Lessons for Microenterprise Programs from a Fresh Look at the Unemployment Insurance Self-Employment Demonstration

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June 1999

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Abstract

Microenterprise programs aim to foster self-employment among the poor, those on welfare, and the unemployed. The only experimental test of their impact is the Unemployment Insurance Self-Employment Demonstration. UISED did shorten unemployment spells, but most other impacts were small, and the most-disadvantaged did not choose to participate. Although UISED provides some weak evidence that longterm income support, long-term work-search waivers, and on-call advice may increase total employment (but perhaps not self-employment) more than capital infusions and up-front classes, UISED does not reveal the best design for microenterprise programs nor whether such programs are good social investments.

Author's Note

This is an early version of a paper published in *Evaluation Review*, Vol. 23, No. 5, pp. 503-526. The George Warren Brown School of Social Work at Washington University in St. Louis supported this research. Michael Sherraden, Jonathan Morduch, and a referee made helpful comments. Address correspondence to schreiner@gwbmail.wustl.edu.

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1. Introduction

Microenterprise programs provide loans, classes, or advice to help to start or to strengthen very small firms owned by the poor, the unemployed, and people on welfare. From 1987 to 1996, the number of these programs in the United States grew from less than ten to more than 300 (Severens and Kays 1997; Clark and Huston 1993). Public support for microenterprise has also grown very fast. Abroad, advocates seek more than \$20 billion for microenterprise programs by 2005 (RESULTS 1996). In the United States, the newest federal budget would double the more than \$130 million now earmarked for microenterprise (U.S. Newswire 1999; Meyerhoff 1997).

Much of the promise of microenterprise programs rests on conclusions drawn from the only experimental test of their impact, the Unemployment Insurance Self-Employment Demonstration. UISED tested "the ability of the U.S. employment-security and economic-development systems to work together to help Unemployment Insurance (UI) recipients create their own jobs by starting businesses" (Benus *et al.* 1995 p. i). UISED measured outcomes with-versus-without access to microenterprise programs in a framework that randomly assigned qualified applicants to treatment or control groups.

Experts disagree about what the evidence from UISED means for microenterprise. FIELD (1998) says that UISED suggests that programs can "reach low-income and disadvantaged populations effectively and create jobs and raise incomes and asset levels among the poor . . . at costs similar to those of leading job-training and business-development strategies." Dennis (1998), however, does not believe that the evidence from UISED supports such claims.

This paper takes a fresh look at UISED and at its lessons for microenterprise programs. The original evaluation of UISED is excellent; Benus *et al.* (1995) report their measurements, state their assumptions, and use explicit logic to derive their conclusions. A lesser work would be less open to discussion. Future evaluations of microenterprise programs, even those without treatment/control frameworks, would do well to imitate Benus *et al.* (1995).

The new analysis here adds two important insights. First, it draws lessons from UISED for the design of microenterprise programs. UISED provides some weak evidence that long-term income support, long-term work-search waivers, and on-call advice may increase total employment (but perhaps not self-employment) more than capital infusions and up-front classes. These lessons are tentative because they suppose that differences in program services between two states caused the differences in outcomes between states. The data do not rule out, however, the possibility that differences in the states themselves caused the different outcomes between states.

Second, the new analysis softens the conclusion of Benus *et al.* (1995) and of subsequent writers (Raheim 1997; Friedman, Grossman, and Sahay 1995) that microenterprise programs deserve widespread replication because they produce more social benefits than social costs. Although UISED did shorten unemployment spells, quick entry into self-employment may have prompted quick failure or caused people to abandon searches for wage jobs too soon. The program may even have decreased total employment and wage rates, especially for the most-disadvantaged of the poor and for those new to self-employment. Of the two states in UISED, only one had positive impacts on total employment, and only one had more social benefits than social costs. The new analysis here concludes that UISED does not reveal whether microenterprise programs are socially worthwhile nor how they might produce their impacts.

Section 2 below describes program design in the two states that had UISED programs. Section 3 shows that self-selected participants were among the leastdisadvantaged of the unemployed. Section 4 reviews the evidence of impact and discusses possible lessons for the design of microenterprise programs. Section 5 discusses the benefit-cost analysis. The conclusion argues that although the evidence from UISED provides a few limited lessons and some hints about possible impacts, it provides much less support than has been claimed for the potential for microenterprise programs to help to employ disadvantaged people. The inconclusiveness is due not to poor design but to problems common to all large social experiments.

2. Program design

Inspired by self-employment programs for the unemployed in Europe, the Unemployment Insurance Service of the U.S. Department of Labor sponsored UISED in the states of Washington and Massachusetts. The goal was to help to employ workers displaced by imports and by defense cuts. This section summarizes program design in the two states (Benus *et al.* 1995).

2.1 Washington

Six sites in Washington took new users from September 1989 to February 1990. Support lasted through March 1991. All new UI claimants—except interstate claimants, those on standby, those less than 18 years old, and full-referral union members—were invited to an Awareness Day that took place on average 18 days after the claim. About 7.5 percent of the 42,350 invitees attended (Table 1), and 60 percent of attendees (4.6 percent of invitees) applied to join the program. Applications were screened not for the business idea but for completeness, legality, and direct control of the business by the owner. Of the 78 percent of applicants who qualified (3.6 percent of invitees), half were assigned to a treatment group with access to microenterprise services, and half were assigned to a control group without access. Random assignment took place 11 days after the Awareness Day.

Ten days after assignment, members of the treatment group took four classes in a Thursday-Friday-Monday-Tuesday sequence. The 85 percent who attended all the classes or who were excused could get 10 weeks of standard UI benefits without worksearch requirements. They also could get a lump-sum payment equal to their remaining UI benefit-eligibility once they completed a business plan, opened a business bank account, and secured licenses and finance. About 60 percent of the members of the treatment group got an average lump sum of \$4,200. Those who got the lump-sum could still get UI benefits if they met standard work-search requirements, although very few took advantage of this.

Most members of the treatment group did not seek much business advice. About 70 percent received an average of 1.5 hours of individual counseling. The program hosted an Entrepreneurship Club, but 64 percent of the treatment group did not attend any meetings, and 95 percent attended three meetings or less.

After 21 months, access to program services in Washington increased the rate of movement to self-employment by 78 percent and increased the absolute number of people who moved by 9 per 1,000 (Table 1). After 33 months, the increase in the rate was 54 percent, and the increase in the absolute number was 8 per 1,000. Because self-employment is not common among the unemployed to begin with, even big impacts on the relative rate of entry (such as 54 percent) meant small impacts on the absolute number of new businesses (such as 8 per 1,000). Furthermore, the impact on the speed on entry wore off after five months (Benus *et al.* 1995).

5

2.2. Massachusetts

Seven sites in Massachusetts took new users in three cohorts from May to September 1990, from April to October 1991, and from March 1992 to April 1993. The 63,921 invitees excluded the same groups as in Washington as well as new claimants who, as predicted by a statistical model, had less than a 25-percent chance to exhaust their UI benefits. Thus Massachusetts invited only those least likely to succeed in selfemployment on their own. Claimants received invitations on average 22 days after the claim, and 4.2 percent attended an Information Session 11 days later (Table 2). Attendance may have been lower than in Washington because the invitation for Massachusetts noted that participants would be picked by lottery (Benus *et al.* 1995). About 57 percent of attendees (2.4 percent of invitees) applied to join, and 81 percent of applicants qualified (1.9 percent of invitees). These were split between treatment and control groups 14 days after the Information Session.

Instead of a lump-sum payment, Massachusetts offered standard UI benefits for 24 weeks without work-search requirements to those members of the treatment group who attended a one-day seminar (93 percent), six biweekly workshops (50 percent), and an individual meeting with a counselor (93 percent for an average of 7.5 hours). Massachusetts arranged for a bank to consider loan applications from participants, but the use of this service was not measured. Because standard UI benefits lasted 30 weeks

in Massachusetts, members of the treatment group who met standard requirements could get benefits for six more weeks after the work-search waiver expired.

After 19 months, access to program services in Massachusetts increased the rate of movement to self-employment by 49 percent and increased the absolute number of people who moved by 3 per 1,000 (Table 2). After 31 months, the increase in the rate was 23 percent, and the increase in the absolute number was 2 per 1,000. As in Washington, big impacts on the rate of movement did not mean big impacts on the size of movement. Likewise, impacts in both states diminished with time. Furthermore, about one-third of the firms started by members of the treatment group in both states closed within a year (Benus, Wood, and Grover 1994).

2.3 Comparison and contrast

Washington and Massachusetts shared the most important design feature: UI benefits coupled with work-search waivers. Dropouts in both states could return to standard UI benefits and rules. Like most microenterprise programs in the United States (Severens and Kays 1997), both states also provided counseling and classes, but unlike most other microenterprise programs, neither state made loans.

Program design differed between Massachusetts and Washington in five ways. First, Massachusetts targeted not all new UI claimants but rather only those most likely to exhaust UI benefits. Second, Massachusetts had longer work-search waivers (24 weeks instead of 10). Third, Massachusetts had more classes (seven instead of four) in a longer time frame (12 weeks instead of 6 days). "On every measure examined, services were provided more rapidly in Washington" (Benus *et al.* 1995 p. 63). Fourth, only Washington had a lump-sum payment. Fifth, participants in Massachusetts used counseling more (7.5 hours instead of 1.5), possibly because participants in Washington believed that services ended after the lump-sum payment. Thus both Massachusetts and Washington provided income support, work-search waivers, classes, and counseling. Washington had quicker classes and a lump-sum payment, and Massachusetts had longer income support, more classes, and more long-term advice.

3. Traits of new UI claimants, invitees, and treatments in Massachusetts

Some authors believe that microenterprise programs can reach the poorest of the poor in the United States, including people on welfare (U.S. Newswire 1999; Banerjee 1998; Raheim and Alter 1998; Raheim 1997; Friedman, Grossman, and Sahay 1995; Else and Raheim 1992; Soloman, 1992), ex-convicts (Balkin 1989), and the homeless (Balkin 1992). Most evidence, however, suggests that most people who choose to use microenterprise programs are among the least-disadvantaged of the target group in terms of assets, education, experience, and skills (Bates and Servon 1998; Bates 1997; Drury, Walsh, and Strong 1994; Bendick and Egan 1987). UISED reinforces this result. Even though Massachusetts invited only those new UI claimants who were most likely to exhaust their benefits, the average member of the treatment group was still lessdisadvantaged than the average new UI claimant.

The average invitee in Massachusetts was more likely than the average new UI claimant to be female, very young, non-white, or to have been in a clerical job or to have worked in the manufacturing or service sectors (Table 3). In contrast, the average self-selected applicant randomly assigned to the treatment group was less likely than the average new UI claimant to be female, very young or very old, or non-white. Members of the treatment group were less likely than invitees to have completed high school but more likely than invitees or new claimants to have had some college.

Members of the treatment group were also less likely to have held a clerical job and more likely to have held a professional or technical job. Participants in other programs modeled on UISED in Massachusetts were also less-disadvantaged than the average new UI claimant (Vroman 1997).

What does all this mean? Microenterprise programs serve a small niche; even with help, most people are not cut out to be entrepreneurs. Also, earnings from selfemployment are low and risky. Women in particular earn lower returns than men (Smith 1998; Spalter-Roth, Soto, and Zandniapour 1994; Spalter-Roth, Hartmann, and Shaw 1993), and women may face a bigger wage cut should they try self-employment and then switch back to wage-employment (Williams 1998). Successful microentrepreneurs usually have strong support networks, wage jobs, spouses with wage jobs, good educations, personal wealth, and experience in wage jobs and/or in selfemployment (Schreiner 1999).

Microenterprise programs reach few of the most-disadvantaged because only the most-able try self-employment. Indeed, to force microenterprise programs on the mostdisadvantaged might hurt them more than it would help (Bates 1995). Microenterprise is a potential tool for economic development and poverty alleviation (Servon 1997), but the difficulty of self-employment limits the possible extent of its impact.

4. Impacts of microenterprise programs

As a social experiment, UISED assumed that random assignment of qualified applicants produced the same joint distribution of all observed and unobserved traits that matter for impact in the treatment group and in the control group. If this assumption holds, then a measure of impact in a given state is the difference in average outcomes between the two groups in that state. Benus *et al.* (1995) report these simple differences as well as impacts derived from least-squares regressions that control for possible differences in observed traits. The analysis here uses the regression results.¹

4.1 Impacts on self-employment

The most robust impact of UISED was to shorten unemployment spells. Access to program services shortened average spells from 11.4 weeks to 5.3 weeks in Washington and from 26.5 weeks to 24.7 weeks in Massachusetts. The greatest differences in rates of entry into self-employment between the treatment and control groups coincided with the receipt of lump-sum payments in Washington and with the end of the work-search waivers in both states (Benus *et al.* 1995).

Members of the treatment group were more likely than members of the control group to have had at least one self-employment spell, but the difference shrank with time (Table 4). This suggests that UISED often sped entry into self-employment for people who eventually would have become self-employed anyway. Women entered selfemployment quicker than men, but they also exited sooner (Benus *et al.* 1995). Overall, however, UISED had no impact on the rate of exit.

Impacts in UISED are outcomes with-versus-without access to program services. Almost all other evaluations of microenterprise programs compare outcomes beforeversus-after access and then ascribe all changes to the program. Because some changes would have happened anyway, this can overstate impact. For example, 41 percent of the control group and 41+22 = 63 percent of the treatment group had entered selfemployment in Washington after 33 months (Table 4). A before-versus-after analysis would find that UISED caused 63 percent of participants to become self-employed when, in fact, about two-third of starts would have happened even without UISED. Likewise, before-versus-after analysis would state that the impact in Washington on the number of starts was 22 per 1,000 instead of 8 per 1,000 and that the impact in Massachusetts was 11 per 1,000 instead of 2 per 1,000.

UISED prompted quick starts and more time in self-employment, but it did not lead to a statistically significant increase in wage rates (Table 4). All of the point estimates are positive, however, and impacts may be different from zero at some level of confidence (unreported by Benus *et al.* 1995) that, although lower than 90 percent, is still high enough to matter for policy (McCloskey and Ziliak 1996). For now, however, UISED suggests that microenterprise programs help microentrepreneurs to start sooner and to work longer but not necessarily to earn higher wage rates.² Although the wages of self-employment are low, people also value non-monetary rewards. Some entrepreneurs seek to be their own boss (Clark and Huston 1993), to follow the American Dream (Balkin 1989), to achieve pride of ownership and selffulfillment (Himes and Servon 1998), to learn skills (Sherraden, Sanders, and Sherraden 1998), to combine work with child care, to live a desired lifestyle, to build assets to bequeath, or to imprint a work ethic on children (Dunn 1997). Perhaps most important, microenterprise may help a household to diversify its income risk (Morduch 1998; Mosley and Hulme 1998; Raheim and Alter 1998; Taub 1998). The analysis of UISED does not address these possible non-monetary impacts.

4.2 Impacts on wage-employment

In theory, microenterprise programs could increase or decrease wageemployment. They could decrease wage-employment because they increase selfemployment and waive work-search requirements; they could increase wageemployment because they improve skills, increase self-esteem, and signal internal oomph to potential employers.

The evidence from UISED is a puzzle; wage-employment decreased in Washington but increased in Massachusetts (Table 5). Members of the treatment group in Washington entered wage jobs less often and worked fewer months. Furthermore, they had lower wage rates. In contrast, members of the treatment group in Massachusetts entered wage jobs more often and worked more months, although the impacts were not statistically significant. They also had higher wage rates.

4.3. Impacts on total employment

Society probably cares more for total employment than for either selfemployment or wage-employment alone. UISED, however, presents another puzzle; although impacts on total employment in Massachusetts were big and positive, impacts in Washington were small or negative (Table 6).

UISED in Washington had almost no impact on entry into total employment; decreases in wage-employment offset increases in self-employment. Washington had a big, positive effect on months employed per year and a big, negative, statistically insignificant effect on wage rates. UISED in Washington helped to employ people for more time, but it did not increase wage rates.

UISED in Massachusetts was successful on all measures; all impacts were big, positive, and statistically significant. Entry into total employment increased by five percentage points, time employed per year increased by 2 months, and hourly wage rates increased by \$1.10. The effects on earnings grew with time, but the other effects shrunk with time. Most of the impacts on total employment in Massachusetts were driven by impacts on wage-employment.

4.4 Lessons for microenterprise programs

The lessons of UISED for the design of microenterprise programs depend on which of two interpretations best resolves the puzzle of the different impacts between the two states. First, chance or external factors may explain the differences. This interpretation does not help to inform policy, but the evidence cannot refute it.³ This highlights the extreme difficulty of evaluation, even with an experimental design (Heckman and Smith 1995; Kramer and Shapiro 1984).

Second, differences in design may explain differences in impact. How might this have happened? In Washington, lump-sum payments and short work-search waivers may have tempted some people, even though they had to complete a business plan, to start a firm before they had properly weighed the risks and rewards. These new owners then accepted very low returns to their labor because they thought that they could not go back to UI benefits. The lump-sum payments in Washington did relax the liquidity constraints faced by new, small firms (Berger and Udell 1998; Evans and Jovanovic 1989; Holtz-Eakin, Joulfaian, and Rosen 1994). This increased entry into selfemployment, but it did not increase success in total employment; some new owners may have been better off had they stayed on UI and searched for a wage job. New, small firms often close not from lack of loans to finance investment but from lack of savings or public support to finance consumption until the firm starts to make a profit.

Massachusetts did not offer lump-sum payments nor require a business plan. Instead, it offered long-term income support, long-term work-search waivers, spread-out classes, and on-call advice. Even though Massachusetts did not invite the leastdisadvantaged, it had big impacts on success in total employment, mostly due to big impacts on wage-employment. The work-search waiver, it seems, did not prevent work searches. Long-term income support without a requirement to check out a given number of jobs each week may have encouraged members of the treatment group to dabble in self-employment (and allowed them to get out before it was too late) while they explored only the best wage jobs. A work-search waiver might increase success in wageemployment if it helps people to wait longer and if this leads to much better wage jobs. Spread-out classes may also have prompted more careful thought about selfemployment, and on-call advice may have plugged unforeseen gaps for those who risked self-employment. This interpretation fits the observation that most long-term unemployment in the urban third world is among those who can afford to wait for a good job (Lipton and Ravallion 1995).

These conjectures fit the evidence, but they suppose that quick classes and capital infusions hurt more than they help and that work-search waivers increase success in wage-employment. If these untested (and possibly unlikely) assumptions hold, then the basic lesson of UISED is that microenterprise programs can help or hurt, depending on design. The design in Massachusetts may have provided time and support for participants to find the best job, whether in self-employment or wage-employment. The design in Washington, however, may have encouraged participants to try their luck in self-employment without enough thought for other choices.⁴

One detail from UISED, overlooked in previous work, supports the possibility that Washington tempted unprepared people to fail in self-employment. The impact on the length of time worked per year was 4.1 months for those who owned a business when they applied to UISED, 1.9 months for those who had owned a business but did not own one at the time of application, and 0.6 months for those who had never owned a business. Furthermore, "the impact [in Washington] on total earnings is positive and quite large for those who were business owners at application and . . . relatively small and negative for those who were non-owners" (Benus *et al.* 1995 p. 125). Thus the evidence from UISED does not support the argument of Balkin (1989) that microenterprise programs may have the greatest impact on people who would not start a firm without help. Instead, the evidence supports the argument of Bendick and Egan (1987) that microenterprise programs may have the greatest impact when they strengthen existing firms.⁵

5. Benefit-cost analysis

The mere presence of benefits is not enough; microenterprise programs are worthwhile for society only if benefits exceed costs. UISED, the only experiment to test the impact of microenterprise programs, also had the best benefit-cost analysis. Still, social benefits exceeded social costs in Massachusetts but not in Washington, so UISED does not reveal whether microenterprise programs are a good use of scarce public funds.

Benus *et al.* (1995) consider benefits and costs from three points of view: treatments, government, and society. Benefits and costs for society are the sums of benefits and costs for treatments and for government. Each point of view matters because the pursuit by each group of its own goals constrains the ultimate goal of improved social welfare (Gittinger 1982). For example, benefits cannot exceed costs for society if people do not participate because they expect their own benefits to be less than their own costs.

The benefit-cost analysis of UISED by Benus *et al.* (1995) acknowledges that it cannot measure all gains, costs, and transfers for all groups. All evaluations must simplify the real world; the virtue of Benus *et al.* (1995) was to make their simplifications explicit and to discuss how they might affect the results. Gains to participants, measured as changes in total earnings in a period of 31-33 months, were \$1,000 in 1990 dollars in Washington and \$15,000 in Massachusetts (Table 7). Benus *et al.* (1995) explicitly assume that participants had no changes in later earnings (Vroman 1997), assets (Sherraden 1991), nor psychological well-being (Raheim and Alter 1998). Community economic development (Servon 1998) was also assumed null.

In Washington, a time-and-motion study valued government costs for administrative inputs at \$400 per treatment (Table 7). In Massachusetts, the contractors who ran the program cost \$1,000 per treatment. Massachusetts had higher costs probably because it offered more counseling for a longer time (Benus *et al.* 1995). Still, operational costs per participant in both states were lower than the \$2,000 to \$6,000 common for microenterprise programs in the United States (Edgcomb, Klein, and Clark 1996; Friedman, Grossman, and Sahay 1995; Drury, Walsh, and Strong 1994). UISED may have had lower costs because it provided fewer services or because it had more participants to dilute fixed costs. The analysis of Benus *et al.* (1995) omits transaction costs for participants and displacement costs for non-participants. An evaluation of a similar British program assumed that each two new firms in the program would displace one existing firm (Bendick and Egan 1987).

Total UI transfers from government to participants were \$1,000 per participant in Washington and \$900 in Massachusetts (Table 7). These transfers were offset in part by taxes paid by participants to government, \$200 in Washington and \$2,000 in Massachusetts. In both states, outlays for standard UI payments decreased due to shortened unemployment spells. In Washington, total UI transfers increased due to the lump-sum payment. In Massachusetts, total benefits net of costs were \$12,000 for treatments, \$2,000 for government, and \$14,000 for society (Table 7). Benus *et al.* (1995 p. 194) conclude that UISED in Massachusetts was "a highly cost-effective policy tool for assisting UI claimants who are interested in pursuing self-employment."

In Washington, total benefits net of costs were \$2,000 for treatments, -\$1,200 for government, and \$700 for society (Table 7). Benus *et al.* (1995) tested the robustness of these results and reported that net social benefits fall to -\$465 without one outlier who in one year reported an income of \$500,000. Thus, "for [Washington] to be viewed as cost-effective from society's perspective, the monetary value of the other benefits that are not measured (*e.g.*, improved psychological well-being, community economic development) would have to exceed \$465 per participant" (Benus *et al.* 1995 p. 198).

Given the inevitable imprecision of measurement, the presence of unmeasured benefits and costs, and the fragility due to the outlier, net social benefits in Washington were probably not significantly different from zero. In contrast, net social benefits in Massachusetts were so high that, even given the uncertainty noted above, they probably were significantly different from zero. Because only one of the two states had social benefits in excess of social costs, UISED does not answer the question of whether microenterprise programs, in general, are good uses of scarce public funds.

6. Discussion

Benus *et al.* (1995 p. xi) conclude that UISED suggests that "self-employment assistance is a cost-effective approach to promote the rapid reemployment of unemployed workers and should be permanently incorporated into the U.S. employment-security and development system." This result was cited by the federal law that enabled states, first for five years and then permanently, to run microenterprise programs with designs like that of Massachusetts (Vroman 1997).

A fresh look at the evidence, however, suggests that rigid clones of the Massachusetts model and blanket endorsements of microenterprise programs may be premature. Massachusetts increased total employment a lot (and self-employment a little) with long-term income support, long-term work-search waivers, spread-out classes, and on-call advice. Washington increased entry into self-employment but did not increase success in total employment with short-term income support, short-term work-search waivers, up-front classes, and a lump-sum payment. Net social benefits were positive in Massachusetts but close to zero in Washington. It is not clear how differences in design between the two states could explain the differences in impacts.

UISED did not reveal how microenterprise programs produce impact nor whether their net social benefits are positive. The most robust result is that UISED shortened unemployment spells. The evidence also hints, however, that this may have happened because UISED tempted people to start firms quickly even though, with more time to think and to search, they would have been better off in a wage job. The evidence also suggests that financial assistance is neither necessary nor sufficient for success in selfemployment; many small firms start without loans or grants, and many others close even though they have loans or grants. Finally, UISED may indicate that classes and counseling are best provided as on-call responses to problems met in practice rather than as up-front attempts to immunize against anticipated problems.

UISED adds to the evidence that less than 1 percent of the unemployed will choose to use microenterprise programs (Vroman 1997; Bendick and Egan 1987). Most people who join microenterprise programs have above-average assets, education, job experience, skills, and support networks. The promise of microenterprise is weakest for the most-disadvantaged and for those new to self-employment.

The analysis of UISED by Benus *et al.* (1995) and the subsequent use of their results has focused on the single unambiguous result that microenterprise programs can shorten unemployment spells. The new analysis here, however, shows that UISED had ambiguous effects on total employment, on wage rates, and on overall social welfare.

More studies of more programs would sharpen the evaluation of the prospects of success for the hundreds of microenterprise programs in the United States that aim to help the poor, those on welfare, and the unemployed. In all likelihood, however, there will never be enough studies of enough programs to measure impacts rigorously or to isolate the most important elements of program design. Still, a small sample is better than no sample, and all careful studies add to the knowledge that may improve policy.

Although social experiments can control for unobserved differences between participants and non-participants, they may not be able to control for differences—observed or not—between program sites. These differences matter less in agricultural experiments or in clinical trials than in social experiments because socioeconomic outcomes depend not only on the treatment but also on the overall socioeconomic context. The number of environmental differences between sites that might affect the impact of treatment is often too many, compared with the number of sites, to control for, even if they could be measured. These issues are well-known (Manski 1990; Hausman and Wise 1985) and, as suggested by a referee, they affect UISED just as they affected the income-maintenance experiments of the 1970s, the experiments with domestic violence and police intervention in the 1980s, and the welfare-to-work experiments of the 1990s.

The solution is not to confine experiments to a single site; more sites sharpen estimates of impact and make them more widely applicable. Rather, analysts and policymakers must acknowledge the limits of social-science measurement, even within a treatment/control framework. Social-science knowledge rests on consensus derived through talk, and that it is it should be, but the discussion must not gloss over the assumptions and the imprecise measurements used to arrive at its necessarily imperfect conclusions (McCloskey 1998).

Notes

1. In Washington, telephone surveys recorded outcomes 21 months and 33 months after assignment. In Massachusetts, the surveys were 19 months and 31 months after assignment. In both states, the response rate was 80 percent, and Benus *et al.* (1995) detected no evidence of non-response bias. For reasons explained in Benus *et al.* (1995), the analysis of Massachusetts uses only the first two cohorts.

2. The estimates of hourly wage rates in Table 4 are biased upwards (downwards) if the self-employed work more (less) than 168 hours per month. Both cases are common; much self-employment is part-time, and much full-time self-employment is more than 40 hours a week. The rates also have an upward bias because they ignore unpaid family labor and because they include all returns to non-labor investment.

3. Unfortunately, without the original data, it is impossible to pool both states to test the effects of individual services or to measure the average effect across states. Even with the original data, the number of differences in program design between the states exceeds the number of states. Finally, even if there were enough states to identify the impact of specific services, any such estimated effects could spurious, caused not by differences in services but by differences in the overall socioeconomic context between states.

4. Five elements of program design differ between the two states, so a statistical test of the impact of each element is impossible, and the possibilities described here are only speculative. Still, statistical tests are not the only way to gain knowledge useful for policy. Although UISED did not answer all questions about how program design affects self-employment, it did provide some information—albeit imprecise and provisional—about broad patterns and likely associations. Policies will be made, and a lack of perfect knowledge does not imply a complete lack of knowledge. As long as the assumptions and judgements needed to derive recommendations are explicit, policy decisions will benefit from the imperfect knowledge that can be gleaned from UISED.

5. Bigger impacts in Massachusetts did not result from targeting the mostdisadvantaged; impacts in Washington did not increase when, to match the design of Massachusetts, the analysis excluded those most likely to exhaust their eligibility (Vroman 1997).

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Days since claim	Step	N	1	% fr previou	om 1s step	% of in	nvitees
0	First claim	42,3	350				
	Invite targeted claimants	42,3	350	10	0	10	00
18	Awareness Day	3,1	67	7.4	18	7.4	18
	Application	$1,\!932$		60.1		60.1 4.56	
		Treat.	Ctrl.	_			
29	Qualification and random assignment	755	752	78	.0	3.5	56
39	39 85% complete classes or are excused; 70% use individual counseling for an average of 1.5 hours; 36% attend at least one Entrepreneurship Club						
84	60% receive a lump-sum payment averaging \$4,200						
		Treat.	Ctrl.	Treat.	Ctrl.	Treat.	Ctrl.
639	Start firm within 21 months (impact 9 per $1,000$)	430	241	57	32	2.03	1.14
1,004	Start firm within 33 months (impact 8 per $1,000$)	478	310	63	41	2.24	1.46

Table 1: Overview of UISED in Washington

Source: Computed by the author based on data in Benus *et al.* (1995).

Days since claim	Step	Ν	1	% fr previou	om 1s step	% of in	vitees	
0	First claim	72,6	638					
22	Invite targeted claimants	63,9	921	10	0	10	0	
33	Information Session	$2,\!6$	58	4.1	.6	4.1	.6	
39	Application	$1,\!5$	15	57	.0	2.3	37	
		Treat.	Ctrl.	_				
47	Qualification and random assignment	614	608	80	.7	1.9)2	
144 Complete classes and counseling; 93% attend seminar; 93% attend individual counseling for an average of 7.5 hours; 50% attend all six biweekly workshops								
		Treat.	Ctrl.	Treat.	Ctrl.	Treat.	Ctrl.	
578	Start firm within 19 months (impact 3 per $1,000$)	319	213	52	35	0.99	0.67	
943	Start firm within 31 months (impact 2 per $1,000$)	356	286	58	47	1.10	0.90	
Source: Computed by the author based on data in Benus <i>et al.</i> (1995).								

Table 2: Overview of UISED in Massachusetts

	New UI claimants		Invitees			Treatments			
Cohort	Ι	II	III	Ι	II	III	Ι	II	III
Sex									
Female	40	42	40	49	49	43	35	30	28
Age									
Younger than 25	15	14	10	16	15	13	3	2	2
Older than 55	12	12	13	11	12	12	5	10	8
Race									
Non-white	17	17	19	18	20	21	13	9	11
Education									
High-school diploma	NA	NA	NA	66	66	69	54	58	52
Attended some college	NA	NA	NA	16	18	15	40	39	45
Former occupation									
Professional/technical	22	23	28	27	27	26	62	49	60
Clerical	17	17	19	22	18	17	10	11	7
Former sector									
Manufacturing	26	24	27	30	24	26	24	29	22
Services	22	19	24	25	25	25	37	20	30

Table 3: Traits of new UI claimants, invitees, and treatments in Massachusetts

Source: Tables 4.1 to 4.3 in Benus *et al.* (1995). All figures are percentages.

	Washington				Massachusetts			
	After 21 months		After 33 months		After 19 months		After 31 months	
	Ctrl.	Impact	Ctrl.	Impact	Ctrl.	Impact	Ctrl.	Impact
Self-employment								
At least one spell $(\%)$	32	$+25^{*}$	41	$+22^{*}$	35	$+17^{*}$	47	$+12^{*}$
At time of survey $(\%)$	21	$+16^{*}$	25	$+12^{*}$	29	$+11^{*}$	38	+5
Months self-employed per year	1.0	$+2.3^{*}$	1.0	$+2.0^{*}$	1.4	$+1.0^{*}$	1.7	$+0.8^{*}$
Wage rates from self-employment								
Per year	695	$+1,\!596^{*}$	576	+1,774	1,404	+1,218	$1,\!439$	+1,219
Per month	695	-1	576	+207	1,002	+91	846	+217
Per hour	4.2	0	3.4	+1.3	6.0	+0.5	5.0	+1.3

Table 4: Impact of UISED on self-employment in Washington and in Massachusetts

Source: Benus *et al.* (1995). Impacts marked with asterisks are statistically different from zero with more than 90-percent confidence. Earnings per hour assume 168 hours per month. Monetary figures are in units of 1990 dollars. Figures for Washington include one outlier who reported income of \$500,000 in one year.

	Washington				Massachusetts			
	After 21 months		After 33 months		After 19 months		After 31 months	
	Ctrl.	Impact	Ctrl.	Impact	Ctrl.	Impact	Ctrl.	Impact
Wage-employment								
At least one spell $(\%)$	80	-7^{*}	87	-6^{*}	64	+1	75	-4
At time of survey $(\%)$	60	-7^{*}	61	-3^{*}	46	$+6^{*}$	54	+1
Months wage-employed per year	4.7	-0.6^{*}	5.2	-0.7^{*}	3.2	$+0.8^{*}$	4.1	+0.6
Wage rates from wage-employment								
Per year	9,231	-1,407	9,920	$-1,780^{*}$	$6,\!613$	$+3{,}230^*$	7,797	$+3,\!053^{*}$
Per month	1,964	-56	1,908	-100^{*}	2,066	$+395^{*}$	1,902	$+407^{*}$
Per hour	11.7	-0.3	11.4	-0.6^{*}	12.3	$+2.3^{*}$	11.3	$+2.4^{*}$

Table 5: Impact of UISED on wage-employment in Washington and in Massachusetts

Source: Benus *et al.* (1995). Impacts marked with asterisks are statistically different from zero with more than 90-percent confidence. Earnings per hour assume 168 hours per month. Monetary figures are in units of 1990 dollars. Figures for Washington include one outlier who reported income of \$500,000 in one year.

	Washington				Massachusetts			
	After 21 months		After 33 months		After 19 months		After 31 months	
	Ctrl.	Impact	Ctrl.	Impact	Ctrl.	Impact	Ctrl.	Impact
Total employment								
At least one spell $(\%)$	92	$+4^{*}$	97	+1	82	$+11^{*}$	92	$+5^{*}$
At time of survey $(\%)$	75	+3	78	$+1^*$	68	$+13^{*}$	81	$+6^{*}$
Months employed per year	5.9	$+1.3^{*}$	6.4	$+1.1^{*}$	4.5	$+2.1^{*}$	5.8	$+1.9^{*}$
Wage rates from total employment								
Per year	10,499	+566	$11,\!590$	289	8,483	$+4,764^{*}$	$10,\!056$	$+5,\!940^{*}$
Per month	1,779	-242	1,811	-227	1,885	$+122^{*}$	1,734	$+343^{*}$
Per hour	10.6	-1.4	10.8	-1.4	11.2	$+0.7^{*}$	10.3	$+1.1^{*}$

Table 6: Impact of UISED on total employment in Washington and in Massachusetts

Source: Benus *et al.* (1995). Impacts marked with asterisks are statistically different from zero with more than 90-percent confidence. Earnings per hour assume 168 hours per month. Monetary figures are in units of 1990 dollars. Figures for Washington include one outlier who reported income of \$500,000 in one year.

	V	Vashingto	n	Massachusetts				
	Treatments	Govt.	Society	Treatments	Govt.	Society		
Gains								
Total earnings	+1,093		+1,093	+14,859		+14,859		
Assets	0		0	0		0		
Psychological well-being	0		0	0		0		
Community economic development	0	0	0	0	0	0		
Costs								
Program operations		-397	-397		-1,016	-1,016		
Transaction costs	0		0	0		0		
Displacement	0		0	0		0		
Transfers								
UI payments	+1,013	-1,013	0	+876	-876	0		
Tax payments	-164	164	0	-2,229	+2,229	0		
Total benefits net of costs	+1,942	-1,246	+696	+11,754	+2,089	+13,843		

Table 7: Benefits and costs for treatments, for government, and for society

Source: Exhibits 10.1 to 10.5 in Benus *et al.* (1995). Figures are in 1990 dollars per treatment about 32 months after assignment. Figures for Washington include one outlier who reported income of \$500,000 in one year.