

# WAGE AND SELF- EMPLOYMENT INCOME FOR LATINAS IN IDAHO

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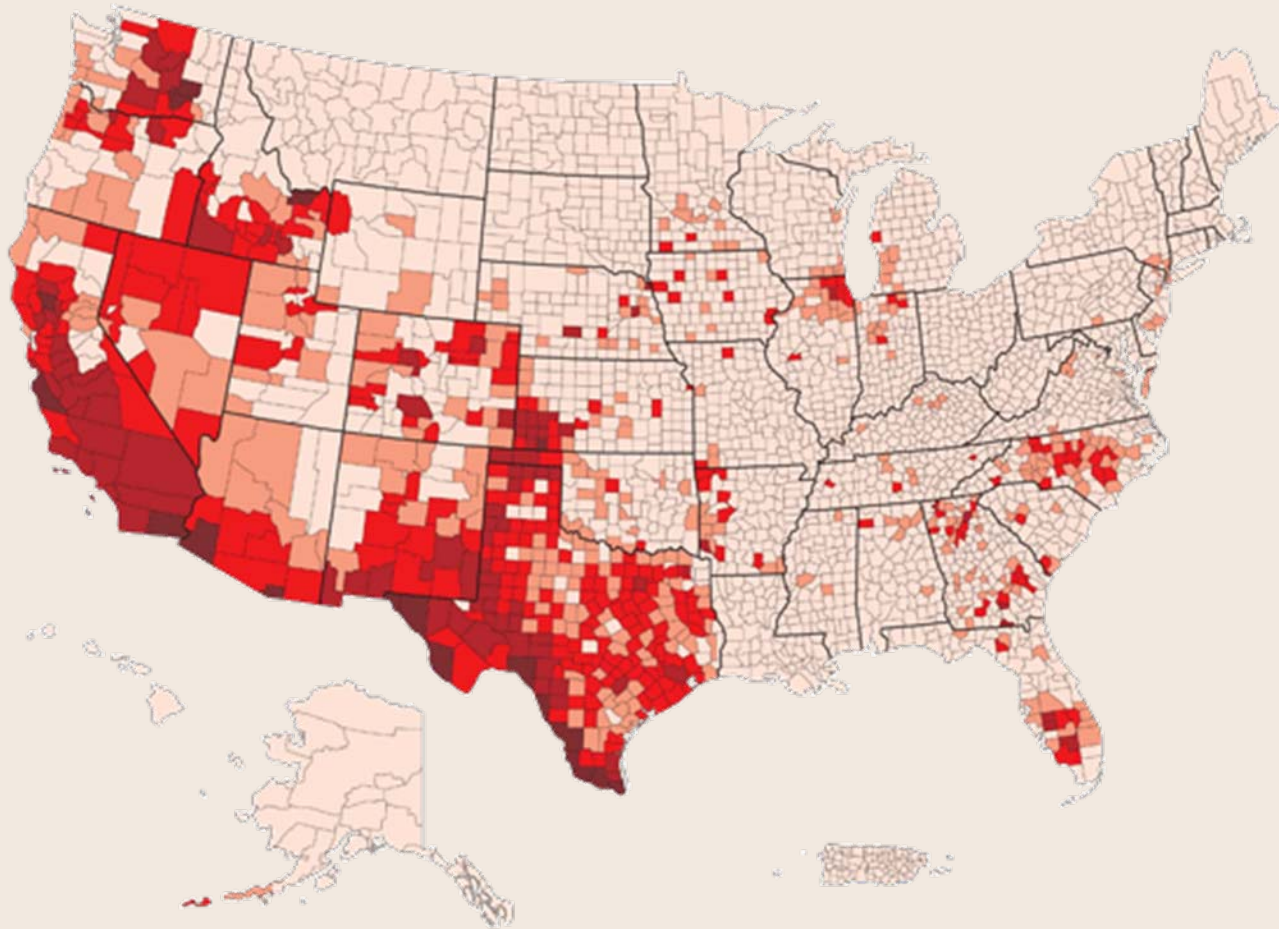
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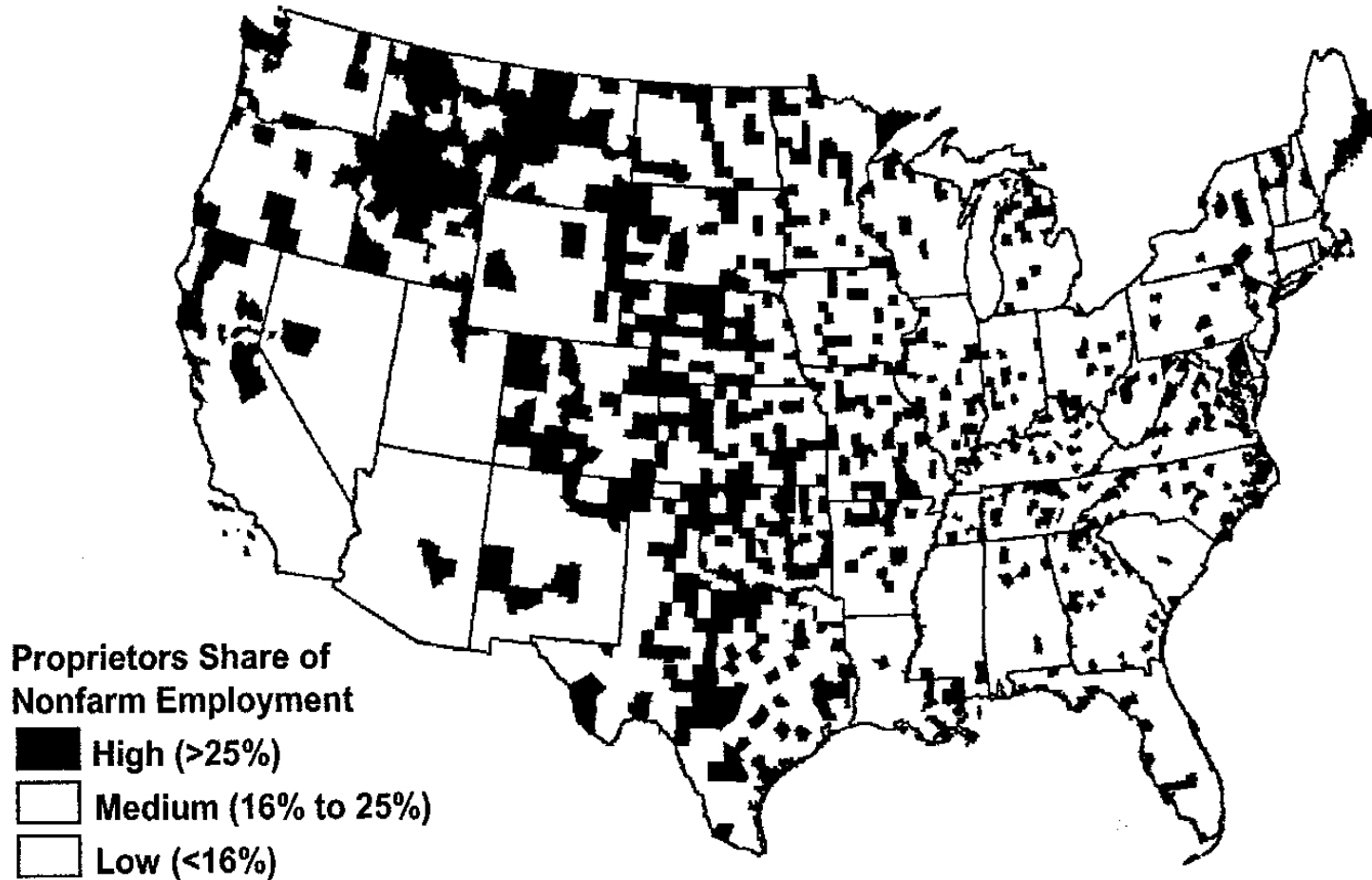
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# ¿A dónde vamos?



Latino population in Idaho was 36,550 in 1980 and it was 147,500 in 2007—an annual rate of growth of 11%

In Idaho, 2002, there were 2,174 businesses owned by Latinos without paid employees



Calculations based on BEA data

**Figure 5.2. Entrepreneurial Breadth, 2001**

Latino-owned businesses have lower average sales, are less likely to hire employees, and have fewer employees than white-owned businesses.

Trends in minority business outcomes do not indicate improvement relative to white business outcomes in the last two decades.

Fairlie and Robb, 2008. *Race and Entrepreneurial Success*

## **In Idaho,**

- Studies of socio-economic factors that determine Hispanic economic development are lacking.
- Knowledge of these factors and their interplay is needed to design policies that better *integrate Hispanics in regional labor markets and resident communities, and to encourage entrepreneurial development.*

# DATA

- American Community Survey (Census Bureau)—PUMS population data set for 2005-2007
- Wage and self-employment income are measured on an annual basis
- Entrepreneurs are defined as those individuals that have more than 37% of their labor income from self-employment

# Women in Idaho

354,000 working women (16-65 yrs)

(G1) 3% both wages and self-employed

(G2) 91% working for wages only

(G3) 6% are self-employed only

Eight % of the total are Hispanics

SE women are 5-years older than those  
working for wages → more occupational  
experience



# Ethnicity

**Table 1. Weighted means of age, wage and self-employment income of females between 16 and 65 years in Idaho, and female to male ratios (%).**

Group		Obs.	Age	Wage	F:M ratio	Self Employment	F:M ratio
(1) Wage and Self-employed	Non-Hispanic	10,636	42.5	22,725	54	9,087	48
	(SE)		0.12	213		190	
	Hispanic	522	38.4	18,945	56	13,189	105
	(SE)			751		1054	
(2) Wage	Non-Hispanic	306,371	38.2	22,605	59		
	(SE)			41			
	Hispanic	26,113	34.2	15,473	66		
	(SE)			86			
(3) Self-employed	Non-Hispanic	30,480	43.1			16,474	51
	(SE)		0.07			161	
	Hispanic	1,722	39.1			14,785	58
	(SE)		0.24			532	

Source: PUMS 2005-07.

The figures for males used to estimate the percentage of female to male ratio (% F-M) are not shown in the table.

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# Regression Analyses

- What factors contribute to wage and self-employment income for both males and females?
  - OLS
- What characterizes an entrepreneur?
  - Logistic

# **LN WAGE = f ( age, marital status, sex, education, ethnicity \* education, error)**

- Peak age is 45-46 years
- Married > widowed/separated (19% and 29% in rural and urban counties, respectively)
- Females earn 43% (46%) less than males in urban (rural) counties
- HS graduates in rural (urban) counties earn 57% (87%) more than persons without HS degree
- Hispanics with HS or college studies receive 20% lower earnings than the average population with similar educational attainment

$$\text{LN SEMP} = f(\text{age, marital status, sex, education, ethnicity} * \text{education, error})$$

- Peak age for self-employment income is 47 (53) years in rural (urban) counties
- Female SE income is 57% (52%) below the earnings of their male counterparts in rural (urban) counties
- HS graduates in urban counties earn 64% more than a person without HS diploma
- SE income of women is 10% below the wage earnings in both rural and urban counties
- Ethnicity \* educational attainment was not significant

$$\text{Prob. (ENTREP)} = e^{(Bx)} / 1 + e^{(Bx)},$$

where **B** are vector parameters associated with factors **X**  
(sex, ethnicity, marital status, education, occupation)

## Rural counties

- Females 6% less likely than males
- Individuals with college education 9% more likely than those without completed high school
- Less likely than “other” occupations
  - Prof. services (-14%) < transport & communications (-11%)
- More likely than “other” occupations
  - Gardening & landscaping (33%) > agr. (28%) > pers. Serv. (25%) > construction (13%)

**Prob. (ENTREP) =  $e^{(Bx)} / 1 + e^{(Bx)}$ ,**  
**where B are vector parameters associated with factors X**  
**(sex, ethnicity, marital status, education, occupation)**

## **Urban counties**

- Single individuals 23% are more likely than widowed/separated
- More likely than “other” occupations

Repair (32%) > construction (31%) > agriculture (30%) > FIRE (29%) > service (27%) > gardening and landscaping (23%)

# Concluding Remarks

- Gender and ethnic gaps in rural and urban areas have been quantified
- Regardless of ethnicity, women that work for wages & as self-employed earn higher incomes than women working only for wages or as self-employed. **But Hispanic women** in this group **completely** close the ethnic gap



# Concluding Remarks

- The contribution of education is clear for wage earners in both rural and urban areas
- Hispanics earn lower wages than non-Hispanics with the same educational attainment

# Concluding Remarks

Educational attainment was only significant in urban counties to predict **self-employment income**. High school graduates earn 64% more than individuals without completed high school

# Concluding Remarks

- Women are 6% less likely than men to be entrepreneurs in rural areas
- Single individuals are 23% more likely to be entrepreneurs than widowed/separated in urban areas
- Further research is needed to characterize entrepreneurs with respect to financial assets, experience in a given occupation, family type, and number of years in the US for immigrants, among other indicators

# Thanks for your attention

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**Table 2. Log of wage income in Idaho, 2005-2007.**

	Rural			Urban		
	B	Std. Err.	R. Eff.#	B	Std. Err.	R. Eff.#
(Constant)	5.677	.107**		5.471	.151**	
AGE	.181	.005**		.188	.007**	
AGEPSQ	-.002	.000**		-.002	.000**	
MARRIED	.173	.054**	.187	.254	.078**	.285
DIVORCED				.228	.084**	.251
SINGLE	-.138	.059*	-.131			
FEMALE	-.622	.017**	-.463	-.554	.024**	-.425
HS GRAD	.454	.029**	.573	.624	.045**	.865
UP TO BS	.613	.028**	.846	.854	.042**	1.348
POSTGRAD	1.129	.044**	2.089	1.359	.057**	2.885
LAT_NSL9	-.207	.063**	-.188	-.230	.089**	-.208
LAT_NSL13				-.161	.078*	-.151
Obs.	14,035			6,870		
Adj R2	.373			.364		

# Relative effect of dummy variable on the dependent variable,  $\text{Exp}(B - (.5 * \text{Std. Err.}^2)) - 1$ , after Kennedy (1981).

**Table 3. Log of self-employment income in Idaho, 2005-2007.**

	Rural			Urban		
	B	Std. Err.	R. Eff. #	B	Std. Err.	R. Eff. #
(Constant)	4.652	.555**		5.559	.814**	
AGE	.200	.023**		.154	.036**	
AGEPSQ	-.002	.000**		-.001	.000**	
MARRIED						
DIVORCED						
SINGLE						
FEMALE	-.833	.078*	-.567	-.722	.122**	-.518
HS GRAD				.522	.244*	.637
UP TO BS						
POSTGRAD						
LAT_NSL9						
LAT_NSL13						
LAT_NSL16						
Obs.	2,000			812		
Adj R2	.131			.120		

# Relative effect of dummy variable on the dependent variable,  $\text{Exp}(B - (.5 * \text{Std. Err.}^2)) - 1$ , after Kennedy (1981).

Table 4. Logistic regression on entrepreneurs (ENTREP), Idaho 2005-2007.

	RURAL			URBAN		
	B	SE	# Prob. Change	B	SE	# Prob. Change
<b>Sex</b>						
FEMALE	-.345	.130**	-.060	-.229	.190	-.045
<b>Ethnicity</b>						
HISPANIC	-.128	.335	-.022	-.092	.383	-.018
<b>Marital status</b>						
MARRIED	-.091	.400	-.016	.721	.518	.143
DIVORCED	.020	.426	.004	.736	.559	.145
SINGLE	.102	.433	.018	1.174	.563**	.232
<b>Educ. attainment</b>						
HS GRAD	.240	.249	.042	-.041	.392	-.008
UP TO BS	.507	.238*	.088	.426	.362	.084
POSTGRAD	1.098	.294**	.191	.590	.433	.117
<b>Occupation</b>						
AGFORFISH	1.587	.309**	.276	1.517	.572**	.300
CONSTRUCT	.720	.250**	.125	1.544	.386**	.305
MANUFACT	-.518	.294	-.090	.741	.500	.146
TRANS & COMM	-.591	.238*	-.103	-.111	.345	-.022
WHOLESALE	.583	.800	.101	.645	.918	.127
RETAIL	-.332	.321	-.058	.152	.426	.030
FIRE	.099	.285	.017	1.483	.391**	.293
BUSSERV	.076	.373	.013	.595	.476	.118
PERSSERV	1.448	.393**	.252	1.340	.417**	.265
ENT & RECR	.644	.427	.112	1.304	.565**	.258
PROFSERV	-.788	.232**	-.137	.402	.338	.079
GARD & LANDSC	1.901	.755*	.330	1.175	.564*	.232
REPAIRS	-.291	.243	-.051	1.593	.460**	.315
Constant	-.167	1.001	-.029	-2.210	1.36	-.437
No. obs.	2,000			812		
X <sup>2</sup>	250.7, p<.001			80.4, p<.000		
Nagerlkerk R <sup>2</sup>	.177			.137		

# Change in probability for a 1-unit increase in Xi depends on the logit regression coefficient Bi as well as the value of the probability itself, i.e., (Bi\*(Py\*(1-Py))), where Py is the mean of the dependent variable.

\* and \*\* denote significance at p<.05 and p<.01, respectively.