The role of caseworkers in the labor market integration of young unemployed

Evidence from the French *Mission Locales*

Jérémy Hervelin (THEMA), **Pierre Villedieu** (Sciences Po, LIEPP)

11/03/2022

Séminaire d'intégration du LIEPP

Motivation

- School-to-work transition is rather difficult for youth.
  <small>▸ Share of NEET ▸ Youth unemployment</small>

- Increasing role of Active Labor Market Policies (ALMPs) - European Youth Guarantee Initiative in 2013

- Evidence about the effectiveness of ALMPs are somewhat discouraging (see meta-analyses from Caliendo 2016, Card et al. 2018, Kluve 2019)

- So far, the literature mainly focused on : *what* types of intervention seem more effective? (job assistance, skill training, subsidized employment) – In *what* sector? (private vs. public) – With which design?

$\hookrightarrow$ The specific contribution of caseworkers is often overlooked, although they are in a key position to bridge the gap between ALMPs and youths.

$\rightarrow$ **To what extent do caseworkers matter for the labor market integration of young unemployed?**

Related questions:

- For whom do caseworkers matter the most? Is there any gain to match caseworker to youth?
- Mechanisms: How to explain the heterogeneity in caseworkers effects? *(not today)*

This study - background

The **Mission Locales** (ML)

- Target every young people who are between **16 and 25 y.o.** and who are **out of school** $\sim$ most at-risk youths
- Labor market related assistance but not only (health, administrative, housing issues)
- About **1 million youths** are in contact with a ML every year and about **400 000 new entrants** every year.
- Why caseworkers could matter?
    - Youths have a specific relation with their assigned caseworker
    - Background information and qualitative work suggest

Empirical strategy

Idea

$\rightarrow$ Exploit the **quasi-random allocation of caseworkers** to youths

How does the caseworkers - youth assignment work?

- Each youth needs to come **in person** at one of the agencies of their Mission Locale
- He / She has a **first personal meeting** with one of the caseworkers who have been assigned on this day
- **Within agencies**: a **rotational assignment** of caseworkers **is decided several weeks in advance** - it may be adjusted afterward depending on the workload of each caseworker
- The *first meeting caseworker* automatically becomes the referee caseworker for the rest of the youth's follow-up

$\hookrightarrow$ This holds for the ML of Paris, we expect this to be also the case for the other main ML (top 10 and top 50 ML)

Caseworkers assignment

Caseworkers assignment is expected to be exogenous from youths characteristics only within a given **agency** $\times$ **time** cell

- Within agencies: caseworkers are mostly assigned to one agency only over the period
- Within time cells: the distribution of caseworkers' assignment is not homogeneous across the period

$\hookrightarrow$ Need to account for **agency** $\times$ **time** fixed effect

Caseworkers Value Added

We follow the literature on teachers/caseworkers value added:

1. Compute fixed effects $\rightarrow$ Fixed effects estimates $\hat{\mu}_j$ from

$$Y_i = \alpha + \beta X_i + \gamma_{a \times t} + \mu_j + \epsilon_i \tag{1}$$

   where

   - Y_i is the outcome of youth i, e.g. nb. of days of employment after the 1_{st} meeting
   - X_i is a vector of pre-determined youth characteristics
   - $\gamma_{a \times t}$ denote a fully interacted agency and month fixed effect vector
   - μ_j is the caseworker fixed effect

2. Shrinkage procedure to avoid an over-estimation of the variance of caseworkers value added ▸ See density plot

3. Compute leave-one-out estimates of caseworkers effects to avoid mechanical endogeneity

Identifying assumption $\rightarrow$ $\epsilon_{iat} | \{ \gamma_{a \times t}, X_i \} \perp\!\!\!\perp \mu_j$

Data

Data sources

1. Information system of the *Mission Locales* (IMILO dataset)
    - **Socio-demographic** information on youths: *names, demographic information, education attainment, address, housing condition,...*
    - Detailed information about **youths' follow-up**: *individual meetings, collective information, workshops, enrollment in programs*
    - Information on **caseworkers**: *names, date of birth, gender, activity at the Mission Locale*

2. Administrative Database on (Un-)**Employment** and Vocational Training (*FORCE* dataset)
    - Labor market outcomes of youths: *nb. of days of employment, nb. of days/hours of training, nb. of days of unemployment agency registration*
    - Availability: 2017 Q1 - 2020 Q4

3. Namsor: API that allows to classify personal names by **country of origin**.
    ↪ In the literature: Bursztyn et al., NBER, 2021

▸ Summary Stat ▸ Final sample

Results

Caseworkers impact on employment

Table 1: Caseworkers value added on the number of days of employment

Dependent Variables:	Before 1st meeting		After 1st meeting			
Model:	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Paris ML						
Caseworkers VA (std)	1.20	0.820	19.5***	22.8***	16.3**	18.5**
	(2.64)	(3.28)	(6.03)	(7.92)	(6.99)	(8.57)
Employment before 1st meeting					0.489***	0.477***
					(0.046)	(0.044)
Fit statistics						
Outcome mean	41.2	40.4	200.9	199.2	200	198.6
Observations	4,191	3,985	5,397	5,130	4,191	3,985
R^2	0.054	0.057	0.025	0.026	0.067	0.066
Panel B: Top 10 ML						
Caseworkers VA (std)	2.78	0.048	16.1***	19.0**	15.4***	19.0**
	(2.34)	(2.87)	(5.65)	(8.07)	(5.40)	(7.65)
Employment before 1st meeting					0.482***	0.474***
					(0.020)	(0.020)
Fit statistics						
Outcome mean	45.9	45.8	202.5	202.6	204.2	204.4
Observations	16,490	15,692	20,444	19,422	16,490	15,692
R^2	0.086	0.089	0.051	0.052	0.094	0.094
Panel C: Top 50 ML						
Caseworkers VA (std)	-0.285	0.969	10.0***	11.4**	12.5***	13.9**
	(2.94)	(2.32)	(3.87)	(5.53)	(3.65)	(5.37)
Employment before 1st meeting					0.481***	0.481***
					(0.015)	(0.015)
Fit statistics						
Outcome mean	47.7	47.7	204.1	204.4	205.4	205.8
Observations	34,050	32,437	42,210	40,098	34,050	32,437
R^2	0.089	0.091	0.055	0.058	0.102	0.104
Agency - month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
95% Winsorization of VA	No	Yes	No	Yes	No	Yes

For whom do caseworkers matter the most?

Table 2: Caseworkers effect across subgroups

Dependent Variable: Subgroup	Sex		Age			Education			
	Female	Male	≤ 18 y.o.	18 to 21 y.o.	≥ 21 y.o.	Lower education	Vocational 2 years	Upper secondary	Higher Education
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Paris ML									
Caseworkers VA (std)	10.4	21.7***	49.1***	18.8*	0.015	2.92	32.6**	18.6	-8.27
	(13.2)	(7.67)	(15.1)	(10.3)	(15.5)	(19.7)	(12.2)	(14.5)	(25.8)
Fit statistics									
Outcome mean	219.7	183.8	108.2	204	223.6	159.8	157.1	224.3	248.6
Observations	1,646	2,339	455	2,400	1,130	584	1,150	1,728	523
Top 10 ML									
Caseworkers VA (std)	14.8	19.5**	12.5	16.3*	13.6	33.3**	19.3**	15.3	4.89
	(9.18)	(8.27)	(12.8)	(8.91)	(14.3)	(16.6)	(9.72)	(10.3)	(20.7)
Fit statistics									
Outcome mean	216	194.2	111.8	217.2	236.1	129.7	159.8	237	277.2
Observations	7,311	8,381	2,567	9,431	3,694	1,651	5,247	7,054	1,740
Top 50 ML									
Caseworkers VA (std)	12.2*	12.4**	11.9	13.0**	8.59	20.4	19.3***	9.63	0.705
	(6.80)	(6.22)	(9.44)	(6.22)	(11.5)	(14.9)	(6.70)	(7.23)	(17.4)
Fit statistics									
Outcome mean	211.7	200.5	126.9	218.8	237.1	133.8	164.3	235.7	285.2
Observations	15,211	17,226	5,973	19,540	6,924	3,098	11,510	14,456	3,373
Fixed-effects									
Agency - month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
95% Winsorization	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Clustered (Caseworker & Agency - month fixed effects) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*
Note: Employment before 1st meeting is measured on a 6 months period while employment after 1st meeting is measured on a 2 years. Each regression include the number of days of employment before 1st meeting as a control variable.

Conclusion

- Overall impact: Youths assigned to a caseworker whose VA is one standard deviation above the mean are employed about 8% additional days over a 2 years period after they first came at the Mission Locale.

  - Close to the results of Cederlof et al. (2021) and Rasmussen (2021) for PES caseworkers in Sweden and Denmark respectively.

- Heterogeneity: Young male with relatively low prior educational achievement are particularly affected by high value added caseworkers

Next steps

- Survey about caseworkers assignment rules in all ML
- Qualitative employment outcomes (type of contract, duration)
- Caseworkers VA for other dimensions : training, program enrollment, follow-up
- Caseworker–youth matching effects

Thank you!

Appendix
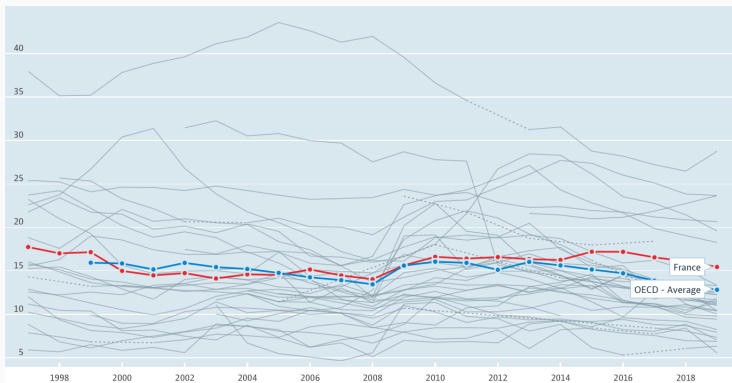
Figure 1: Share of NEET among 15-29 y.o. people in OECD countries
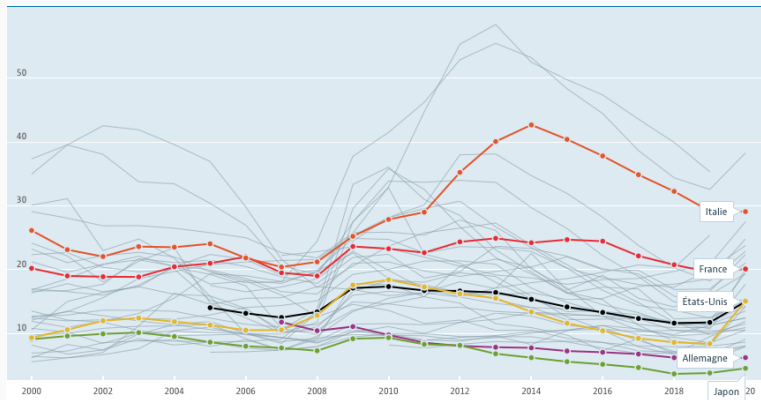
Figure 2: Youth (15-24 y.o.) unemployment rate in OECD countries

▸ Go back

Related Literature

- Active labor market policies:
  - Job search assistance: Centeno et al. 2009, Crépon et al. 2013, Behaghel et al. 2014, Manoli et al. 2018, Arni et al. 2020

  → Our contribution: Look at job search assistance efficiency directly at the caseworker level

- Caseworkers(-like) effects:
  - Teachers: Rockoff 2004, Rivkin et al. 2005, Rothstein 2010, Nakamura 2013, Chetty et al. 2014a,b., Koedel et al. 2015, Jackson 2016, Gilraine et al. 2019, Mulhern 2020
  - Judges: Maestas et al. 2013, Dahl et al. 2014, Bhuller et al. 2018, Dobbie et al. 2018, Cahuc et al. 2020
  - Caseworkers: Behncke et al. 2010, Huber et al. 2017, Arni and Schiprowski 2019, Schiprowski 2020, Cederlof et al. 2021, Rasmussen (2021)

  → Our contribution: 1st study in France + particularly vulnerable population: young NEET

PACEA contract

Figure 3: Cerfa of PACEA contract
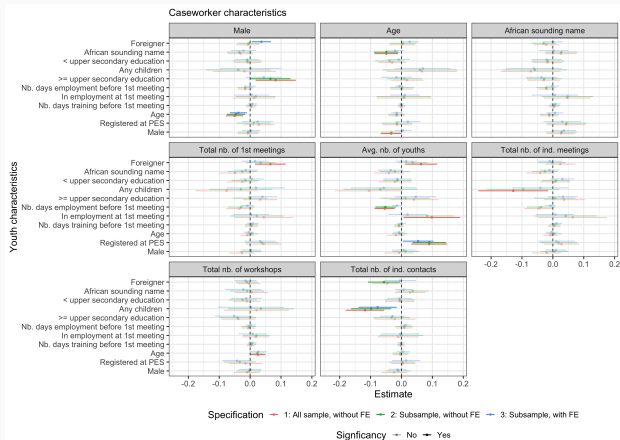
Figure 4: Correlation between assigned caseworkers' characteristics and youths' characteristics - Paris ML

→ Most coefficients are very small (< 0.05 standard deviation) and statistically insignificant ▶ Go back
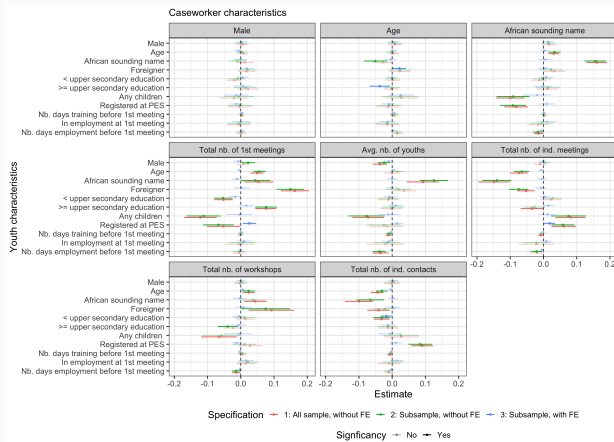
Figure 5: Correlation between assigned caseworkers' characteristics and youths' characteristics - top 10
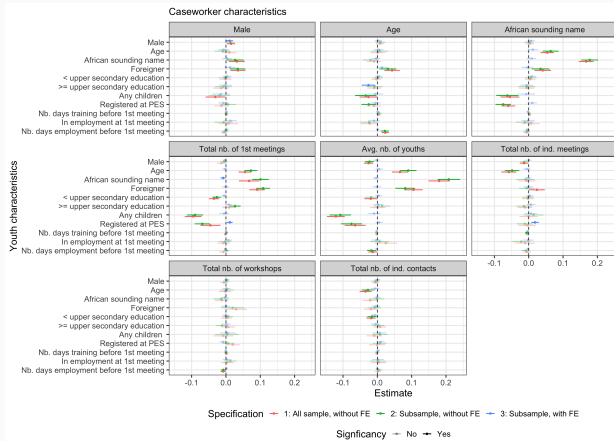
Figure 6: Correlation between assigned caseworkers' characteristics and youths' characteristics - top 50
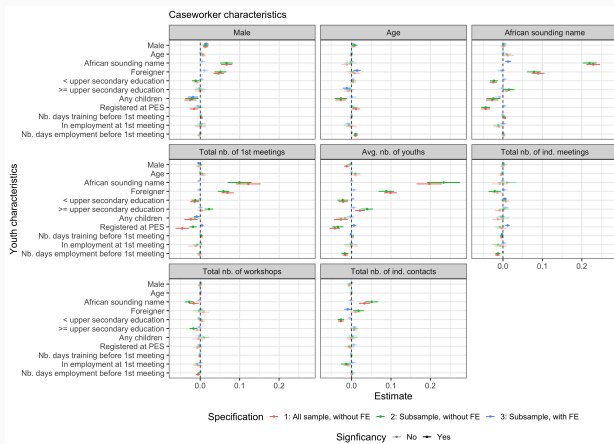
Figure 7: Correlation between assigned caseworkers' characteristics and youths' characteristics - all ML
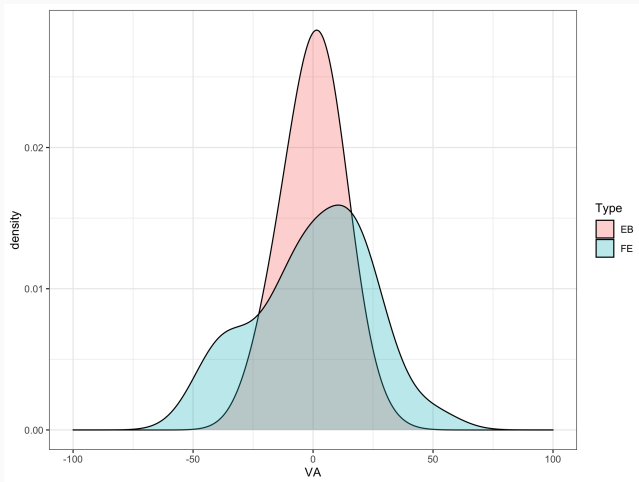
Figure 8: Distribution of Empirical Bayes vs. Fixed Effects estimates

Final sample

We apply several restrictions to the overall sample:

- Time period : **2017 Q1 - 2020 Q4**
- Youths who can be matched with Employment data
- Youths who are **NEET** when coming at the Mission Locale
- Registration of youth has been made by a regular caseworker through an individual meeting
- Caseworkers activity : remove bottom 20% (by ML) based on their activity on 2017-2018 period
    - Nb. of 1st meeting
    - Average caseload
    - Nb. of periods with at least one meeting (month, quarter, year)
- Remove *agency* × *month* cells with less than 10 youths

We consider 3 different final samples

- Paris ML (N = 5,397) for which we have background information on the caseworkers' assignment process.
- Top 10 ML (N = 20,451) and Top 50 ML (N = 42,303), to check the consistency of our results

Summary statistics

Table 3: Characteristics of young people and of their caseworkers

	All - Unrestricted		Paris		Top 10		Top 50	
	Mean	Sd	Mean	Sd	Mean	Sd	Mean	Sd
Characteristics of young people								
Gender (male)	0.52	0.50	0.58	0.49	0.54	0.50	0.53	0.50
Age at 1st meeting	19.69	4.64	20.03	2.14	19.68	2.16	19.53	2.15
Foreigner	0.12	0.33	0.30	0.46	0.19	0.39	0.17	0.37
Origin: North-Africa	0.13	0.33	0.18	0.39	0.24	0.43	0.20	0.40
Origin: Sub-Saharan Africa	0.14	0.34	0.36	0.48	0.21	0.41	0.18	0.38
School level: middle school	0.08	0.28	0.15	0.36	0.11	0.31	0.10	0.30
School level: 2-year vocational secondary	0.39	0.49	0.29	0.46	0.34	0.47	0.36	0.48
School level: upper secondary	0.43	0.49	0.43	0.50	0.44	0.50	0.44	0.50
School level: higher education	0.10	0.30	0.12	0.33	0.11	0.31	0.10	0.30
Have children	0.07	0.26	0.04	0.20	0.05	0.22	0.05	0.22
Number of observations	808,222		5,397		20,451		42,303	
Characteristics and activity of caseworkers								
Gender (male)	0.20	0.40	0.29	0.46	0.22	0.41	0.25	0.43
Age	41.46	11.49	44.53	8.18	44.11	15.36	43.63	12.34
Origin: North-Africa	0.10	0.30	0.20	0.41	0.14	0.34	0.14	0.35
Origin: Sub-Saharan Africa	0.13	0.31	0.28	0.40	0.16	0.31	0.16	0.32
Caseload	53	45	124	28	115	46	98	44
Number of 1st meetings	78	89	276	58	206	69	192	70
Number of individual meetings	754	643	1,308	239	1,456	595	1,384	560
Number of animated workshops	199	559	61	131	39	139	50	168
Number of collective information	37	122	13	29	16	48	26	57
Number of contacts with youths	1,370	4,451	1,383	1,479	1,285	1,722	1,516	3,303
Number of administrative tasks	597	1,253	276	224	504	555	569	665
Number of observations	10,321		35		197		480	

Note: Top 10 and Top 50 include all the centers that are in the top 10 and 50 respectively in the number of first meetings between 2017 and 2018.
Source: IMILO (extraction date: October 2021), authors' calculations.

Appendix

Table 4: Caseworkers effect on the number of days of employment - top 10 ML

Dependent Variables:	Employment before 1st meeting		Employement after 1st meeting			
Model:	(1)	(2)	(3)	(4)	(5)	(6)
Variables						
Caseworkers VA (std)	2.78	0.048	16.1***	19.0**	15.4***	19.0**
	(2.34)	(2.87)	(5.65)	(8.07)	(5.40)	(7.65)
Employment before 1st meeting					0.482***	0.474***
					(0.020)	(0.020)
Fixed-effects						
Agency - month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
95% Winsorization	No	Yes	No	Yes	No	Yes
Fit statistics						
Outcome mean	45.9	45.8	202.5	202.6	204.2	204.4
Observations	16,490	15,692	20,444	19,422	16,490	15,692
R^2	0.086	0.089	0.051	0.052	0.094	0.094
Within R^2	0.0001	2.33×10^{-8}	0.0008	0.0007	0.050	0.048

Clustered (Caseworker & Agency - month fixed effects) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Note: Employment before 1st meeting is measured on a 6 months period while employment after 1st meeting is measured on a 2 years period. In columns 2, 4 and 6, the sample corresponds to a 95% winsorization based on caseworkers VA.

▶ Go back

Appendix

Table 5: Caseworkers effect on the number of days of employment - top 50 ML

Dependent Variables:	Employment before 1st meeting		Employement after 1st meeting			
Model:	(1)	(2)	(3)	(4)	(5)	(6)
Variables						
Caseworkers VA (std)	-0.285	0.969	10.0***	11.4**	12.5***	13.9**
	(2.94)	(2.32)	(3.87)	(5.53)	(3.65)	(5.37)
Employment before 1st meeting					0.481***	0.481***
					(0.015)	(0.015)
Fixed-effects						
Agency - month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
95% Winsorization	No	Yes	No	Yes	No	Yes
Fit statistics						
Outcome mean	47.7	47.7	204.1	204.4	205.4	205.8
Observations	34,050	32,437	42,210	40,098	34,050	32,437
R^2	0.089	0.091	0.055	0.058	0.102	0.104
Within R^2	1.06×10^{-6}	8.06×10^{-6}	0.0003	0.0002	0.052	0.052

Clustered (Caseworker & Agency - month fixed effects) standard-errors in parentheses
Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

Note: Employment before 1st meeting is measured on a 6 months period while employment after 1st meeting is measured on a 2 years period. In columns 2, 4 and 6, the sample corresponds to a 95% winsorization based on caseworkers VA.
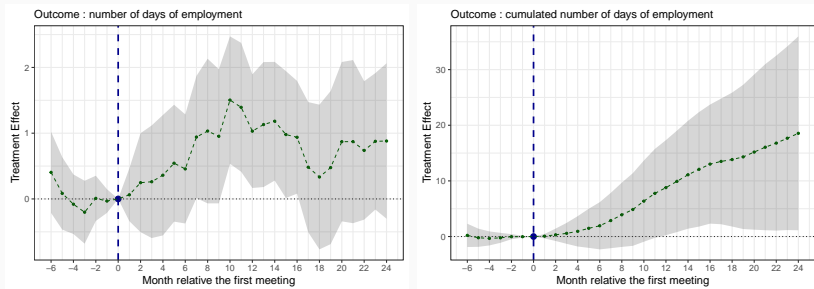
Appendix

Figure 9: Treatment effect on employment (sample: Paris *Mission Locale*)

Each dot represent the estimated effect - at a given point in time - of being assigned to a caseworker who is 1 standard deviation above the average.

→ No significant difference in the pre-trend
→ After 2 years, the cumulated effect equals 18.5 days, which represents a 9% increase.
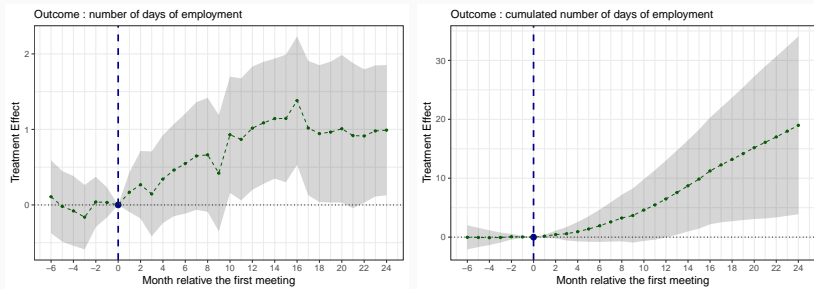
Appendix

Figure 10: Treatment effect on employment (sample: top 10 *Mission Locale*)

Each dot represent the estimated effect - at a given point in time - of being assigned to a caseworker who is 1 standard deviation above the average.

$\rightarrow$ No significant difference in the pre-trend
$\rightarrow$ After 2 years, the cumulated effect equals 19 days, which represents a 10% increase.

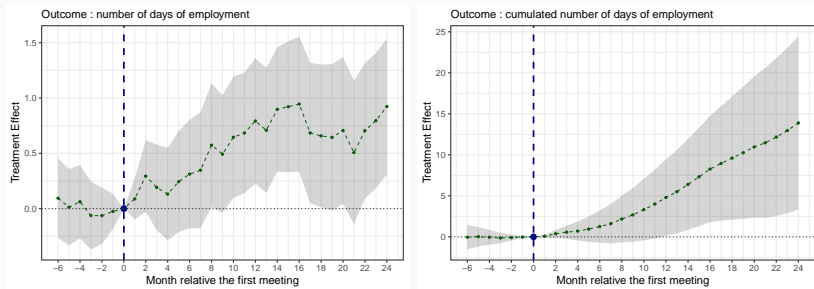## Appendix

Figure 11: Treatment effect on employment (sample: Top 50 *Mission Locale*)

Each dot represent the estimated effect - at a given point in time - of being assigned to a caseworker who is 1 standard deviation above the average.

$\rightarrow$ No significant difference in the pre-trend
$\rightarrow$ After 2 years, the cumulated effect equals 14 days, which represents a 7% increase.

Do high VA caseworkers have specific characteristics?

Table 6: Caseworkers Value added and caseworkers' characteristics

| Dependent Variable: | Caseworkers VA (std) | | |
| Sample | Paris ML | Top 10 ML | Top 50 ML |
Model:	(1)	(2)	(3)
Male	-0.218	-0.143*	-0.065
	(0.227)	(0.084)	(0.061)
Age	0.161*	0.157***	0.062
	(0.092)	(0.050)	(0.043)
Age^2	-0.153*	-0.149***	-0.060
	(0.090)	(0.050)	(0.041)
Average caseload (nb. of youths)	0.166	0.081	0.101**
	(0.137)	(0.054)	(0.051)
Total nb. of 1st meetings	0.011	-0.030	-0.060*
	(0.096)	(0.041)	(0.032)
Total nb. of individual meetings	-0.002	-0.041	-0.036
	(0.084)	(0.057)	(0.038)
Total nb. of workshops	0.052	0.026	0.003
	(0.088)	(0.030)	(0.016)
Total nb. of contacts	0.204**	0.083**	0.029
	(0.092)	(0.036)	(0.019)
Total nb. of coll. information	0.084	0.013	-0.004
	(0.069)	(0.018)	(0.018)
Caseworker VA on program enrollment (std)	0.303**	0.112*	-0.011
	(0.123)	(0.065)	(0.043)
Fixed-effects			
Agency - month fixed effects	Yes	Yes	Yes
Fit statistics			
Observations	5,397	20,444	42,210
R^2	0.342	0.160	0.107
Within R^2	0.300	0.087	0.031

Clustered (Caseworker & Agency - month fixed effects) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*
Note: Employment before 1st meeting is measured on a 6 months period while employment
after 1st meeting is measured on a 2 years. Each regression include the number of
days of employment before 1st meeting as a control variable.