**Charcoal production and household welfare in Uganda:
a quantile regression approach**

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ONLINE APPENDIX

Online appendix A

Table A1. *Characteristics of sample households*

Variable	Charcoal producers (n=170)	Non-producers (n=125)	t-values
Farm size owned	3.2	6.7	2.461**
(hectares)	(6.8)	(16.5)	
Tropical livestock units (TLU)[a]	3.0	5.6	1.774*
(number)	(8.3)	(17.0)	
Female-headed household	0.08	0.28	4.655***
(0/1)	(0.28)	(0.45)	
Age of household head	36.6	41.0	2.853**
(years)	(11.2)	(14.9)	
Household head's schooling	4.7	4.7	0.173
(years)	(3.2)	(3.2)	
Member of dominant ethnic group	0.72	0.62	-1.703*
(0/1)	(0.45)	(0.49)	
Dependency ratio	0.48	0.48	0.013
((# under 15+ # over 65)/(# 16-64)	(0.21)	(0.22)	
Household size	2.48	2.50	0.228
(adult-equivalent consumers)	(0.72)	(0.72)	
Household cleared forest/bush land	0.78	0.63	-2.868**
(0/1)	(0.41)	(0.48)	
Planning to clear forests in next 12 months	0.78	0.50	-5.362***
(0/1)	(0.41)	(0.50)	
Land size expected from clearing forests in next 12	0.47	0.39	-0.784
months (hectares)	(0.45)	(1.95)	
Destruction of crops, e.g., by drought	0.24	0.24	0.094
(0/1)	(0.43)	(0.43)	
Distance from home to nearest all-season road (km)	2.3	1.9	-1.369
	(2.3)	(2.2)	
Distance from home to nearest accessible forest (km)	0.95	1.09	0.995
	(1.28)	(1.08)	
Duration of residence in village	18.4	23.9	2.816**
(years)	(15.3)	(18.2)	
Value of household assets e.g., hand hoes, bicycles, etc	155	177	0.384
(1000 UgSh)	(572)	(315)	
Annual income per adult equivalent	832	535	-1.812*
(1000 UgSh)	(1,763)	(579)	
Below Uganda poverty line[b]	0.31	0.44	2.271**
(0/1)	(0.46)	(0.50)	

Figures in parentheses are standard deviations. *, **, *** refer to significance at 10%, 5%, and 1% test levels respectively. UgSh= Ugandan Shillings; at time of survey 1USD=1,624 UgSh.
[a] A TLU index was computed as: 1 TLU = 1 cattle = 0.1 goats or sheep = 0.5 donkeys = 0.05 chicken or turkeys or ducks (Jahnke, 1982).
[b]We use the absolute poverty line derived by Appleton *et al.* (2001). It is widely used as the "official" poverty line by the Ugandan Government. We use the average rural poverty line for the Central and Western regions, where the districts in the sample are located. The average poverty line was adjusted from 1993 prices to 2008 prices using the consumer price index. The annual poverty line used in this study is UgSh. 281,904 per adult equivalent.

Table A2. *Classification of households based on income and asset poverty*

Participation status	n	%	Participation status	%	Corresponding Figure number
Charcoal producers			*Charcoal producers*		
Stochastically non-poor	117	33	Structurally non-poor	67	4a & 4b
Structurally poor	112	30	Structurally non-poor	70	5a
Structurally poor	73	47	Stochastically non-poor	53	5b
Charcoal producers			*Non-producers*		
Structurally poor	70	49	Structurally poor	51	6
Structurally non-poor	122	64	Structurally non-poor	36	7
Stochastically non-poor	65	60	Stochastically non-poor	40	8
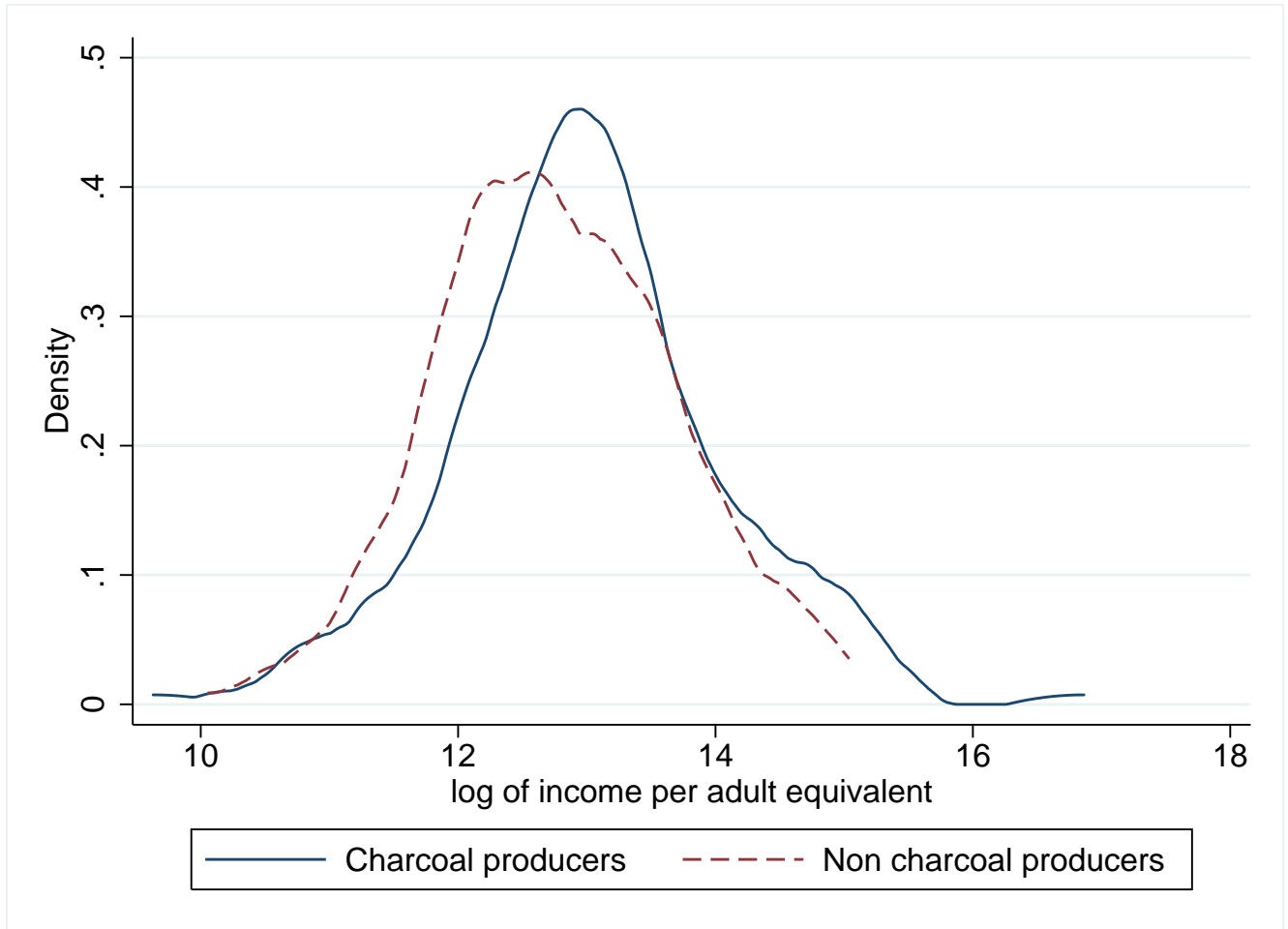
Figure B1. *Income densities for charcoal and non-charcoal producers*
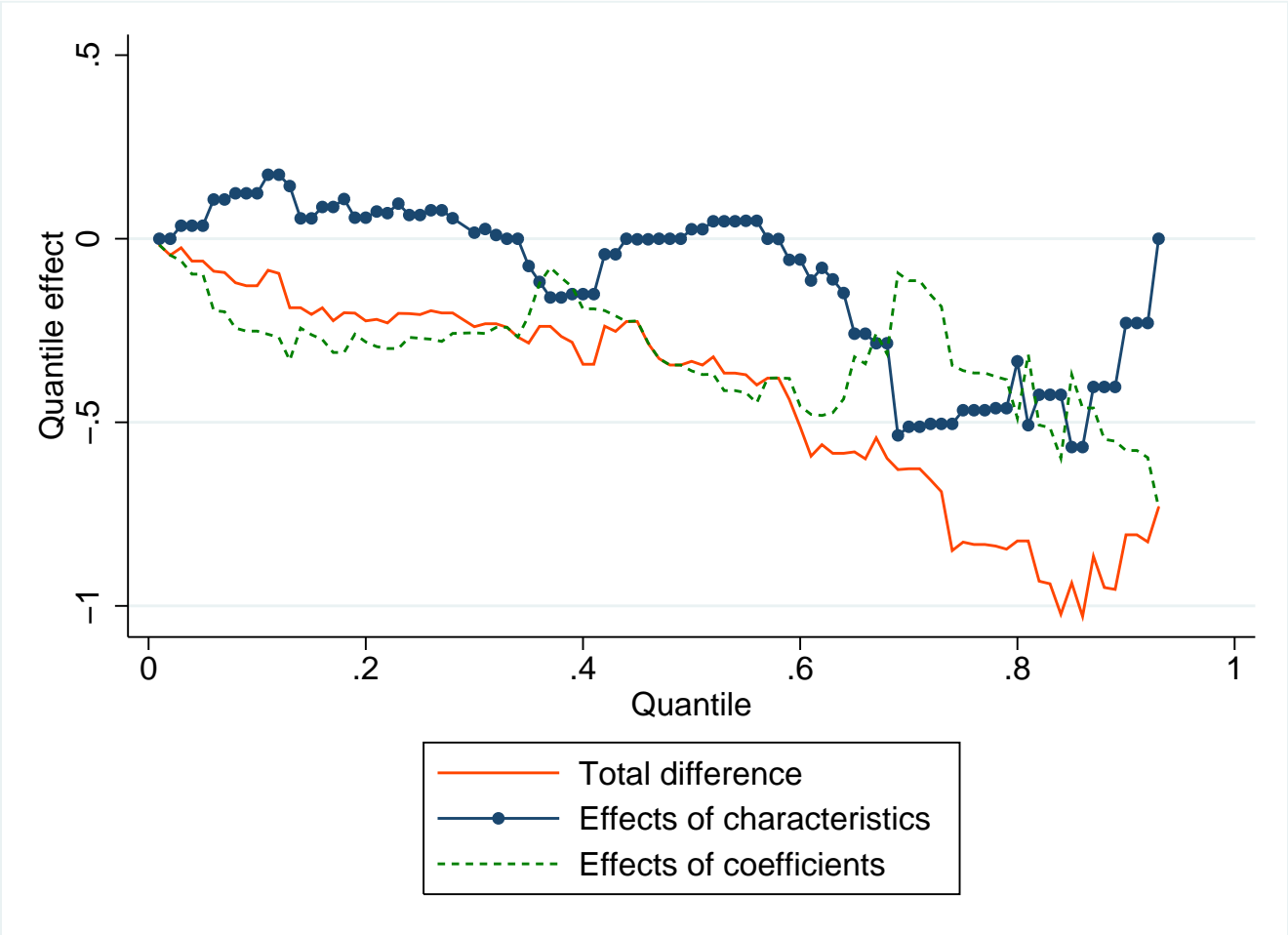
Figure B2. *Decomposition of income gap for stochastically non-poor and structurally non-poor charcoal producers without selection term*
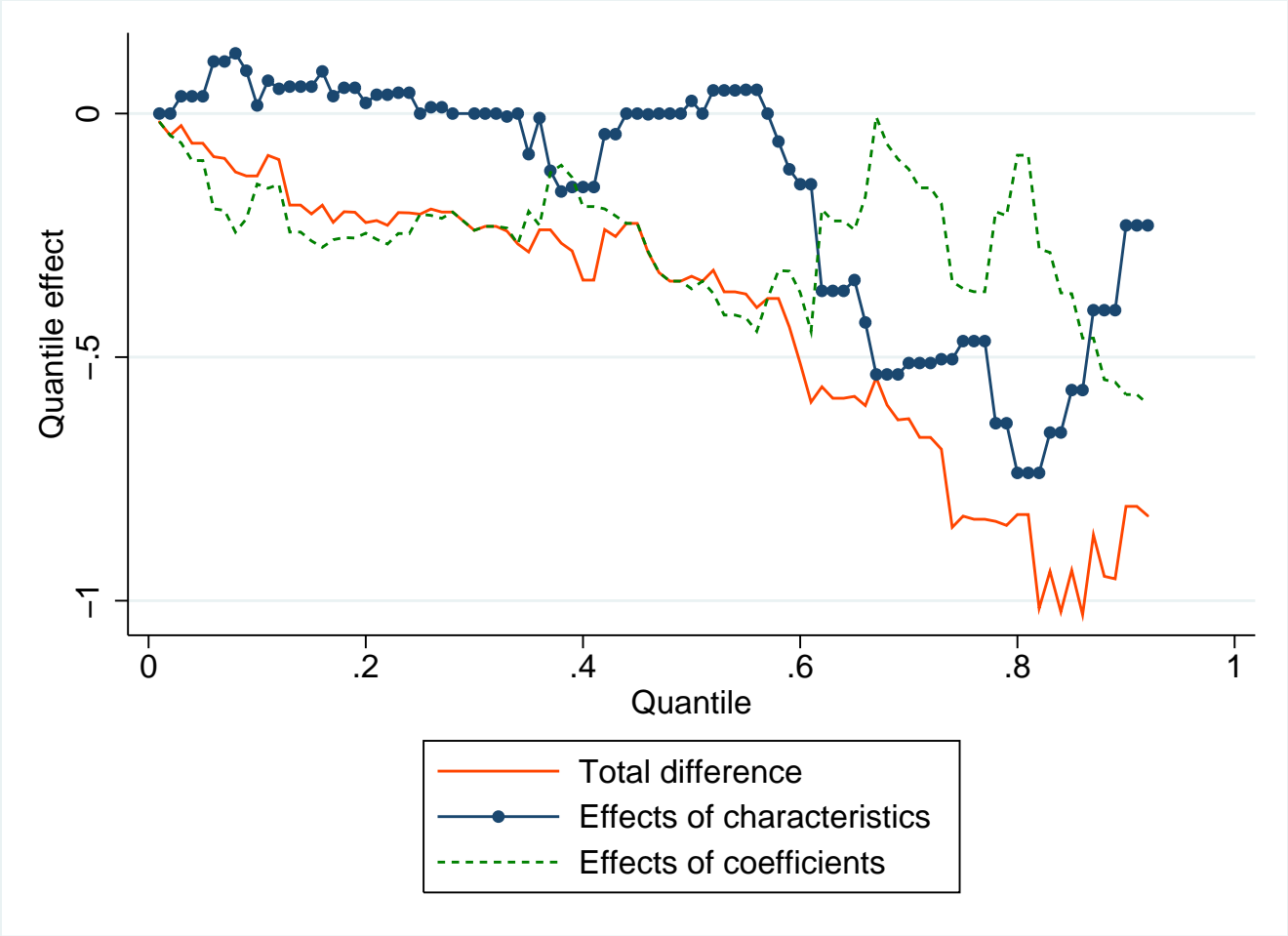
Figure B3. *Decomposition of income gap for stochastically non-poor and structurally non-poor charcoal producers with selection term*
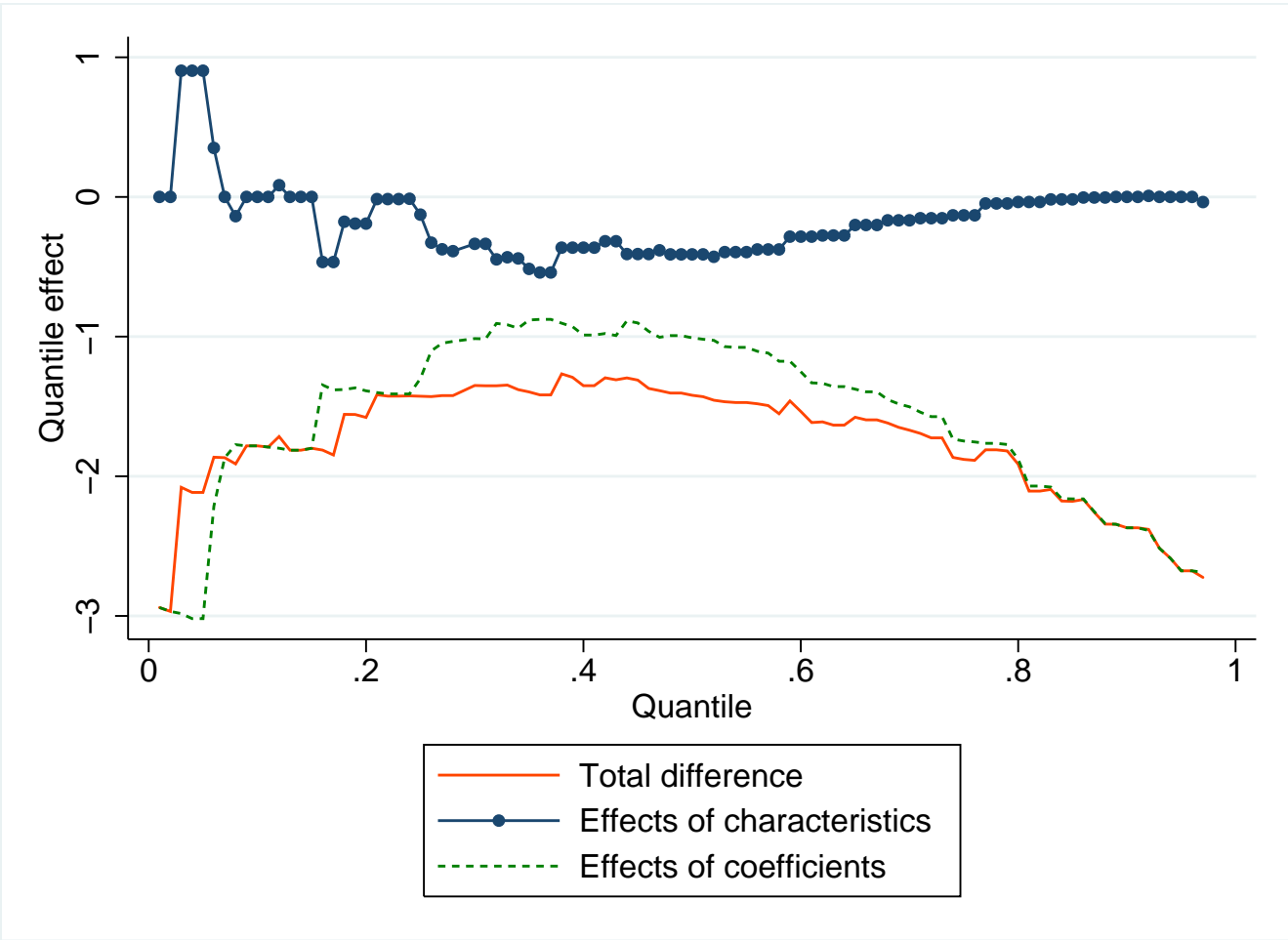
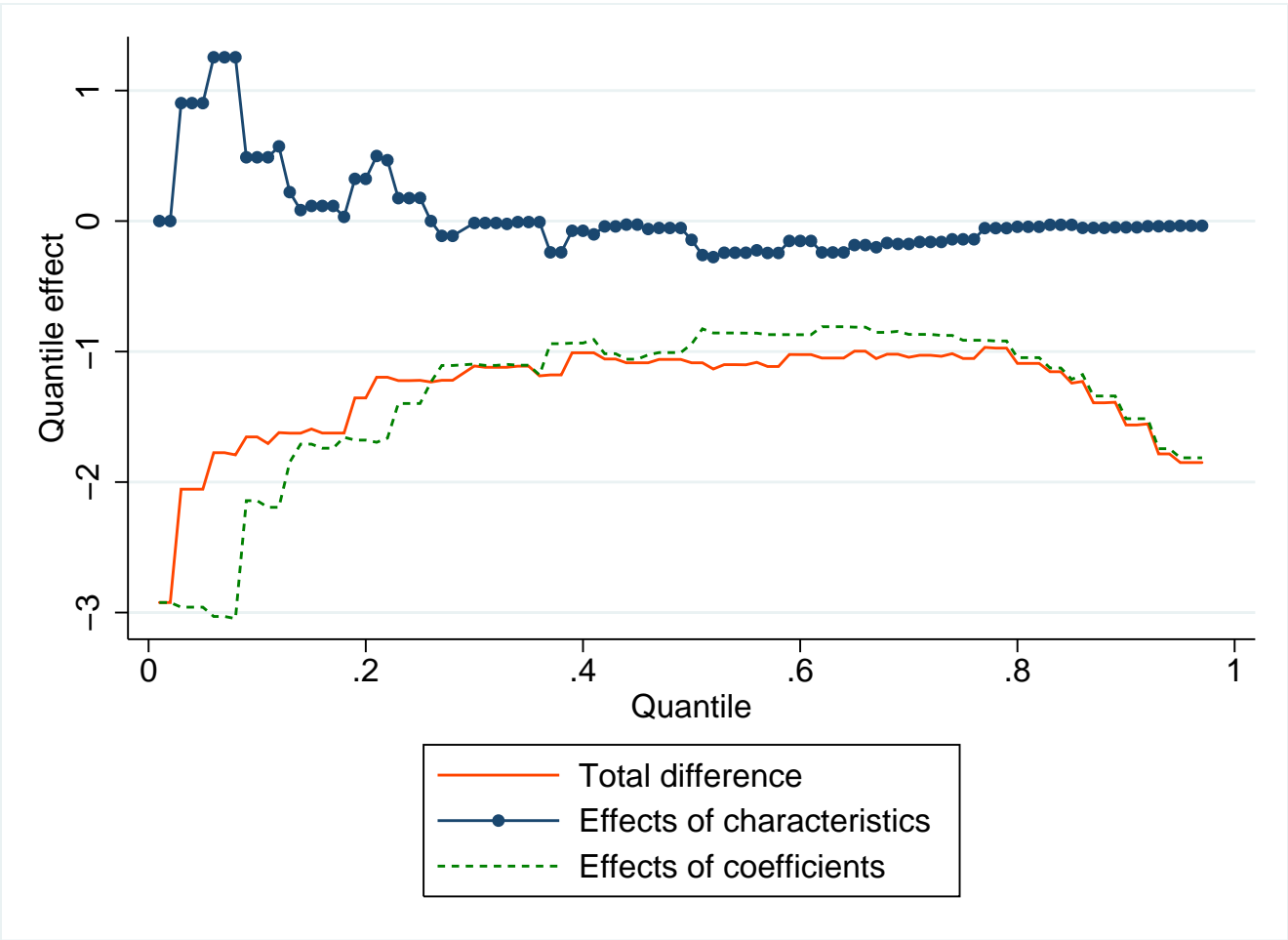Figure B4. *Decomposition of income gap for structurally poor and structurally non-poor charcoal producers*

Figure B5. *Decomposition of income gap for structurally poor and stochastically non-poor charcoal producers*
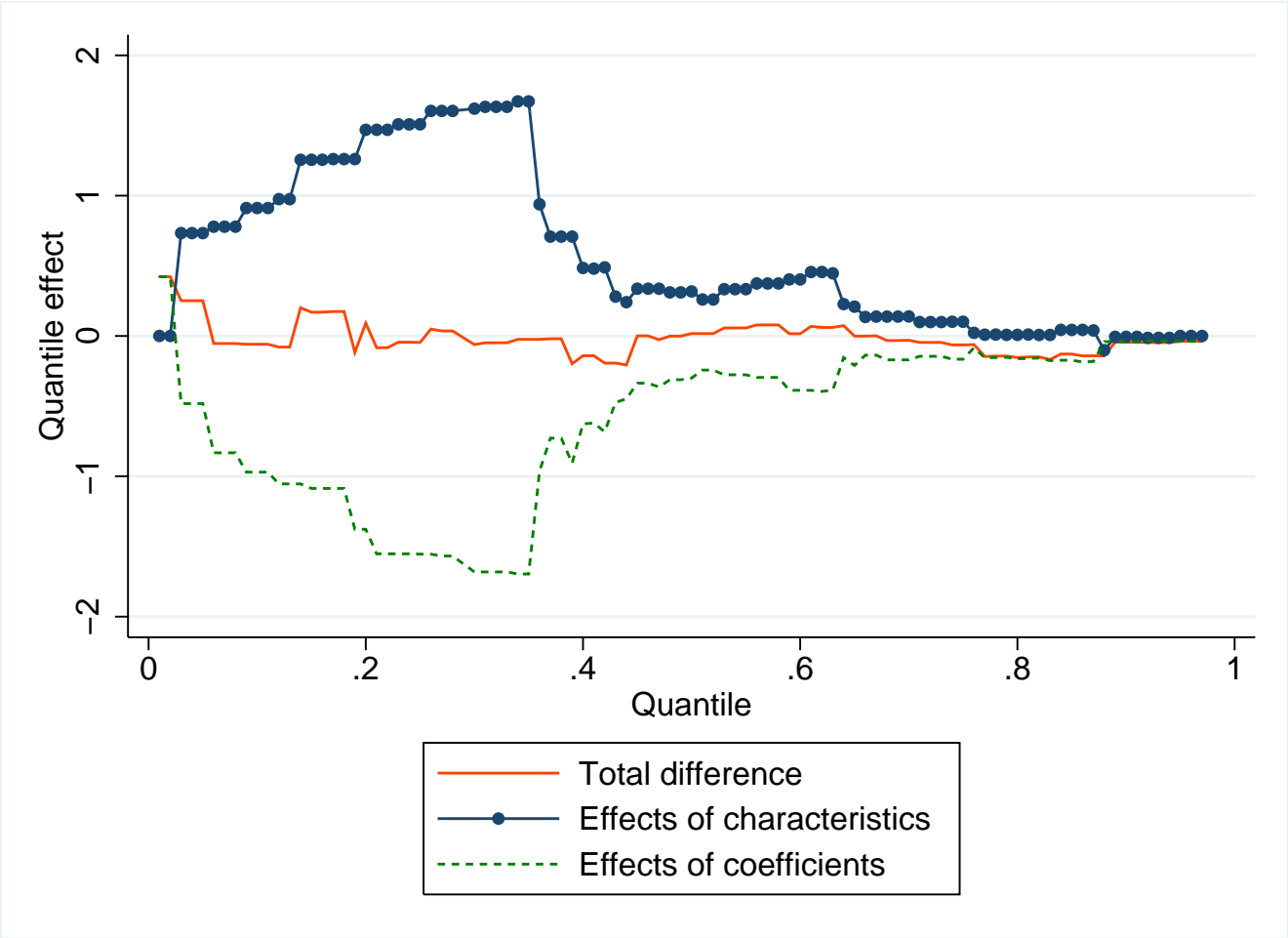
Figure B6. *Decomposition of income gap for structurally poor charcoal producers and structurally poor non-charcoal producers*
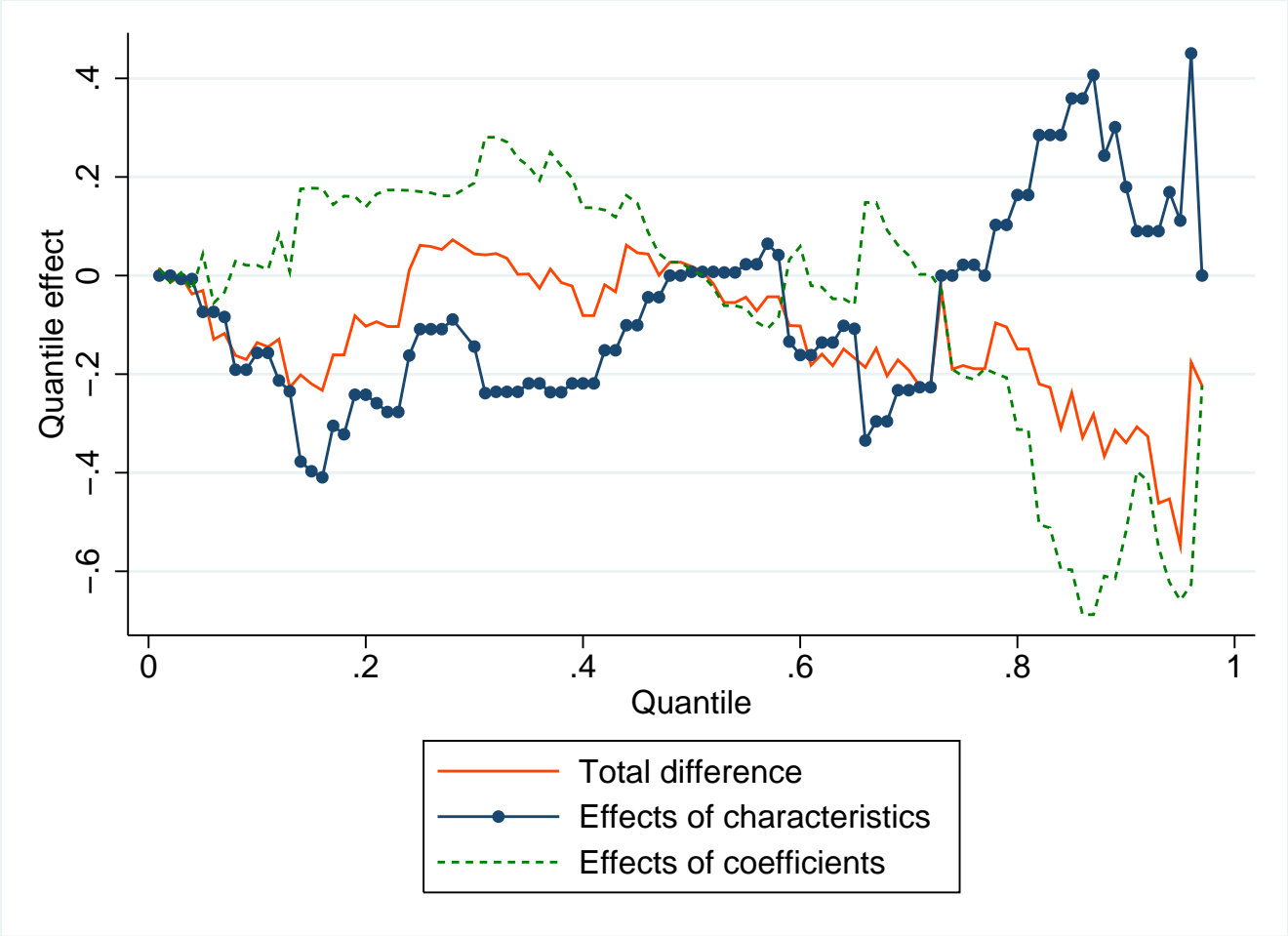
Figure B7. *Decomposition of income gap for structurally non-poor charcoal producers and structurally non-poor non-charcoal producers*
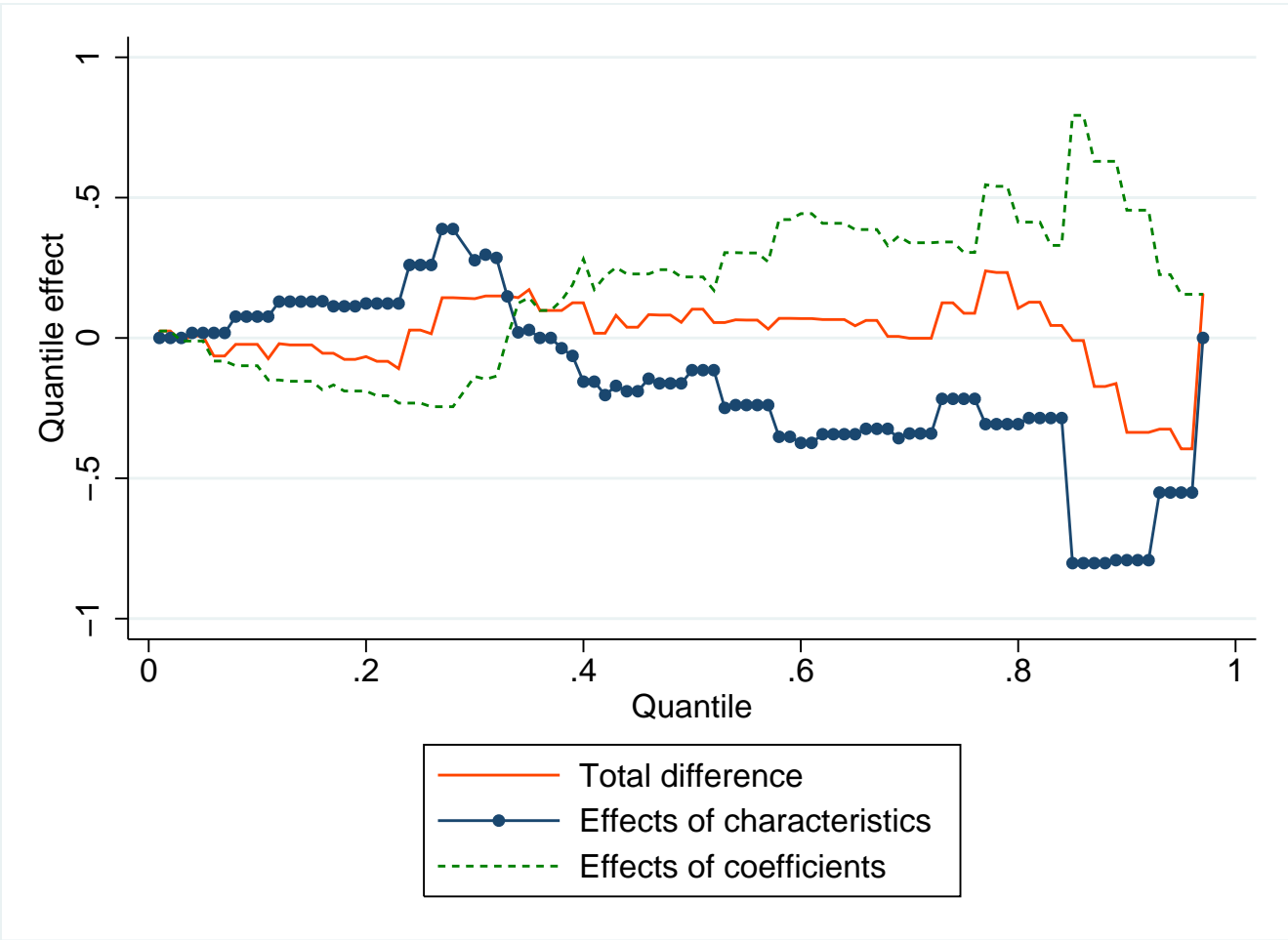
Figure B8. *Decomposition of income gap for stochastically non-poor charcoal producers and stochastically non-poor non-charcoal producers*

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