



Dipartimento di
Economia e Statistica
Cognetti de Martiis

Avviso Interno n° 4 del 15/6/2015

**BANDO INTERNO PER L'INDIVIDUAZIONE DI N. 1 UNITA'
TRA IL PERSONALE DIPENDENTE DELL'ATENEO
PER ATTIVITA' DI SUPPORTO ALLA RICERCA**

Il Dipartimento di Economia e Statistica "Cognetti de Martiis" ha la necessità di far eseguire la seguente attività di supporto alla ricerca per il progetto "REFERRAL HIRING".

Il personale a tempo indeterminato, interessato a svolgere l'attività di cui sopra, in orario di servizio e senza compensi aggiuntivi, potrà manifestare la propria disponibilità utilizzando il modulo allegato. La durata dell'incarico è pari a **150 ore**. La sede di riferimento per lo svolgimento dell'incarico è il Dipartimento di Economia e Statistica "Cognetti de Martiis", Lungo Dora Siena n. 100/A - Torino.

In nessun caso è consentita l'attribuzione di mansioni superiori.

Requisiti di ammissione e conoscenze richieste:

1. Diploma di laurea specialistica, laurea magistrale/specialistica o titolo equivalente in Scienze Statistiche, Scienze Politiche, Economia, Scienze Sociali;
2. Esperienza nella costruzione e interrogazione di basi di dati relazionali per lo svolgimento delle operazioni descritte nell'allegato tecnico;
3. Buona conoscenza della lingua inglese al fine di interagire con i soggetti non italiani che partecipano al progetto.

Alla domanda dovranno essere allegati:

1. Curriculum vitae datato e firmato, da cui si evinca in modo preciso il possesso dei requisiti richiesti (titoli culturali ed esperienze professionali);
2. Nulla osta della struttura di appartenenza.

La valutazione di idoneità dell'incarico sarà basata sul curriculum e sui titoli posseduti.

La domanda dovrà pervenire a questa struttura inderogabilmente entro e non oltre le ore 12 del giorno 22/6/2015 mediante una delle seguenti modalità:

- consegna diretta alla Segreteria del Dipartimento di Economia e Statistica "Cognetti de Martiis" nei seguenti orari: dal lunedì al venerdì dalle ore 9 alle ore 12
- a mezzo raccomandata con ricevuta di ritorno al seguente indirizzo:
Dipartimento di Economia e Statistica "Cognetti de Martiis" - Lungo Dora Siena n.100/A - 10153 Torino

con esclusione di qualsiasi altro mezzo.

Non saranno ammessi i candidati le cui domande pervengano, per qualsiasi motivo, successivamente al suddetto termine. L'esito della selezione, in presenza di domande di partecipazione, sarà pubblicato sul sito web della struttura. Se nessun candidato sarà giudicato idoneo, ovvero in assenza di domande di partecipazione da parte del personale interno, sarà avviata apposita selezione esterna, previa verifica della necessaria disponibilità finanziaria. Il presente bando, con i relativi moduli, viene pubblicato sul sito web della struttura per un periodo non inferiore a sette giorni e diffuso tramite *infonews*.

f.to Roberto Marchionatti
Direttore del Dipartimento
di Economia e Statistica "Cognetti de Martiis"

Al Direttore del Dipartimento di Economia

"S. Cagnetti de Martiis"

Oggetto: Manifestazione di interesse allo svolgimento dell'attività di supporto alla ricerca per il progetto "REFERRAL HIRING".

Il sottoscritt _____ (matr. _____),
nato/a _____ il _____
in servizio presso _____ (tel. _____)
E-mail _____
inquadrato/o nella Cat. _____ Area _____

DICHIARO

A) di essere disponibile a prestare l'attività descritta nell'Avviso Interno n. _____ del _____, durante l'orario di servizio e senza compensi aggiuntivi.

B) di essere in possesso del seguente titolo di studio: _____ rilasciato da _____ con la votazione di ____/____ in data _____

C) di svolgere la seguente attività lavorativa: _____

D) di aver dettagliato nel curriculum vitae allegato al presente modulo la durata, la tipologia, la natura dell'esperienza professionale richiesta nel bando di selezione nonché ogni altro elemento comprovante le capacità a svolgere le attività oggetto dell'incarico.

Allego nulla osta della struttura di appartenenza.

Recapito cui indirizzare eventuali comunicazioni:

Telefono n. _____ - e-mail _____

Il/La sottoscritto/a esprime il proprio consenso affinché i dati personali forniti possano essere trattati nel rispetto D.Lgs. 196/2003 per gli adempimenti connessi alla presente procedura.

Data, _____ Firma _____

Il/La sottoscritto/a, consapevole delle sanzioni penali previste dall'art. 76 del D.P.R. 28/12/2000 n. 445 nel caso di mendaci dichiarazioni, falsità degli atti, uso o esibizione di atti falsi o contenenti dati non più rispondenti a verità DICHIARA sotto la sua personale responsabilità che tutto quanto sopra riportato corrisponde al vero.

Il/La sottoscritto/a dichiara altresì che le eventuali fotocopie allegate sono conformi all'originale in proprio possesso, ai sensi dell'art. 46 del D.P.R. 445/2000.

Data, _____ Firma _____

(NULLA OSTA DELLA STRUTTURA DI AFFERENZA)

IL SOTTOSCRITTO _____

RESPONSABILE DEL _____ (STRUTTURA DI
APPARTENENZA DEL DIPENDENTE)

AUTORIZZA L'ASSEGNAZIONE TEMPORANEA DEL DOTT. / SIG. _____
PER _____ (PERIODO) PRESSO _____,
SENZA ULTERIORE RICHIESTA DI SOSTITUZIONE DELLO STESSO.

DATA _____

FIRMA E TIMBRO

**DICHIARAZIONE SOSTITUTIVA DI ATTO NOTORIO E DI CERTIFICAZIONE
AI SENSI DEGLI ARTICOLI 46 E 47 DEL D.P.R. 28.12.2000 N. 445 E s.m.i.**

Il/La sottoscritt _____
(cognome e nome)

nato/a a _____ prov. _____ il _____

e residente a _____ Via _____

consapevole che, le dichiarazioni mendaci, la falsità negli atti e l'uso di atti falsi sono puniti ai sensi del codice penale e delle leggi speciali in materia, e consapevole che ove i suddetti reati siano commessi per ottenere la nomina a un pubblico ufficio, possono comportare, nei casi più gravi, l'interdizione dai pubblici uffici;

DICHIARA

- Di essere in possesso dei seguenti titoli:

- Che le fotocopie dei titoli allegati alla domanda, di seguito elencati, sono conformi all'originale:

Data, _____

Il Dichiarante

ALLEGATO TECNICO

A. DATABASE

The dataset contains archives coming from different sources:

- PLANET: administrative archives on labour market flows.
- ASIA: official firm registry.
- REPRINT: survey data on offshoring activities of firms.
- AIDA: balance sheet data from Bureau van Dijk.

For each archive, a .csv file is produced with variable names and data, plus a .dct file containing the dictionary, with variable names, types and labels.

Value codes for the Planet and Asia archives are stored respectively in the Planet_codes.xls and Asia_codes.xls files (one sheet per variable).

Value codes for the other archives are self-explaining.

PLANET

There are 7 archives based on Planet data:

1. **planet_asia_0812**: contains data on labour market flows involving all firms in Veneto registered in Asia (these are firms active for at least 6 months in a given year), for the years 2008-2012.
2. **planet_noasia_0812**: contains data on labour market flows involving all firms in Veneto not registered in Asia, for the years 2008-2012.
3. **planet_old**: contains data on labour market flows available years prior to 2008.

All these archives share the same structure with the exception of planet_asia_0812 which has an extra key for linkage to Asia. They are organised by worker-firm events: each event between a worker and a firm (originating a labour market flow) is stored as a separate record.

4. **planet_workersinfo**: contains personal information on workers present in Planet. There is one record per worker, with the most updated information (eg. last educational attainment).
5. **planet_workershistory**: reconstructs a labour market career for each worker present in Planet. There is one record per worker.
6. **planet_asia_0812_firmclosed**: contains the subset of firms in planet_asia_0812 which closed during the period. Three definitions of firm closure are employed: (i) official firm closure as (and if) registered in Asia, (ii) firm closure as motivation for workers' dismissal in Planet (closure date is the latest dismissal occurred with such a motivation), (iii) a combination of the two plus other information on workers' flows coming from Planet.
7. **planet_noasia_0812_firmclosed**: contains the subset of firms in planet_noasia_0812 where at least one worker was dismissed for firm closure. Closure date is the latest dismissal occurred with such a motivation.

ASIA

There are 4 archives based on Asia data:

1. **asia_planet**: contains information on the firms which are also present in Planet (these are the firms for which some movements occurred).
2. **asia_noplanet**: contains information on the other firms registered in Asia who are active in the Veneto region in the period 2008-2012 and are not present in Planet.

These two archives share the same structure and contain yearly information (registered in December each year).

3. **asia_planet_firmchanged**: contains the subset of firms in **asia_planet** who have presumably undergone through a process of transformation (merge / acquisition) in the period 2008-2012. One indicator (**firm_changed_1**) is constructed on the basis of a bulk of workers moving together in or out of the firm; the other indicator is constructed on the basis of some worker having no end date for his/her employment spell, with the firm having exited Asia.
4. **asia_firmliquidation**: contains a flag for firms (in both **asia_planet** and **asia_noplanet**) which are in liquidation.

REPRINT

There are 3 archives based on Reprint data:

1. **reprint_planet**: contains information on firms present in Planet with offshoring activities (foreign direct investments). There is one record per firm, with the last available information.
2. **reprint_foreign_subsidiaries**: contains data on the foreign subsidiaries of each of the firms in **reprint_planet**. There is one record per subsidiary per firm.
3. **reprint_planet_aggregated**: aggregates the information in **reprint_foreign_subsidiaries** by firm. There is one record per firm.

AIDA

There is only 1 archive based on Aida data:

1. **aida_planet_asia**: contains balance sheet data for all limited companies (“società di capitali”) in **planet_asia_0812** with an yearly turnover of no less than 1,000,000 Euros.

B. VARIABLES

planet_asia_0812 / planet_noasia_0812 / planet_old

```
long    start_contract      `start date of the contract`
long    end_contract_stated `stated end date of the contract`
byte    id_record_spell     `id of record within employment spell (counter)`
long    id_spell            `id of employment spell`
long    worker_id           `worker id`
str1    time                `time arrangement`
str3    ncba                `national collective bargaining agreement`
str7    contract_type       `contract type`

_newline
str10   occupation          `occupation`
str16   firm_fiscalcode     `fiscal code of the firm`
str10   sector              `sector (nace-like)`
str4    town_work           `location of firm`
str3    citizenship         `citizenship`
str4    town_residence      `worker's residence`

_newline
str4    town_home           `worker's domicile`
str2    event_type          `reason for starting the contract`
int     start_spell         `start of employment spell`
long    end_spell           `end of employment spell`
str2    termination_cause   `reason for termination of the employment spell`
long    firm_id_planet      `firm id (Planet)`
byte    tag_error_w         `error tag for worker`
byte    tag_error_f         `error tag for firm`
float   end_contract_actual `date of termination of the contract (possibly different from
stated end of cont`
```

planet_workersinfo

```
long    worker_id           `worker id`
str16   worker_fiscalcode   `fiscal code of the worker`
str50   surname             `surname`
str50   name                `name`
str3    citizenship         `citizenship`
long    date_birth          `date of birth`
str1    gender              `gender`
str4    country_birth       `country of birth`
str4    town_birth          `place of birth`
str2    education           `education`
```

planet_workershistory

```
long    start_spell         `start of current spell`
long    worker_id           `worker id`
str2    empl_status         `employment status`
str2    event_type2         `type of event`
str2    empl_status_details `employment status (details)`
long    end_spell           `end of present spell`
int     seniority_months    `months of seniority`
byte    seniority_days      `days of seniority`
str3    citizenship         `citizenship`
str4    town_residence      `worker's residence`
str4    town_home           `worker's domicile`
str16   empl_status2        `employment status (Osservatorio)`
```

planet_asia_0812_firmclosed

```
long    firm_id_planet      `firm id (Planet)`
int     end_business_asia   `(max) end_business_asia`
float   end_business_imputed `(max) end_business_imputed`
long    end_business_planet `closing date (Planet)`
```

planet_noasia_0812_firmclosed

```
long    firm_id_planet      `firm id (Planet)`
int     end_business_planet `closing date (Planet)`
```

asia_planet / asia_noplanet

```

str4   firm_type           "type of firm"
long   start_business     "date of opening"
int    end_business       "date of closure"
long   firm_id_asia       "firm id (Asia)"
str16  firm_fiscalcode    "fiscal code of the firm"
str80  company_name       "company name"
str2   region             "region"
str3   province           "province"
str3   town               "town"
byte   ind_empl_2001      "no. of independent employees"
float  dep_empl_2001      "no. of dependent employees"
float  tot_empl_2001      "no. of total employees (ind + dep)"
str5   sector_2002        "sector (Ateco 2002)"
long   firm_id_planet     "firm id (Planet)"
byte   ind_empl_2002      "no. of independent employees"
float  dep_empl_2002      "no. of dependent employees"
float  tot_empl_2002      "no. of total employees (ind + dep)"
byte   ind_empl_2003      "no. of independent employees"
float  dep_empl_2003      "no. of dependent employees"
float  tot_empl_2003      "no. of total employees (ind + dep)"
str1   active_2003        "dummy: active for at least 6 months"
byte   ind_empl_2004      "no. of independent employees"
float  dep_empl_2004      "no. of dependent employees"
float  tot_empl_2004      "no. of total employees (ind + dep)"
int    plants_veneto_2004 "no. of plants in Veneto"
int    plants_italy_2004  "no. of plants in Italy"
byte   plants_veneto_manuf2004 "no. of manufacturing plants in Veneto"
int    plants_italy_manuf_2004 "no. of manufacturing plants in Italy"
float  tot_emp_veneto_2004 "no. of employees in Veneto (all plants)"
float  tot_emp_italy_2004  "no. of employees in Italy (all plants)"
float  tot_emp_veneto_manuf_2004 "no. of employees in Veneto (manuf. plants)"
float  tot_emp_italy_manuf_2004 "no. of employees in Italy (manuf. plants)"
byte   ind_empl_2005      "no. of independent employees"
float  dep_empl_2005      "no. of dependent employees"
float  tot_empl_2005      "no. of total employees (ind + dep)"
str1   active_2005        "dummy: active for at least 6 months"
int    plants_veneto_2005 "no. of plants in Veneto"
int    plants_italy_2005  "no. of plants in Italy"
byte   plants_veneto_manuf2005 "no. of manufacturing plants in Veneto"
int    plants_italy_manuf_2005 "no. of manufacturing plants in Italy"
float  tot_emp_veneto_2005 "no. of employees in Veneto (all plants)"
float  tot_emp_italy_2005  "no. of employees in Italy (all plants)"
float  tot_emp_veneto_manuf_2005 "no. of employees in Veneto (manuf. plants)"
float  tot_emp_italy_manuf_2005 "no. of employees in Italy (manuf. plants)"
byte   ind_empl_2006      "no. of independent employees"
float  dep_empl_2006      "no. of dependent employees"
float  tot_empl_2006      "no. of total employees (ind + dep)"
str1   active_2006        "dummy: active for at least 6 months"
int    plants_veneto_2006 "no. of plants in Veneto"
int    plants_italy_2006  "no. of plants in Italy"
byte   plants_veneto_manuf2006 "no. of manufacturing plants in Veneto"
int    plants_italy_manuf_2006 "no. of manufacturing plants in Italy"
float  tot_emp_veneto_2006 "no. of employees in Veneto (all plants)"
float  tot_emp_italy_2006  "no. of employees in Italy (all plants)"
float  tot_emp_veneto_manuf_2006 "no. of employees in Veneto (manuf. plants)"
float  tot_emp_italy_manuf_2006 "no. of employees in Italy (manuf. plants)"
byte   ind_empl_2007      "no. of independent employees"
float  dep_empl_2007      "no. of dependent employees"
float  tot_empl_2007      "no. of total employees (ind + dep)"
str1   active_2007        "dummy: active for at least 6 months"
str5   sector_2007        "sector (Ateco 2007)"
int    plants_veneto_2007 "no. of plants in Veneto"
int    plants_italy_2007  "no. of plants in Italy"
byte   plants_veneto_manuf2007 "no. of manufacturing plants in Veneto"
int    plants_italy_manuf_2007 "no. of manufacturing plants in Italy"
float  tot_emp_veneto_2007 "no. of employees in Veneto (all plants)"
float  tot_emp_italy_2007  "no. of employees in Italy (all plants)"
float  tot_emp_veneto_manuf_2007 "no. of employees in Veneto (manuf. plants)"
float  tot_emp_italy_manuf_2007 "no. of employees in Italy (manuf. plants)"
byte   ind_empl_2008      "no. of independent employees"
float  dep_empl_2008      "no. of dependent employees"
float  tot_empl_2008      "no. of total employees (ind + dep)"
str1   active_2008        "dummy: active for at least 6 months"
int    plants_veneto_2008 "no. of plants in Veneto"
int    plants_italy_2008  "no. of plants in Italy"

```


byte	plants_veneto_manuf2008	"no. of manufacturing plants in Veneto"
int	plants_italy_manuf_2008	"no. of manufacturing plants in Italy"
float	tot_emp_veneto_2008	"no. of employees in Veneto (all plants)"
float	tot_emp_italy_2008	"no. of employees in Italy (all plants)"
float	tot_emp_veneto_manuf_2008	"no. of employees in Veneto (manuf. plants)"
float	tot_emp_italy_manuf_2008	"no. of employees in Italy (manuf. plants)"
byte	ind_empl_2009	"no. of independent employees"
float	dep_empl_2009	"no. of dependent employees"
float	tot_empl_2009	"no. of total employees (ind + dep)"
str1	active_2009	"dummy: active for at least 6 months"
int	plants_veneto_2009	"no. of plants in Veneto"
int	plants_italy_2009	"no. of plants in Italy"
byte	plants_veneto_manuf2009	"no. of manufacturing plants in Veneto"
int	plants_italy_manuf_2009	"no. of manufacturing plants in Italy"
float	tot_emp_veneto_2009	"no. of employees in Veneto (all plants)"
float	tot_emp_italy_2009	"no. of employees in Italy (all plants)"
float	tot_emp_veneto_manuf_2009	"no. of employees in Veneto (manuf. plants)"
float	tot_emp_italy_manuf_2009	"no. of employees in Italy (manuf. plants)"
byte	ind_empl_2010	"no. of independent employees"
float	dep_empl_2010	"no. of dependent employees"
float	tot_empl_2010	"no. of total employees (ind + dep)"
str1	active_2010	"dummy: active for at least 6 months"
int	plants_veneto_2010	"no. of plants in Veneto"
int	plants_italy_2010	"no. of plants in Italy"
byte	plants_veneto_manuf2010	"no. of manufacturing plants in Veneto"
int	plants_italy_manuf_2010	"no. of manufacturing plants in Italy"
float	tot_emp_veneto_2010	"no. of employees in Veneto (all plants)"
float	tot_emp_italy_2010	"no. of employees in Italy (all plants)"
float	tot_emp_veneto_manuf_2010	"no. of employees in Veneto (manuf. plants)"
float	tot_emp_italy_manuf_2010	"no. of employees in Italy (manuf. plants)"
byte	ind_empl_2011	"no. of independent employees"
float	dep_empl_2011	"no. of dependent employees"
float	tot_empl_2011	"no. of total employees (ind + dep)"
str1	active_2011	"dummy: active for at least 6 months"
int	plants_veneto_2011	"no. of plants in Veneto"
int	plants_italy_2011	"no. of plants in Italy"
byte	plants_veneto_manuf2011	"no. of manufacturing plants in Veneto"
int	plants_italy_manuf_2011	"no. of manufacturing plants in Italy"
int	tot_emp_veneto_2011	"no. of employees in Veneto (all plants)"
float	tot_emp_italy_2011	"no. of employees in Italy (all plants)"
int	tot_emp_veneto_manuf_2011	"no. of employees in Veneto (manuf. plants)"
int	tot_emp_italy_manuf_2011	"no. of employees in Italy (manuf. plants)"
float	ind_empl_2012	"no. of independent employees"
float	dep_empl_2012	"no. of dependent employees"
float	tot_empl_2012	"no. of total employees (ind + dep)"
str1	active_2012	"dummy: active for at least 6 months"

asia_planet_firmchanged

long	firm_id_planet	"firm id (Planet)"
str16	firm_fiscalcode	"fiscal code of the firm"
byte	firm_changed_2	"firm disappeared"
byte	firm_changed_1	"likely M&A (bulk of workers in or out)"

asia_firmliquidation

str16	firm_fiscalcode	"fiscal code of the firm"
long	firm_id_planet	"firm id (Planet)"
byte	liquidation	"(max) liquidation"

reprint_planet

str80	company_name	"company name"
int	firm_id_reprint	"firm id (Reprint)"
str16	firm_fiscalcode	"fiscal code of the firm"
str74	address	"address"
str5	postcode	"postcode"
str34	town	"town"
str2	province	"province"
str23	region	"region"
str80	business	"line of business"
str73	group_name	"name of the group"
str75	holding_name	"name of the holding"

reprint_foreign_subsidiaries

int	firm_id_reprint	`"firm id (Reprint)"`
str16	firm_fiscalcode	`"fiscal code of the firm"`
str80	sub_name	`"name of subsidiary firm"`
str3	sub_country_code	`"country code of subsidiary firm"`
str45	sub_country	`"country of subsidiary firm"`
str80	sub_business_code	`"line of business of subsidiary firm (abbreviated)"`
str4	sub_sector	`"sector of subsidiary firm (Reprint classification)"`
str43	sub_business	`"line of business of subsidiary firm"`
str9	investment_year	`"year of investment"`
str13	investment_type	`"type of investment (greenfield/acquisition)"`
str15	financial_involvement	`"financial involvement"`
str4	disinvestment_year	`"year of disinvestment"`
str80	notes	`"notes (post-2012)"`
str10	sub_employees	`"number of employees of subsidiary firm"`
str11	sub_revenues	`"revenues of subsidiary firm"`
str4	sub_country_code2	`"country code (fiscal) of subsidiary firm"`
int	sub_employees_10	`"number of employees of subsidiary firm (only >10)"`

reprint_planet_aggregated

int	firm_id_reprint	`"firm id (Reprint)"`
str16	firm_fiscalcode	`"fiscal code of the firm"`
float	sub_employees	`"number of employees of all subsidiary firms"`
int	n_sub_manufacturing	`"number of subsidiaries (manufacturing)"`
byte	n_sub_commerce	`"number of subsidiaries (commerce)"`
byte	n_sub_construction	`"number of subsidiaries (construction)"`
byte	n_sub_logistics	`"number of subsidiaries (logistics)"`
int	n_sub_energy	`"number of subsidiaries (energy)"`
byte	n_sub_services	`"number of subsidiaries (other services)"`
byte	n_sub_localoffices	`"number of subsidiaries (local offices)"`
byte	n_sub_missing	`"number of subsidiaries (missing info on sector)"`
str80	company_name	`"company name"`
str74	address	`"address"`
str5	postcode	`"postcode"`
str34	town	`"town"`
str2	province	`"province"`
str23	region	`"region"`
str80	business	`"line of business"`
str73	group_name	`"name of the group"`
str75	holding_name	`"name of the holding"`

aida_planet_asia

str11	firm_fiscalcode	`"fiscal code of the firm"`
str11	firm_vatcode	`"firm VAT code"`
str14	model_2012	`"fiscal documentation presented"`
str14	model_2011	`"fiscal documentation presented"`
str14	model_2010	`"fiscal documentation presented"`
str14	model_2009	`"fiscal documentation presented"`
str14	model_2008	`"fiscal documentation presented"`
str14	model_2007	`"fiscal documentation presented"`
str14	model_2006	`"fiscal documentation presented"`
double	net_profits_2012	`"net profits"`
float	net_profits_2011	`"net profits"`
float	net_profits_2010	`"net profits"`
float	net_profits_2009	`"net profits"`
float	net_profits_2008	`"net profits"`
float	net_profits_2007	`"net profits"`
double	net_profits_2006	`"net profits"`
double	production_2012	`"value of production"`
float	production_2011	`"value of production"`
float	production_2010	`"value of production"`
float	production_2009	`"value of production"`
float	production_2008	`"value of production"`
float	production_2007	`"value of production"`
double	production_2006	`"value of production"`
float	employees_2012	`"number of employees"`
float	employees_2011	`"number of employees"`
float	employees_2010	`"number of employees"`
float	employees_2009	`"number of employees"`

```

float employees_2008      "number of employees"
float employees_2007      "number of employees"
long employees_2006       "number of employees"
double debt_equity_ratio_2012 "debt-equity ratio (def. 1)"
float debt_equity_ratio_2011 "debt-equity ratio (def. 1)"
float debt_equity_ratio_2010 "debt-equity ratio (def. 1)"
float debt_equity_ratio_2009 "debt-equity ratio (def. 1)"
float debt_equity_ratio_2008 "debt-equity ratio (def. 1)"
float debt_equity_ratio_2007 "debt-equity ratio (def. 1)"
double debt_equity_ratio_2006 "debt-equity ratio (def. 1)"
double roa_2012            "ROA"
float roa_2011            "ROA"
float roa_2010            "ROA"
float roa_2009            "ROA"
float roa_2008            "ROA"
float roa_2007            "ROA"
double roa_2006            "ROA"
double roe_2012            "ROE"
double roe_2011            "ROE"
float roe_2010            "ROE"
float roe_2009            "ROE"
float roe_2008            "ROE"
float roe_2007            "ROE"
double roe_2006            "ROE"
double bank_debts_to_turnover_2012 "bank debts to turnover ratio"
float bank_debts_to_turnover_2011 "bank debts to turnover ratio"
float bank_debts_to_turnover_2010 "bank debts to turnover ratio"
float bank_debts_to_turnover_2009 "bank debts to turnover ratio"
double bank_debts_to_turnover_2008 "bank debts to turnover ratio"
float bank_debts_to_turnover_2007 "bank debts to turnover ratio"
double bank_debts_to_turnover_2006 "bank debts to turnover ratio"
double net_assets_2012        "net assets"
float net_assets_2011        "net assets"
float net_assets_2010        "net assets"
float net_assets_2009        "net assets"
float net_assets_2008        "net assets"
float net_assets_2007        "net assets"
double net_assets_2006        "net assets"
double revenues_2012          "revenues"
float revenues_2011          "revenues"
float revenues_2010          "revenues"
float revenues_2009          "revenues"
float revenues_2008          "revenues"
float revenues_2007          "revenues"
double revenues_2006          "revenues"
double prod_costs_2012        "production costs"
float prod_costs_2011        "production costs"
float prod_costs_2010        "production costs"
float prod_costs_2009        "production costs"
float prod_costs_2008        "production costs"
float prod_costs_2007        "production costs"
double prod_costs_2006        "production costs"
double profits_2012           "profits"
float profits_2011           "profits"
float profits_2010           "profits"
float profits_2009           "profits"
float profits_2008           "profits"
float profits_2007           "profits"
double profits_2006           "profits"
double liquidity_index_2012    "liquidity index"
float liquidity_index_2011    "liquidity index"
float liquidity_index_2010    "liquidity index"
float liquidity_index_2009    "liquidity index"
float liquidity_index_2008    "liquidity index"
double liquidity_index_2007    "liquidity index"
double liquidity_index_2006    "liquidity index"
double short_term_debt_index_2012 "short term debt index"
float short_term_debt_index_2011 "short term debt index"
float short_term_debt_index_2010 "short term debt index"
float short_term_debt_index_2009 "short term debt index"
float short_term_debt_index_2008 "short term debt index"
double short_term_debt_index_2007 "short term debt index"
double short_term_debt_index_2006 "short term debt index"
double long_term_debt_index_2012 "long term debt index"
float long_term_debt_index_2011 "long term debt index"
float long_term_debt_index_2010 "long term debt index"
float long_term_debt_index_2009 "long term debt index"
float long_term_debt_index_2008 "long term debt index"

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double long_term_debt_index_2007      "long term debt index"
double long_term_debt_index_2006      "long term debt index"
double liquidity_cost_2012             "liquidity cost"
double liquidity_cost_2011             "liquidity cost"
double liquidity_cost_2010             "liquidity cost"
double liquidity_cost_2009             "liquidity cost"
double liquidity_cost_2008             "liquidity cost"
double liquidity_cost_2007             "liquidity cost"
double liquidity_cost_2006             "liquidity cost"
double financial_costs_to_turnover_2012 "financial costs to turnover ratio"
float  financial_costs_to_turnover_2011 "financial costs to turnover ratio"
float  financial_costs_to_turnover_2010 "financial costs to turnover ratio"
float  financial_costs_to_turnover_2009 "financial costs to turnover ratio"
double financial_costs_to_turnover_2008 "financial costs to turnover ratio"
float  financial_costs_to_turnover_2007 "financial costs to turnover ratio"
double financial_costs_to_turnover_2006 "financial costs to turnover ratio"
double labor_costs_2012                "labour costs"
double labor_costs_2011                "labour costs"
double labor_costs_2010                "labour costs"
double labor_costs_2009                "labour costs"
double labor_costs_2008                "labour costs"
double labor_costs_2007                "labour costs"
double labor_costs_2006                "labour costs"
double holdings_2012                   "total value of holdings"
float  holdings_2011                   "total value of holdings"
double holdings_2010                   "total value of holdings"
float  holdings_2009                   "total value of holdings"
double holdings_2008                   "total value of holdings"
float  holdings_2007                   "total value of holdings"
double holdings_2006                   "total value of holdings"
double share_capital_2012              "share capital"
float  share_capital_2011              "share capital"
float  share_capital_2010              "share capital"
float  share_capital_2009              "share capital"
float  share_capital_2008              "share capital"
float  share_capital_2007              "share capital"
double share_capital_2006              "share capital"
byte   group_assets_2012               "assets of group"
byte   group_assets_2011               "assets of group"
byte   group_assets_2010               "assets of group"
byte   group_assets_2009               "assets of group"
byte   group_assets_2008               "assets of group"
byte   group_assets_2007               "assets of group"
byte   group_assets_2006               "assets of group"
double total_debts_2012                "total debts"
float  total_debts_2011                "total debts"
float  total_debts_2010                "total debts"
float  total_debts_2009                "total debts"
float  total_debts_2008                "total debts"
float  total_debts_2007                "total debts"
double total_debts_2006                "total debts"
double rd_costs_2012                   "R&D costs"
float  rd_costs_2011                   "R&D costs"
float  rd_costs_2010                   "R&D costs"
float  rd_costs_2009                   "R&D costs"
double rd_costs_2008                   "R&D costs"
double rd_costs_2007                   "R&D costs"
double rd_costs_2006                   "R&D costs"
double debt_equity_ratio2_2012          "debt-equity ratio (def. 2)"
float  debt_equity_ratio2_2011          "debt-equity ratio (def. 2)"
float  debt_equity_ratio2_2010          "debt-equity ratio (def. 2)"
float  debt_equity_ratio2_2009          "debt-equity ratio (def. 2)"
float  debt_equity_ratio2_2008          "debt-equity ratio (def. 2)"
float  debt_equity_ratio2_2007          "debt-equity ratio (def. 2)"
double debt_equity_ratio2_2006          "debt-equity ratio (def. 2)"
float  start_closure                   "start of closure process"
int    end_closure                     "end of closure process"

```

B. QUERIES

QUERY 1: REFERRAL HIRING

Our interest lies in the ability of different networks to act as referrals when a worker needs to find a new job. Networks are defined in terms of past co-workers of a particular type. More formally, for each worker i a network is defined as all the workers of a particular type who have worked in the same firm as i in the past T years. We experience both with $\tau = 2$ values ($T = 1$ and $T = 3$).

We focus only on workers belonging to the following two groups:

1. full time open-ended workers (`planet_asia_0812.contract_type == "A.01.00"` & `planet_asia_0812.contract_type == "F"`) who loose their job as a consequence of a collective dismissal (`planet_asia_0812.termination == "LC"`) or in the 3 months before a firm closure (as identified in `planet_asia_0812_firmclosed`);
2. full time fixed term workers (`planet_asia_0812.contract_type == {"A.02.00", "B.01.00"}` & `planet_asia_0812.contract_type == "F"`) who loose their job as a consequence of a collective dismissal or in the 3 months before a firm closure (same as above) or whose contract expires (`planet_asia_0812.termination == {"MT", "AR"}`) in the 3 months before a collective dismissal - as revealed by other workers in the same firm being dismissed on those grounds - or firm closure.

Each worker i is linked to n networks, which correspond to the particular type of coworkers we are interested into ($n = 8$):

1. all co-workers,
2. same gender,
3. same occupation (2-digits)
4. same occupation (3-digits)
5. same sector (3-digits)
6. same age group (+ 5 years)
7. same education level (low, middle or high education)
8. same country of birth

We want to relate how well a worker is doing when looking for a new job with some characteristics of his/her networks. For each worker, network characteristics are measured $R = 2$ times:

- i. when the worker loses his job;
- ii. when the worker finds a new job (a new job for worker w is defined as the first employment spell which lasts for a month or more).

We restrict our attention to workers being able to find a new job at most 1 year after termination of their previous job. When $T = 3$, because we look back 3 years in defining networks and we look forward (at most) 1 year in determining the outcome, we restrict our attention to workers having lost their job in 2011. When $T = 1$, we focus on workers having lost their job in 2009, 2010 and 2011.

The characteristics of the network are defined by the (weighted) number of the co-workers that are in a specific work status, with a specific contract:

Work status is distinguished as:

1. employed within the same firm,
2. employed with a different firm,
3. unemployed

Contracts are distinguished as:

1. open-ended,
2. fixed-term,
3. other

Hence, a network is summarised by $m = 7$ numbers (unemployed workers have no contract).

A number $w = 3$ of different weights are used for robustness analysis:

1. step-wise weights: all past co-worker count the same, provided co-working has occurred for at least 1 month and firm size was smaller than $maxFirmSize = 1000$.
2. linear weights: each co-worker counts for the number of days of co-working, linearly discounted by the time elapsed since last co-working and by firm size. Discount rates are such that co-working that extends over 3 years back does not count, and co-working in firms with more than $maxFirmSize$ employees does not count, ie:

$r_t = 1 - t / 1095$	(1)
$r_s = 1 - s / maxFirmSize$	(2)

where r_t is the discount rate to be applied to the number of days of co-working, t is the time since last co-working, and r_s is the discount rate to be applied to co-working in a firm of size s . Size is measured in the period of last co-working.

3. exponential weights: each co-worker counts for the number of days of co-working, exponentially discounted by the time elapsed since last co-working and by firm size:

$r_t = \lambda \exp(-\lambda t)$	(1)
$r_s = \lambda \exp(-\lambda s)$	(2)

with $\lambda = .005$

Overall, for each selected worker i we have therefore $n * m = 56$ measures (8 networks * 7 measures per network). The overall dataset is then replicated $\tau * R * w = 12$ times, for different values of the parameters.

The dataset should be approximately structured as follows:

- worker_id
- (information on worker's career)
- a) info on new job:
 - new_firm_id
 - date_in
 - (information on new_job)
- b) info on last job:
 - last_firm_id
 - date_out
 - date_in
 - (information on last_job)
- c) info on networks:
 - 56 network measures, replicated 12 times.

QUERY 2: HUMAN CAPITAL

Here we focus on a new measure of human capital which takes into consideration the worker's past experience and exposure to co-workers in the same occupation. We want to build two two-dimensional indicators:

Indicator 1:

For each worker w , with current occupation o_w (or last occupation o_w in case worker w is unemployed):

For each job in the past with occupation $opast_w$
Determine whether $opast_w = o_w$.

Sum the number of months passed in the same occupation, discounted by time elapsed (linear and exponential discounting, see Query 1).

In addition, for each worker w , with current job in sector s_w (or last sector s_w in case worker w is unemployed):

For each job in the past with sector $spast_w$
Determine whether $spast_w = s_w$.

Sum the number of months passed in the same sector, discounted by time elapsed (linear and exponential discounting, see Query 1).

Indicator 2:

For each worker w , with current occupation o_w (or last occupation o_w in case worker w is unemployed):

For each job in the past with occupation $opast_w$
Determine whether $opast_w = o_w$.
For each co-worker c with occupation $opast_c$
Determine whether $opast_c = o_w$.

Sum the number of months-coworker with the same occupation, discounted by time elapsed (linear and exponential discounting) and by firm size (linear and exponential discounting).

In addition, for each worker w , with current work in sector s_w (or last job in sector s_w in case worker w is unemployed):

For each job in the past with sector $spast_w$
Determine whether $spast_w = s_w$.
For each co-worker c with sector $spast_c$
Determine whether $spast_c = s_w$.

Sum the number of months-coworker in the same sector, discounted by time elapsed (linear and exponential discounting) and by firm size (linear and exponential discounting).