

Beautiful Serbia

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Background

- Serbian economy faces high and very persistent unemployment
- Prolonged and until 2000 highly irregular transition process
- Unemployment has increased by 73 percent between 1993 and 2000 (Arandarenko, 2004)
- Also after democratic changes in October 2000 – the fall of the Milošević regime – unemployment has further increased

	2001	2002	2003	2004	2005	2006
GDP per capita	1,757	2,242	2,408	2,643	2,833	3,424
GDP real growth	5.1	4.5	2.4	9.3	6.3	5.7
Unemployment rate (LFS)	12.2	13.3	14.6	18.5	21.8	21.6
Unemployment rate (admin.)	26.8	29.0	31.7	31.6	32.4	33.2

Source: Arandarenko and Jovicic (2007), Table 1.

This Paper

- Can ALMP – at least temporarily – alleviate the unemployment impact of the economic transition process?
- We analyze the causal impact of participation in the *Beautiful Serbia* program on ...
 - labor market outcomes
 - subjective well-being
- The positive impact of this particular program appears much stronger judged by subjective well-being than judged by the immediate labor market effect

Related Literature (1/2)

Effect of policy interventions on subjective well-being

- Treatment effects can materialize in different spheres other than employment and earnings (examples are mentioned, e.g., in Lechner and Wunsch, 2008)
- Korpi (1997) shows that Swedish youth participating in ALMP indicate a higher level of subjective well-being than the openly unemployed who do not attend such a program
- Other examples:
 - Frey and Stutzer (2000): role of direct democracy
 - Gruber and Mullainathan (2002): higher tax on cigarettes
 - Di Tella et al. (2003): changes in unemployment benefits

Related Literature (2/2)

ALMP in transition economies

- Still relatively small literature analyzing the effectiveness of ALMP in transition economies
- Survey article by Lehmann and Kluve (2008)
 - Slovenia (Vodopivec, 1999)
 - Poland (Puhani and Steiner, 1999; Puhani, 2002; Kluve et al., 1999, 2008)
 - Romania (Rodriguez-Planas and Benus, 2006; Rodriguez-Planas, 2007)
 - Slovakia (Lubyova and van Ours, 1999)
 - Hungary (Micklewright and Nagy, 2005)
 - Estonia (Leetmaa and Vörk, 2004)
- Data collection and evaluation need to be intensified before a final judgement can be delivered

Outline

- 1 Beautiful Serbia
- 2 Data
- 3 Evaluation Approach
- 4 Results
- 5 Conclusion

The Beautiful Serbia Program

- Program operated in 2004 and 2005
- Administered and co-financed by the United Nations Development Program (UNDP)
- Replication of the *Beautiful Bulgaria* program
- Implementation in 3 municipalities:
Belgrade (2004); Niš and Zrenjanin (2005)
- Target group: long-term and otherwise disadvantaged unemployed individuals
- Intended outcomes: net job creation; improved quality of life; increased capacity to conceive, implement and monitor ALMPs

Two Basically Independent Stages

① Vocational training

- 238 participants completed the training
- Three months, full-time
- Mason, carpenter or painter
- Compensation about 30 percent of average national wage
- Participation voluntary (no sanctions)

② Temporary employment

- 321 men temporarily employed (about half of them had participated in the vocational training stage before)
- 35 projects assigned to firms on a competitive basis: tendering procedure with fixed payment
- Average duration three months
- Employees selected by contracted firms, no wage subsidies
- Requirement to employ a specific share (40–60 percent) of previously unemployed workers (identified by the NES)

Survey Information

- Special survey among individuals who were registered as unemployed when the program started (in January 2004) and who either participated in at least one stage of the program or did not participate at all
- Interviews took place in October/November 2005, i.e., shortly after the final refurbishment project had been completed
- One-to-one pre-matching routine to mimic an experimental design *ex post*

Interviewees by Participation Status

Participation in training?	Participation in temp. employment?		Total
	No	Yes	
No	146	28	174
Yes	48	66	114
Total	194	94	288

Descriptive Statistics

	CP	VT	TE	NP
Age	31.09 (9.84)	31.85 (10.20)	33.36 (10.60)	34.23 (11.79)
Married	0.3182 (0.4693)	0.5000 (0.5053)	0.6786 (0.4756)	0.5822 (0.4949)
Roma	0.1061 (0.3103)	0.2083 (0.4104)	0.2143 (0.4179)	0.0822 (0.2756)
Belgrade	0.4848 (0.5036)	0.5000 (0.5053)	0.4285 (0.5040)	0.3151 (0.4661)
Education: primary school or less	0.3182 (0.4693)	0.4167 (0.4982)	0.3571 (0.4880)	0.2877 (0.4542)
Education: vocational school (3 years)	0.3333 (0.4750)	0.3333 (0.4764)	0.3571 (0.4880)	0.4110 (0.4937)
Previous unemployment duration	31.33 (37.67)	36.83 (41.78)	42.68 (50.07)	60.05 (54.69)
Employed at all in last 3 years	0.7424 (0.4407)	0.7292 (0.4491)	0.8214 (0.3900)	0.5685 (0.4970)
Actively searching for a job	0.8485 (0.3613)	0.8125 (0.3944)	0.8571 (0.3563)	0.6370 (0.4825)
# observations	66	48	28	146

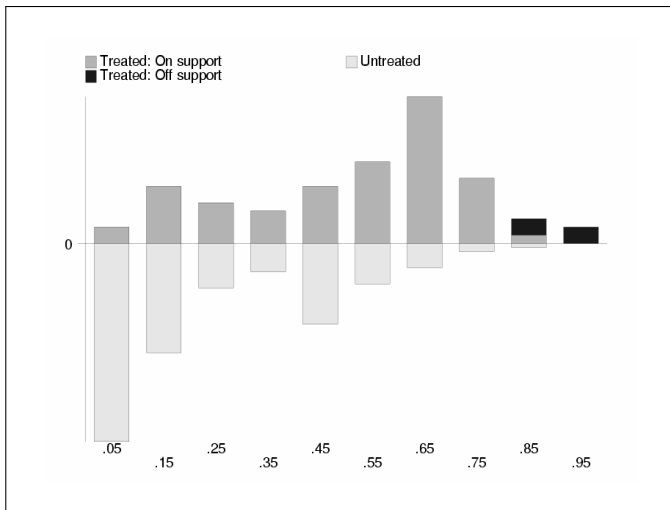
Propensity Score Matching

- Substantial differences in observed characteristics: pre-matching routine has not worked satisfactorily
- Program participants have a comparative advantage over non-participants, in particular concerning potential labor market success
- Propensity score matching to construct control groups which are effectively comparable to treatment groups

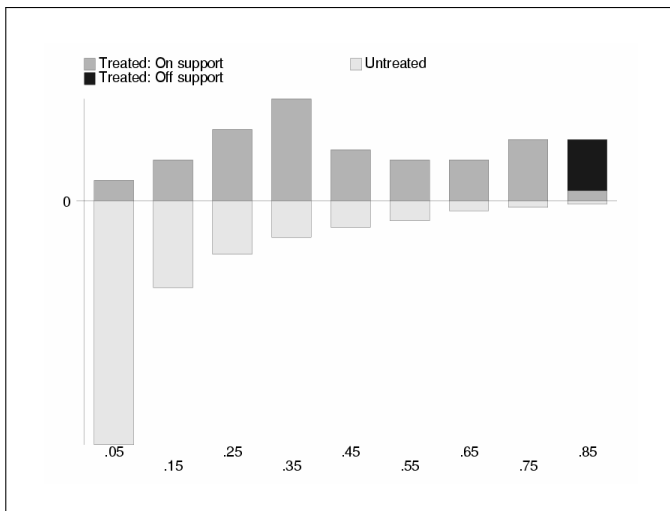
Procedure

- Binary probit regressions to estimate propensity scores
 - Results confirm impression from descriptive statistics:
individuals with relative strong attachment to the labor market
had a higher chance to participate in the program
- Nearest neighbor matching with replacement
- Control group in any case:
individuals who did not participate at all

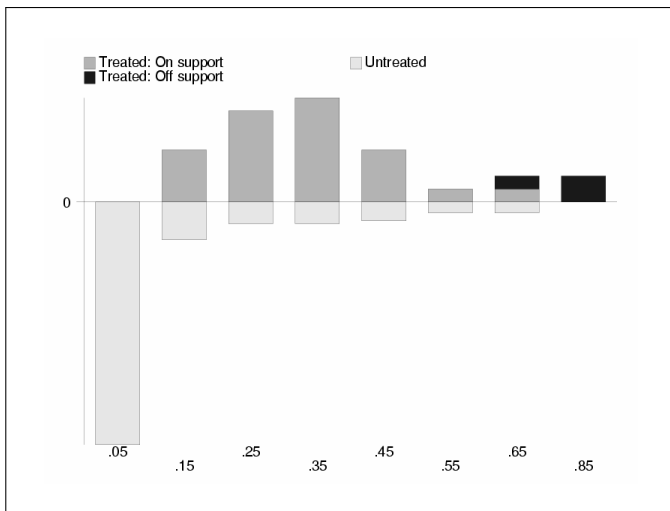
Common Support: CP vs. NP



Common Support: VT vs. NP



Common Support: TE vs. NP



Matching Quality

	CP vs. NP	VT vs. NP	TE vs. NP
# treated individuals	66	48	28
# treated individuals off support	4	5	3
# matched pairs	62	43	25
Mean SB before matching	0.1962	0.2467	0.1965
Mean SB after matching	0.0862	0.0882	0.1001
Pseudo- R^2 before matching	0.2573	0.2872	0.2890
Pseudo- R^2 after matching	0.1363	0.1688	0.1139

ATT Labor Market Outcomes

	CP vs. NP	VT vs. NP	TE vs. NP
Unemployment	-0.1290	-0.0698	0.0000
Regular job	0.1290	0.0465	0.1200
Seasonal job	-0.0161	0.0930	-0.1600
ALMP job	0.0323	-0.0698	0.0400
# matched pairs	62	43	25

*** significant at 1%; ** significant at 5%; * significant at 10%.

ATT Subjective Well-Being

	CP vs. NP	VT vs. NP	TE vs. NP
Self-confidence	0.1129	0.2093 *	0.2800 **
Job desire	0.2419 **	0.2558 **	0.1200
Social contacts	0.1451	0.1860	0.2800 **
Qualification and skills	0.3387 ***	0.5116 ***	0.2400 **
Health	0.1774 **	0.0233	0.0000
Job chances	0.1129	0.0698	0.2400 ***
# matched pairs	62	43	25

*** significant at 1%; ** significant at 5%; * significant at 10%.

Summary

- Evaluation of *Beautiful Serbia* providing vocational training and temporary employment to disadvantaged unemployed
- Standard matching techniques to bring out causal average treatment effects on the treated
- Positive impact of the program appears stronger judged by subjective well-being than judged by the immediate labor market effect
- Impacts on individual welfare through other channels than the immediate economic status (by strengthening self-confidence, job desire and social inclusion of the participants)

Caveats

- Small scale intervention:
small sample sizes and fragile treatment effects
- Poor comparison group
- Only short post-treatment period observed

