Two Centuries of Compensation for U.S. Production Workers in Manufacturing

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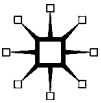

TWO CENTURIES OF COMPENSATION FOR U.S. PRODUCTION WORKERS IN MANUFACTURING

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To
Sandra Diane Officer

Truth needs no color—Beauty no pencil.
Shakespeare

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Preface

This book began largely as a reaction to the Millennial edition of *Historical Statistics of the United States*, edited by Susan B. Carter, Scott Sigmund Gartner, Michael R. Haines, Alan L. Olmstead, Richard Sutch, and Gavin Wright. I noticed that an omission from that impressive five-volume set was a composite long-run series of the average hourly earnings or wages of production workers in manufacturing. That omission seemed strange, because the authors compile long-run composite series for other economic variables, such as GDP and the consumer price index.

Therefore I began to generate the missing series; but I quickly discovered that the task was a giant one. There was good reason for the lack of a long-run earnings or wage series for manufacturing production workers: the series requires considerable effort and enterprise for its construction. This book contains no new archival research; rather, the results of many previous works relating to wages and related variables are assembled and synthesized in a meaningful way. Yet the task took most of my research time of two years to accomplish the objective.

As I digested and integrated the studies of previous authors, my admiration for those who did original archival investigation and reported their results grew substantially. The influence of authors such as Donald R. Adams Jr., Jeremy Atack, Fred Bateman, Philip R. P. Coelho, Joseph H. Davis, Claudia Goldin, Robert A. Margo, James F. Shepherd, Kenneth Sokoloff, and Georgia C. Villaflor is apparent in the very content of this book. Also, I cannot overestimate my intellectual debt to the great Paul H. Douglas, Clarence D. Long, and Albert Rees—the pioneers in the development of earnings and wage series for production workers in manufacturing—as well as to the great Stanley Lebergott.

The book will be of use to specialists in Economic History and Labor Economics. Hopefully, it will also be of interest to government economists and even educated laypersons. The work is exposited in a way to enhance understanding by all these groups. The reader may

notice that there are no footnotes or endnotes. That is deliberate. Hopefully, the adopted style will enhance readability.

I thank Robert Whaples for helpful suggestions. The expositions, descriptions, interpretations, opinions, conclusions, judgments, and other unquoted statements in this book are those of the author alone.

LAWRENCE H. OFFICER
Glencoe, Illinois
September 2008

Abbreviations and Symbols

A	artisan wage, for given region
AAE	average annual earnings
AAE_{NE}	average annual earnings, Northeast
AAE_{R}	average annual earnings, rest-of–United States
$AAE(SV)_{AM,NE}$	average annual earnings, adult males, Northeast, Sokoloff-Villaflor data
ABM	Atack, Bateman, and Margo
ADE	average daily earnings
ADE(SV)	average daily earnings, United States, Sokoloff-Villaflor data
$ADE(SV)_{AM,NE}$	average daily earnings, adult males, Northeast, Sokoloff-Villaflor data
$ADE(SV)_{NE}$	average daily earnings, all workers, Northeast, Sokoloff-Villaflor data
ADH	average daily hours
ADO	average number of days of operation per year
ADW	average daily wage(s)
AHB	average hourly benefits
AHC	average hourly compensation
AHCR	real average hourly compensation
AHE	average hourly earnings
AHE_{S}	average hourly earnings, unlinked 1800–1919 segment
AHW	average hourly wage(s)
AHWRI	average hourly wage-rate index
ALADW	adjusted Long-Aldrich average daily wage
ALAHW	adjusted Long-Aldrich average hourly wage
AR	adjustment ratio: U.S. /Northeast wage ratio
ARB	adjustment ratio: *Bulletin 18* U.S./Northeast wage ratio
ARCS	adjustment ratio: Coelho-Shepherd U.S./Northeast wage ratio
ASM	Annual Survey of Manufactures

AWE	average weekly earnings
AWH	average weekly hours
BEA	Bureau of Economic Analysis
BLS	Bureau of Labor Statistics
CAHCR	cyclical component of real average hourly compensation
CC	U.S. Chamber of Commerce
CES	Current Employment Statistics
CL	Commissioner of Labor
COM	Census of Manufactures
CPHM	Composition of Payroll Hours in Manufacturing
CPI	consumer price index
CS	Coelho and Shepherd
CWD	Current Wage Developments
DAHE	Douglas payroll average hourly earnings
DC	District of Columbia
E_{AM}	adult males as proportion of all employed workers in Northeast manufacturing
$E_{AM,M}$	adult males as proportion of employed male workers in Northeast manufacturing
E_{B}	boys as proportion of all employed workers in Northeast manufacturing
$E_{B,M}$	boys as proportion of employed male workers in Northeast manufacturing
E_{F}	females as proportion of all employed workers in Northeast manufacturing
E_{M}	males as proportion of all employed workers in Northeast manufacturing
E_{NE}	Northeast proportion of U.S. manufacturing employment
E_{R}	rest-of–United States proportion of U.S. manufacturing employment
ECEC	Employer Costs for Employee Compensation
ECI	employment cost index
EEEC	Employer Expenditures for Employee Compensation
FADW	reconstructed Falkner average daily wage
HACT	actual number of annual work-hours per worker
HEI	hourly earnings index
HP	Hodrick-Prescott
HVCB	number of hours required to purchase consumer bundle
HWS	Hours-at-Work Survey
IPCW	index number of proportion of workers covered by pension plan

IPREM	index number of workers'-compensation premiums
JKO	Jablonski, Kunze, and Otto
log	natural logarithm
M	Margo wage (for given occupation and region)
MV	Margo-Villaflor wage (for given occupation and region)
NAICS	North American Industry Classification System
NCS	National Compensation Survey
NICB	National Industrial Conference Board
NSC	National Safety Council
PCW	proportion of workers covered by pension plans
PM	benefits/earnings ratio
PREM	workers-compensation premiums
PWB	pension-and-welfare benefits
R	ratio of desired series (Y) to interpolator series (X)
RAAE	ratio of rest-of–United States to Northeast average annual earnings, manufacturing, Census data
RAY	ratio of "average number of days of operation per year" (ADO) to "value added in manufacturing, cyclical component" (VC)
RLADH	revised Long-Aldrich average daily hours
RLADW	revised Long-Aldrich average daily wage, Northeast
RMAR	ratio of rest-of–United States to Northeast average daily wage (Margo data)
RSW	Ransom, Sutch, and Williamson
RWUN	U.S./Northeast wage ratio
SA	South Atlantic unskilled wage
SC	South Central unskilled wage
SEEEC	Survey of Employer Expenditures for Employee Compensation
SIC	Standard Industrial Classification System
SV	Sokoloff and Villaflor
TAHCR	trend component of real average hourly compensation
U	unskilled wage, for given region
V	value-added in manufacturing
VC	value-added in manufacturing, cyclical component
VCB	value of consumer bundle
VS	value-added in manufacturing, trend (smoothed) component
W	all-worker wage
W_{AF}	adult-female wage
W_{AM}	adult-male wage

W_B	boy wage
W_F	female wage
W_G	girl wage
W_M	male wage
W_{NE}	Northeast wage
W_R	rest-of–United States wage
W_{RE}	real wage
WA	Adams (male) wage
WAZHMNE	Adams-Zabler average hourly wage, male, Northeast
WAZHNE	Adams-Zabler average hourly wage, all workers, Northeast
WAZHUS	Adams-Zabler average hourly wage, United States
WAZMNE	Adams-Zabler average monthly wage, male, Northeast
WCB	workers'-compensation benefits
WNE	Northeast wage
WNEA	Northeast artisan wage
WNEB	Northeast wage, *Bulletin 18*
WPRA	average of Midwest and South Central artisan wage
WR	rest-of–United States wage
WRA	artisan wage, rest-of–United States
WRB	rest-of–United States wage, *Bulletin 18*
WRU	unskilled wage, rest-of–United States
WSCA	South Central artisan wage
WSCU	South Central unskilled wage
WSNE	skilled wage, Northeast
WSR	skilled wage, rest-of–United States
WUNE	unskilled wage, Northeast
WUR	unskilled wage, rest-of–United States
WUS	U.S. wage
WUSB	U.S. wage, *Bulletin 18*
WZ	Zabler (male) wage
X	interpolator series
Y	desired series (via interpolation)
Z	arbitrary variable