead, they were very likely to pay down debt.

The data suggest the stimulus payments had little impact on job-seeking: among unemployed individuals who received the payment, two-thirds said it had no effect on their job-search decisions, and more than 20 percent reported that the stimulus actually caused them to look harder for a job.

—*Laurent Belsie*

Overlapping Nursing Home Staff and the Spread of COVID-19

Nursing homes with staff who work at multiple facilities were more likely to experience outbreaks of COVID-19 than those without such links. Eliminating staff overlap among nursing homes could have reduced coronavirus cases in nursing homes by 44 percent, according to **Nursing Home Staff Networks and COVID-19** (NBER Working Paper 27608) by [M. Keith Chen](#), [Judith A. Chevalier](#), and [Elisa F. Long](#).

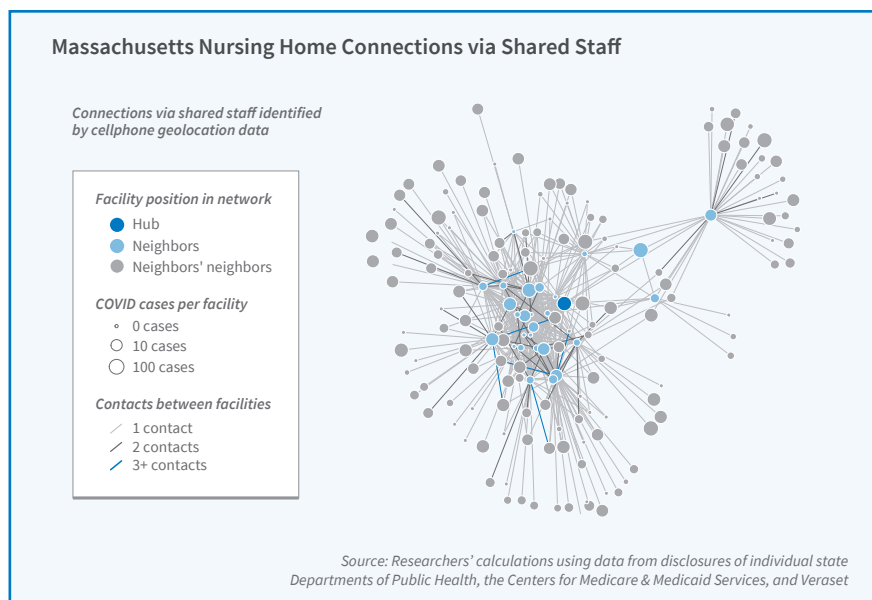
The researchers analyze geolocation data from more than 30 million US smartphones. They find that of the nearly 510,000 phones that were observed to visit at least one nursing home over the six-week period after March 13, when a nationwide lockdown on nursing homes went into effect, about 7 percent were observed in at least two facilities. They infer that these were most likely staff members or contract workers, the only nonresidents allowed in nursing homes after the lock-

down. Because resident numbers and health conditions fluctuate, nursing homes often rely on temporary nurses and nursing aides to meet staffing needs. In addition, nursing assistants—whose median pay is under \$30,000—in some cases work two jobs to make ends meet.

Controlling for location, demographic factors, and nursing home characteristics, the research finds a strong correlation between COVID-19 infections and the extent to which a nursing home was visited by people who had been to other facilities.

The typical nursing home shared at least one smartphone connection with an average of 14.3 other homes. The degree of connect-

edness varied widely among states, averaging below two connections in Montana, South Dakota, Vermont, and Wyoming and exceeding 20 in Florida, Illinois, Maryland, New Jersey, and Texas. Homes with no documented cases of COVID-19 had an average of 11.8 connections, compared with 17.3 for homes with confirmed or



suspected cases.

The first serious outbreak in the United States, which occurred in Washington state in February, illustrates the role of connections in promoting disease spread. The Centers for Disease Control and Prevention cited roving workers as having enabled the rapid spread of the virus from the Life Care Center of Kirkland, Washington, to other nursing homes in the state.

The researchers calculate the strength of connections among nursing homes by tallying the total number of smartphones appearing in a given nursing home and in one of its neighbors. By that measure, COVID-positive homes registered an average strength of 23.7 compared with 16.4 in disease-free homes. They also point out, however, that the number of connections alone can be misleading. A home could have just one connection and still be vulnerable,

should that other facility have a high rate of infection and/or links to other highly infected homes.

The study notes that while the nursing home population is particularly vulnerable to the virus, these findings could be relevant to other congregate settings such as assisted-living facilities, prisons, food-processing plants, and other close-quarter working environments.

— Steve Maas

The Bottom Line on Hedge Fund Performance Fees

The hedge fund industry prides itself on its incentive compensation structure, which provides tight alignment of fund managers' and investors' incentives. Specifically, managers should receive performance fees only when investors make money. Accordingly, managers' compensation is composed of both an annual management fee and an incentive fee. The former typically ranges between 1 and 2 percent of assets under management, while the latter is often about 20 percent of earned gains. Incentive fees accrue only on gains that exceed a minimum hurdle rate — a risk-free rate — and exceed a previous high valuation. This way, investors pay incentive fees only on “new” gains.

In reality, the relationship between long-term hedge fund performance and incentive fees is significantly distorted. In **The Performance of Hedge Fund Performance Fees** (NBER Working Paper 27454) Itzhak Ben-David, Justin Birru, and Andrea Rossi use data on a sample of 5,917 hedge funds from 1995 to 2016 to investigate how hedge fund incentive contracts perform in practice. They

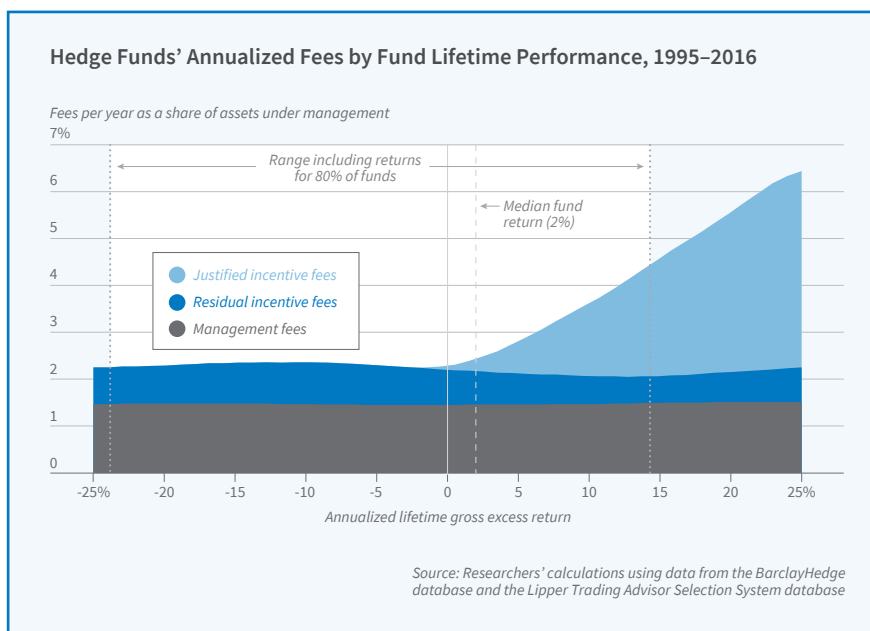
Data on 5,917 hedge funds over 22 years suggest that after incentive fees and management fees are assessed, investors received only 36 cents of every dollar earned on invested capital.

find that while the average contractual incentive fee in the sample is 19 percent, managers collected 49.6 percent of funds' cumulative gross profits above the hurdle rate as incentive fees. Inclusive of management fees, fund managers collected 64 cents of every dollar earned, net of riskless returns, on invested

and closures of underwater funds.

The gap between the nominal incentive fee rate of 19 percent and the effective rate of 49.6 percent can be traced to the fee contract's asymmetric nature. The researchers identify three mechanisms at play. First, since investors pay fees at the fund level, they cannot offset losses in one fund against gains in another. Therefore, losing funds reduce investors' total profits, but not the incentive fees collected by managers. Second, investors pay fees as funds generate gains, but do not receive these fees back when funds experience losses in future years. Furthermore, many investors chase returns, meaning that they tend to withdraw capital after losses. Third, funds with consistent losses tend to liquidate, and when that happens, incentive fees paid on earlier gains are not refunded to investors.

The researchers split the incentive fees paid to managers into fees earned on life-



capital, while investors took home 36 cents. The high share of returns paid to managers stems from asymmetries in the performance contract, investors' return-chasing behavior,

time profits (“justified fees”) and incentive fees that were paid on gains that were offset by later losses (“residual fees”). In aggregate across funds, residual fees amount to 1.19 percent of assets under management per year. Moreover, residual fees are evenly distributed across funds’ performance spectrum, as shown in the figure.

Over the 22 years studied, the capital invested in the hedge funds in the sample earned gross profits of \$228 billion. Hedge fund managers collected incentive fees of \$133 billion, out of which \$70 billion were residual fees. Extrapolating to the entire hedge fund industry over that period, the researchers estimate that the residual fees

amounted to \$194 billion. They conclude that “the prevailing hedge fund compensation structure fails to protect investors from paying fees to fund managers that perform poorly in the long run” and that higher incentive fees may not ensure a tighter link between fees and fund performance.

—Linda Gorman

Employment Outcomes for College Graduates since the Great Recession

There has been a substantial deterioration in the employment prospects of recent college graduates, [Jesse Rothstein](#) finds in *The Lost Generation? Labor Market Outcomes for Post Great Recession Entrants* (NBER Working Paper 27516). Cohorts that graduated during the period of economic weakness following the recession, which ended in 2009, had trouble finding footholds on job ladders and generally have had weak earnings trajectories. However, this phenomenon is not simply a result of the recession. Graduates who entered the labor market beginning around 2005, as well as those who entered in the economically stronger period 2011–19, have had lower employment rates, relative to older workers in the same labor market, than earlier entrants. Something appears to have changed in the labor market, creating negative effects on new generations’ employment rates.

Rothstein studies the early-career economic outcomes of college graduates in the period between the Great Recession and the coronavirus-related economic collapse. He uses repeated cross-section data from the monthly Current Population Survey to

examine individuals born between 1948 and 1997. He observes them at ages 22 to 40, between 1979 and 2019. His primary indicator is weekly employment.

The cohort that entered the labor market in 2010 experienced an employment

rate that was on average 2 percentage points lower than what would have been expected based on earlier periods. The decline is even larger for more recent cohorts. Also, in the cohort that entered the labor market in 2009, wages for those who are employed are lower than those in cohorts that entered ear-

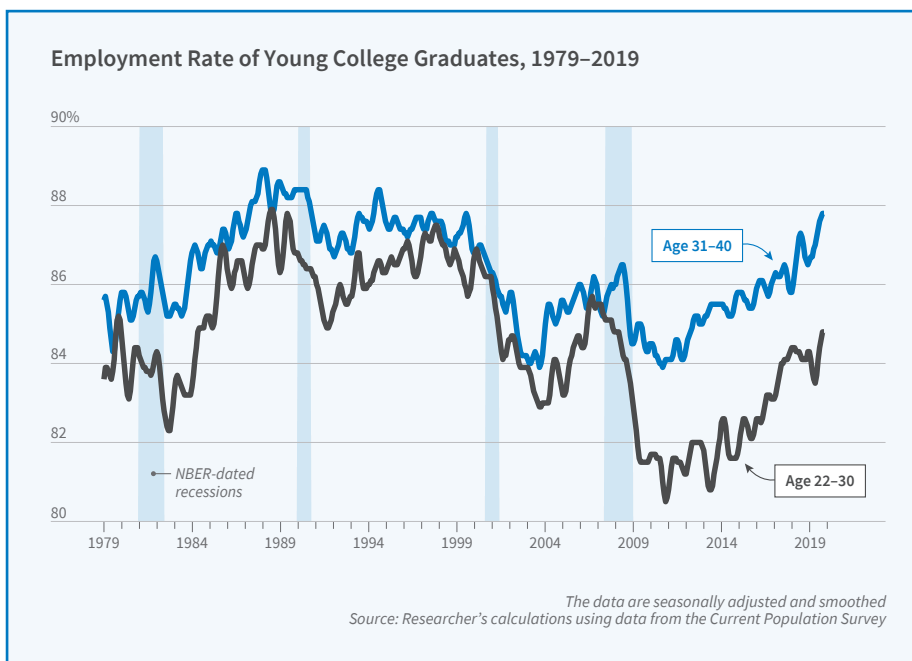
lier, by about 2 percent. Both employment and wages exhibit “scarring” effects of early-career conditions, though in different ways. Those who face high unemployment rates at the start of their careers have lower wages through their

Job-finding rates and wages fell for new graduates entering the labor market in 2009 and 2010, but poorer prospects for young workers actually began before the recession and continued through the recovery.

rate that was on average 2 percentage points lower than what would have been expected based on earlier periods. The decline is even larger for more recent cohorts. Also, in the cohort that entered the labor market in 2009, wages for those who are employed are lower than those in cohorts that entered ear-

first several years in the labor market, but these scars gradually fade. Scarring effects on employment, in contrast, are permanent. Cohorts that face high unemployment when they enter the labor market have lower employment rates throughout their careers.

Rothstein finds a structural break in young college graduates’ employment rate beginning with the cohorts that entered the labor market around 2005. The decline in employment rates continued after the recession of 2008–9, not just for those who entered during the downturn, but for successive cohorts as well. Scarring effects, while quantitatively important, are not large enough to account for these outcomes. Moreover, they cannot explain poor outcomes



for the most recent pre-pandemic entrants, who encountered historically low unemployment rates at the outset of their careers. The labor market grew steadily stronger from

2011–19, and overall employment rates rose, but the employment rates of new graduates were stagnant despite this rising tide. The most recent cohorts have relative employ-

ment rates 3 to 4 percentage points lower than would have been anticipated based on the pre-2005 trend.

—Lauri Scherer

Modern InfoTech and the Democratization of Security Filings

Modern information technology has democratized corporate disclosures, making them broadly available and easy and inexpensive to access. In theory, the timely spread of key data about firms should enable investors to stay informed about company prospects, thereby reducing their risk and potentially lowering the cost of capital to firms. Conventional wisdom suggests that the more broadly a company's information is disseminated, the more liquid and less volatile its stock. New research reported in **The Real Effects of Modern Information Technologies** (NBER Working Paper 27529) finds that putting US company filings online in the 1990s has had more nuanced effects.

The researchers, [Itay Goldstein](#), [Shijie Yang](#), and [Luo Zuo](#), study the impact of the adoption of the US Securities and Exchange Commission's (SEC's) Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system. The system includes detailed information on a range of corporate securities filings. EDGAR was implemented gradually over a period of three years. The SEC divided public companies into 10 groups and ordered the first group to put their documents on EDGAR in April 1993. The last group began posting to EDGAR in May 1996.

The researchers find that of the 3,020 firms in the study sample — which excluded financial firms, utilities, and companies worth less than \$10 million — companies moving onto EDGAR saw a 10 percent rise in corporate investment but a 20 percent decline in investment-to-price sensitivity. A rise in equity finance contributed to the increase in corporate investment. The researchers conjecture that the reason for decreased investment-to-price sensitivity was that managers learned less from

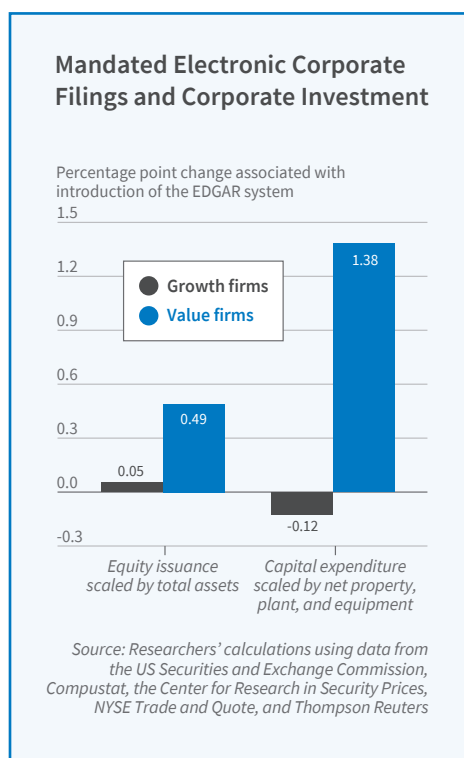
After the SEC's EDGAR system expanded access to firms' financial data, the role of expert analysis in moving stock prices declined, and firm investment became less sensitive to market price swings.

the price swings of their company's stock because swings were based on more-democratized but less-precise analysis by market participants. This resulted in heterogeneous effects across firms: returns on value firms improved, while returns on high-growth firms, which are particularly dependent on market analysis, declined. "Our findings

The fall in investment-to-price sensitivity reflects a subtle information crowding-out effect. As traders begin to buy and sell stock in a company, they set share prices. Those prices reflect the traders' private information, which even the company's managers may not know. Managers can therefore learn from the share price. With expanded disclosure, however, less-sophisticated retail investors are on a more-level playing field with institutional investors. The researchers find that once a company becomes an EDGAR filer, it experiences a decrease in ownership by institutional investors. The rough pricing signals of the public disclosures provide enough information to make it less profitable, and therefore less likely, for institutional investors to engage in deeper analysis that would yield more precise signals about the firm's fundamental value, and potentially inform the managers.

"This crowding-out effect happens because it takes time to develop high-precision signals and the trading profits based on these signals are reduced when low-precision signals have already been reflected in prices," the researchers reason. Losing external deep analysis is more costly for managers of growth firms than of value firms, because traders' potential information advantage lies in evaluating a company's growth prospects. They can analyze its industry and competition, market trends, and consumer demand — information that, when reflected in share prices, can benefit growth-company managers.

—Laurent Belsie



suggest that it is important to consider this tradeoff between financing and learning when evaluating the real effects of modern information technologies," the researchers conclude.

Long-Term Benefits of Experience in a Youth Employment Program

Most government-run job training program evaluations focus on short- and medium-term outcomes. In **Do Youth Employment Programs Work? Evidence from the New Deal** (NBER Working Paper 27103), [Anna Aizer](#), [Shari Eli](#), [Adriana Lleras-Muney](#), and [Keyoung Lee](#) show that just under 10 months' enrollment in the Depression-era Civilian Conservation Corps (CCC) increased lifetime earnings for disadvantaged young men by an average of 4.6 percent, even though it had no measurable effect on short-run labor market activity. It also improved long-term health and survival.

Between 1933 and 1942, the CCC employed about 3 million people in 2,600 camps. Created to address high youth unemployment rates by providing "relief through work," its laborers contributed to public works projects such as developing national parks, preserving forests, and constructing land irrigation systems. CCC enrollees were unemployed and unmarried men without criminal records, who were American citizens aged 17 to 25 and in good health.

After completing six months of training in camps, CCC enrollees could reenlist for another three six-month periods. Participants were paid \$30 per month and were required to send \$25 to a designated family member. Enrollees were posted to camps of about 200 people, where they received meals and medical treatment such as vaccinations. According to CCC records, 8 percent of the enrolled men received additional schooling at the camps. Such schooling was mandatory for illiterate men but was voluntary for others.

The data were constructed using CCC administrative records in the state archives of Colorado and New Mexico. The records

include information on 28,343 men who enrolled in the CCC between 1937 and 1942, including dates of birth, family information, enrollment data, camp assignment, reason

for separation from the program, and some physical data. Sixty-two percent of enrollees dropped out before the end of their contracts. Of those, 21 percent deserted, 12 percent left for a job, and 12 percent left for family reasons.

Each participant's Social Security number, lifetime earnings, disability status, retirement information, and date of death were obtained by

matching CCC administrative records to state-level death records and Social Security records. Death dates were available for 88 percent of Colorado enrollees and 75 percent of New

Disadvantaged youths who participated in government-run Civilian Conservation Corps activities between 1937 and 1942 lived longer and earned more than their Depression-era peers.

Mexico enrollees. The sample used to estimate lifetime outcomes included 17,086 men.

For those who lived to age 45, an additional year of training increased the age at death by one year. Life expectancy for this group was 73.6 years. Short-term employment results for the 4,000 men who participated in the CCC before 1940 and could be matched to the 1940 census showed that although training increased geographic mobility by about 15 percent, it had a negligible effect on earnings and weeks worked. Individuals who trained longer were not taller at the time of enlistment. But for the 5,500 men who could be matched to World War II enlistment records, a year of CCC training was associated with an additional inch in height, an indicator of better health.

Men who participate in the modern federal Job Corps program are similar to the CCC participants in age, duration of enrollment, and reasons for leaving the program. The researchers conclude that the lessons from the CCC may therefore carry over to current Job Corps participants. Like CCC participants, Job Corps participants obtained more education, reported being healthier and were more likely to move after their training.

—Linda Gorman



NBER

The National Bureau of Economic Research is a private nonprofit research organization founded in 1920 and devoted to objective quantitative analysis of the American economy. Its officers are:

James M. Poterba—President & Chief Executive Officer

John Lipsky—Chair

Peter Blair Henry—Vice Chair

The NBER Digest summarizes selected Working Papers recently produced as part of the NBER's program of research. Working Papers are intended to make preliminary research results available to economists in the hope of encouraging discussion and suggestions for revision. Working Papers have not been subject to peer review.

The Digest is issued free to the public for informational purposes and to stimulate discussion of Working Papers before their final publication. Neither the Working Papers nor the Digest

has been reviewed by the Board of Directors of the NBER.

The Digest is not copyrighted and may be reproduced freely with appropriate attribution of source. Please provide the NBER's Public Information Department with copies of anything reproduced.

Requests for Digest subscriptions, changes of address, and cancellations may be sent to Digest, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138-5398 (please include the current mailing label), or emailed to subs@nber.org. Print copies of the Digest are only mailed to subscribers in the US and Canada; those in other nations may request electronic subscriptions at www.nber.org/dsubscribe/.

Individual copies of the NBER Working Papers summarized here (and others) are available online free of charge to affiliates of subscribing organizations, such as universities and colleges, and to employees of NBER corporate associates.

For others, there is a charge of \$5 per downloaded paper or \$10 per hard copy paper. Outside of the United States, add \$10 per hard copy order for postage and handling. To order, email the NBER's Subscriptions Department at subs@nber.org or call (617) 588-1405; please have the Working Paper number(s) ready.

A full subscription to the NBER Working Papers entitles the subscriber to all new papers, recently more than 1,100 per year. The online standard rate for a full digital subscription is \$2,675; the online academic rate is \$1,230. Subscriptions are free for corporate associates. Hard-copy subscriptions also are available; rates may be found at nber.org/upsubscribe.html

Partial Working Paper subscriptions, delineated by program, are also available; see nber.org/upsubscribe.html or contact subs@nber.org