

Impact evaluation of the "Brasil Mais Produtivo" program

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Policies to improve Management Practices in Brazil

- Partners
 - Ministerio da Economia
 - ABDI - Brazilian Agency For Industrial Development
 - SENAI
 - SEBRAE
- Brasil Mais Produtivo
 - Practices: production floor/lean (for Industrial Sector)
 - 3 months, 12 visits, 120hs
 - 2016-2017: 3000 plants
 - 2018: RCT, 576 plants
- Brasil Mais:
 - Practices: lean + sales + finance + HR + digital
 - 3-4 months: training, weekly meeting, all sectors
 - Nov/2020-Jul/2022: 90k SMEs plants

The BmP Program

- Goal: Δ "productivity" $\geq 20\%$
 - "productivity": $LP_{full} = \frac{\text{quantity}}{\text{worker} \times \text{time}}$ at full capacity
- Lean manufacturing consultancy
 - 7 Tools: VSM, Continuous Flow, Standardized Work, 5S...
 - Focus: reduction of the **non-value added time**
 - 120h, 12 visits over 3 months
 - \$5,000, firm pays \$800 ($=1,3\%$ of median monthly sales)
 - SENAI: technical arm of industrial sector association (CNI)
 - Consultants: production engineers
- Firms: 10 and 200 worker in 4 industrial sectors
 - Food and bev., metal-mechanic, furniture, garment and shoes

Ex1: rearrange layout in garment factory

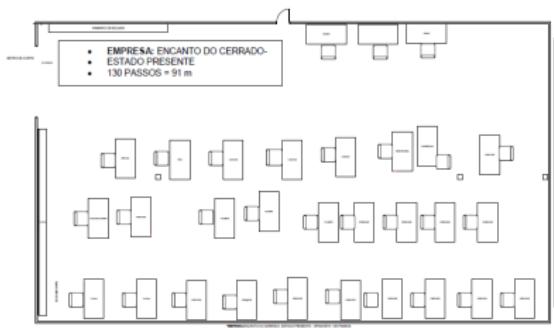


Figura 1- Espaguete inicial do Conjunto May 007

((a)) Before

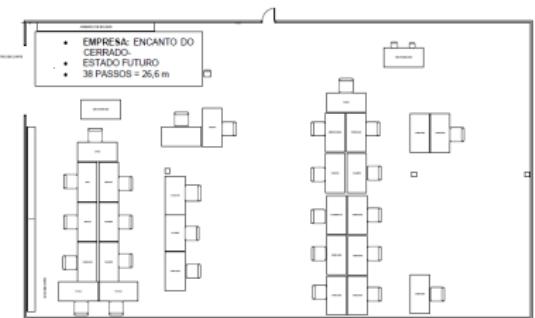


Figura 2- Espaguete final do Conjunto May 007

((b)) After

Ex1: rearrange layout in garment factory

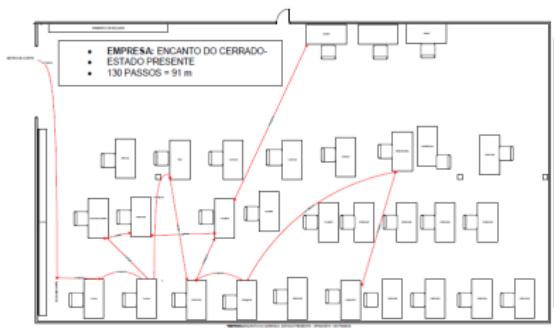


Figura 1- Espaguete inicial do Conjunto May 007

((c)) Before

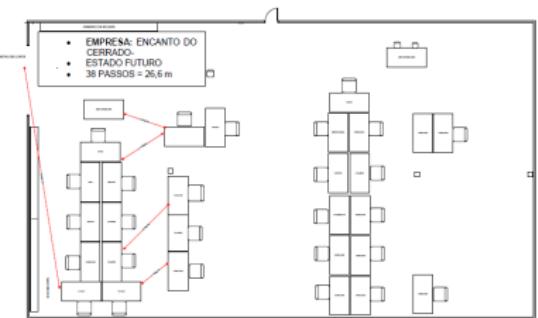


Figura 2- Espaguete final do Conjunto May 007

((d)) After

Ex2: Rebalance production rates of sequential processes



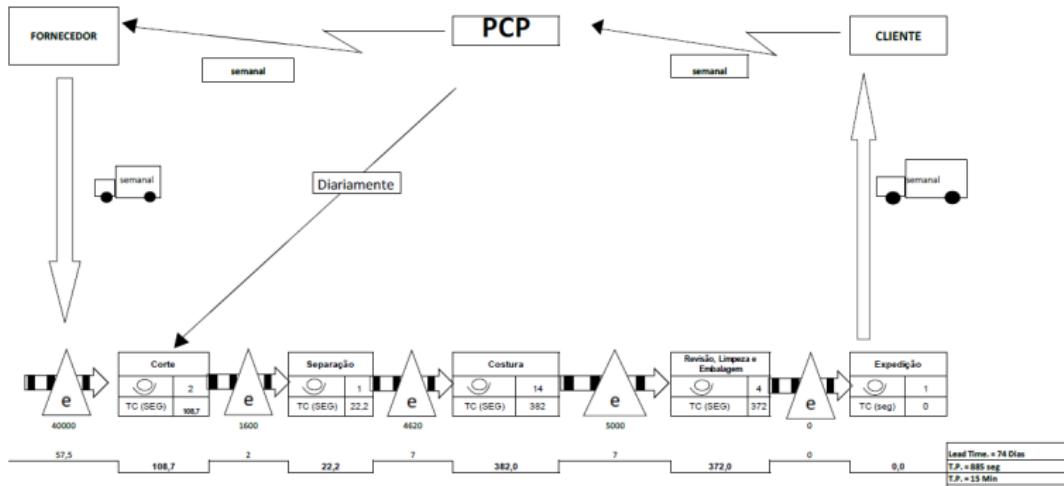
BRASIL
MAIS
PRODUTIVO

Empresa: Encanto do Cerrado Confecções de Artigo do Vestuário - Ltda. - ME
Setor: Vestuário
CNAE: 14.11-6-01 - Confecção de peças de vestuário
CNPJ: 12.363.775/0003-72

ANEXO

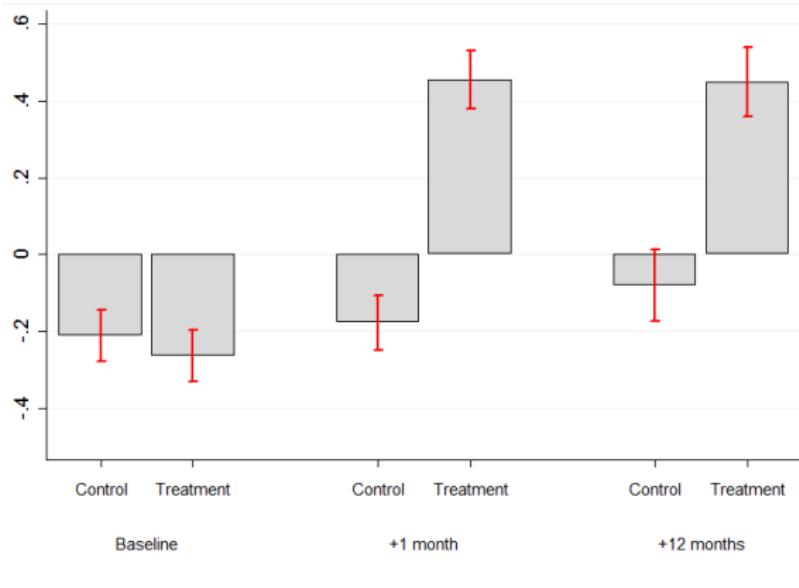
Empresa	ENCANTO DO CERRADO
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Tempo disponível (semanas/dia)	Demandas (peças/dia)	Takt (seg/peça)
30780	690	44,22

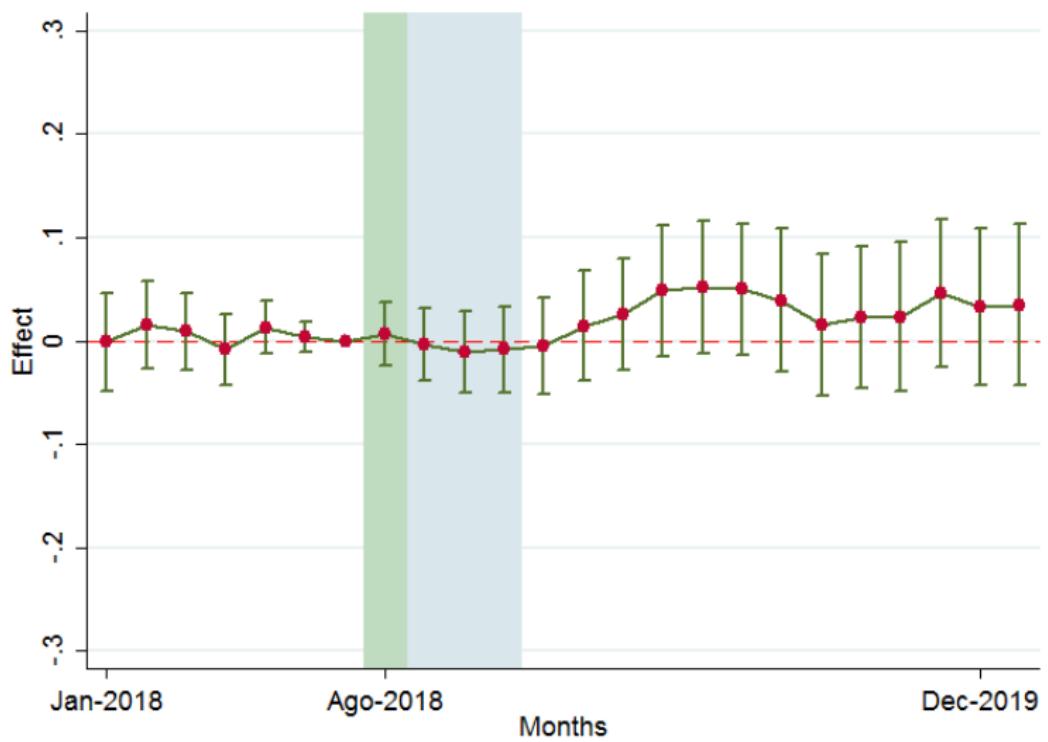


Results: improvement of Management practices

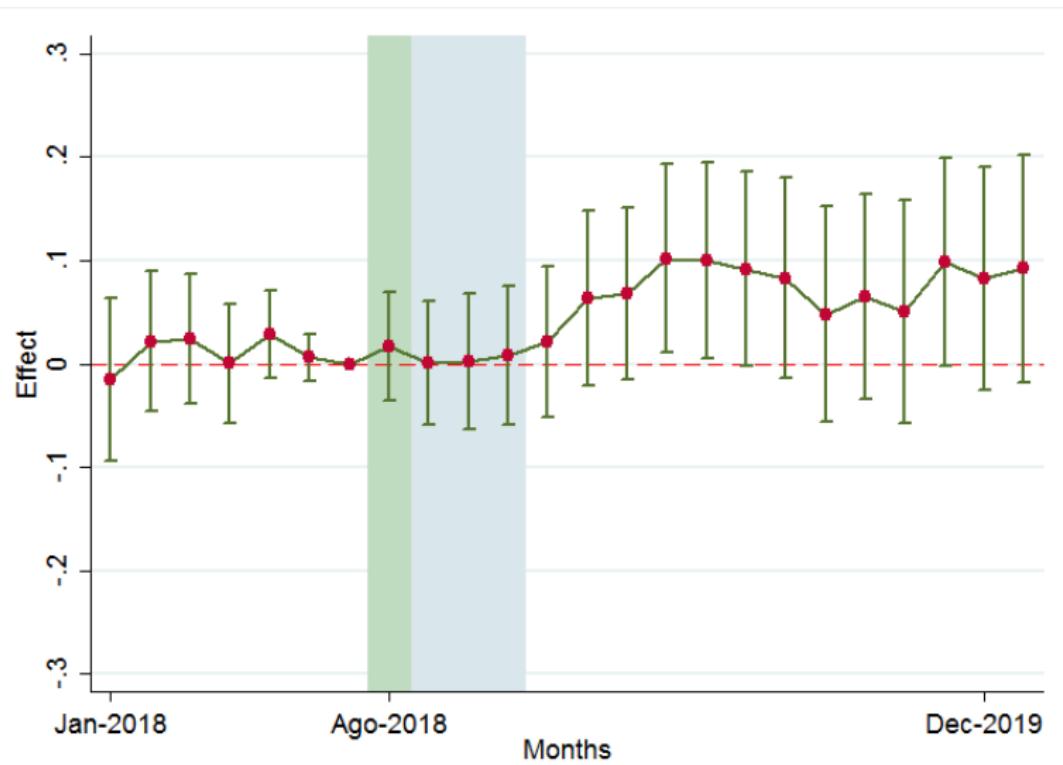
- y =mean lean management scores, (consultant's perception)
- Specification: repeated cross-sections



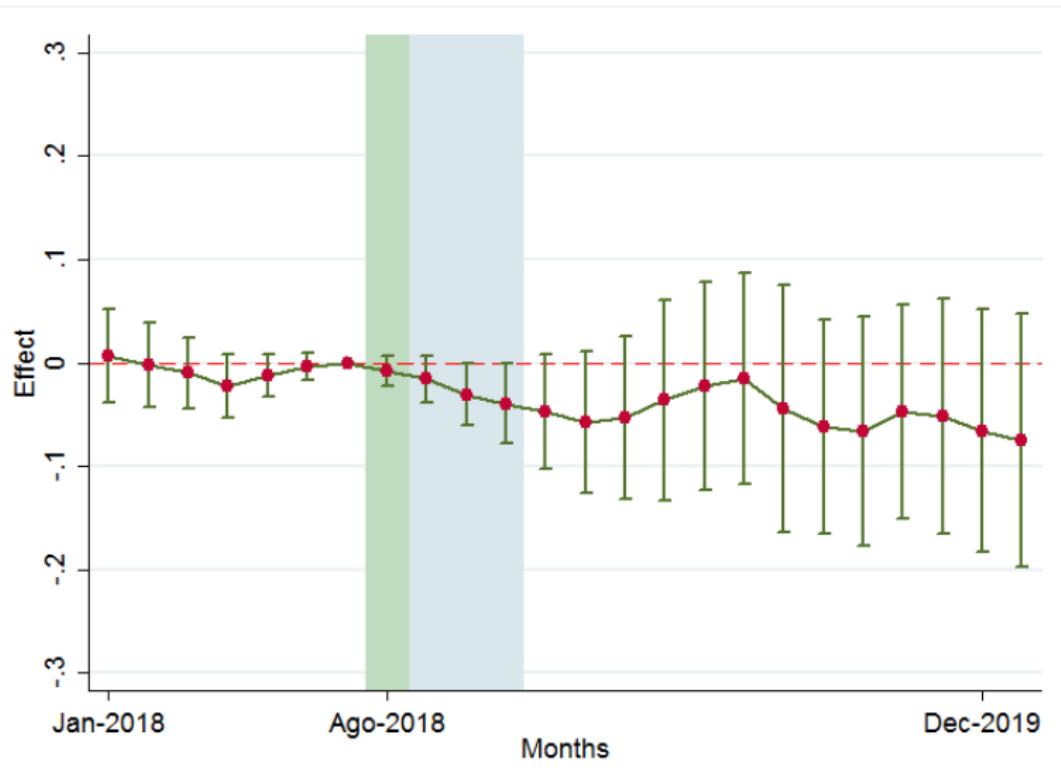
Results: Employment, all plants



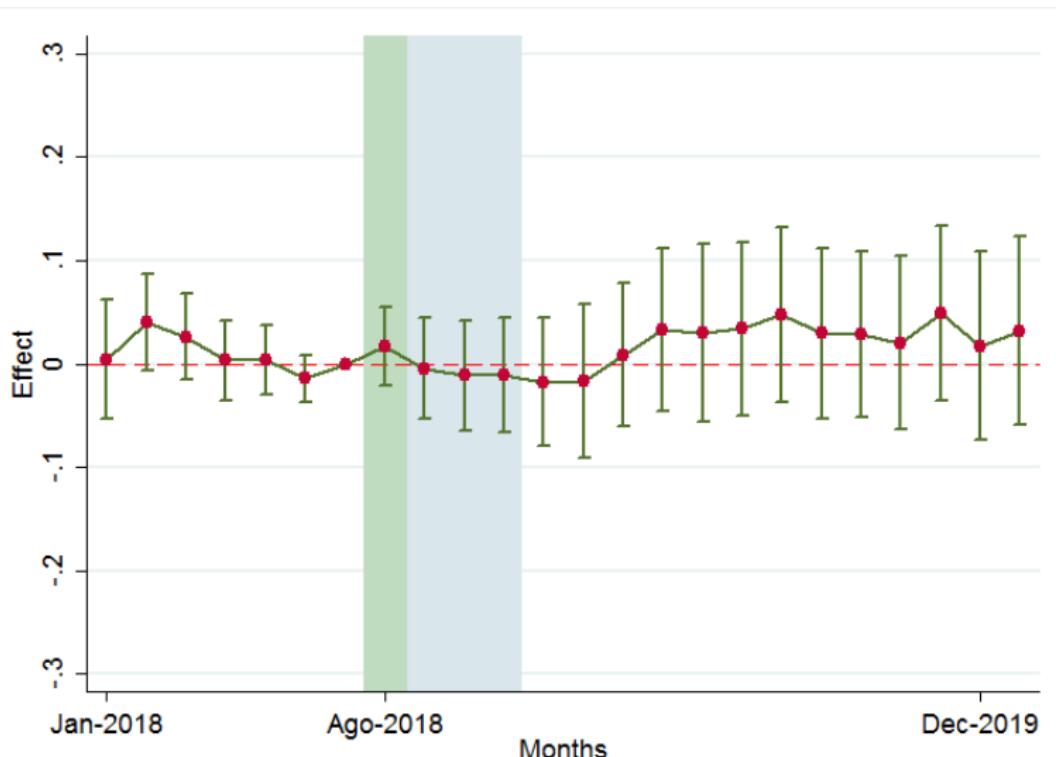
Results: Employment, small plants ($L_{baseline} \leq 39$)



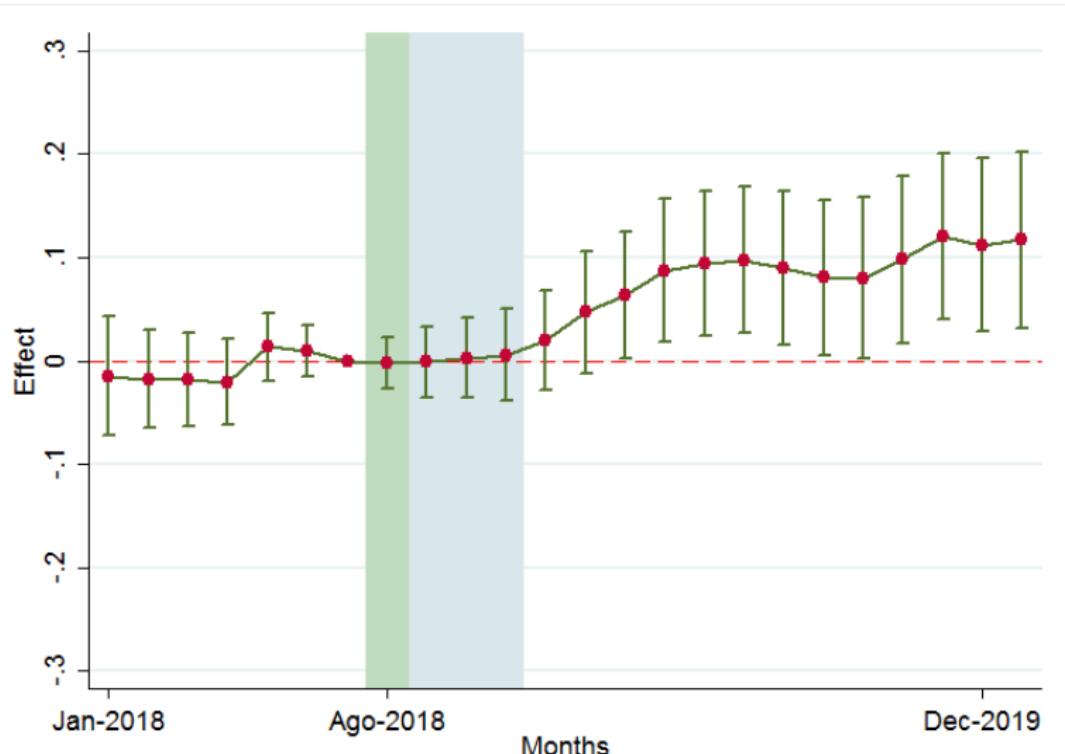
Results: Employment, medium plants ($L_{baseline} > 39$)



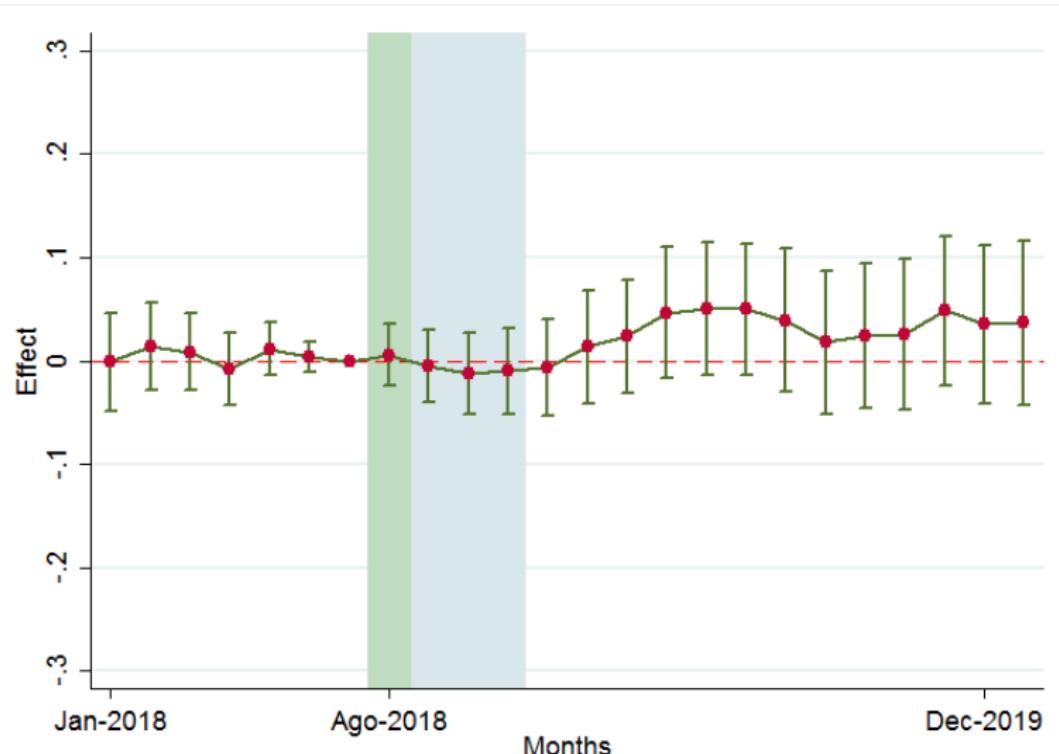
Results: Employment - production workers



Results: Employment - non-production workers



Results: Employment, all plants



Results: Labor Productivity (revenue/sales), +1 month

