Stimulating Local Public Employment: Do General Grants Work?: Comment

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This brief comment concerns with the reported first-stage estimates of the (fuzzy) regression kink design used by Lundqvist, Dahlberg and Mörk (forthcoming).[2] Table 1 reproduces the results from Table 2 in their paper and it shows the first stage estimates (it is noteworthy that four of the estimates are not reported in their table). They write: "It is clear from the table that all estimates are highly statistically significant, irrespective of order of polynomial and bandwidth. The magnitude of the estimates is around 3, although that differs somewhat across the different specifications".

However, this conclusion is completely erroneous as can be seen from Table 2 which displays the first-stage estimates for the second and third order polynomial specifications for bandwidths h=10 and h=5 as well as for smaller bandwidths.[3] Table 2 reveals that in almost all specifications with smaller bandwidths and with more flexible specifications the estimates are negative and large and sometimes significantly different from zero.[4] Thus, given that the first stage estimates are very sensitive to the choice of bandwidth and polynomial specification, the conclusion must be that there is no regression kink at the threshold that can be used for a credible identification. The most likely reason for the identification failure of the regression kink design at the threshold is that there are other "kink-points in other components of the cost equalization that—by coincidence—could be close to the kink-point at two percent out-migration" as discussed by and Lundqvist et al. (2013).

References:

Dahlberg, M. E. Mörk, J. Rattsö, H. Ågren (2008), "Using a discontinuous grant rule to identify the effect of grants on local taxes and spending," *Journal of Public Economics*, 92, 2320-2335.

Lundqvist, H., M. Dahlberg and E. Mörk (2013), "Stimulating Local Public Employment: Do General Grants Work?", *American Economic Journal: Economic Policy*, forthcoming

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[2] Exactly the same identification strategy is used by Dahlberg et al. (2008).

[3] The data was downloaded from the web site of AEJ:EP

[4] A natural question to ask is what constitutes a narrow bandwidth in the current context? The forcing variable is population changes or growth (i.e., (net) out-migration). Thus, the smallest bandwidth, h=5, reported by Dahlberg imply that local governments with a positive growth rate of 5% are compared to those with a negative growth rate of -5%. Thus, h=5 must therefore be considered as a very large bandwidth since one then compares local governments with very different population growth rates.

Table 1. Reproduces Table 2 from Lundqvist et al (2013)

Table 2: First-stage estimates

	Full sample	$h = 15$	$h = 10$	$h = 5$
$\bar{p} = 1$	4.174***	3.636***	3.988***	1.980**
	(0.684)	(0.739)	(0.744)	(0.961)
$\bar{p} = 2$	3.176***	3.118***		
	(0.761)	(1.055)		
$\bar{p} = 3$	3.350***	4.076***		
	(1.036)	(1.351)		
Observations	2511	2346	2047	1241

Note: For different bandwidths, h, and order of polynomials, $\bar{p}$, the table reports estimates of α_1 in the first-stage equation (3) on cost-equalizing grants. Standard errors clustered on municipality are in parentheses. ***, ** and * denote significance at the 1, 5 and 10 percent level, respectively.

Data source: The SALAR.

Table 2. First stage estimates for a range of bandwidths and polynomial specifications

	h=15	h=10	h=5	h=4	h=3	h=2	h=1
P=1 (linear)	**3.64***** **(0.74)**	**3.99***** **(0.74)**	**1.98**** **(0.96)**	1.48 (1.47)	-1.13 (1.86)	-3.82 (2.51)	-10.08** (4.94)
P=2 (quadratic)	**3.12***** **(1.05)**	1.52 (1.46)	-3.43 (2.79)	-5.36** (2.73)	-5.68* (3.05)	-6.12 (3.88)	-9.53 (7.58)
P=3 (cubic)	**4.08***** **(1.35)**	1.64 (1.50)	-3.41 (2.80)	-5.38** (2.74)	-5.58* (2.98)	-5.54 (3.69)	-9.69 (7.59)
Number of local governments	272	258	213	196	174	157	134
Observations	2346	2047	1241	1019	708	521	265

Note: The estimates in bold are those reported by Lundqvist et al. (2013)