

Workforce Information Database 2008-2018 Employment Projections Tables

Lookup Tables

inndir A table containing a directory of MicroMatrix level industry codes for which projections are performed.			
Column	Type	Constraint	Description
stfips	char(2)	Primary Key 1,2	State FIPS code.
matincode	char(15)	Primary Key	Industry code from Micro Matrix.
periodid	char(2)	Primary Key 1	A two digit code identifying the type of period used.
matincodty	char(1)		A code to identify matincode as SIC code based or NAICS code based. 1 = SIC based, 2 = NAICS based
matintitle	varchar(60)		Industry title.
subtot	char(1)	2	Sum level of the information
Constraint Information			
1 Foreign Key (inndir.stfips, inndir.periodid) references (periodid.stfips, periodid.periodid)			
2 Foreign Key (inndir.stfips, inndir.subtot) references (indsub.stfips, indsub.subtot)			

indsub A table containing a lookup of industry sum level information.			
Column	Type	Constraint	Description
stfips	char(2)	Primary Key 1,	State FIPS code.
subtot	char(1)	Primary Key	Sum level of the information
subtotdesc	varchar(60)		Sum level description
Constraint Information			
1 Foreign Key (indsub.stfips) references (stfipsdb.stfips)			

occdir A table containing a directory of Micro Matrix occupation codes for which projections are performed.			
Column	Type	Constraint	Description
stfips	char(2)	Primary Key 1,2	State FIPS code.
matoccode	char(10)	Primary Key	Occupation code from Micro Matrix. For codes not 10 characters long, left justify and blank (ASCII 32) fill.
periodid	char(2)	Primary Key 1	A two digit code identifying the type of period used.
matoccodty	char(1)		A code to identify matoccode as 9 char and OES code based or 10 char and SOC code based. 1 = OES based, 2 = SOC based
matocctitl	varchar(60)		Occupation title.
subtot	char(1)	2	Sum level of the information
Constraint Information			
1 Foreign Key (occdir.stfips, occdir.periodid) references (periodid.stfips, periodid.periodid)			
2 Foreign Key (occdir.stfips, occdir.subtot) references (occsb.stfips, occsub.subtot)			

occdir A table containing a directory of Micro Matrix occupation codes for which projections are performed.



Triggers are suggested to maintain the occcodes table. See explanation in the introductory section under Table Constraints and Triggers. Use triggers on INSERT, UPDATE or DELETE of occdir to maintain occcodes. (occdir.stfips, '13', occdir.matocode, occdir.matocctitl) maintains (occcodes.stfips, occcodes.codetype, occcodes.code, occcodes.codetitle)

occssub A table containing a lookup of occupation sum level information.

Column	Type	Constraint	Description
stfips	char(2)	Primary Key 1,	State FIPS code.
subtot	char(1)	Primary Key	Sum level of the information
subtotdesc	varchar(60)		Sum level description
Constraint Information			
1 Foreign Key (occssub.stfips) references (stfipsdb.stfips)			

periodid This table contains periods of time for projections identified by two digit indicator for target year and base year for projection.

Column	Type	Constraint	Description
stfips	char(2)	Primary Key 1	State FIPS code.
periodid	char(2)	Primary Key	A two digit code identifying the type of period being used.
periodtype	char(2)	2,3	Code describing type of period (e.g. Annual, quarterly, monthly, etc.)
estyear	char(4)	2	Base year of estimate.
estperiod	char(2)	2	Period of estimate.
projyear	char(4)	3	Year of projection.
projperiod	char(2)	3	Period of projection.
perioddesc	varchar(60)		Description of period range.

For Example a record in this table for a round of North Carolina Long-Term projections 1998-2008 would be:

Stfips: 37, periodid: 05, periodtype: 05, estyear: 1998, estperiod: 00, projyear: 2008, projperiod: 00, perioddesc: 1998-2008 Long-Term Projections.

An Example of a record in this table for a round of North Carolina Short-Term Forecast would be:

Stfips: 37, periodid: 06, periodtype: 08, estyear: 1998, estperiod: 02, projyear: 2000, projperiod: 02, perioddesc: 1998 Q2 – 2000 Q2 Short –Term Forecasts.

Please note the periodid and the period description is state defined field value.

Constraint Information

- 1 Foreign Key (periodid.stfips) references (stfipstb.stfips)
- 2 Foreign Key (periodid. Estyear, periodid. Periodtype, periodid. Estperiod) references (period.periodyear, period.periodtype, period.period)
- 3 Foreign Key (periodid.projyear, periodid.periodtype, periodid.projperiod) references (period.periodyear, period.periodtype, period.period)

Data Tables

indprj This table contains employment projections for each of the identified industries and areas.			
Column	Type	Constraint	Description
stfips	char(2)	Primary Key 1,2,3	State FIPS code.
areatype	char(2)	Primary Key 1	Code describing type of geographic area: e.g. county, service delivery area, MSA.
area	char(6)	Primary Key 1	Six digit code assigned to represent a geographic area. Front fill with zeroes.
periodid	char(2)	Primary Key 2	A two digit code identifying the base and projected periods.
matincode	char(15)	Primary Key 2	Matrix industry code from Micro Matrix.
estindprj	number(9)		A numerical value representing a base year employment estimate for an industry.
projindprj	number(9)		A value representing the projected year employment estimate for an industry.
grrate	number(7,4)		A value representing the annualized percentage growth. This value is calculated by dividing the Projected year by the Base year. Taking the results to the 1/n power, where n is the number of years in the projection period, subtracting 1 from the result and multiplying that result by 100. $grrate = (((projindprj/estindprj)^{1/n}) - 1) * 100$
nchg	number(9)		Numeric Change between the projected estimate and the base estimate.
pchg	number(7,4)		Percent change over period $((projindprj - estindprj) / estindprj) * 100$
growcode	char(2)	3	A descriptor to allow for state specific interpretation of the industry or occupation.
suppress	char(1)		An indicator that the record contains confidential data that must be suppressed for public use. 0 = Not Suppressed 1 = Suppressed
Constraint Information			
1 Foreign Key (indprj.stfips, indprj.areatype, indprj.area) references (geog.stfips, geog.areatype, geog.area) 2 Foreign Key (indprj.stfips, indprj.matincode, indprj.periodid) references (inddir.stfips, inddir.matincode, inddir.periodid) 3 Foreign Key (indprj.stfips, indprj.growcode) references (growcode.stfips, growcode.growcode)			

iomatrix This table contains industry-occupation employment matrix.			
Column	Type	Constraint	Description
stfips	char(2)	Primary Key 1,2,3	State FIPS code.
areatype	char(2)	Primary Key 1	Code describing type of geographic area: e.g. county, service delivery area, MSA.
area	char(6)	Primary Key 1	Six digit code assigned to represent a geographic area. Front fill with zeroes.
periodid	char(2)	Primary Key 2,3	A two digit code identifying the type of period used.
matincode	char(15)	Primary Key 2	Matrix industry code from Micro Matrix.
matocode	char(10)	Primary Key 3	Matrix occupation code from Micro Matrix. For codes not 10 characters long, left justify and blank (ASCII 32) fill.
estemp	number(9)		The base-year employment estimate.
projemp	number(9)		The projected-year employment estimate.
pctestind	number(6,2)		The percentage of the base-year employment estimate for the indicated industry represented by the base-year employment estimate for the indicated occupation within that industry
pctestocc	number(6,2)		The percentage of the base-year employment estimate for the indicated occupation represented by the base-year employment estimate for the indicated industry within that occupation.
pctprojind	number(6,2)		The percentage of projected employment for the indicated industry represented by projected employment for the indicated occupation within that industry
pctprojocc	number(6,2)		The percentage of the projected employment estimate for the indicated occupation represented by the projected employment estimate for the indicated industry within that occupation.
nchg	number(9)		Numeric Change between the projected estimate and the base estimate.
pchg	number(7,4)		Percent change over period. $((\text{projemp}-\text{estemp})/\text{estemp})*100$
suppress	char(1)		An indicator that the record contains confidential data that must be suppressed for public use. 0 = Not Confidential 1 = Confidential
Constraint Information			
1 Foreign Key (iomatrix.stfips, iomatrix.areatype, iomatrix.area) references (geog.stfips, geog.areatype, geog.area) 2 Foreign Key (iomatrix.stfips, iomatrix.matincode, iomatrix.periodid) references (inndir.stfips, inndir.matincode, inndir.periodid) 3 Foreign Key (iomatrix.stfips, iomatrix.matocode, iomatrix.periodid) references (occdir.stfips, occdir.matocode, occdir.periodid)			

occprj This table contains occupational employment projections for each of the defined areas.			
Column	Type	Constraint	Description
stfips	char(2)	Primary Key 1,2,3	State FIPS code.
areatype	char(2)	Primary Key 1	Code describing type of geographic area: e.g. county, service delivery area, MSA.
area	char(6)	Primary Key 1	Six digit code assigned to represent a geographic area. Front fill with zeroes.
periodid	char(2)	Primary Key 2	A two digit code identifying the base and projected periods.
matocode	char(10)	Primary Key 2	Matrix occupation code from Micro Matrix. For codes not 10 characters long, left justify and blank (ASCII 32) fill.
estocprj	number(9)		A value representing a base year employment estimate for an occupation.
projocprj	number(9)		A numerical value representing the projected year employment estimate for an occupation.
grrate	number(7,4)		A value representing the annualized percentage growth. This value is calculated by dividing the Projected year by the Base year. Taking the results to the 1/n power, where n is the number of years in the projection period, subtracting 1 from the result and multiplying that result by 100. $grrate = (((projocprj/estocprj)^{1/n}) - 1) * 100$
nchg	number(9)		Numeric Change between the projected estimate and the base estimate.
pchg	number(7,4)		Percent change over period. $((projocprj - estocprj) / estocprj) * 100$
aopeng	number(9)		A value representing the annual average openings due to growth. The value is calculated by subtracting the Base Year Employment estimate from the Projected Year Employment estimate, then dividing by the number of years in the projection period. $(projocprj - estocprj) / \text{No. years.}$
aopenr	number(9)		A value representing the annual average openings due to net replacement. The value is calculated by dividing the total openings due to net replacements (in the projection period) by the number of years in the projection period.
aopent	number(9)		A value representing the total annual average openings due to growth and net replacements.
growcode	char(2)	3	A descriptor to allow for state specific interpretation of the industry or occupation
suppress	char(1)		An indicator that the record contains confidential data that must be suppressed for public use. 0 = Not Suppressed 1 = Suppressed
Constraint Information			
1 Foreign Key (occprj.stfips, occprj.areatype, occprj.area) references (geog.stfips, geog.areatype, geog.area)			

occprj	This table contains occupational employment projections for each of the defined areas.		
Column	Type	Constraint	Description
2 Foreign Key (occprj.stfips, occprj.matocode, occprj.periodid) references (occdir.stfips, occdir.matocode, occdir.periodid)			
3 Foreign Key (occprj.stfips, occprj.growcode) references (growcode.stfips, growcode.growcode)			

Crosswalk Tables

matxnaic	This table crosswalks Micro Matrix industry codes to NAICS codes.		
Column	Type	Constraint	Description
stfips	char(2)	Primary Key 1,3	State FIPS code.
matincode	char(15)	Primary Key 1	Industry matrix code from Micro Matrix.
periodid	char(2)	Primary Key 1	A two digit code identifying the type of period used.
naicscode	char(6)	Primary Key 2	A six-digit code used in the North American Industry Classification System (NAICS).
subtot	char(1)	3	Sum level of the information.
Constraint Information			
1 Foreign Key (matxnaic.stfips, matxnaic.matincode, matxnaic.periodid) references (inndir.stfips, inndir.matincode, inndir.periodid)			
2 Foreign Key (matxnaic.naicscode) references (naiccode.naicscode)			
3 Foreign Key (matxnaic.stfips, matxnaic.subtot) references (indsub.stfips, indsub.subtot)			

matxsoc	This table crosswalks Micro Matrix occupation codes to SOC codes.		
Column	Type	Constraint	Description
stfips	char(2)	Primary Key 1,3	State FIPS code.
matocode	char(10)	Primary Key 1	Occupation matrix code from Micro Matrix. For codes not 10 characters long, left justify and blank (ASCII 32) fill.
periodid	char(2)	Primary Key 1	A two digit code identifying the type of period used.
socode	char(6)	Primary Key 2	A six-digit code assigned to a Standard Occupational Classification (SOC) occupational title.
subtot	char(1)	3	Sum level of the information.
Constraint Information			
1 Foreign Key (matxsoc.stfips, matxsoc.matocode, matxsoc.periodid) references (occdir.stfips, occdir.matocode, occdir.periodid)			
2 Foreign Key (matxsoc.socode) references (socode.socode)			
3 Foreign Key (matxsoc.stfips, matxsoc.subtot) references (occsb.stfips, occsb.subtot)			

Field Values

subtot (indsub)	A = Total all industries B = Domain C = Super-Sector D = Industry Sector (2-digit) E = Industry Subsector (3-digit) F = Industry Group (4-digit) G = Industry (5-digit) H = U.S. Industry (6-digit) I = Roll up J = Outside the NAICS structure (invented code)
subtot (occsb)	1 = Total all occupations 2 = Summary, major group 3 = Summary, minor/intermediate group 4 = Broad Occupation 5 = Detailed Occupation 6 = Roll up 7 = Collapsed 8 = Outside the SOC/OES structure (invented code)