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Active Labor Market Programs: Conceptual Framework

Christopher J. O'Leary
W.E. Upjohn Institute for Employment Research, oleary@upjohn.org

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www.upjohn.org

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Outline

I. Types of Labor Market Programs

Passive Labor Market Programs

- Unemployment Compensation
- Unemployment Assistance
- Early Retirement

I. Types of Labor Market Programs

Active Labor Market Programs

- Job Search Assistance
- Training

  unemployed and employed
- Programs for Youth

  unemployed, disadvantaged, apprenticeship
- Job Subsidies

  private employer, public works, self-employment
- Programs for the Disabled

  rehabilitation, supported work

II. Scale of Labor Market Programs

Spending on LMPs as a percent of GDP, 1995 and 2000

| 1995	Australia	Canada	France	Germany	Hungary	Italy	Japan	Korea	Sweden	UK	US
PES	0.24	0.21	0.15	0.23	0.15	0.04	0.03	0.03	0.27	0.21	0.07
Training	0.15	0.25	0.38	0.38	0.19	0.01	0.03	0.02	0.77	0.13	0.04
Youth	0.06	0.02	0.27	0.06	0.00	0.46	0.00	0.02	0.23	0.13	0.03
Job Subsidies	0.31	0.06	0.40	0.44	0.27	0.86	0.06	0.00	0.90	0.03	0.01
Disabled	0.07	0.02	0.10	0.26	0.00	0.00	0.00	0.00	0.82	0.03	0.04
UC	1.28	1.28	1.43	2.09	1.07	0.92	0.39	0.00	2.51	1.41	0.35
Early Retirement	0.00	0.01	0.36	0.29	0.15	0.20	0.00	0.00	0.02	0.00	0.00
2000											
PES	0.20	0.20	0.17	0.23	0.11	0.00	0.11	0.04	0.26	0.13	0.04
Training	0.02	0.17	0.28	0.34	0.07	0.12	0.03	0.09	0.31	0.05	0.04
Youth	0.07	0.03	0.41	0.08	0.00	0.25	0.00	0.01	0.02	0.15	0.03
Job Subsidies	0.11	0.08	0.41	0.31	0.22	0.26	0.13	0.31	0.27	0.01	0.01
Disabled	0.05	0.03	0.09	0.27	0.00	0.00	0.01	0.01	0.52	0.02	0.03
UC	1.05	0.98	1.47	1.88	0.44	0.56	0.54	0.09	1.34	0.58	0.23
Early Retirement	0.00	0.00	0.29	0.01	0.04	0.09	0.00	0.00	0.00	0.00	0.00

II. Scale of Labor Market Programs

Spending on ALMPs and PLMPs as a percent of GDP, 1995 and 2000

1995	Australia	Canada	France	Germany	Hungary	Italy	Japan	Korea	Sweden	UK	US
Active	0.83	0.56	1.30	1.37	0.61	1.37	0.12	0.07	2.99	0.53	0.19
Passive	1.28	1.29	1.79	2.38	1.22	1.12	0.39	0.00	2.53	1.41	0.35
Total	2.11	1.85	3.09	3.75	1.83	2.49	0.51	0.07	5.52	1.94	0.54
2000											
Active	0.45	0.51	1.36	1.23	0.40	0.63	0.28	0.46	1.38	0.36	0.15
Passive	1.05	0.98	1.76	1.89	0.48	0.65	0.54	0.09	1.34	0.58	0.23
Total	1.50	1.49	3.12	3.12	0.88	1.28	0.82	0.55	2.72	0.94	0.38

II. Scale of Labor Market Programs

Spending on LMPs as a percent of GDP, 1995 and 2000

LMPs as a Percent of GDP, 1995-2000
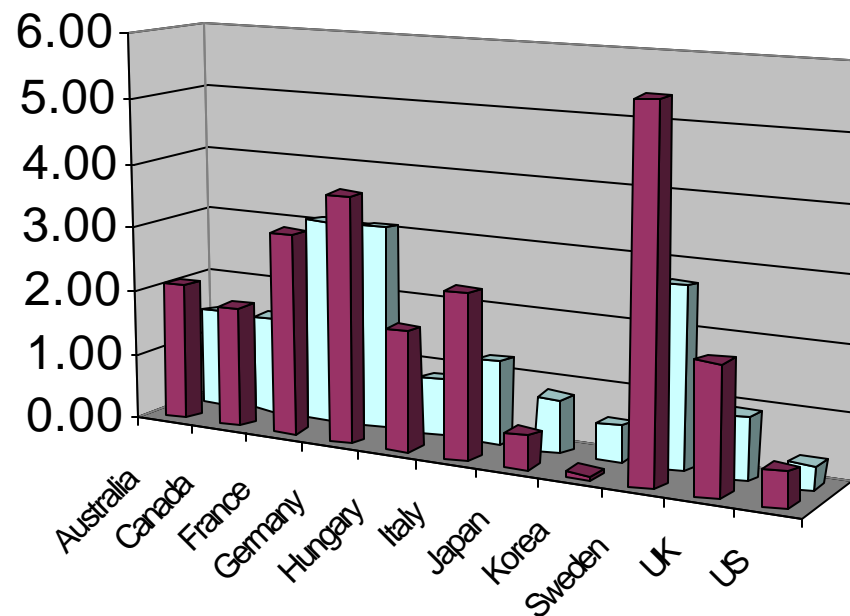
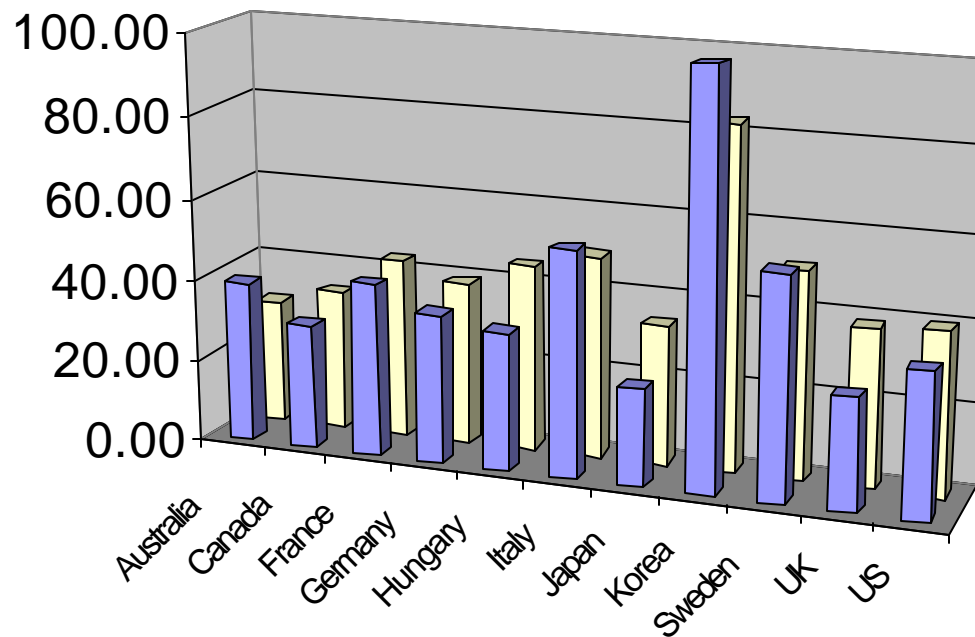# II. Scale of Labor Market Programs

ALMP spending as a percent of LMP, 1995 and 2000

ALMPs as percent of LMP, 1995-2000

III. Concepts in Evaluation

- Gross outcomes, gross impacts, and net impacts

  An example: Rate of Reemployment

  Program participants: 60%

  Among all unemployed: 40%

  Among matched pairs group: 50%

  Gross outcome of program: 60%

  Gross impact of program: 60% – 40% = 20%

  Net impact of program: 60% – 50% = 10%

Concepts in Evaluation (Continued)

- Performance monitoring

    Track gross outcomes

- Net impact estimation

    A comparison group design

    - Classically designed experiments
    - Quasi-experimental econometric studies

IV. Performance Monitoring

Process:

- Nationwide involvement
- Set goals
- Agree on performance indicators
- Consensus building—ownership
- Iterative

Appeal:

- Develop an information system
- Culture of cost effectiveness
- Professionalism in employment service
- Establish survey skills
- Foundation for evaluation

Performance Monitoring (Continued)

Problems:

- Response rates
- Data tampering
- Creaming (Response—adjustment)

Examples from Hungary

Table 3.2   Performance Indicators for ALPs in Hungary

TRAINING OF UNEMPLOYED IN GROUPS

A11 Average cost per trainee employed at follow-up (c)

A12 Proportion of trainees who are employed at follow-up (r)

A13 Average cost per training program entrant (a)

A14 Average cost per trainee per hour of training (a)

A15 Proportion of entrants who successfully complete training courses (p)

A16 Proportion of employed trainees working in occupation of training at follow-up (p)

TRAINING OF UNEMPLOYED INDIVIDUALLY

A21 Average cost per trainee employed at follow-up (c)

A22 Proportion of trainees who are employed at follow-up (r)

A23 Average cost per training program entrant (a)

A24 Average cost per trainee per hour of training (a)

A25 Proportion of entrants who successfully complete training courses (p)

A26 Proportion of employed trainee working in occupation of training at follow-up (p)

TRAINING OF EMPLOYED

A31 Average cost per trainee employed at follow-up (c)

A32 Proportion of trainees who are employed at follow-up (r)

A33 Average cost per trainee program entrant (a)

A35 Proportion of entrants who successfully complete training courses (p)

A36 Proportion of employed trainees working in occupation of training at follow-up (p)

SELF EMPLOYMENT ASSISTANCE

B1 Average assistance per person still self-employed at follow-up (c)

B2 Proportion of persons still self-employed at follow-up (r)

B3 Average subsidy per self-employed (s)

B4 Average added employment resulting from self-employment assistance at follow-up (p)

WAGE SUBSIDY FOR HIRING LONG TERM UNEMPLOYED

C1 Subsidy per worker still at subsidized employer at follow-up (c)

C2 Proportion of subsidized workers who are in regular employment at follow-up (r)

C3 Average cost of wage subsidy per subsidized employee (s)

Public service employment

D1 Average monthly subsidy per worker (s)

D2 Proportion of subsidized workers who are in regular employment at follow-up (r)

Source: National Labor Center, Budapest.

Examples from Hungary–Performance Indicators

Table 3.4 An example of performance measures in Hungary.
Percent employed at follow-up after various ALMPs,
1994–1998

ALMP	1994	1995	1996	1997	1998
Group Retraining (A12)	44.9	36.1	44.5	46.3	46.8
Individual Retraining (A22)	58.5	42.2	51.9	51.1	51.5
Retraining Employed (A32)	82.2	93.6	92.8	90.4	94.7
Self-employment (B2)	91.9	90.6	90.2	88.1	91.7
Wage Subsidy (C2)	71.1	71.4	70.1	66.3	59.1
PSE (D2)	3.5	1.3	1.3	1.9	1.9

IV. Performance Monitoring

An adjustment methodology

Adjust for regional factors
(fair comparison across regions)

Adjust for participant factors
(defeat "creaming" in participant selection)

Development of adjustment weights

Implementing an adjustment methodology

V. Net Impact Estimation

Classically designed experiments

Process:

       Random assignment

       Repeating experimental conditions

       Large sample sizes

Appeal:

       Simplicity of interpreting results

       Model free impact estimates

Net Impact Estimation (Continued)

Problems with experiments:

Internal Validity
  Errors in random assignment
  Inconsistent experimental conditions
  Substitution bias

External Validity
  Time horizon
  Learning effects
  Hawthorne effects
  Entry effects
  Displacement effects

Net Impact Estimation (Continued)

Quasi-experimental Econometric Studies

Process (statistically mimic an experiment):
- Administrative data
- Demonstration
- "Natural experiment"
- Surveys
- Simulation

Appeal:
- Inexpensive
- Timely

Net Impact Estimation (Continued)

Problems with Quasi-experimental econometric studies:

Selection bias

Statistical complexity

"A snapshot" at a point in time

Net Impact Estimation (Continued)

Practical Steps in a Quasi-experimental Evaluation:

- Collecting data
- Preliminary examination of data
- Computation of overall program net impacts
- Estimation of program impacts by sub-group
- Estimating impacts of program features
- Cost-benefit analysis

Net Impact Estimation (Continued)

Collecting data

    Sample size

    Site selection

    Sample selection

    Survey design

    Survey implementation

Net Impact Estimation (Continued)

Table 4.3   Sample Size Requirements for Net Impact Evaluation

Sample size for statistical tests with two-tailed confidence
of 0.98 or 0.90 and effect size 1.0

Power	Tests of proportions		Tests of means	
	0.98	0.9	0.98	0.9
0.25	546	188	547	189
0.5	1082	541	1083	542
0.6	1331	721	1332	721
0.67	1520	862	1552	862
0.7	1625	941	1627	942
0.75	1801	1076	1803	1076
0.8	2007	1237	2009	1237
0.85	2262	1438	2263	1438
0.9	2603	1713	2605	1713
0.95	3154	2164	3155	2165
0.99	4330	3154	4330	3155

Notes: Adapted from Cohen (1988). Sample size for tests of proportions from Table 6.4.1., page 205, and for tests of means from Table 2.4.1, page 54.

Net Impact Estimation (Continued)

Table 4.7 Composition of the ALMP Samples Contrasted with That of the Comparison Group in Hungary

	Full comparison group	Individual training	Group training	Public works	Wage subsidies	Self-employment
Male respondent	0.555	0.490**	0.476**	0.665**	0.561	0.619**
Aged ≤ 30	0.415	0.662**	0.619**	0.329**	0.407	0.260**
Aged 31 - 44	0.383	0.267**	0.277**	0.394	0.399	0.544**
Aged 45 +	0.201	0.071**	0.074**	0.277**	0.194	0.196
Eight years of schooling	0.345	0.164**	0.246**	0.468**	0.264**	0.078**
Vocational education	0.412	0.295**	0.244**	0.303**	0.425	0.388
General secondary education	0.213	0.478**	0.453**	0.197	0.269**	0.427**
Some higher education	0.030	0.063**	0.057**	0.032	0.042*	0.107**
Blue-collar occupation	0.814	0.604**	0.623**	0.819	0.771**	0.627**
Long-term unemployed	0.218	0.180**	0.213	0.483**	0.299**	0.052**
Sample size	3214	1150	1254	1088	1091	1044

Notes:
* Difference from the full comparison group is statistically significant at the 90 percent level in a two-tailed test.
** Difference from the full comparison group is statistically significant at the 95 percent level in a two-tailed test.
Source: O'Leary, Kolodziejczyk, and Lazar (1998).

Net Impact Estimation (Continued)

Table 4.8   Differences of Participant Groups From the Registered Unemployed

Characteristics	Retraining	Public service employment	Wage subsidies	Self-employment
Gender	Female	Male		Male
Age	Younger	Older		Middle aged
Education	More	Less	More	Much more
Occupation	Less blue collar		Less blue collar	Less blue collar

Net Impact Estimation (Continued)

Table 4.9   **Impact Estimates in EMPLNOW Using Alternative Estimation Methods**

	Comparison group mean	Participant group mean	Impact estimate	t-statistic on impact	Comparison sample size	Participant sample size
Individual training						
Unadjusted	0.43	0.54	0.11**	6.36	3338	1222
Regression	0.43		0.09**	5.40	3213	1143
Matched	0.43	0.53	0.10**	5.14	1215	1215
ES interact	0.43		0.09*	1.71	3213	1215
Group training						
Unadjusted	0.43	0.45	0.02	1.25	3338	1321
Regression	0.43		0.07**	4.08	3213	1249
Matched	0.39	0.45	0.06**	3.17	1316	1316
ES interact	0.43		0.07**	2.51	3213	1249
Public service employment						
Unadjusted	0.43	0.27	-0.16**	9.7	3338	1140
Regression	0.43		-0.21**	11.86	3213	1087
Matched	0.56	0.27	-0.29**	14.79	1139	1139
ES interact	0.43		-0.21**	11.78	3213	1087
Wage subsidy						
Unadjusted	0.43	0.63	0.20**	11.9	3338	1131
Regression	0.43		-0.02	1.12	3213	1090
Matched	0.65	0.63	-0.02	1.23	1130	1130
ES interact	0.43		-0.06**	7.51	3213	1090
Self-employment						
Unadjusted	0.43	0.87	0.44**	27.06	3338	1067
Regression	0.43		0.22**	11.94	3213	1036
Matched	0.65	0.87	0.21**	11.92	1059	1059
ES interact	0.43		0.16	0.69	3213	1036

Notes: EMPLNOW - Employed in a non-subsidized job or self-employment on the survey date.
* Difference statistically significant at the 90 percent level in a two-tailed test.
** Difference statistically significant at the 95 percent level in a two-tailed test.
Source: O'Leary (1998).

Examples from Hungary—Net Impact Estimates

Table 4.10 Net impacts of ALMPs on employment, earnings, and unemployment compensation in Hungary

	EMPLOYED[1]	EMPLNOW[2]	EARNNOW[3]	UCMONTHS[4]	UCPAY[5]
Individual retraining	0.11**	0.09**	7	−0.68**	−43**
Group retraining	0.09**	0.07**	5**	−0.50**	−27**
Public service employment	−0.26**	−0.21**	9**	−0.19	−9**
Wage subsidy	−0.11**	−0.06**	−6	0.04**	7
Self-employment	0.14	0.16	−26	−1.64**	−120

** = Statistically significant at the 95 percent level in a two-tailed test

[1] Ever re-employed in an unsubsidized job or in self-employment

[2] Employed in an unsubsidized job or in self-employment on the survey date

[3] Average monthly earnings from the current job on the survey date (US$)

[4] Months of unemployment compensation collected since January 1996

[5] Amount of unemployment compensation collected since January 1996, in US$ at exchange rate of US$1.00 = 175.75 Hungarian forints on April 1, 1997, approximately the survey date

SOURCE: O'Leary, Kolodziejczyk, and Lazar (1998)

Table 4.11   Estimates of net impact of ALMPs by subgroup on whether participants were employed in an unsubsidized job or in self-employment on the survey date in Hungary

	Individual training	Group training	Public works	Wage subsidy	Self-employment
Male respondent	0.086**	-0.021	-0.138**##	0.037	0.339**
Female respondent~	0.087**	0.023	-0.042	0.076**	0.344**
Aged < 30	0.081**	0.008	-0.111**	0.029	0.339**
Aged 30-44	0.076**	0.018	-0.112**	0.059*	0.320**#
Aged 45+~	0.126**	-0.067	-0.048	0.098**	0.389**
8 years of schooling	0.086**	0.001	-0.141**#	0.089**	0.377**
Vocational education	0.101**	-0.002	-0.090**	0.030	0.330**
General secondary education	0.066**	-0.011	-0.057	0.065	0.332**
Some higher education~	0.098	0.084	0.068	-0.049	0.273**
White-collar occupation	0.051	-0.037	-0.116**	0.059	0.325**
Blue-collar occupation~	0.098**	0.011	-0.094**	0.053**	0.346**
Long-term unemployed	0.084**	-0.041	-0.089**	0.084**	0.364**
Not in long-term unemployment~	0.087**	0.010	-0.101**	0.045*	0.336**
Area of low unemployment	0.066**	0.016	-0.129**	0.036	0.336**
Area of medium unemployment	0.087**	-0.015	-0.093**	0.113**##	0.288**
Area of high unemployment~	0.102**	0.002	-0.082**	0.012	0.394**

Notes:

* Statistically significant at the 90 per cent confidence level in a two-tailed test

** Statistically significant at the 95 per cent confidence level in a two-tailed test

\# Significantly different from the reference group at the 90 per cent confidence level in a two-tailed test

\#\# Significantly different from the reference group at the 95 per cent confidence level in a two-tailed test

~ Reference group for subgroup differences; excluded from estimation

Source: O'Leary, Kolodziejczyk, and Lazar (1998).

Examples from Hungary—Net Impact Estimates (Continued)

Table 4.12 Summary of Subgroup Net Impact Analysis

Characteristic	Retraining	Public Service Employment	Wage Subsidies	Self-employment
Gender		Worse for males		
Age				Best for older persons
Education		Worse for the less educated		
Occupation				
Unemployment duration				
Unemployment rate			Best where unemployment is moderate	Best where unemployment is high

Table 4.13   Impact of Various Features of ALMPs on Whether Participants Were Employed in an Unsubsidized Job or in Self-employment on the Survey Date, in Hungary

	Individual training	Group training	Public service employment	Wage subsidy	Self-employment
Contribution to costs					
Participant contribution	0.104**	0.123**			
No participant contribution	0.062	0.066**			
Duration of ALMP					
< 1 month	0.115	0.019			
1 < 3 months	0.129**	-0.050			
3 < 6 months	0.102**	0.084**b			
6 < 12 months	0.069**	0.097**b			
12+ months	0.084	-0.015			
Organized by					
Regional center, over 20 hrs/w	0.092	0.015			
Regional center, 20 hrs/w or less	0.128	-0.005			
Other, over 20 hrs/w	0.073**	0.096**a			
Other, 20 hrs/w or less	0.105**	0.107**a			
Level of job skill					
Non-manual			-0.166**	-0.042	
Manual unskilled			-0.237**a	-0.059	
Manual semi-skilled			-0.207**	-0.022	
Manual skilled			-0.160**b	-0.012	
Sector					
Agriculture				0.018	0.290**
Construction				-0.174**a	0.268**
Services			-0.207**	-0.047*b	0.190**ab
Other			-0.228**	0.028bc	0.280**c
Type of enterprise					
individual enterprise					0.223**
partnership or other					0.203**

Examples from Hungary—Net Impact Estimates (Continued)

Table 4.14.Summary of Program Feature Net Impact Analysis

Feature	Retraining	Public Service Employment	Wage Subsidies	Self-employment
Share in costs	Better with Contribution (but not significant)			
Duration of ALMP	3 to 12 months			
Organized by	Not district retraining center 20+ hrs/w			
Level of skill		Manual unskilled is worst	Outside of construction and services	Outside of services
Industry				
Sole proprietor vs. partnership				

Table 4.15   Cost Components for a Net Impact Evaluation Project

1. Preliminaries:
1.1   Sample design
1.2   Randomly select samples of persons for participant and comparison groups
1.3   Extract records from existing administrative records on samples selected
1.4   Prepare a data file for preliminary analysis of samples selected
1.5   Prepare lists of names for interviews organized by geographic region

2. Survey work:
2.1   Translate surveys and adapt questions to cultural and institutional context.
2.2   Pilot test surveys
2.3   Revise surveys and set final formats and methods for recording survey responses
2.4   Prepare surveys in format required for interviews, usually multiple hard copies
2.5   Prepare a training manual for survey workers to conduct interviews
2.6   Designate survey managers for major geographic regions
2.7   Assemble a team of survey workers to conduct interviews
2.8   Conduct survey worker training
2.9   Conduct interviews with established call back protocol
2.10   Deliver completed questionnaires for data entry

3. Final Data Processing:
3.1   Error checking, correction, and key entry of data to computer files
3.2   Preparation of computer files for data analysis
3.3   Delivery of data files to data analysts
3.4   Correction of data files based on questions from data analysts.

VI. Conclusion

- **Uses of Evaluation Results**

  - Performance monitoring
    - Program management
    - Annual planning

  - Net impact estimation
    - Program design
    - Strategic planning
    - Policy formulation

Conclusion (Continued)

- A sequence for Evaluation
  - Management information system
  - Performance indicators monitoring
  - A culture of cost effectiveness
  - Professionalism in the employment service
  - Net impact evaluation
  - Policy development

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