

Illinois Unemployment Insurance Experiments:
Documentation of the Public-Use Data File

Stephen A. Woodbury
Robert G. Spiegelman
Azman B. Abdullah

December 1987

W. E. Upjohn Institute for Employment Research
300 South Westnedge Avenue
Kalamazoo, Michigan 49007
(616) 343-5541

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I. General Description of the Data

I. GENERAL DESCRIPTION OF THE DATA

The data included in the Illinois Unemployment Insurance Experiments public-use file are derived from a total of four sources. In this section, we describe each data source and discuss the information that is available from each. Readers unfamiliar with the design and basic results of the Illinois UI Experiments are referred to the paper on "Bonuses to Workers and Employers to Reduce Unemployment: Randomized Trials in Illinois," which is included as section V of this documentation. Note that no variable that could reveal the identity of any individual or employer who was involved in the experiment has been provided in the public-use data file.

Data Sources

Of the four data sources available to evaluate and analyze the experiments, two derive from instruments that were constructed specifically for the purposes of tracking and evaluating the Claimant and Employer Experiments, and the other two are administrative data bases of the Illinois Department of Employment Security (IDES). Because the two instruments that were created specifically for the experiments--the Base Line Survey and the Office Logs--are described in detail in section V of this documentation, they are discussed only briefly here. The two IDES administrative data bases--the Benefits Information System (BIS) and Wage Records--are treated more fully.

Sources Specific to the Experiments

Base Line Survey. The Base Line Survey is the special survey that was administered in the Job Service office at the time each claimant was informed of the experiments. All claimants who were considered potentially eligible to participate in the experiments (or who were potential control group members) were requested to complete a survey. The survey requested the claimant to provide his or her Social Security number, name, birthdate, and several other pieces of information. (These data have been suppressed in the public-use file in order to preserve confidentiality.) In addition, the survey was used by Employment Service office personnel, the project monitor and her staff in the Office of Field Operations in the IDES central office in Chicago, and W. E. Upjohn Institute personnel, to record the group to which the claimant was assigned (control, Claimant Experiment, Employer Experiment), whether the claimant agreed to participate in the experiment (for potential Claimant and Employer Experiment enrollees only), and the date the survey was taken. (These latter variables are part of the public-use data file.)

From the point of view of constructing the analytic data base, the Base Line Survey was used in conjunction with the Office Logs (see below) to obtain the Social Security numbers, group assignments, and willingness to participate of each claimant. These are clearly critical pieces of information: The Social

Security number was used to request administrative data on earnings, insured unemployment duration, and UI benefit receipt on enrollees from the IDES administrative data bases. Further, our ability to ascertain program assignment and agreement to participate is obviously central to the validity of the experimental results. Considerable effort, both in the Office of Field Operations in Chicago and at the Upjohn Institute, was devoted to cross-checking and verifying these data.

It is worth noting that completion of the Base Line Survey was voluntary and that all the data are self-reported. This makes for serious limitations of these data. Many surveys were not completed, or were completed in a haphazard manner. Even the Social Security number was often reported inaccurately and had to be cross-checked or obtained by special inquiry into the Benefits Information System. Indeed, approximately 200 observations--about 1.2 percent of the total--were lost because claimants' Social Security numbers could not be ascertained.

Office Logs. For the duration of the experiments, each Job Service office maintained two logs--one for all Claimant Experiment enrollees and another for all Employer Experiment enrollees. In these logs, Job Service personnel recorded the Social Security number of each enrollee, his or her name, the date on which the claimant came to the Job Service office, and whether the claimant agreed to participate in the experiment that was presented to him or her. (Again, identifying variables have been

excluded from the public-use file.) All this information was recorded on the enrollment day--the day the claimant appeared in the Job Service office.

After the enrollment day, the Office Logs were used to keep track of each enrollee's progress in the experiment. The eligibility of the enrollee for UI benefits (and hence for the experimental bonus) was recorded in the log as soon as it could be determined. The date on which the packet of Claimant or Employer Experiment forms and instructions was mailed to eligible participants was also recorded. If a Notice of Hire was submitted by a claimant (or by an employer who had hired an eligible claimant), the date on which it was received, and the date on which the acknowledgment was mailed in response, were both recorded. Finally, if a voucher were paid, the date on which the completed valid voucher was received in Chicago was recorded.

The Office Logs recorded data only on Claimant and Employer Experiment enrollees. The omission of controls from the Office Logs posed two problems. First, checks on the identity of controls were difficult to perform, because no Office Logs existed to back up the controls' Base Line Surveys. Hence, problems resulting from illegible handwriting in the Base Line Survey could not be resolved by reference to a second source (that is, the Office Logs). As a result, a few more control group members were lost to the evaluation than were Claimant and Employer Experiment enrollees due to inability to identify them. In principle, if

some unobserved variable influenced both a claimant's UI reciprocity behavior and the probability of being unidentifiable, then the control group might not be fully comparable to the Claimant and Employer Experiment groups (that is, there would be some nonrandomness introduced into the construction of the control group). In the end, however, the differences between the proportions of the control, Claimant Experiment, and Employer Experiment groups that could be identified were negligible, so there is limited scope for such a problem to arise. Further, the strong similarity in the distribution of observable characteristics across the three samples gives us confidence that assignment to the three groups used to make experimental comparisons was truly random (see "Bonuses to Workers and Employers...", Table 2).¹

The second problem raised by the absence of Office Logs for controls was that we had no simple method of determining with certainty which controls were nonmonetarily ineligible for UI benefits (and hence ineligible to participate in the experiments). The determination of nonmonetary ineligibility is complicated--in practice it is made on a case-by-case basis by experienced IDES personnel. Although all the data needed to determine nonmonetary

1. The omission of controls from the Office Logs also made it harder to verify the assignment of claimants to the control group (that is, to confirm that they received no treatment), again because the Office Logs did not exist to back up the Base Line Survey. We were, however, able to confirm the assignment of Claimant and Employer Experiment enrollees to their respective treatments by checking the Base Line Survey against the Office Logs. Claimants who were recorded as controls in the Base Line Survey, and who in addition did not appear in the Office Logs as

ineligibility are available in the Benefits Information System, no single flag in the Benefits Information System indicates nonmonetary ineligibility. Hence, we could not be certain whether a claimant assigned to the control group would have been eligible for a bonus had he or she been assigned to one of the experiments.²

This second problem was handled in the following way. The IDES Management Information Systems personnel were able to construct (by computer algorithm) a rough indicator of whether a claimant was nonmonetarily ineligible. We have used this indicator to remove claimants from the control, Claimant Experiment and Employer Experiment groups. Because this indicator is imperfect, we have included in all three groups some claimants who were in fact nonmonetarily ineligible for UI benefits. Note that this poses no problem for making experimental comparisons--the groups we compare were constructed identically and are truly comparable in that the only difference among the three is that two of the groups were assigned to experimental treatments. We simply note that the three groups are larger than is necessary, in that there are individuals in all three who were ineligible for UI benefits.

2. The problem can be illustrated by an example. When a monetarily eligible claimant in the control group received no benefits, we could not be sure whether we were dealing with a fully eligible claimant who had returned to work (or stopped receiving benefits for some other reason unrelated to eligibility), or a nonmonetarily ineligible claimant.

The Office Logs were used for two main purposes. First, they were used as a check on the most important data that were provided by the Base Line Survey; that is, the Social Security number and name of the claimant, the group to which each claimant was assigned, and whether he or she agreed to participate in the experiment. Any conflict that arose between the Office Logs and the Base Line Survey (regarding the identity or group assignment of a claimant) was noted and could usually be resolved. Where identity could not be determined, no administrative data could be obtained, so of course the claimant was dropped from the sample; as already noted, a few more controls than Claimant and Employer Experiment enrollees had to be dropped because we could not identify them--that is, no back-up (in the form of an Office Log) existed for the controls. In 182 cases, the group assignment of a claimant could not be determined with certainty, and the only alternative was to discard the claimant from the evaluation. Claimants who, based on their Social Security numbers, should have been assigned to each experimental group were equally affected by this latter discarding process; hence, it should result in no bias in making experimental comparisons. Further, since 17,306 claimants took the Base Line Survey, our inability to determine the experimental assignment of 182 claimants (about 1 percent) is not especially troubling.

The second use of the Office Logs was to obtain data about which claimants submitted a Notice of Hire and received a voucher payment.

Administrative Data Bases

The administrative data bases maintained by the Illinois Department of Employment Security are the central source of data on the earnings, employment, and insured unemployment of those enrolled in the experiments. Their use by the W. E. Upjohn Institute for the purposes of experimental evaluation required the extensive cooperation of many Management Information Systems and other IDES personnel.

Benefits Information System (BIS). The Benefits Information System is the data base used by IDES to store information on UI claimants and the benefits they receive. It is a data base whose structure is sequential or "layered," with different "layers" containing different aspects of each claimant's claim history.

For each claimant who was a member of the control group or of either experimental group, four kinds of variables were provided directly to the Upjohn Institute from the BIS--date variables, personal and demographic data, earnings data, and data on benefits. Each of these groups of variables is discussed in turn.

Three date variables were made available to us: (1) The initial claim date; that is, the date between July 29 and November 17 inclusive on which each claimant filed for UI benefits; (2) The date (if any) on which the claimant resumed work (as best

could be determined within the limits of the BIS data base); and (3) The date (if any) on which the claimant refiled for UI benefits (following the initial claim date). We have used these date variables in several ways. For example, the date variables were essential to determining whether a claimant stopped receiving UI benefits within 11 weeks of filing the initial claim, and whether a claimant who did appear to become reemployed within 11 weeks in turn retained the new job for four or more months (as opposed to filing an additional claim for UI benefits).

A variety of personal and demographic data were available to us from the BIS. First, the claimant's name, address, telephone number, and county of residence were provided. These variables have all been suppressed in the public-use data file, but they were important in constructing the data file. For example, The name was used as a back-up for the Social Security number of each claimant. Demographic data available from BIS include: (1) The claimant's date of birth; (2) The claimant's sex; and (3) The race of the claimant (white, black, hispanic, native American, or other).

Data on each claimant's earnings were available from both the BIS and Wage Records data bases. From BIS, we obtained the total earnings in each of the four quarters of the base period. (The base period in Illinois is the first four of the last five completed quarters. Hence, for enrollees who filed their initial claims between July 29 and September 30, 1984, we have total

earnings in each quarter from 1983:II through 1984:I. For enrollees who filed their initial claims between October 1 and November 17, 1984, we have total earnings in each quarter from 1983:III through 1984:II.

Finally, data on the benefits received by each claimant are available to us. We know: (1) The weekly benefit amount for the claimant; (2) The dependents' allowance (if any) for each claimant; (3) The number of weeks of benefits paid, and the dollar amount of benefits paid, in the spell of insured unemployment immediately following the initial claim; and (4) The number of weeks of benefits paid, and the dollar amount of benefits paid, in the full benefit year.

In addition, a "stop code," which equals one if a so-called stop was issued on the payments following from the initial claim, was available to us. This variable was used to approximately determine nonmonetary ineligibility for UI benefits. As noted above, we could not tell with certainty which of the claimants assigned to the control group were declared nonmonetarily ineligible for benefits; however, we have used the stop code to cull out many who were nonmonetarily ineligible. A claimant who was monetarily eligible but who received no benefits was considered nonmonetarily ineligible if the stop code was activated. This procedure removed from our sample many--but not all--claimants who were nonmonetarily ineligible, without removing any eligible claimants from the sample.

Wage Records Data Base. Illinois is a wage reporting state, meaning that all covered employers report the wages of their employees to the Illinois Department of Employment Security on a quarterly basis. The Wage Records Data Base is the repository of these earnings data, and when an individual files an initial claim for UI, the Wage Records Data Base is drawn upon to construct an earnings history. This earnings history in turn is used to determine the claimant's monetary eligibility and Weekly Benefit Amount.

The existence of Wage Records lets us observe earnings in covered employment not only before the initial claim that resulted in enrollment in the experiment, but during and after the experiment as well. The Wage Records of each member of the control, Claimant Experiment, and Employer Experiment groups were provided to us so that in each of the six quarters starting with 1984:II and ending with 1985:III, we know the earnings of each claimant.

The third quarter of 1985 (1985:III) was the last quarter of data available in the Wage Records Data Base at the time our extract was created in January 1986. This is because there is a one quarter lag in the posting of wages in the data base. Note that data on 1985:III gives us at least one full quarter of post-experimental covered earnings experience for each control and experimental participant. (Since the last enrollments were made

on November 17, 1984, the last enrollee in the experiment would need to obtain a job by February 2, 1985, and hold that job until at least June 1, 1985, in order to qualify for a \$500 bonus. This implies that 1985:III was the first full "post-experimental" quarter for late enrollees.) Note also that it gives us a full quarter of covered earnings experience for late enrollees who exhausted their 26 weeks of state regular UI benefits in a single spell of unemployment. (That is, someone who filed for benefits in mid-November of 1984 would have exhausted his or her benefits by mid-May of 1985 if he or she experienced a single continuous spell of unemployment.)

Strengths and Limitations of the Data

The result of matching and merging the two administrative data bases and the data gathered specifically for the experiments is a data file in which the claimant is the unit of observation. The file includes data on the experimental status of each claimant, on whether each experimental participant submitted a Notice of Hire and received a \$500 bonus, on the timing and duration of each claimant's spells of insured unemployment, on the benefits received by each claimant, on the demographic characteristics of each claimant, and on the earnings of each claimant.

The availability of the IDES administrative data is advantageous in at least three ways.³ First, it gives us access to a very large sample of UI claimants--over 12,000 who turned out to be fully eligible for the experiments--at relatively low cost. To survey these 12,000 claimants so as to obtain all the measures that are available to us in the IDES data bases would have been prohibitively expensive. Second, these administrative data are relatively free of the problems of nonresponse and attrition that tend to plague survey data. (Consider, for example, the problems of nonresponse that beset the Base Line Survey.) Third, we have considerable confidence in the accuracy of the IDES administrative data. Although occasional errors may occur in these data, the more central are the data to the conduct and monitoring of the UI system, the more likely it is that these data have been checked for accuracy.

An important limitation of the data should be noted: We cannot always ascertain from these data the true labor force status of a claimant. That is, we can distinguish only three states of participation in the labor force: (1) Employed in the UI-covered sector of the labor market; (2) Unemployed and receiving UI benefits; and (3) Neither employed in the UI-covered

3. For a useful discussion of the relative advantages and disadvantages of survey and administrative data, see Orley Ashenfelter and Gary Solon, "Longitudinal Labor Market Data: Sources, Uses, and Limitations," in What's Happening to American Labor Force and Productivity Measurements? Proceedings of a Conference Sponsored by the National Council on Employment Policy (Kalamazoo, MI: W. E. Upjohn Institute for Employment Research), pp. 109-126.

sector nor receiving UI benefits. It is this third classification that is troublesome. An individual who is neither employed in a UI-covered job nor receiving UI benefits could be in any of the following states of participation in the labor force: (a) Out of the labor force (that is, neither employed nor seeking employment); (b) Unemployed but not receiving UI benefits (this would be the situation, for example, of an individual who had exhausted his or her benefits but was still seeking a job); and (c) Employed in the non-UI-covered sector of the labor market. These latter three categories of labor-force status cannot be distinguished in the administrative data because the distinctions are irrelevant to the conduct of UI as a program. That is, the UI system is in effect blind to an individual unless he or she is employed in a UI-covered job or unemployed and receiving UI benefits.

II. Record Layout

II. RECORD LAYOUT

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>Length</u>	<u>Position</u>
✓AGE	Age of claimant Comments: This variable is constructed from the Baseline Survey information and BIS database.	N	2	1-2 ✓
✓AVPREARN	Base Period Earnings Comments: Average quarterly earnings in the first four of the five completed quarters prior to filing.	N	5	3-7 ✓
✓BENEPaid	Benefits paid, first spell Comments: Total dollar benefits paid in the spell of unemployment immediately following the initial claim.	N	7	8-14 ✓
✓BENPDBYE	Benefits paid, full benefit year Comments: Total dollar benefits paid in the full benefit year.	N	7	15-21 ✓
✓BENYRBEG	Date when benefit year began Comments: Date on which the benefit year began for the claim filed during the enrollment period.	N	6	22-27 ✓
✓BLACK	Claimant is black Comments: Equals 1 if claimant is black.	N	1	28 ✓

II.2

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>Length</u>	<u>Position</u>
✓BONELIGB	<p>Qualified to receive bonus</p> <p>Comments: Indicates whether claimant qualified to receive a \$500 cash bonus. Equals 1 if REHIREARN = 1 <u>and</u> REFILEDT is either missing or more than 4 months (119 days) after the REHIREDT.</p>	N	1	29
✓CLAIMDT	<p>Claim date</p> <p>Comments: Date of initial unemployment insurance claim. (Date will be within the enrollment period of the experiment; that is between 7/29/84 and 11/17/84 inclusive.)</p>	N	6	30-35
✓CONTROL	<p>Control group</p> <p>Comments: Equals 1 if claimant was assigned to the control group.</p>	N	1	36
✓DEPALLOW	<p>Dependents' allowance</p> <p>Comments: Weekly dependents' allowance to be paid for the claim filed during the enrollment period.</p>	N	5	37-41
✓ELIG2	<p>Eligibility code</p> <p>Comments: Equals one if the claimant is eligible to receive UI benefits--that is, either received benefits or returned to work before starting to receive benefits.</p>	N	1	42
✓EXSTBEN1	<p>Exhausted benefits (first spell)</p> <p>Comments: Equals 1 if state regular benefits were exhausted in the spell of unemployment immediately following the initial claim.</p>	N	1	43

II.3

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>Length</u>	<u>Position</u>
✓EXSTBENY	Exhausted benefits (benefit year) Comments: Equals 1 if state regular benefits were exhausted during the full benefit year.	N	1	44
✓HIE	Hiring Incentive Experiment group Comments: Equals 1 if claimant was assigned to Hiring Incentive Experiment (HIE) group.	N	1	45
✓HISPANIC	Claimant is Hispanic Comments: Equals 1 if claimant is of Hispanic origin.	N	1	46
✓JSIE	Job Search Incentive Experiment group Comments: Equals 1 if claimant was assigned to Job Search Incentive Experiment (JSIE) group.	N	1	47
✓L1QWAGES	Wages, 4th quarter base period Comments: Wages in the fourth quarter of the claimant's base period. (May be blank if claimant had only three quarters of positive earnings in the base period.)	N	8	48-55
✓L2QWAGES	Wages, 3rd quarter base period Comments: Wages in the third quarter of the claimant's base period. (May be blank if claimant had only two quarters of positive earnings in the base period.)	N	8	56-63

II.4

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>Length</u>	<u>Position</u>
/L3QWAGES	Wages, 2nd quarter base period Comments: Wages in the second quarter of the claimant's base period.	N	8	64-71
/L4QWAGES	Wages, 1st quarter base period Comments: Wages in the first quarter of the claimant's base period.	N	8	72-79
/LAGREE	Agreed to participate Comments: Equals 1 if claimant agreed to participate in the experiment. (Data drawn from office logs kept during the enrollment period.)	N	1	80
/MALE	Claimant is male. Comments: Equals 1 if claimant is male, 0 if claimant is female.	N	1	81
✓MBASR	State regular maximum benefit amount Comments: State regular maximum benefit amount (including dependents' allowance.)	N	7	82-88
✓NATVAMER	Claimant is Native American Comments: Equals 1 if claimant is a Native American.	N	1	89
NOHSUB	Notice of Hire submitted Comments: Equals 1 if claimant submitted a Notice of Hire.	N	1	90

II.5

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>Length</u>	<u>Position</u>
NOHSUB1	NOH submitted or voucher paid Comments: Equals 1 if Notice of Hire (NOH) was submitted or voucher was paid.	N	1	91
/OTHERACE	Claimant is of other race Comments: Equals 1 if claimant is of other race (not black, Hispanic, white, or Native American.)	N	1	92
/POSPEARN	Claimant's post-claim earnings Comments: The quarterly earnings of the claimant in the first post-claim quarter in which the claimant had earnings.	N	7	93-99
/POSQEARN	Earnings after benefits terminate Comments: Claimant's earnings in the first full quarter after termination of UI benefits. (First spell of unemployment, based on WKPAID, is used to construct this variable.)	N	7	100-106
/PREPEARN	Claimant's pre-claim earnings Comments: The quarterly earnings of the claimant in the full quarter before filing the initial claim.	N	7	107-113
/REFILEDT	Refile date Comments: Date on which claimant refiled for benefits. Filing for reopened, additional, and transitional claims are all admissible.	N	6	114-119

II.6

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>Length</u>	<u>Position</u>
✓REFILEIN	Refile indicator Comments: Equals 1 if claimant refiled for benefits.	N	1	120
✓REHIRE11	WKPAID < 11 Comments: Equals 1 if fewer than 11 weeks of benefits paid in the first spell of unemployment immediately following the initial claim.	N	1	121
✓REHIREDT	Rehire date Comments: Either the return to work date on file with IDES, or a date of rehire constructed by IDES.	N	6	122-127
✓REHIREIN	Rehire indicator Comments: Equals 1 if rehire date exists.	N	1	128
✓RHIREARN	Rehired within 11 weeks and Pospearn > 0 Comments: Equals 1 if fewer than 11 weeks of benefits paid in first spell <u>and</u> REHIREDT is within 11 weeks of initial claim <u>and</u> there were earnings after reemployment.	N	1	129
✓SRBEN1	State regular benefits (first spell) Comments: Equals state regular benefits paid in first spell following initial claim.	N	6	130-135

II.7

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>Length</u>	<u>Position</u>
✓SRBENYR	State regular benefits (benefit year) Comments: Equals state regular benefits paid over the full benefit year.	N	6	136-141
✓VCHPAID	Voucher was paid Comments: Equals 1 if voucher was paid.	N	1	142
✓WGETOT1	Total Earnings 84:II Comments: Sum of earnings from all covered employment in 84:II.	N	8	143-150
✓WGETOT2	Total Earnings 84:III Comments: Sum of earnings from all covered employment in 84:III.	N	8	151-158
✓WGETOT3	Total Earnings 84:IV Comments: Sum of earnings from all covered employment in 84:IV.	N	8	159-166
WGETOT4	Total Earnings 85:I Comments: Sum of earnings from all covered employment in 85:I.	N	8	167-174
✓WGETOT5	Total Earnings 85:II Comments: Sum of earnings from all covered employment in 85:II.	N	8	175-182
✓WGETOT6	Total Earnings 85:III Comments: Sum of earnings from all covered employment in 85:III.	N	8	183-190

II.8

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>Length</u>	<u>Position</u>
<u>WHITE</u>	Claimant is white Comments: Equals 1 if claimant is white.	N	1	191
<u>WKBENEFIT</u>	Weekly benefit amount Comments: The weekly benefit amount for the initial claim filed during the enrollment period.	N	5	192-196
<u>WKPAID</u>	Weeks of benefits, first spell Comments: Indicates the number of weeks in which benefits were paid in the spell of unemployment immediately following the initial claim.	N	3	197-199
<u>WKSPDBYE</u>	Weeks of benefits, benefit year Comments: Indicates the number of weeks in which benefits were paid during the full benefit year.	N	6	200-205

III. Listing of the First 50 Records

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IV. Means of Variables

- V. "Bonuses to Workers and Employers to Reduce
Unemployment: Randomized Trials in Illinois"

Woodbury, Stephen A. and Robert G. Spiegelman,
"Bonuses to Workers and Employers to Reduce
Unemployment: Randomized Trials in Illinois,"
American Economic Review, Vol. 77, No. 4
(September 1987), pp. 513-530.