

PAGE

policy analysis on growth and employment



Youth unemployment and transition from school to work in Benin

RESEARCH PROPOSAL

Presented to

Partnership for Economic Policy (PEP)

By

Sènakpon Fidèle. A. Dedehouanou

&

Sessinou Erick A. Dedehouanou

Hilaire G. Houeninvo

Djohodo Inès Monwanou

Urielle Judith Tossou

Mahouli Mireille-Marie Mintogbe

Benin

May 2017

Before you begin

Please consult the following webpages/documents regarding PEP's expectations in terms of:

- [Specific policy issues to be addressed \(and conditions to be met\) by projects supported under this call](#)
- [Scientific content of eligible research project proposals](#)
- [PEP requirements in terms of policy engagement and research communication](#)

Please note that :

- This template is mandatory for proposals of projects submitted under the [PMMA](#) and [MPIA](#) groups, i.e. that do not involve data collection
- Plagiarism is strictly forbidden – see note on “references and plagiarism” at the end of this document/template. PEP will be using a software program to detect cases of plagiarism.
- PEP encourages applicant research teams to submit proposals in English, but content (in text boxes below) may also be written in French or Spanish (and will be accepted given proper justification of language barrier).

There are three main areas/dimensions to all PEP-supported projects: research, capacity building and policy engagement/impact. The PEP proposal template is structured around these three dimensions. Each section must be completed with due care and attention, as they are reviewed individually and concurrently to assess the overall quality of a proposal.

SECTION I – RESEARCH

1.1. Abstract (100 to 250 words)

The abstract should state the main research question, the context and its relevance in terms of policy issues/needs in relation to PAGE thematic foci, complete with a brief description of the methodology(ies) and the data that will be used.

This study aims at estimating contextual factors that determine both *whether* and *when* the school transition to work occurs for youth in Benin. The study also aims at estimating the average treatment effect of in-school work experience on the duration of youth unemployment spell. Structural barriers for youth employment in Benin are issues related to the labour supply and labour demand sides. Since the last decade, Benin has adopted a National Employment Policy and several labor market institutions has emerged to deal with these barriers. Despite the emergence of several structures and projects, little is known about the effective impacts of these strategies in reducing youth unemployment in Benin. We ask whether factors reducing the duration of youth unemployment spell are different from those that increase the likelihood of exiting from unemployment - in that case different policy interventions may be required. In particular, we also ask whether in-school work experience can serve as important pathway for helping youth make a easier transition from school to work. Does a prior work-study combination experience favors youth employment in Benin? We take advantage of a recent data set from the School to Work Transition

Surveys implemented in 2014-2015 by the National Institute of Statistics, under the Work4Youth Project. We use primarily duration like models and treatment effects model combined with survival analysis.

1.2. Main research questions and contributions

Explain the focus (or key questions) of your research and its policy relevance.

Explain why you think this is an interesting research question and what the potential value added of your work might be (knowledge gaps). You might want to explain whether or not this question has been addressed before in this context (including key references), and if so, what do you wish to achieve (in addition) by examining the question again?

The issue of unemployment is a major concern in many African countries. In its the sixth round of surveys (2014/2015), Afrobarometer asked citizens of 36 countries, which together represent more than three-quarters of the continent's population, the problems they consider most important and that their governments should address. The most frequently cited across the continent is unemployment (Afrobarometer, 2015). Youth unemployment is of particular concern, as young people are almost three times more likely to be unemployed than adults, according to the International Labour Office (ILO, 2012). This may explain why governments, through the implementation of programs and policies, attempt to increase employment opportunities for youth in many African countries such as Benin.

National statistics of 2011 in Benin show that the unemployment rate is 2.5% for men and 2.9% among women (INSAE, 2012). The unemployment rate was however higher within the age group 20-24 (6.8%). According to statistics from the School-to-work transition survey (SWTS) in 2012, there were 78,973 young unemployed aged 15-29 years in Benin, which represent 9.1% of the workforce. The duration of youth unemployment is reported to be long in Benin: 42.7% of the unemployed have spent over a year unemployed with 50% for young women and 38.1% for young men. Nearly 60% of the youth unemployed underline the lack of jobs available as a major barrier to their employability. Another impediment for youth employment in Benin, as revealed by the SWTS, is the issue of the lack of vocational and technical education or the low professional experience and the lack of job search assistance (INSAE-BIT, 2013).

It is clearly evident that structural barriers for youth employment in Benin are concerns related to labour supply and labour demand. Since the last decade, Benin has adopted a National Employment Policy and several labor market institutions has emerged to deal with these barriers. Since the meeting of the National Forum on Youth Employment in 2007, there is an institutional reform of the structures in charge of employment. For example, following the conclusions of the Forum, the Government of Benin was seeking to promoting wage employment and self-employment through the activities of the National Agency for Promotion of Employment (ANPE) and the National Fund Enterprise promotion and Youth Employment (FNPEEJ). The "Growth Strategy for Poverty Reduction" (SCRIP 2011-2015) has focused on policies and youth employment initiatives in favor of self-employment and with the support of various techniques and financial partners. The FNPEEJ is facilitating youth access to production inputs through, for example, credit access in collaboration with financial institutions. There is also the youth volunteer program that gives young people seeking

their first jobs, the possibility of learning in public and private structures. Other entrepreneurship promotion projects have emerged such as the project to support the implementation of the Business Promotion Center (BPC) which aims to increased opportunities for productive employment and income-generating activities for young and women¹.

Despite the emergence of several structures and projects, little is known about the effective impacts of these strategies in alleviating youth unemployment in Benin. In this study we use a recent data set from the SWTS implemented in 2014-2015 to empirically examine some context-specific policy choices and factors that may contribute to youth job creation in Benin. We ask whether factors reducing the duration of youth unemployment spell are different from those that increase the likelihood of exiting from unemployment, in that case different policy interventions may be required. In particular, we also ask whether in-school work experience can serve as important pathway for helping youth make a easier transition from school to work. Does a prior work-study combination experience favors youth employment in Benin? In this study we aim thus at:

- (1) Estimate contextual factors that determine both whether (the duration of youth unemployment spell) and when (the likelihood of exiting from unemployment) the school transition to work occurs.
- (2) Estimate the average treatment effect of in-school work experience on the duration of youth unemployment spell.

Some studies have examined the effect of in-school work experience on later labour market returns. These studies rely on the standard human capital theory, the social network theory or social capital theory and the screening theory. Because experience, skills or knowledge acquired increase productivity, acquiring additional labour market experience while studying may lead to additional returns on the labour market. Also because investment in social networks and personal relationships are valuable for labour market outcomes, the previously establishment of social or personal relationships through prior in-school work experience can help finding better employment and may facilitate more quickly unemployment exit.

Using data from a representative survey on Swiss graduates of tertiary education, Geel and Backes-Gellner (2012) show significant positive labour market returns of 'earning while learning' such as a lower unemployment risk, shorter job-search duration, higher wage effect and greater job responsibility. But this is for only for student employment related to the field of study. Häkkinen (2006) used a panel data sample collected on students in the Finnish university and found that earnings of the graduates who worked while at study, increases when starting their career. Yet the significant effects found seems disappear when the author accounted for the selection bias resulting from the work experience while studying. Labour market returns on student employment may also be higher in college graduates than for high school graduates (Molitor and Leigh, 2005) or may be null of student work in secondary education and negative of student work in tertiary education (Hotz et al., 2002), as it is evidenced in the United States. A more recent field experiment in Belgium investigates the impact of student work experience on later hiring chances and finds that neither form of student work experience enhances initial recruitment decisions (Baert et al., 2015). Empirical evidence from these previous studies imply that the effect of in-school work experience on later labour market outcomes is mixed.

Our contribution in this study are twofold. First, from the empirical point of view, little is known about the impact of working while studying on the transition path of youth from school to work in Benin. We are aware of only the work of Björn (2015) who provides a brief picture of the relationship

¹ <http://www.bpcbenin.org/index.php/template/presentation>.

between the work-study combination and subsequent outcomes in schooling and in the labour market in developing countries, using the School-to-work transition survey (SWTS) in 2012. Pooling all countries together, the author finds that having worked during school does indeed imply a higher probability of having achieved one's transition into either stable employment or satisfactory temporary or self-employment. For Benin, he finds that those who did not work during schooling have a higher probability of being transitioned. Yet the author also finds that only those who worked both during and outside the school year are penalized while other individuals who combined work with study have significantly higher rates of transition. We add to the work of Björn (2015) by making use of the recent data set of the 2014-2015 SWTS and using rigorous impact evaluation methods to understand more the work-study combination and youth employment nexus in Benin.

Second, from the policy context perspective, the answer of whether providing incentives to combine study and work for youth is very informative for effective youth employment policy orientation in Benin. As highlighted above, effort and large investments are spent to deal with important barriers of youth employment such as lack of vocational and technical education, low professional experience and lack of job search assistance. Yet these interventions as in majority post schooling interventions may not be as effective in smoothing the transition from school to work for youth. An important feature of the transition is helping youth of acquiring work experience before leaving education by allowing them to familiarize with and to acquire already habits, attitudes, and labor market related information, a part of some youth employment impediments the post interventions policy in Benin are dealing with. If for example the in-school work experience is proved to be as effective, there may be the need for policy interventions in Benin to reorient and/or to expand investments in that direction.

1.3. Methodology

Presentation of the specific techniques that will be used to answer the research questions and how exactly they will be used to do so. Explain whether you will use a particular technique normally used in other contexts or whether you intend to extend a particular method and how you will do so. Explain if these methods have already been used in the context you are interested in (including key references).

We answer the two research questions in different ways but using primarily duration alike models.

For the first research objective: Estimate contextual factors explaining the duration of youth unemployment spell and the likelihood of unemployment exit.

The use of duration models requires to define the event that is to be modeled and the period of observation. The event modeled in our study is the transition for school to work for youth, i.e. unemployment exit for youth that completed their education. Every individual is observed over a defined time interval T , the lower limit is the year of the completion of education, and the upper limit, the year at which he started his first job (in the case of the already employed youth) or the year of the survey (in the case of the youth still unemployed).

In this study, we use a particular duration model called split population duration model (SPDM). Unlike standard duration models, the SPDM relaxes the assumption that all individuals will experience the event. For unemployment exit, the standard duration models would implicitly assume that all unemployed individuals will eventually exit from that situation. This assumption is probably

not reasonable to the extent that some individuals may never quit unemployment. The SPDM take into account this particular type of heterogeneity between observations, that is the possibility that some individuals never exit from unemployment while others will be.

The estimation of a duration model assumes that the duration of youth unemployment spell T is a random variable whose the cumulative distribution function represents the probability that there is an exit from unemployment before or at time t :

$$F(t, \theta) = P(T \leq t), \quad \forall t \geq 0 \quad (1)$$

The probability that the duration of youth unemployment spell exceeds t is defined as the survival function:

$$S(t, \theta) = 1 - F(t, \theta) = P(T > t) \quad (2)$$

and the instantaneous probability of unemployment exit at time t , conditional upon that exit has not yet occurred, is defined as the hazard function:

$$h(t, \theta) = \lim_{\Delta \rightarrow \infty} \frac{P(t \leq T \leq t + \Delta | T \geq t)}{\Delta} = \frac{f(t, \theta)}{S(t, \theta)} \quad (3)$$

$f(t, \theta)$ being the density function and θ a vector of parameters to be estimated.

The SPDM distinguishes unemployed youth who will eventually quit that situation ($q=1$) from censored individuals, that is, those who will never quit the situation ($q=0$). The density corresponding to a youth who quits unemployment is :

$$P(q = 1) * f(t; X, q = 1) = \delta * f(t; X, q = 1) \quad (4)$$

with $P(q = 1) = \delta$ and $P(q = 0) = 1 - \delta$, δ being the separation parameter of the population or the likelihood of a possible exit from unemployment and X , the vector of explanatory variables.

In the case of the censored observation, it could be that (a) the youth still unemployed would exit unemployment if the observation period had been longer or (b) the unemployed youth will never exit from unemployment. The density corresponding to this censored individual is:

$$P(q = 0) + P(q = 1) * P(T > t; X, q = 1) = 1 - \delta + \delta * S(t; X, q = 1) \quad (5)$$

The likelihood function to be maximize consists of the combination of the two above expressions:

$$\ln(L) = \sum c_i \ln[P(\alpha' X_i) f(t|q = 1, X_i)] + (1 - c_i) \ln[1 - P(\alpha' X_i) + P(\alpha' X_i) S(t|q = 1, X_i)] \quad (6)$$

with c , the binary variable equal 1 if the individual has exited unemployment and 0 otherwise. P is the probability of exiting from unemployment, f is the conditional density function for estimating the duration equation and S is the survival function.

The SPDM (Equation 6) implies then to simultaneously estimate the two equations by maximum

likelihood. First, the participation equation, the probability of unemployment exit (δ) - the incidence of exit - can be estimated with a logit or a probit model and therefore can be specified as a function of explanatory variables:

$$\Pr(\text{Exit}|\text{unemployed}, X) = f_1(X) = X'\alpha + \epsilon \quad (7)$$

with X , the vector of explanatory variables. The variable unemployment exit represents the dependent variable in the equation.

The second equation to be estimated is the duration of unemployment spell, conditional on the probability of unemployment exit and the explanatory variables:

$$h(t|\text{Exit}, X) = f_2(X) = X'\beta + \epsilon \quad (8)$$

We use parametric and semi parametric methods to estimate the hazard equation (Equation 8). The estimation of this equation depends on the discrete or the continuous nature of the variable t , the functional form and the assumed distribution of the hazard function. In our study, t takes discrete values as t is the duration of unemployment spell, i.e. the number of years or months of unemployment from the completion of education to the unemployment exit. We use then discrete time SPDM. Therefore, the functional form of the hazard function h is the logistic or the complementary log log (cloglog). The determinants of the duration of unemployment spell will be estimate using parametric accelerated failure time model. We will also use the Cox model, that is the semi-parametric proportional hazard duration model.

In summary, the SPDM distinguishes the effect of the duration of unemployment spell from the effect of the incidence of exiting from unemployment. It allows estimating two types of factors: the effects of explanatory variables on the incidence of unemployment exit and the effects of explanatory variables on the duration of unemployment spell, conditionally to the likelihood that the unemployment exit takes place. Different variables may be included in the SPDM to explain whether and when unemployment exit occurs. The SPDM estimates the separation parameter δ of the population which is the estimated average probability of the unemployment exit cases observed in the sample. This allows testing whether unemployment exit would have took place for each observation. If that is the case ($\delta = 1$) then the SPDM is reduced to the standard duration model that combines the equations (7) and (8) in one equation.

For the second objective: Estimate the average effect of in-school work experience on the duration of youth unemployment spell.

There are some estimations issues when estimating the effect of in-school work experience on the duration of youth unemployment spell. Some studies with a similar objective have been confronted to these issues and account somehow for them in different ways. One issue is the specific nature - survival time - of the duration of youth unemployment spell. Also the issue of observed heterogeneity may be a concern if the effects of households (and youth)' observables characteristics on the duration of youth unemployment spell are not independent to the decision to work while in school. Finally and more importantly, potential endogeneity related to the decision to work while in school is likely.

We use the framework of the potential outcome model (POM) or counterfactual model (Rubin, 1974; Heckman and Navarro-Lozano, 2004; Imbens and Wooldridge, 2009). We are concerned about

estimating the average change in time to exit from unemployment that would occur in the population if all youth had a **work-study combination experience (the treatment)** instead of if no one had that experience.

The average treatment effect (ATE) is the population average of the contrast in outcomes when every youth has in-school work experience and when no one has that experience:

$$ATE = (t_1 - t_0) \quad (9)$$

With t_1 the potential outcome - the duration of unemployment spell - when a youth gets the treatment and t_0 is the potential outcome - duration of unemployment spell - when a youth does not get the treatment.

Each of the two potential outcomes is only observed in one treatment level and the other level of treatment is never observed. This makes difficult the estimation of the (individual-level) treatment effects. The potential outcome model accounts for the missing-data problem by estimating the distribution of individual-level treatment effects. It specifies the potential outcomes corresponding to each youth under each treatment level, the treatment assignment process, and the dependence of the potential outcomes on the treatment assignment process:

$$t_0 = X'\beta_0 + \varepsilon_0 \quad (10)$$

$$t_1 = X'\beta_1 + \varepsilon_1 \quad (11)$$

$$\text{treatment} = S = \begin{cases} 1 & \text{if } Z'\gamma + u > 0 \\ 0 & \text{otherwise} \end{cases} \quad (12)$$

where X and Z are vectors of explanatory variables, β and γ the parameters to be estimated and u and ε the error terms that are not related to X or Z .

The model presented above is described as an endogenous-switching model (Maddala, 1983). The estimates of the coefficient vectors are used to estimate the ATE. We use different treatment-effects estimators to estimate the equations (10) to (12) and the treatment effect, depending on the specified nature of the outcome variable and on the assumption made on the structure of the covariance matrix of the error terms.

In this study, potential endogeneity related to the decision to work while in school is likely because of unobserved heterogeneity or self selection. The sample of the youth working or not while studying is likely to be not random. Engagement in student work is endogenous with respect to later labour market outcomes (Baert et al., 2015). Endogeneity may be an issue if for example poor and/or less able youth students may be pushed to start working earlier (Geel and Backes-Gellner, 2012). It has been argued that the estimated effects of early work experience acquired during school on subsequent labor market success might due to unobserved differences in initial skills, ability, and/or family background that influence both the probability that youth acquire early work experience and the degree of labor market success later in life (Hotz et al., 2002). Also local employment possibilities and labor market conditions during studies might define whether a student enters the labor market prior to graduation (Häkkinen, 2004). Ignoring the endogeneity problem would lead to biased estimated effect of in-school work experience on the duration of youth unemployment spell. We deal with this problem in different ways.

Our first strategy consist of using estimators that rely on the conditional independence assumption (CIA)² that assumes that the potential outcomes are independent of the treatment assignment, once enough observable covariates are controlled for:

$$E(\varepsilon|X, Z) = E(\varepsilon|Z) = E(\varepsilon|X) = 0 \text{ for } j \in \{0, 1\} \quad (13)$$

Geel and Backes-Gellner (2012) use the same approach in correcting for biases by including a large set of variables that directly control for intrinsic and otherwise mostly unobservable characteristics. Following these authors, we use as possible and according to data availability, proxies for individuals' unobservable characteristics such as ability, motivation and liquidity constraints. After conditioning on all these covariates, it is expected that unobserved factors that affect the decision to work while in school - treatment variable - do not have any effect on potential duration of unemployment spell - outcome variable -, and vice versa.

Contrarily to Geel and Backes-Gellner (2012) that use a Tobit model, we use the survival-time likelihood-adjusted-censoring inverse-probability-weighted regression adjustment (*stteffects lac-ipwra*) estimators to estimate the average treatment effect. The *stteffects lac-ipwra* estimators are used to adjust for data censoring. Specifically, these estimators model the outcome and the treatment process and compute the inverse of 'the estimated treatment-probability weights' that are then used for the calculations of the potential outcome means (Wooldridge, 2010, chap. 21; Bai et al., 2013).

The second strategy consists of considering the case that the treatment assignment might be anyway correlated with the potential outcomes leading to the violation of the CIA. Previous studies have used Instrumental Variables (IV) approach that deals with the specific correlation structure between the unobservable factors affecting the treatment and the unobservable factors affecting the potential outcomes (Light, 2001; Häkkinen, 2006). They have used local labour market conditions as an instrument for the acquired work experience, such as the local unemployment rate during the studies. The treatment endogenous in-school work experience variable used by these authors are the sum of months worked during the enrollment. IV approach can thus be used easily with such non binary treatment variable.

In our case of binary treatment, to control for the endogeneity of the treatment assignment, we use the control-function approach that addresses endogeneity problems in a treatment-effects context (Wooldridge, 2010). We use the endogenous treatment-effects estimation; a method that uses a control-function approach for endogeneity by including the residuals from the treatment assignment model as a regressor in the models for the potential outcome³:

$$E(\varepsilon_{ij}|s) \neq 0 \text{ for } j \in \{0, 1\} \quad (14)$$

Equation (14) adds endogeneity to the framework (10) to (13). It states that the unobservables in the potential-outcome equations are correlated to treatment status. We can perform a Wald test to determine whether that hypothesis holds. The main drawback however is that we are not able to account for the censored nature of the outcome variable. The third and final strategy overcomes that

² Also known as unconfoundedness or selection-on-observables.

³ After conditioning on the observable covariates, the estimation allows some remaining unobservable components to affect both treatment assignment and the potential outcomes.

inconvenient in another way.

In a third estimation strategy, we use the generalized structural equation model (gsem). We estimate the following equations (Rabe-Hesketh et al., 2004):

$$\text{treatment} = S = \begin{cases} 1 & \text{if } Z'\gamma + UC + u > 0 \\ 0 & \text{otherwise} \end{cases} \quad (15)$$

$$t = \begin{cases} t^* & \text{if } t^* = S'\alpha + X'\beta + UC'\delta + \varepsilon > 0 \\ 0 & \text{otherwise} \end{cases} \quad (16)$$

where X and Z are explanatory variables as indicated above and $\text{var}(UC) = 1$. t , is treated here as continuous but censored outcome. The common unobserved component (UC) is introduced in equation (15) - the selection probit regression - and in equation (16) - the outcome model -, for allowing the correlation between the two types of equations. Endogeneity can thus be tested through the estimated parameter δ . The estimated parameter α is the marginal average effect of in-school work experience on the duration of youth unemployment spell.

Note that because of the nonlinearities of the selection model, no exclusion restrictions are needed to identify all the models we use. Yet we include in vector Z some variables which do not belong to the vector X to make the estimates more robust. Provided that data are available, one selection instrument could be the local unemployment rate during the studies as previous studies have used. Other selection instruments related to local labour market conditions or stemming from other data source could also be used.

1.4. Data requirements and sources

This is a critical part of the proposal. The key issue is to explain the reason for the use of the particular data. You must establish that they are ideal for the question you wish to address and that you have or will have access to these data before your project begins. Please consult the "[Guide for designing a research project proposals](#)" for more detail.

We use the data from the school to work transition surveys (SWTS) that were carried out in more than 30 countries between 2012 and 2015. We use data from the SWTS for Benin, implemented by the *Institut National de la Statistique et de l'Analyse Economique* (INSAE) in collaboration with the International Labor Organization (ILO) and the MasterCard Foundation, under the project «Work4Youth». The first SWTS for Benin has been implemented in 2012 but we use data from the second and recent SWTS that was implemented in December 2014-January 2015. The 2014-2015 SWTS is nationally representative of 4306 individuals 15-29 years old.

The survey has used a questionnaire with six sections for collecting detailed and rich information concerning youth individuals. These are related to personal and household demographic characteristics, formal education/training, activity history and aspirations, young workers, non-working youth and youth not in the labour force. It is important to note in addition that the Work4Youth Project, under which the data collection has been undertaken, is a five-year partnership between the ILO and The MasterCard Foundation that aims to promote decent work opportunities for young men and women through knowledge and action. As such all these aspects make the SWTS

data set ideal for studying our research questions. The data are already made available to the research team by the Work4Youth Project.

Our unit of analysis represents (according to preliminary data analysis) a sample of 1,162 individual's youth (aged 15-29) in Benin who have completed their schooling (not still at school). The (main) outcome variable is the duration of youth unemployment spell: number of years, educated youth have been in unemployment (every individual is observed over a defined time interval T, the lower limit is the year of the completion of education, and the upper limit, the year at which he started his first job (in the case of the already employed youth) or the year of the survey (in the case of the youth still unemployed). The outcome variable is thus a right-censored survival time variable. Another related outcome variable is the unemployment exit (binary variable indicating the youth is employed). The (main) treatment variable is the binary variable indicating whether the youth has already worked while studying. It is the work-study combination experience (in-school work experience).

Preliminary descriptive statistics of some variables are shown in the following table:

Variables	All sample (1,162)		Treated : has worked While schooling (202)		Untreated : has not worked while schooling (960)	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Treatment: work-study combination (1/0)	0.17	0.37	-	-	-	-
Outcome: duration unemployment (# year)	3.66	4.15	2.57	3.23	3.89	4.29***
Outcome: unemployment exit (1/0)	0.30	0.46	0.41	0.49	0.28	0.45***
Control: gender (male=1)	1.50	0.50	1.40	0.49	1.52	0.49***
Control: age (# year)	22.49	4.18	22.76	4.23	22.44	4.17

Mean comparison test (t-test). Significant mean differences are indicated with *** p<0.01, ** p<0.05, * p<0.10.

SECTION II – CAPACITY BUILDING

2.1. List of team members

For all team members, please indicate the age sex, as well as relevant/prior training and experience in the issues and research techniques involved (start with team/project leader).

Note that PEP favors gender-balanced teams, composed of one senior (or experienced) researcher supervising a group of junior researchers, including **at least 50% female researchers**, all contributing substantively to the research project. PEP also seeks gender balance in team leaders and thus positively encourages female-led research teams. (Each listed member must post an up-to-date CV in their profile on the PEP website – refer to [“How to submit a proposal”](#))

Name	Age	Sex (M,F)	Training and experience
Sènakpon Fidèle Ange Dedehouanou	More than 30	M	PhD in Development Economics obtained at KU Leuven, Belgium. He is researcher at the Faculty of Business and Economics, University of Abomey Calavi in Benin. He has been involved in several research projects in West African countries and led some of them. He had already some peer reviewed publications. He focused on micro-economic and macro-economic issues of development. He has strong quantitative skills and he has a thorough understanding of econometric techniques. He is a member of The African Growth and Development Policy Modeling Consortium (AGRODEP) and has undertaken several studies with institutions such as the Economic Research Consortium (AERC), The Global Development (GDN) and the Partnership for African Social and Governance Research (PASGR). He has presented research works in several international conferences. He participated in Policy Engaged Research Communication Training Workshop organized by PASGR.
Sessinou Erick Abel Dedehouanou	29	M	Master in Economics obtained at University of Abomey Calavi, Benin. He is lecturer in Economics and Junior researcher. He has knowledge in Computer Science and he has practical experience in the use of econometric and statistical software, including survey database creation, data cleaning and data analysis with Stata. He has been involved in several research projects (PASGR, PEP). He has already published a paper in his short career. He

			currently involved in one of the most important programs for youth employment, as an Intern of the National Agency for Promotion of Employment (ANPE) to the Ministry of Planning and Development in Benin.
Hilaire G. Houeninvo	More than 30	M	Ph.D. in Economics from the University of Cocody, Abidjan. He is Assistant Lecturer of Economics and researcher at the Faculty of Economic and Management, University of Abomey Calavi, Benin. His research interests include health financing in Africa, health outcome, public spending effectiveness and pro poor growth as well as economic growth issues. He has extensive experience in working with the government of Benin. He has published some articles in peer review journals and has participated in several conferences. He also has a thorough understanding of new econometrics methods.
Djohodo Inès Monwanou	More than 30	F	She is a Phd student with a Master research degree in Applied Economics at the Faculty of Economics - University of Abomey-Calavi (Benin). Her research experience focuses on micro-econometric analysis. She attended several training programmes such as "Public-private partnerships: how to provide better infrastructure for services", "The green industrial transformation and the promotion of green entrepreneurship as sustainable and inclusive growth engine in rural Africa" and "Towards a Green Economy: trade enterprises facing the challenge of Biodiversity and Ecosystem Services". She also attended several workshop such as "Communication Policy Research africa".
Urielle Judith Tossou	30	F	Master in Economics obtained at University of Abomey Calavi, Benin. She has gained some experiences during her different traineeship in the Monitoring Unit of the Economic and Financial Programs (CSPEF) of the Ministry of Economy and Finance (MEF) and the African Executing Agency for Development (AFREDEV-SA) as Assistant Branch within the National Employment Agency (ANPE). She also has an extensive experience in data collection.
Mahouli Mireille-Marie Mintogbe	27	F	Master (research) in population science. She has extensive experience in data collection, data management and data analysis with Stata and

			Spss. She has also experience in writing brief reports, preparing meetings, conferences and presentating research report.
--	--	--	---

2.2. Expected capacity building

Describe the research capacities that team members (and potentially their affiliated institutions) are expected to build through their participation in this project.

This is an important aspect in the evaluation of proposals and should be presented with detail. What techniques, literature, theories, tools, etc. will the team and their institutions learn (acquire in practice) or deepen their knowledge of? How will these skills help team members in their **career development**? What are the current state of knowledge of each team members in regard to the project you are proposing?

Name	Benchmark and expected capacity building
Sènakpon Fidèle Ange Dedehouanou	He has already an experience in data analysis and in research in general. Yet he is still need certain experience in others areas. This project will help him to develop more skills in policy engagement, research communication, leading research or mentoring and interacting with media.
Sessinou Erick Abel Dedehouanou	This project will help him to reinforce his capacities in micro econometric analysis in particular and in research in general (written and presentation skills for example). As he is planning to enroll in doctoral studies, this project will help him to be prepared for that.
Hilaire G. Houeninvo	This project will help him to develop more skills in engaging more with policy actors, in research communication and in writing policy briefs.
Djohodo Inès Monwanou	Her participation in this project will strengthen her capacity in micro-econometric analysis, she is also interested to improve her writing capacities and she will significantly enhance her knowledge of the methodological approaches.
Urielle Judith Tossou	This project will help her to improve her skills in Research Methods (econometrics methods), in participation in conference, in data analysing, in writing and analysing research results, and in policy engagement.
Mahouli Mireille-Marie Mintogbe	This project will help her to improve her skills in Research Methods (econometrics methods), in participation in conference, in writing and analysing research results, and in engaging with policy actor.

Add comments and describe institutional capacity building if applicable.

<i>Insert your text here</i>

--

Indicate which specific tasks each team member would carry out in executing the project.

Name	Task and contribution to the project
Sènakpon Fidèle Ange Dedehouanou	Overall Team Leader for the assignment with responsibility for ensuring quality and timely delivery of the project activities, overall coordination of this research project, Report Writing and logistics. In this project, he will be supervising secondary data collection, data cleaning and data analysis, participation in the development of methodology, model estimation and results analysis. He will focus also on the policy implication from the results.
Sessinou Erick Abel Dedehouanou	He will contribute in secondary data collection, data cleaning and data analysis, the analysis of results and the report and policy brief writing. He will focus also on the literature review on youth employment.
Hilaire G. Houeninvo	The researcher will contribute in the analysis of results and the report and policy brief writing. He will also help in contacting policy actors and organizing meetings with them. In general he will be in charge of policy engagement and related reporting.
Djohodo Inès Monwanou	Data analysis, discussion of results, preparation of report, help in contacting policy actors, workshop organisation and preparation meeting with policy actors under in collaboration with Dr Houeninvo.
Urielle Judith Tossou	Data analysis, discussion of results, preparation of report, help in contacting policy actors, workshop organisation and preparation meeting with policy actors.
Mahouli Mireille-Marie Mintogbe	Data analysis, discussion of results, preparation of report, help in contacting policy actors, workshop organisation and preparation meeting with policy actors.

2.3. List of past, current or pending projects in related areas involving team members

Name of funding institution, title of project, list of team members involved

Name of funding institution	Title of project	Team members involved
Centre for Institutions and economic performance (LICOS), KU Leuven	High-Value Supply Chains, Food Standards and Rural Households in Senegal	Sènakpon F. A. Dedehouanou
Partnership for Economic Policy (PEP)	Spillovers from Off-farm Self-Employment Opportunities in Rural Niger	Sènakpon F. A. Dedehouanou

Partnership for Economic Policy (PEP)	Migration, Remittances, Labor Market and Human Capital in Senegal	Sessinou Erick Abel Dedehouanou

SECTION III – POLICY ENGAGEMENT

3.1. Policy context and needs

Describe the specific policy issues or needs that your research aims to address; how your potential outcomes and findings **may be used in policy making**? Please be as precise as possible, indicating specific current or prospective policies and the specific contributions your research would make.

Also, justify **timing** of your research in terms of policy and socioeconomic **needs** and **context** – e.g. reference to existing, planned or potential policies at the national, regional or local level; specific political context; international examples of similar policy problem or solution, etc.

In this study we aim at analysing how specific educational interventions and labour market interventions can alleviate youth unemployment in Benin. As highlighted in the section 1.2 above, several structures and projects or strategies have emerged to deal with unemployment in general and particularly with youth unemployment in Benin. These represent enough efforts and large investments from different policy actors undertaken these strategies. One example of a strategy from the government of Benin is the youth volunteer program that gives young people seeking their first jobs, the possibility of learning in public and private structures. Our study explore the applicability of a related programme that may smooth the transition from school to work for youth. This "work-study" or " Student Work Experience" programme is reported to be "a common practice among many OECD countries" (Baert et al., 2015). If this programme is proved to be applicable in the context of Benin, its intervention may take a form of both mentorship for youth - that enhance the availability of labour market information - and social protection - that provides part-time work experience for youth students to alleviate financially their educational expenses. Please see also the development in the last part of the section 1.2.

3.2. Consultations to date (please see the appendix at the end of the document)

List all (past) consultations with potential research users (e.g. policy makers or stakeholders) that have helped define your research question, and/or informed you of the specific policy context described above. Include a list of names, institutions and email addresses (add rows when needed).

Name	Title	Institution	Email
Alexandre BIAOU	Directeur Général (DG/INSAE)	Institut National de la Statistique et de	insae@insae-bj.org

		l'Analyse Économique (INSAE)	
Urbain AMEGBEDJI	Directeur Général ANPE	Ministère du Travail, de la Fonction Publique et des Affaires Sociales Agence Nationale pour la Promotion de l'Emploi (ANPE)	directiongenerale@anpe-bj.org anpe.benin@yahoo.fr
Modeste T. KEREKOU	Directeur Générale du FNPEEJ	Fonds National de Promotion de l'Entreprise et de l'Emploi des Jeunes (FNPEEJ)	Info@fnpeej.org
Mathias Pofagi	Directeur National PPEA	Projet de Promotion de l'Entreprenariat Agricole (PPEA)	matpofagi@gmail.com ppea.benin@gmail.com

3.3. Identify target audiences

Identify potential users of your research findings, including policy makers, advisors and other key stakeholders. Provide a list of institutions and, whenever possible, specific individuals to be targeted for effective policy influence. Please also indicate whether you have already made contacts within the institutions (add rows when needed).

Name	Title	Institution	Email
Alexandre BIAOU	Directeur Général (DG/INSAE)	Institut National de la Statistique et de l'Analyse Économique (INSAE)	insae@insae-bj.org
Urbain AMEGBEDJI	Directeur Général ANPE	Ministère du Travail, de la Fonction Publique et des Affaires Sociales Agence Nationale pour la Promotion de l'Emploi (ANPE)	directiongenerale@anpe-bj.org anpe.benin@yahoo.fr
Modeste T. KEREKOU	Directeur Générale du FNPEEJ	Fonds National de Promotion de l'Entreprise et de l'Emploi des Jeunes	Info@fnpeej.org

		(FNPEEJ)	
	Coordonnateur Projet d'Appui à la mise en place des BPC	Business Promotion Center (BPC) Centre de ressources pour l'entrepreneuriat	bpcprojet@bpcbenin.org
Mathias Pofagi	Directeur National PPEA	Projet de Promotion de l'Entrepreneuriat Agricole (PPEA)	matpofagi@gmail.com ppea.benin@gmail.com
Damien OWOLABI	Président Bureau Exécutif National OCJ	Organe Consultatif de la Jeunesse (OCJ) du Bénin	contacts@ocjbenin.org info@ocjbenin.org secretaire@ocjbenin.org
Pauline CONDE	Directrice Générale OBSVJ	Office Béninois des Services du Volontariat des Jeunes (OBSVJ) Corps National des Jeunes Volontaires pour le Développement (CNJVD)	http://www.benivolontariat.com/contact.php
Claude Padonou	Responsable du Groupe Programme « Allo service public » pour jeunes	Groupe Media Contact	contact@groupmediacontact.com
Achille HOUSSOU	Leader Thématique Croissance inclusive / PNUD	Programme des Nation Unies pour le Développement au Bénin (PNUD Bénin)	achille.houssou@undp.org

We already did preliminary consultations by meeting with the representatives of the National Agency for Promotion of Employment (ANPE), the National Fund Enterprise promotion and Youth Employment (FNPEEJ), the Continuing Professional Development and Apprenticeship Development Fund (FODEFCA), the Institut National de la Statistique et de l'Analyse Économique (INSAE) and the Ministry of Labor, Public Service and Social Affairs (MTFPAS). Note that ANPE, FNPEEJ and FODEFCA are placed under the supervision of the MTFPAS.

The INSAE expressed its willingness to help the team throughout the process of the research by providing us data information and organizing seminars within the institutions to discuss on the project

and results with other researchers. According to the General Director of ANPE, the institution needs independent studies on unemployment that can inform them about the efficacy of policies to be implemented. ANPE is particularly interested in our research question, said the Director that confirmed his engagement to allow our team to have access to national documentation on employment, to interact with the research team and consider results and recommendations derived from our research. As ANPE is involved, among other, in a post schooling intervention policy that gives opportunities to young educated people the possibility of learning in public and private structures, we believe that our research results will be informative to that institution.

The Director of FNPEEJ and FODEFCA found our research question interesting. They expressed their concern about the adequacy between training and self-employment because the usual training is not actually successful as the (educated) leavers still expect salaried jobs, after the training. According to the Director of FNPEEJ, failure have been observed concerning most projects held by people without practical training, contrary to those who did nevertheless 3 years of dual (work-study) training. FNPEEJ “has even proposed to the Government, concerning entrepreneurship, to focus only on those who have received this dual training because they have a vocation to succeed.”, said the Director. We also met the Director of the “Institut national d’ingénierie de la formation et de renforcement des capacités des formateurs” (National Institute of Engineering for Training and Capacity Building of Trainers) who were fully interested in our study.

3.4. Define outreach and engagement strategy

How, from proposal design to the dissemination of your research results, will you consult and communicate with these users to both gather their inputs and keep them informed of your project, in order to increase chances of research uptake? You can refer to [PEP requirements in terms of policy engagement and research communication](#) to have a better idea of what is expected in terms of grantees’ initiatives in this area

Moving forward in the research process, policy actors will be engaged throughout the research. Policy actors engagement will be considered in several phase of the research. At the beginning, prior to the acceptance of the proposal by PEP, we will contact a majority of policy actors involved in youth unemployment issues to inform and discuss about the research objective, our expectation and ask for collaboration. At this stage we will also be provided secondary data and documentation by the policy actors upon their agreement. After the acceptance of the proposal by PEP, we will organize a short workshop with the policy actors. The objective is to create a network between these actors and between the actors and the research team in order to keep contact throughout the research project. Beyond this meeting we will also continually undertake frequent individual meeting with these actors. At a advanced stage of the research project, we will meet the policy actors to discuss on the preliminary results by organizing a workshop with the policy actors and also with some potential users of the research findings. Individual meeting are also possible in this stage as some policy actors would wish. Finally at the end of the project we will organize a national conference to share research results to a large audience.

3.5. Outline your preliminary dissemination strategy

Identify potential and relevant communication channels (e.g. direct stakeholder meetings, conferences, media/press, web platforms, etc.) through which you will be able, or attempt, to communicate and disseminate your research and research findings.

Name	Title	Institution	Email
Alexandre BIAOU	Directeur Général (DG/INSAE)	Institut National de la Statistique et de l'Analyse Économique (INSAE)	insae@insae-bj.org
Urbain AMEGBEDJI	Directeur Général ANPE	Ministère du Travail, de la Fonction Publique et des Affaires Sociales Agence Nationale pour la Promotion de l'Emploi (ANPE)	directiongenerale@anpe-bj.org anpe.benin@yahoo.fr
Modeste T. KEREKOU	Directeur Générale du FNPEEJ	Fonds National de Promotion de l'Entreprise et de l'Emploi des Jeunes (FNPEEJ)	Info@fnpeej.org
	Coordonnateur Projet d'Appui à la mise en place des BPC	Business Promotion Center (BPC) Centre de ressources pour l'entreprenariat	bpcprojet@bpcbenin.org
Mathias Pofagi	Directeur National PPEA	Projet de Promotion de l'Entreprenariat Agricole (PPEA)	matpofagi@gmail.com ppea.benin@gmail.com
Damien OWOLABI	Président Bureau Exécutif National OCJ	Organe Consultatif de la Jeunesse (OCJ) du Bénin	contacts@ocjbenin.org info@ocjbenin.org secretaire@ocjbenin.org
Pauline CONDE	Directrice Générale OBSVJ	Office Béninois des Services du Volontariat des Jeunes (OBSVJ) Corps National	http://www.benivolontariat.com/contact.php

		des Jeunes Volontaires pour le Développement (CNJVD)	
Claude Padonou	Responsable du Groupe Programme « Allo service public » pour jeunes	Groupe Media Contact	contact@groupmediacontact.com
Achille HOUSSOU	Leader Thématique Croissance inclusive / PNUD	Programme des Nation Unies pour le Développement au Bénin (PNUD Bénin)	achille.houssou@undp.org

Outline your preliminary dissemination strategy. Note that PEP expects grantees to disseminate information about their research work and (expected) outcomes throughout the project cycle, and not only after publication.

- consultation with policy actors before final report and discussion with them on the findings
- consultation with policy actors on the research results and recommendations
- consultation with the media (for preparing an interview, a piece opinion paper, in perspective of organizing a national conference)
- Making policy brief
- use the sites of different organisations for advertizing
- participate in international conferences
- newspaper, opinion piece
- blog
- pep facebook/tweeter
- other research centers web sites
- National conference (where policy brief will be distributed)
- interaction with media

SECTION IV – OTHER CONSIDERATIONS

4.1. Describe any ethical, social, gender or environmental issues or risks that should be noted in relation to your proposed research project.

Insert your text here

4.2. References and plagiarism:

Applicants should be very careful to avoid any appearance of plagiarism. Any text of three or more consecutive words that is borrowed from another source should be carefully contained between quotation marks with a reference to the source (including page number) immediately following the quotation. It is essential that we be able to distinguish what you have written yourself from what you have borrowed from elsewhere.

Note also that copying large extracts (such as several paragraphs) from other texts is not a good practice, and is usually unacceptable. For a fuller description of plagiarism, please refer, for example, to the following website:

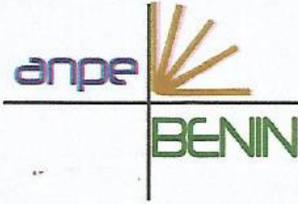
- <http://writing.yalecollege.yale.edu/advice-students/using-sources/understanding-and-avoiding-plagiarism>

PEP will be using a software program to detect cases of plagiarism.

References

- Afrobarometer (2015), "Par où commencer? Concilier les objectifs de développement durable et les priorités populaires", *Dépêche* No. 67 | 17 décembre 2015
- Baert, Stijn and Rotsaert, Olivier and Verhaest, Dieter and Omeij, Eddy (2015) A Signal of Diligence? Student Work Experience and Later Employment Chances. IZA Discussion Paper No. 9170. Available at SSRN:<http://ssrn.com/abstract=2655119>
- Bai, X., A. A. Tsiatis, and S. M. O'Brien. 2013. Doubly robust estimators of treatment-specific survival distributions in observational studies with stratified sampling. *Biometrics* 69: 830–839.
- Björn Nilsson (2015), "Does the work-study combination among youth improve the transition path?", Technical Brief No.2 November 2015, Youth Employment Programme - 4 route des Morillons - CH-1211 Genève 22 - www.ilo.org/w4y
- Geel, R. and Backes-Gellner, U., (2012), "Earning while learning: When and how student employment is beneficial", *Labour*, 26:3, 313-340.
- Häkkinen I. (2006) 'Working While Enrolled in A University: Does It Pay?', *Labour Economics* 13: 167–189.
- Heckman, J., and S. Navarro-Lozano. 2004. Using matching, instrumental variables, and control functions to estimate economic choice models. *Review of Economics and Statistics* 86: 30–57.
- Hotz, V. J., Xu, L. C., Tienda, M., Ahituv, A. (2002): Are there returns to the wages of young men from working while in school? *Review of Economics and Statistics*, 84, 221–236.
- Imbens, G. W., and J. M. Wooldridge. 2009. Recent developments in the econometrics of program evaluation. *Journal of Economic Literature* 47: 5–86.

- INSAE (2012), "Rapport sur Enquête Modulaire Intégrée sur les Conditions de Vie des ménages", 2ème Edition (EMICoV 2011), Institut National de la Statistique et de l'Analyse Économique (INSAE)
- INSAE-BIT (2013), "Transition de l'école vers la vie active des jeunes femmes et hommes au Bénin ", Bureau international du Travail ; Institut National de la Statistique et de l'Analyse Economique (INSAE). - Genève: BIT, 2013, Work4Youth Série de publication ; No.7 ; ISSN 2309-6780 ; 2309-6799 (web pdf)
- Light, A. (2001): In-school work experience and the returns to schooling. *Journal of Labor Economics*, 19, 65–93.
- Maddala, G. S. 1983. Limited-Dependent and Qualitative Variables in Econometrics. Cambridge: Cambridge University Press.
- Molitor, C. J., Leigh, D. E. (2005): In-school work experience and the returns to two-year and four-year colleges. *Economics of Education Review*, 24, 459–468.
- OIT (2012), " La crise de l'emploi des jeunes: Appel à l'action ", Résolution et conclusions de la 101e session de la Conférence internationale du Travail, Première édition 2012, Genève, ISBN 978-92-2-226492-6 (imprimé), ISBN 978-92-2-226493-3 (pdf Web).
- Rabe-Hesketh, S., Skrondal, A., & Pickles, A. (2004). Generalized multilevel structural equation modeling. *Psychometrika* 69: 167–190.
- Rubin, D. B. 1974. Estimating causal effects of treatments in randomized and nonrandomized studies. *Journal of Educational Psychology* 66: 688–701.
- Wooldridge, J. M. 2010. Econometric Analysis of Cross Section and Panel Data. 2nd ed. Cambridge, MA: MIT Press.



Agence Nationale Pour l'Emploi

Cotonou, le 02 novembre 2016

N° 180/ANPE/SP

LETTRE DE RECOMMANDATION

Je soussigné, Monsieur Urbain AMEGBEDJI, Directeur Général de l'Agence Nationale pour l'Emploi (ANPE) atteste que l'étude intitulée "Youth unemployment and transition from school to work in Bénin" est pertinente au regard du contexte béninois et intéresse ma structure. En effet, le chômage notamment des jeunes est l'une des préoccupations majeures des autorités publiques béninoises y compris l'ANPE.

L'ANPE a besoin d'études indépendantes sur le chômage des jeunes capables d'éclairer l'institution sur l'efficacité des politiques à mettre en œuvre. Ainsi les projets d'études comme celui-ci qui visent à comprendre si les facteurs réduisant la durée de chômage des jeunes sont différents de ceux qui augmentent la chance d'en sortir sont d'un grand intérêt pour l'agence. De même, l'évaluation de l'impact de la formation duale des jeunes comme politique de réduction du chômage des jeunes intéresse aussi mon Agence.

L'ANPE s'engage non seulement mettre à disposition la documentation nationale sur l'emploi, à échanger avec l'équipe de recherche mais aussi à utiliser les résultats et recommandations issus de cette étude.

Une Agence
sous tutelle
du Ministère
en charge de
l'Emploi.



Le Directeur Général,

Urbain AMEGBEDJI