

## Gross Job Flows 1972-1998 Update

This memo describes the update to the Gross Job Flows series for 1994-98. For total manufacturing, 2-digit and 4-digit, the update provides additional years and quarters of job flows for 1994-98. For some selected classification series (e.g., size, age, state) some modifications to the class variables have been made and some new classifications have been made possible by data infrastructure improvements at CES. For the new classifications, we provide a consistent series from 1972-98.

Job creation and destruction decomposed into the contribution of continuers, startups and shutdowns are released ONLY for 2-digit industry and total manufacturing. For all other classifications, job creation and destruction are measured and released for all plants only.

### 1. Definitions of Job Flow Variables

All definitions for job flows are described in detail in Job Creation and Destruction by Steven J. Davis, John Haltiwanger and Scott Schuh.

pos = Job Creation  
neg = Job Destruction  
posb = Job Creation from startups  
posc = Job Creation from continuers  
negd = Job Destruction from shutdowns  
negc = Job Destruction from continuers  
empsh = Employment share (using average of employment in t-1 and t)

### 2. Class Variables

The data are released using the following fifteen class variables:

#### 2.1 SIC Industry (4-digit level)

For 1972-86, the series released are on a 1972-SIC basis. From 1987-98 the series are released on a 1987-SIC basis. For researchers who wish to use a consistent series, we have used a public domain cross-walk to generate 1972-98 data on a 1987-SIC series.

For use of 4-digit series, note that:

The total number of industry is 447 by 72 basis SIC between 1972 and 1986.

The total number of industry is 458 by 87 basis SIC between 1987 and 1997.

The total number of industry is 457 by 87 basis SIC in 1998 because the logging industry is excluded from manufacturing.

#### 2.2 SIC Industry (2-digit level)

Job flow rates are aggregated from 4 digit SIC industry on an employment-weighted basis. For POSB, POSC, NEGD and NEGC, the industries 20 and 21 are combined together.

#### 2.3 Total Manufacturing

Job flow rates are aggregated from 4-digit SIC industry.

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## 2.4 Region

Region refers to the nine census regions.

## 2.5 State

There are 51 states.

The state code is the postal code two-letter abbreviation.

## 2.6 Current Size

For annual, nine classes (csize) by the average of employments at time t and t-1 (cursize).

```
if 0 < cursize <20 then csize=1;
if 20 <= cursize <50 then csize=2;
if 50 <= cursize <100 then csize=3;
if 100 <= cursize <250 then csize=4;
if 250 <= cursize <500 then csize=5;
if 500 <= cursize <1000 then csize=6;
if 1000<= cursize <2500 then csize=7;
if 2500<= cursize <5000 then csize=8;
if 5000<= cursize then csize=9;
```

For quarterly, eight classes.

```
if 0 < cursize <20 then csize=1;
if 20 <= cursize <50 then csize=2;
if 50 <= cursize <100 then csize=3;
if 100 <= cursize <250 then csize=4;
if 250 <= cursize <500 then csize=5;
if 500 <= cursize <1000 then csize=6;
if 1000<= cursize <2500 then csize=7;
if 2500<= cursize then csize=8;
```

## 2.7 Initial Size

For annual, nine classes (sizei) by the employment at time t-1 (inysize). For births, use employment at time t.

```
if 0 < inysize <20 then sizei=1;
if 20 <= inysize <50 then sizei=2;
if 50 <= inysize <100 then sizei=3;
if 100 <= inysize <250 then sizei=4;
if 250 <= inysize <500 then sizei=5;
if 500 <= inysize <1000 then sizei=6;
if 1000<= inysize <2500 then sizei=7;
if 2500<= inysize <5000 then sizei=8;
if 5000<= inysize then sizei=9;
```

For quarterly, eight classes.

```
if 0 < inysize <20 then sizei=1;
if 20 <= inysize <50 then sizei=2;
```

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```
if 50 <= inisize <100 then sizei=3;
if 100 <= inisize <250 then sizei=4;
if 250 <= inisize <500 then sizei=5;
if 500 <= inisize <1000 then sizei=6;
if 1000<= inisize <2500 then sizei=7;
if 2500<= inisize then sizei=8;
```

## 2.8 Current Firm Size

Nine classes (fysize) by the average of firm employments at time t and t-1 (fcursize).

```
if 0 < fcursize <20 then fysize=1;
if 20 <= fcursize <50 then fysize=2;
if 50 <= fcursize <100 then fysize=3;
if 100 <= fcursize <250 then fysize=4;
if 250 <= fcursize <500 then fysize=5;
if 500 <= fcursize <1000 then fysize=6;
if 1000<= fcursize <2500 then fysize=7;
if 2500<= fcursize <5000 then fysize=8;
if 5000<= fcursize then fysize=9;
```

## 2.9 Initial Firm Size

Nine classes (fsizei) by the firm employment at time t-1 (finisize). For births, use employment at time t.

```
if 0 < finisize <20 then fsizei=1;
if 20 <= finisize <50 then fsizei=2;
if 50 <= finisize <100 then fsizei=3;
if 100 <= finisize <250 then fsizei=4;
if 250 <= finisize <500 then fsizei=5;
if 500 <= finisize <1000 then fsizei=6;
if 1000<= finisize <2500 then fsizei=7;
if 2500<= finisize <5000 then fsizei=8;
if 5000<= finisize then fsizei=9;
```

## 2.10 Broad Age

Three classes by broad establishment age.

```
if 0 < age <5 then ageb=1;
if 5 <= age <10 then ageb=2;
if 10 <= age then ageb=3;
```

## 2.11 Detailed Age

Eight classes by detailed establishment age.

```
if 0 < age <2 then aged=1;
if 2 <= age <3 then aged=2;
if 3 <= age <4 then aged=3;
if 4 <= age <5 then aged=4;
if 5 <= age <6 then aged=5;
```

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```
if 6 <= age <10 then aged=6;  
if 10 <= age <16 then aged=7;  
if 16 <= age then aged=8;
```

#### 2.12 Broad Firm Age

Three classes by broad firm age.

```
if 0 < fage <5 then fageb=1;  
if 5 <= fage <10 then fageb=2;  
if 10 <= fage then fageb=3;
```

#### 2.13 Detailed Firm Age

Eight classes by detailed firm age.

```
if 0 < fage <2 then faged=1;  
if 2 <= fage <3 then faged=2;  
if 3 <= fage <4 then faged=3;  
if 4 <= fage <5 then faged=4;  
if 5 <= fage <6 then faged=5;  
if 6 <= fage <10 then faged=6;  
if 10 <= fage <16 then faged=7;  
if 16 <= fage then faged=8;
```

#### 2.14 Establishment Type

Establishment is part of a single unit firm (0) versus a multi unit firm (1).

#### 2.15 Earnings per Worker

Five classes by quintiles of earnings per worker (WAGE).

Lowest class has value of 1.

## List of External Data Sets (ASCII)

### Annual Data Sets

<u>File</u>	<u>Class</u>	<u>Variables</u>
ra1	broad age	class year pos neg empsh
ra2	detailed age	class year pos neg empsh
raf1	firm broad age	class year pos neg empsh
raf2	firm detailed age	class year pos neg empsh
rci4	4 digit ind (87 basis)	class year pos neg empsh
ri2	2 digit ind	class year pos neg empsh
ri2bd	2 digit ind	class year posb posc pos negd negc neg empsh
ri4	4 digit ind	class year pos neg empsh
rpt	plant type	class year pos neg empsh
rrg	region	class year pos neg empsh
rs1	current size	class year pos neg empsh
rs2	initial size	class year pos neg empsh
rsf1	firm current size	class year pos neg empsh
rsf2	firm initial size	class year pos neg empsh
rst	state	class year pos neg empsh
rtm	total manuf	year pos neg
rtmbd	total manuf	year posb posc pos negd negc neg
rwg	wage	class year pos neg empsh

### Quarterly Data Sets

<u>File</u>	<u>Class</u>	<u>Variables</u>
rza1	broad age	class year qtr pos neg empsh
rza2	detailed age	class year qtr pos neg empsh
rzaf1	firm broad age	class year qtr pos neg empsh
rzaf2	firm detailed age	class year qtr pos neg empsh
rzci4	4 digit ind (87 basis)	class year qtr pos neg empsh
rzi2	2 digit ind	class year qtr pos neg empsh
rzi2bd	2 digit ind	class year qtr posb posc pos negd negc neg empsh
rzi4	4 digit ind	class year qtr pos neg empsh
rzpt	plant type	class year qtr pos neg empsh
rzrg	region	class year qtr pos neg empsh
rzs1	current size	class year qtr pos neg empsh
rzs2	initial size	class year qtr pos neg empsh
rzsfl	firm current size	class year qtr pos neg empsh
rzsfl	firm initial size	class year qtr pos neg empsh
rzst	state	class year qtr pos neg empsh
rztm	total manuf	year qtr pos neg
rzymbd	total manuf	year qtr posb posc pos negd negc neg
rzwg	wage	class year qtr pos neg empsh