

# 1980 Census of Population and Housing Spanish Surname List Technical Documentation

D1-D80-SPSN-14-TECH

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Commerce  
Economic and Statistics  
Administration  
U.S. Census Bureau



**CENSUS OF POPULATION  
AND HOUSING, 1980**

**SPANISH SURNAME LIST**

**TECHNICAL DOCUMENTATION**

**CENSUS OF POPULATION AND HOUSING, 1980**  
**SPANISH SURNAME LIST**

**Technical Documentation**

Washington, DC

Revised December 1993

**U.S. DEPARTMENT OF COMMERCE**  
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\*\*\*\*\*  
**ACKNOWLEDGMENTS**

Staff members of the Population Division, developed the content and provided overall guidance on technical details. In the Data Access and Use Branch, Amanda Shields, assisted by Virginia Collins, coordinated the production of this documentation.

The file should be cited as follows:

*Census of Population and Housing, 1980 Spanish Surname List* [machine-readable data file] / prepared by the Bureau of the Census. -Washington: Bureau of the Census [producer and distributor], 1980.

The technical documentation should be cited as follows:

*Census of Population Survey, 1980 Spanish Surname List Technical Documentation* / prepared by Data User Services Division, Data Access and Use Branch, Bureau of the Census. -Washington: The Bureau, 1980.

For additional information concerning the **tape**, contact Data User Services Division, Customer Services, Bureau of the Census, Washington, DC 20233. Phone: (301) 763-4100.

For additional information concerning the **technical documentation**, contact Data User Services Division, Data Access and Use Branch, Bureau of the Census, Washington, DC 20233. Phone: (301) 763-2074.

For additional information concerning the **subject matter** of the file, contact Population Division, Bureau of the Census, Washington, DC 20233.

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# ABSTRACT

*Census of Population and Housing, 1980-Spanish Surname List  
(machine-readable data file) / prepared by the Bureau of the Census.  
-Washington: Bureau of the Census [producer and distributor], 1980.*

## TYPE OF FILE

Reference File.

## UNIVERSE DESCRIPTION

The list was developed from approximately 85 million 1977 Federal tax returns.

## SUBJECT-MATTER DESCRIPTION

This file consists of 12,497 Spanish surnames condensed from 1.4 million distinct surnames and tabulated for 858 geographic areas.

## TECHNICAL DESCRIPTION

File Structure: Rectangular

File Size: 12,497 logical records; logical record length, 18 characters.

File Sort Sequence: Alphabetical

## REFERENCE MATERIAL

*Census of Population and Housing, 1980, 1980-Spanish Surname List (this document).* Documentation contains descriptive information about the file and the list of Spanish surnames. A copy is furnished free of charge with all file orders. It is available from Customer Services, Data User Services Division, Bureau of the Census, Washington, DC 20233. Phone: 301-763-4100. FAX: 301-763-4794. (See order form following the Abstract.)

## RELATED MACHINE-READABLE DATA FILES

*Census of Population and Housing, 1970-Spanish Surname List.*

## FILE AVAILABILITY

When ordering, please refer to file number C CEN 80 001. The file is available on one reel of tape. See the order form for the various technical options.

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GUIDELINES FOR USING CENSUS OF POPULATION AND HOUSING, 1980  
SPANISH SURNAME LIST

The user should be aware of the following guidelines when using this list of Spanish surnames.

All names are listed alphabetically without any blanks or spaces.

EXAMPLE: "DELEON", not "De Leon"

Accent marks and tildes have been omitted.

EXAMPLE: "MARTINEZ", not Martínez  
"NUNEZ", not Nuñez

If a surname consists of two names separated by a dash, the person should be coded as Spanish if either name appears on the list.

EXAMPLE: COLLINS-GARCIA

If the surname consists of two surnames separated by "de", look for the name written first. If it does not appear on the list, look for the name with and without the word "de".

EXAMPLE: Perez de Seda  
(PEREZ; DESEDA; SEDA)

If the surname is followed by an initial, ignore the initial and look up only the name.

EXAMPLE: "LOPEZ", not "Lopez R."

Surnames which begin "de" or "de la" should be looked for with and without the prefixes. If any of the following combinations are listed, the surname should be considered Spanish.

EXAMPLE: de la Cruz  
(CRUZ, LACRUZ, DELACRUZ)











1980 CENSUS LIST OF SPANISH SURNAMES

\*\*\*\*\*  
 AVILA - AZURDIA  
 \*\*\*\*\*

|              |           |
|--------------|-----------|
| AVITIA       | AVUSO     |
| AVILAS       | AZA       |
| AVILES       | AZARES    |
| AVILEZ       |           |
| AVILLAN      | AZLANO    |
| AVILLUECA    | AZCARATE  |
| AVINA        | AZCARRAGA |
| AVITA        | AZCARRERA |
| AVITEA       | AZCOITIA  |
| AVITIA       | AZCUNA    |
| AVITUA       | AZELUE    |
|              | AZKUI     |
| AYABARRENO   | AZCOY     |
| AYALA        |           |
| AYALLA       | AZIDS     |
| AYALO        |           |
| AYAN         | AZHAR     |
| AYARZAGOITIA | AZNAREZ   |
| AYBAR        |           |
|              | AZACA     |
| AYCART       | AZOCAR    |
|              | AZOFRA    |
| AYENDE       | AZER      |
| AYERBE       | AZOY      |
| AYERDI       |           |
| AYERZA       | AZPEITIA  |
| AYES         | AZPIAZU   |
| AYESTARAN    | AZFIRI    |
|              | AZPIROZ   |
| AYLLON       |           |
|              | ATIA      |
| AYMAY        | ATHARA    |
| ATHERICH     | AZUCENA   |
|              | AZUELA    |
| AYOLA        | AZUETA    |
| AYON         | AZURDIA   |
| AYORA        |           |
| AYORDA       |           |

\*\*\*\*\*  
 AVILA - AZURDIA  
 \*\*\*\*\*













1980 CENSUS LIST OF SPANISH SURNAMEN

\*\*\*\*\*  
 \*\*\*\*\* CASANUEVA - CHAPEA  
 \*\*\*\*\*

CASANUEVA  
 CASAPES  
 CASAREZ  
 CASARTEGO  
 CASARRUBIAS  
 CASAS  
 CASASNOVAS  
 CASASOLA  
 CASASUS  
 CASAUDS  
 CASAVANTES  
 CASCANTE  
 CASCAN  
 CASCOS  
 CASCUDO  
 CASELAS  
 CASELLAS  
 CASERAS  
 CASERES  
 CASERMA  
 CASERO  
 CASERZA  
 CASES  
 CASIA  
 CASIAN  
 CASIANO  
 CASIAS  
 CASICA  
 CASILLAS  
 CASILLA  
 CASILLAN  
 CASILLAS  
 CASILLOS  
 CASINES  
 CASIQUE  
 CASQUITO  
 CASIS  
 CASMERO  
 CASOVILA  
 CASPARIS  
 CASPILLO  
 CASSARES  
 CASSAS

CASSIAS  
 CASSILLAS  
 CASSINERIO  
 CASSO  
 CASCATIGNE  
 CASTAN  
 CASTANA  
 CASTANADA  
 CASTANARES  
 CASTANERADA  
 CASTANED  
 CASTANEDA  
 CASTANEDO  
 CASTANER  
 CASTANETO  
 CASTANO  
 CASTANOLA  
 CASTANON  
 CASTANOS  
 CASTARUELA  
 CASTANY  
 CASTEJON  
 CASTELA  
 CASTELAN  
 CASTELANO  
 CASTELAO  
 CASTELAR  
 CASTELAZO  
 CASTELBLANCO  
 CASTELDEIRO  
 CASTELEIRO  
 CASTELLANAS  
 CASTELLANES  
 CASTELLANOS  
 CASTELLARDOZ  
 CASTELLAR  
 CASTELLON  
 CASHELL'S  
 CASTELLIVI  
 CASTELNAU  
 CASTIENO  
 CASTENADA  
 CASTENEDA

CASTIELANCO  
 CASTIEL  
 CASTILLO  
 CASTILLO  
 CASTILLA  
 CASTILLAS  
 CASTILLAS  
 CASTILLEJA  
 CASTILLEJO  
 CASTILLEJOS  
 CASTILLERO  
 CASTILLIO  
 CASTILLO  
 CASTILLO  
 CASTILLO  
 CASTINEIRA  
 CASTINEIRAS  
 CASTINEYRA  
 CASTORENA  
 CASTORENO  
 CASTRA  
 CASTREJON  
 CASTRELLON  
 CASTRESANA  
 CASTRILLO  
 CASTRILLON  
 CASTRIZ  
 CASTRO  
 CASTRODAD  
 CASTROMAN  
 CASTRON  
 CASTROVERDE  
 CASTRUITA  
 CASUL  
 CASUSO  
 CATA  
 CATACALDOS  
 CATACHE  
 CATALAN  
 CATALAN  
 CATALENA  
 CATANACH  
 CATANO

CATAQUET  
 CATAUCA  
 CATAUS  
 CATEORA  
 CATETE  
 CATELICO  
 CATZDELA  
 CAUAZOS  
 CAUCE  
 CAUDALES  
 CAUDILLO  
 CAULA  
 CAUNDER  
 CAUSO  
 CAVANAS  
 CAVASAS  
 CAVASOS  
 CAVAZ  
 CAVAZAS  
 CAVAZOS  
 CAVAZOS  
 CAVEDA  
 CAVERO  
 CAVEZA  
 CAVIEDES  
 CAVIEL  
 CAYLA  
 CAVOS  
 CAVOZOS  
 CAYADO  
 CAYAHAN  
 CAYCEDO  
 CAYERE  
 CAYEROS  
 CAYIAS  
 CAYON  
 CAYUELA  
 CAYUSO

CAZANIAS  
 CAZANAS  
 CAZARES  
 CAZAREZ  
 CAZARTH  
 CAZON  
 CBERACA  
 CUEVACA  
 CEBADA  
 CEBALLOS  
 CEBALLO  
 CEBALLOS  
 CEBEY  
 CEBOLLERO  
 CEBRERO  
 CEBRERO  
 CEBREROS  
 CEBRIAN  
 CECEÑA  
 CEDEÑA  
 CEDENO  
 CEDILLO  
 CEDILLDS  
 CEDINO  
 CEDO  
 CEGARRA  
 CEGUEDA  
 CEIDE  
 CELJAS  
 CEJA  
 CEJAS  
 CEJO  
 CEJUDO

CELA  
 CELADA  
 CELANJO  
 CELATA  
 CELAYETA  
 CELEDON  
 CELEPU  
 CELIPEO  
 CELIS  
 CELIZ  
 CELORTO  
 CEÑA  
 CEÑAN  
 CEÑENAS  
 CENDOTA  
 CENILLEROS  
 CENISEROS  
 CENTAFROZ  
 CENZ  
 CENTELLAS  
 CENTENO  
 CENURION  
 CEPEDA  
 CEPERFS  
 CEPERO  
 CERABELLA  
 CERALDE  
 CERBANTES  
 CERBANTEZ  
 CERCAJO  
 CERDA  
 CERDITRA  
 CERDETRAS  
 CERCEDEA  
 CERCEDES  
 CERCEDO

CERECRES  
 CERECEREZ  
 CERECERO  
 CERELJO  
 CERELZO  
 CERIF  
 CERMINO  
 CERNA  
 CERNAS  
 CERINO  
 CERNIA  
 CERON  
 CERPA  
 CERRILLO  
 CERRILLOS  
 CERRITOS  
 CERROS  
 CERTEZA  
 CERUAHTES  
 CERVAÑES  
 CERVANTE  
 CERVANTES  
 CERVANHEZ  
 CERVANTES  
 CERVERA  
 CESANT  
 CESENA  
 CESIN  
 CESPIÑES  
 CESPEÑEZ  
 CESTERO  
 CEVALLO  
 CEVALLOS  
 CEVILLA  
 CEYANES  
 CHABARRIA  
 CHABENA

\*\*\*\*\*  
 \*\*\*\*\* CASANUEVA - CHADERA  
 \*\*\*\*\*





1960 CENSUS LIST OF SPANISH SURNAMES

\*\*\*\*\*  
 CUADRA - CUZA  
 \*\*\*\*\*

|          |         |          |
|----------|---------|----------|
| CUADRA   | CUERVO  | CUSCO    |
| CUADRADO | CUESTA  | CUSTODIA |
| CUADRAS  | CUESTAS | CUSTODIO |
| CUADRIZ  | CUETO   |          |
| CUARDI   | CUEVA   | CUTIE    |
| CUADROS  | CUEVAS  |          |
| CUAN     | CUEVAZ  | CUYA     |
| CUARA    | CUEVOS  | CUYAR    |
| CUARANTA |         |          |
| CUARON   | CUILAN  | CUZA     |
| CUARTAS  | CUIN    |          |
| CUASCUT  | CUIZON  |          |
| CUATE    |         |          |

CUBANO  
 CUBAN  
 CUBENAS  
 CUBERO  
 CUBIAS  
 CUBILLAS  
 CUBILLO  
 CUBILLOS  
 CUBIO  
 CUBRIEL

CULEBRO  
 CULTRERI

CUMBA  
 CUPIAN  
 CUPILANG

CURAMAN  
 CURIES  
 CURNEZ  
 CUNTI  
 CUNILL  
 CUNYUS

CUCALON  
 CUCUTA

CUPELES  
 CUPRILL

CUERA  
 CUERAS  
 CUELTAR  
 CUELLA  
 CUELLAR  
 CUELLER  
 CUELLO  
 CUEN  
 CUENCA  
 CUENCO

CURIA  
 CURBELLO  
 CURBELO  
 CURRET  
 CURRIEL  
 CURRIALS  
 CURRAS  
 CURRCA  
 CURZ

CUENTAS  
 CUENTO  
 CUERDO  
 CUERO

\*\*\*\*\*  
 CUADRA - CUZA  
 \*\*\*\*\*





1960 CENSUS LIST OF SPANISH SURNAMES

\*\*\*\*\*  
 DEVI LLAR - DURON  
 \*\*\*\*\*

|                  |             |             |              |
|------------------|-------------|-------------|--------------|
| DEVILLAR         | DIODINET    | DIMIRQUEZ   | DUARDO       |
| DEVILLEGAS       | DIDOSIO     | DIHIO       | DIARTE       |
| DEVOLIN          | DIONES      | DOMONDON    | DIARTES      |
|                  | DIOS        |             |              |
| DEYA             | DIOSDADO    | DONADO      | DUBON        |
| DEYGAZA          | DIOSSES     | DONATE      |              |
| DEYNES           |             | DORIEIS     | DUCOS        |
|                  | DIRECTO     | DORIESTEVEZ |              |
| DEZA             |             | DORIEZ      | DUEN         |
| DEZAMORA         | DISARUFIND  | DONIAS      | DUFNAS       |
| DEZARA           | DISLA       | DONJUAN     | DUENES       |
| DEZARRAGA        | DISTABILE   | DONLUJAS    | DUEHEZ       |
| DEZAYAS          |             | DONOSO      | DUEHO        |
| DEZUNIGA         |             |             | DUENOS       |
| DIACOS           | DORAL       | DOPAZO      | DUHAGON      |
| DIAGO            | DORNO       | DOPICO      | DUIAIDE      |
| DIANCIS          | DOBARGANES  | DOPORTO     |              |
| DIASOFELON       | DOBLADO     |             |              |
| DIJAZ            |             | DOPADO      | DULZAIDES    |
| DIJAZARVEDO      | DOCAL       | DORANE      |              |
| DIJAZCOLON       | DOCAHPO     | DORANTES    | DUMASUJINDIN |
| DIJAZCRUZ        | DOCR        | DORREGO     | DUMORIQUE    |
| DIJAZDEARCE      |             | DORTA       | DUMIEG       |
| DIJAZDELCAMPO    | DOJABUEZ    | DORTICOS    | DUMERIGN     |
| DIJAZDELCASTILLO |             |             |              |
| DIJAZDELEON      | DOLATRE     | DOCAL       | DURQUE       |
| DIJAZDEVILLEGAS  | DOLMO       | DOSAMONITES |              |
| DIJAZMEDINA      |             | DOSELA      | DURAN        |
| DIJAZPIEDRA      |             |             | DURANGO      |
| DIJAZRIVERA      | DOMENA      | DOVAL       | DURANDONA    |
| DIJAZRODRIGUEZ   | DOMENECH    | DOVALES     | DURARIZA     |
|                  | DOMENGUEZ   | DOVALINA    | DURATE       |
|                  | DOMENO      | DOVO        | DURAZU       |
| DIJEGO           | DOMENZAIN   |             | DURON        |
| DIJEGUEZ         | DOMINGUEZ   | DOZAL       |              |
| DIJEPPA          | DOMINCO     |             |              |
| DIJEZ            | DUMINGEZ    |             |              |
|                  | DUMINGUEZ   |             |              |
| DIMAS            | DUMINGUEZ   | DSPADY      |              |
|                  | DOMINGUITZ  |             |              |
|                  | DOMINISQUEZ |             |              |

\*\*\*\*\*  
 DEVI LLAR - DURON  
 \*\*\*\*\*

1980 CENSUS LIST OF SPANISH SURNAMES

\*\*\*\*\*  
 ECHABARNE - ESCOBID  
 \*\*\*\*\*

|              |            |            |           |            |           |            |
|--------------|------------|------------|-----------|------------|-----------|------------|
| ECHABARNE    | ECHIVESTER | EIRAS      | ELIZONDO  | ENCINO     | ERDOZAIN  | ESCARFILL  |
| ECHANDI      |            | EIRIZ      |           | ENCINOSA   |           | ESCARION   |
| ECHANZIA     | EDERRA     | ELEGARIO   | ELJAUM    | ENCISCO    | EREDIA    | ESCANES    |
| ECHARIZ      | EDISA      | ELEGINO    |           | ENCISO     | EREDIA    | ESCANIO    |
| ECHARREN     | EDEZA      | ELEJALDE   | ELORDUY   | ENCIZO     | ERES      | ESCAHO     |
| ECHARRI      |            | ELENEN     | ELORRAGA  |            | EREVA     | ESCAHUELA  |
| ECHARTEA     |            | ELENA      | ELORZA    | ENDAPA     | EREVA     | ESCAHUELAS |
| ECHAURRIA    | EDILLO     | ELENES     | ELORZAGA  | ENDAYA     | ERITAES   | ESCAPA     |
| ECHAURI      |            | ELENEZ     | ELORZUA   | ENDEMAND   | ERITAES   | ESCAPA     |
| ECHAVARIA    | EDQUIVEL   | ELVARIO    | ELOSQUI   | ENDOSO     | ERITVES   | ESCAPULE   |
| ECHAVARRI    |            | ELEZUNDO   | ELOSUA    |            | ERITVEZ   | ESCAPULE   |
| ECHAVARRIA   |            |            |           | ENGACTO    | ERREA     | ESCAR      |
| ECHAVARRY    |            |            | ELUSARDO  | ENGUIDANOS | ERRECA    | ESCARCEGA  |
| ECHAVE       | EDREIRA    | ELBARRESTA |           |            | ERRICA    | ESCARCIDA  |
| ECHAVERIA    | EDROSA     | ELBO       | ELVIRA    | ENJADY     | ERRISURIZ | ESCARCIGA  |
| ECHAVES      | EDROSOLAH  | ELBUERA    |           |            | ERRIO     | ESCARCIGA  |
| ECHAVESTE    | EDROZO     | ELBUESA    | ELVICIO   | ENRIGUEZ   | ERRIO     | ESCARFOA   |
| ECHAVEZ      |            | ELBUZABAL  |           | ENRIGUEZ   | ERRIO     | ESCARFOA   |
| ECHAZABAL    | EDANA      |            | EMANUELLI | ENRIGUEZ   | ERRIO     | ESCARFOA   |
| ECHAZARRETA  | EDAS       |            | EMHITE    | ENRIQUEZ   | ERRIO     | ESCARFOA   |
|              |            |            |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHAGARAY    | EEGA       | ELICJER    | EMERADOOR | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHANDIA     |            | ELISALDA   | EMPLEO    | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHEDARRIA   |            | ELISALDE   | EMPASIS   | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHERRAZ     |            | ELISALDE   | EMPERADOR | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHESYEN     |            | ELISALDE   | EMPLEO    | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHEGUREN    | EGIFCIACO  | ELISARRAZ  | ENAMORADO | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHENENDEA   |            | ELISARRAZ  |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHENIQUE    |            | ELISERIO   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHERYVEL    | EGLESIAS   | ELISONDO   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHERRI      |            | ELIXAVIDE  |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
|              |            | ELIZANE    |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHEVERIA    | EGUED      | ELIZAGA    |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHEVERRIA   | EGUES      | ELIZALDA   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHEVERRIETA | EGUEZ      | ELIZALDE   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHEVERRIDO  | EGUIA      | ELIZALDE   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHEVERIA    | EGUIGUREN  | ELIZALDE   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHEVERRI    | EGUILUZ    | ELIZALDE   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHEVERRIA   | EGUINO     | ELIZALDE   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHEVERRY    | EGUINZABAL | ELIZALDE   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHEVERSTE   | EGURE      | ELIZALDE   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHEZADAL    | EGURROLA   | ELIZALDE   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
|              |            | ELIZALDE   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHEZARRETA  | EGUSQUITZA | ELIZALDE   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHIRIBEL    |            | ELIZALDE   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |
| ECHIVERRI    |            | ELIZALDE   |           | ENRIQUEZ   | ERRIO     | ESCARFOA   |

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 ECHABARNE - ESCOBID  
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1980 CENSUS LIST OF SPANISH SURNAMES

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 ESCOBOSA - EZRE  
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EYZAGUIRRE

EZCURRA

EZETA

EZQUEDA

EZQUER

EZQUERRA

EZQUERRO

EZPAITY

EZRE

ETCHEBARREN  
 ETCHEBHERE

ETCHEGORY

ETHEGARAY

ETHEPARI

ETHEVERRIA

EUHAVE

EUFACIO

EULATE

EUFESTE

EURESTI

EURIOSTE

EUSELIO

EUSTAQUIO

EZARRAGA

EVANGEL

EVANGELATOS

EVARO

EVIA

EXIGA

EXINIA

EXPARZA

EXPOSITO

EYLICIO

ESTEFANI

ESTELA

ESTENOZ

ESTEPA

ESTEPAN

ESTERAS

ESTERO

ESTEVES

ESTEVA

ESTEVAN

ESTEVANE

ESTEVANES

ESTEVANEZ

ESTEVES

ESTEVIZ

ESTEVIS

ESTEVIZ

ESTIEN

ESTIEN

ESTIEN

ESTOLANO

ESTOLAS

ESTOPELLAN

ESTOPINAN

ESTOQUE

ESTORGA

ESTRACA

ESTRAO

ESTRADA

ESTRADAS

ESTRADE

ESTRADO

ESTRALLA

ESTRANY

ESTRELLA

ESTRELLAS

ESTRELLA

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ESQUEA

ESQUEDA

ESQUEJO

ESQUELL

ESQUENAZI

ESQUER

ESQUERA

ESQUERDO

ESQUERDO

ESQUERRO

ESQUERRA

ESQUERRE

ESQUEVEL

ESQUIBAL

ESQUIBEL

ESQUIBIAS

ESQUIERDO

ESQUIJARDAS

ESQUIJARROSA

ESQUILLANO

ESQUILIN

ESQUINCA

ESQUINEL

ESQUIVAI

ESQUIVEL

ESQUIVEL

ESQUIVEL

ESQUIVIAS

ESTABA

ESTABILLO

ESTADES

ESTAJES

ESTAJA

ESTAMIA

ESTANOL

ESTAPE

ESTAVILLA

ESTAVILLO

ESTEBAN

ESTEBANE

ESTEBANEZ

ESTEBES

ESTEFAN

ESPARZ

ESPARZA

ESPEJEL

ESPEJO

ESPELEYA

ESPERMEZ

ESPEROSA

ESPEROSA

ESPEROZA

ESPERA

ESPERANZA

ESPERAS

ESPERICUETA

ESPERIQUETA

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 ESCOBOSA - EZRE  
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1980 CENSUS LIST OF SPANISH SURNAMES

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 GUADUANO - GUZMAN  
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|              |           |             |            |         |
|--------------|-----------|-------------|------------|---------|
| GUADUANO     | GUERARA   | GUILARTE    | GURDIN     | GUTIELI |
| GUARDON      | GUECHO    | GUILIBE     |            | GUZMAN  |
| GUADA        | GUEDE     | GUILLEZ     |            |         |
| GUAJACA      | GUDEA     | GUILLEMA    | GURARD     |         |
| GUAJARDO     | GUEDES    | GUILLEMARO  | GURELL     |         |
| GUAL         | GUEDIN    | GUILLEN     | GURIDES    |         |
| GUADARRAMA   | GUEIMUNDE | GUILLEHA    | GURIOA     |         |
| GUAMAN       | GUEITS    | GUILHERMETY | GURERO     |         |
| GUANA        | GUELBENZU | GUILHERMO   | GURRIA     |         |
| GUANA JIATO  |           | GUIHA       | GURRIES    |         |
| GUANCHE      | GUELMEZ   | GUIHADO     | GURROLA    |         |
| GUANGORENA   | GUEMES    | GUIRALES    | GURRUCHAGA |         |
| GUANILL      | GUEMEZ    | GUIREMANO   | GURULE     |         |
| GUANTE       | GUERA     | GUIROLA     |            |         |
| GUANTES      | GUERARA   | GUISA       | GURVLE     |         |
| GUANTEZ      | GUERCA    | GUISADO     | GURZI      |         |
| GUAFU        | GUERENA   | GUISAKO     |            |         |
| GUARA        | GUERENO   | GUISANO     | GUSMAN     |         |
| GUARACHA     | GUERENDE  | GUITANO     | GUSME      |         |
| GUARCH       | GUERERO   | GUITERREZ   | GUSTANANTE |         |
|              |           |             | GUSTANTE   |         |
| GUARDADO     | GUERERO   | GUITIAN     |            |         |
| GUARDANONDO  | GUERNICA  | GUITIERREZ  |            |         |
| GUARDARRAMA  | GUERRA    | GUITRON     | GUTERREZ   |         |
| GUARDARRAMOS | GUERRO    | GUITIEREZ   | GUTIERFS   |         |
| GUARDERAS    | GUERRER   | GUITIERREZ  | GUTIEREZ   |         |
| GUARDIAN     | GUERRERO  | GUTTY       | GUTIEREZ   |         |
| GUARDIAS     | GUERRIDO  | GUTTY       | GUTIEREZ   |         |
| GUARDIOLA    | GUERRIOS  | GUTU        | GUTIERRE   |         |
| GUARENO      | GUERRIO   | GUTVAS      | GUTIERRE   |         |
| GUARIS       | GUERRRA   | GUIZA       | GUTIERRE   |         |
|              |           | GUIZADO     | GUTIERRE   |         |
| GUARJARDO    | GUEVARA   |             | GUTIERRE   |         |
| GUARERO      | GUEVAREZ  | GUIZAR      | GUTIERRE   |         |
| GUAREROS     | GUEVAPRA  |             | GUTIERRE   |         |
| GUARTUCHE    | GUEVIRA   | GUIJARDO    | GUTIERRE   |         |
| GUAS         | GUEVERRA  |             | GUTIERRE   |         |
| GUASCH       | GUEZ      |             | GUTIERRE   |         |
| GUASH        |           | GUILARTE    | GUTIERRE   |         |
| GUASP        | GUTA      | GULBAS      | GUTIERRE   |         |
| GUAYANTE     | GUTROA    | GULORIS     | GUTIERRE   |         |
| GUAYDACAN    | GULCHU    | GULORIZ     | GUTIERRE   |         |
|              | GUTERO    | GULIERREZ   | GUTIERREZ  |         |
| GUADIEL      | GULJAFRO  |             |            |         |
| GUDINO       | GULJOSA   | GUMA        |            |         |

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 GUADUANO - GUZMAN  
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1980 CENSUS LIST OF SPANISH SURNAMES

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 IANEZ - IZURRIETA  
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|                |              |              |              |               |           |
|----------------|--------------|--------------|--------------|---------------|-----------|
| IANEZ          | IGORAS       | IMAS         | INSULAR      | IRIYE         | ISLAVA    |
| IANDOS         |              | INAZ         | INGENZA      | IRIZAR        | IZNABA    |
|                | IOOY         |              | INSURRIAGA   | IRIZARPI      |           |
| IBANES         |              | INCHAURREGUI |              | IRIZARRY      | IZQUIERDO |
| IBANEZ         |              | INCHAUSTIGUI | INTERIAN     | IRIZARY       |           |
| IBAR           | IDROGO       | INCHAUSTI    | INTRIAGO     | IRIZZARY      |           |
| IBARBO         | IDROVO       | INCLAN       |              |               | IZURRIETA |
| IBARGHENGOITIA |              |              | INURRICARRO  | IRLAS         |           |
| IBARLUCEA      | IGAPAVIDEZ   | INDART       |              |               |           |
| IBARPA         | IBARTUA      |              | INZENZA      | IROZ          |           |
| IBARRIA        |              | INESTA       | IPARRAGUIRRE |               |           |
| IBARRONDO      | IGLECIAS     | INESTROZA    |              | IRIBARREN     |           |
| IBAVE          | IGLESIA      | INEZ         | IPINA        | IRIZARRY      |           |
|                | IGLESIAS     |              |              | IRIZARY       |           |
| IBAVEN         | IGNACIO      | INFANTE      |              | IRROBALI      |           |
| IBERRA         |              | INFANTES     |              |               |           |
| IBERRI         | IGOA         | INFANZON     | IQUINA       | IRUEGAS       |           |
|                |              | INFLESTA     |              | IRUNGARAY     |           |
| IBERRIARRAGA   | IGUALADA     |              | IRACHETA     | IRURETAGOYENA |           |
|                | IGUINA       |              | IRAGUI       |               |           |
| IBOS           | IGUINA       | INGELMO      | IRAMETA      | IRVEGAS       |           |
|                |              | INGRAHDE     | IRALA        |               |           |
| IBUADO         | ILARRAZA     | INGUANZO     | IRAOIA       | ISAGUIRRE     |           |
|                |              | INGUITO      | IRASIORZA    | ISAI9         |           |
| ICAMEN         | ILDEFONSO    | INIEGO       | IRAZABAL     | ISAI9         |           |
| ICAROD         |              | INIEBES      | IRAZUQUI     | ISALES        |           |
| ICASIANO       |              | INIGUIZ      |              | ISARRASAS     |           |
| ICAZA          | ILHARREGUI   | INIEQUEZ     | IRIART       | ISAS          | IVANEZ    |
|                |              |              | IRIARTE      | ISASSI        | IVARRA    |
| ICEOO          |              | INOVA        | IRIBARREN    |               |           |
|                |              | INOCENCIO    | IRIBE        | ISERNY        | IXTA      |
| ICHINAGA       | ILIZALITURRI | INOSTROS     | IRIGORAY     |               |           |
|                |              | INOSTROSA    | IRIGORRE     | ISIAS         | IZA       |
|                |              | INOSTROZA    | IRIGORRE     | ISIDRON       | IZABAL    |
| ILLAN          |              |              | IRIMIA       | IZAGUIRRE     | IZAGUIRRE |
| ILLANES        |              | INSAUSTI     | IRINGO       | IZAR          |           |
| ILLAS          |              | INSERNI      | IRIONDO      |               |           |
| ILLERA         |              | INSTIGNARES  | IRIONT       |               |           |
| ILLESICAS      |              | INSUA        | IRISARRI     |               |           |
|                |              |              |              |               |           |
| IDARRAGA       |              |              |              |               |           |
|                |              |              |              |               |           |
| IDIARQUEZ      |              |              |              |               |           |

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 IANEZ - IZURRIETA  
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1960 CENSUS LIST OF SPANISH SURNAMNES

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 JACAS - JUVERA  
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|           |        |            |            |            |
|-----------|--------|------------|------------|------------|
| JACAS     | JARRIN | JIMENEZ    | JUACION    | JIRAEZ     |
| JACINTO   | JARRO  | JIMENA     | JUAN       | JIRARUI    |
| JACORO    | JASO   | JIMENE     | JUANCHO    | JURDI      |
| JACQUE    | JASSO  | JIHENS     | JUANERO    | JURE       |
| JACQUINO  | JASSO  | JIHENEZ    | JUADES     | JURRI      |
| JACOVO    | JASSO  | JIHINIZ    | JUANEZ     | JURREZ     |
| JACQUEZ   | JASSO  | JIHEND     | JUANIZA    |            |
| JACUINE   | JASSO  | JIHENZ     | JUANICO    |            |
|           | JASSO  | JIHINEZ    | JUPNITAS   | JUSAINO    |
| JADAR     | JASSO  | JINETE     | JUANO      | JUSINO     |
| JALIS     | JASSO  | JINEZ      | JUARA      | JUSTINIANO |
| JALME     | JASSO  | JINZO      | JUAPE      | JUSTINIANO |
| JALMARENA | JASSO  | JIRAU      | JUARRO     | JUSTIZ     |
| JALMES    | JASSO  | JIRON      | JUARE      |            |
| JALMEZ    | JASSO  | JOTRE      | JUARES     | JUVER      |
| JAIRALA   | JASSO  | JOJOLA     | JUARES     | JUVERA     |
|           | JASSO  | JOTARRON   | JUARISTI   |            |
| JALAMO    | JASSO  | JORAMILLO  | JUARERO    |            |
| JALLEO    | JASSO  | JORDAHA    | JUARROS    |            |
| JALLOA    | JASSO  | JORGANES   |            |            |
| JALONG    | JASSO  | JORBE      |            |            |
| JALTECO   | JASSO  | JORNACION  |            |            |
|           | JASSO  | JORQUERA   |            |            |
| JALHER    | JASSO  | JORQUEZ    |            |            |
| JANERO    | JASSO  | JORRIN     |            |            |
|           | JASSO  | JOVE       | JURCADELLA |            |
| JANQUEZ   | JASSO  | JOVELLANOS | JUNCAL     |            |
| JANQUIAS  | JASSO  | JOVET      | JUNCO      |            |
|           | JASSO  | JOTA       | JUNCOGA    |            |
| JARA      | JASSO  |            | JUREZ      |            |
| JARABA    | JASSO  |            | JURIGUERA  |            |
| JARAMILLO | JASSO  |            | JURQUERA   |            |
| JARAMILLO | JASSO  |            | JURRADO    |            |
| JARDINES  | JASSO  |            |            |            |
| JARDINEZ  | JASSO  |            |            |            |
| JARERO    | JASSO  |            |            |            |
| JARMILLO  | JASSO  |            |            |            |
| JARONILLO | JASSO  |            |            |            |
| JARQUEZ   | JASSO  |            |            |            |
| JARQUIN   | JASSO  |            |            |            |

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 JACAS - JUVERA  
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1980 CENSUS LIST OF SPANISH SURNAMES

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 LOJA - LUZURIAGA  
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LOJA  
 LOJERO  
 LOJO

LOJANA  
 LOHAYESYA  
 LOHAYANA  
 LOMBARDIA  
 LOMERA  
 LOMERANA  
 LOMERANO  
 LOMELI  
 LOMELIN  
 LOMELLIN  
 LOMELY

LOJA  
 LOJONO  
 LONGORTA  
 LONGORTO  
 LONGOYA  
 LONGUEVAN  
 LONVELIN

LOPATEGUI  
 LOPE  
 LOPENA  
 LOPERA  
 LOPEPENA  
 LOPELEGUI  
 LOPEZ  
 LOPEZCASTRO  
 LOPEZMEMOZZA  
 LOPEZRODRIGUEZ  
 LOPEZSANCHEZ  
 LOPEZYEGA  
 LOPQZ

LOQUET

LOYOLA

LOZA  
 LOZANCA  
 LOZCA  
 LOPEDO  
 LORENCHES  
 LORENTE  
 LORENZANA  
 LOBERRA  
 LORETOMOLA  
 LOREZ  
 LORIDO  
 LORIEGA  
 LORIGA  
 LORISO  
 LORONA  
 LORONO  
 LORTA  
 LORZA

LOSA  
 LOSADA  
 LOSADO  
 LOSANA  
 LOSOYA  
 LOSIALMAU

LOUATO  
 LOURTEL  
 LOURTRA  
 LOUSTAURAU

LOYATO  
 LOVATON  
 LOVEIRA  
 LOVERA  
 LOVERAS  
 LOVILLE  
 LOVIO

LOYA  
 LOINAZ  
 LOYO

LUYANDO

LUZA  
 LUZANIA  
 LUZANELLA  
 LUZANO  
 LUZARDO  
 LUZARRAGA  
 LUZDET  
 LUZURPIS  
 LUZURIAGA

LUGARD  
 LUGO  
 LUGON  
 LUGONES

LUIVA  
 LUIS  
 LUITIN

LUJAH  
 LUJARD  
 LUJARDO  
 LUJO  
 LUJON

LUBERRA  
 LUBERERAS

LUNA  
 LUNARES

LUPERCID  
 LUPEZ  
 LUPIAN  
 LUPIANEZ  
 LUPTBA  
 LUPTO

LURQUE  
 LURQUEZ  
 LURQUIN  
 LURQUIS

LURAS

LUVIANO

LUYANDA

LUYANO

LUGARDO

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 LOJA - LUZURIAGA  
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1960 CENSUS LIST OF SPANISH SURNAMAMES

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 MARQUFZ - MERIZALDE  
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|                   |            |            |            |           |            |            |
|-------------------|------------|------------|------------|-----------|------------|------------|
| MARQUEZ           | MARTORELL  | MATA       | MAYORAL    | MEDRAN    | MELIAN     | MENDESA    |
| MARQUINA          | MARTOS     | MATAJAYA   | MAYORCA    | MEDRAND   | MELITAS    | MENDOZA    |
| MARQUITZ          | MARUFFO    | MATALLANA  | MAYORCIMO  |           | MELINDOZ   | MENDOZA    |
| MARASQUIN         | MARUFFO    | MATALOBOS  | MAYORGA    |           | MELIOJA    | MENGOZO    |
| MARRENO           | MARULANDA  | MAYATOBROS | MAYORQUITI | MEGARIZ   | MELLUJO    | MENCHE     |
| MARRERO           | MARON      | MATEAS     | MAYSINET   | MEGUI     | MELUCUION  | MENDEZ     |
| MARRIACA          | MARURI     | MATEO      | MAYTIN     |           |            | MENENIN    |
| MARRIETTA         | MARVEZ     | MAYTORENA  |            |           |            | MENENITZ   |
| MARROGAN          | MARXACH    |            |            | MEJJA     | MENDREMO   | MENES      |
| MARROGUIN         | MARZAN     |            |            | MEJRELES  | MENBRILLA  | MENESSES   |
|                   |            |            |            | MEIZOSO   |            |            |
| MARROQUIN         | MARZOA     | MATAZ      | MAZA       |           |            |            |
| MARPOBO           | MARZOL     | MAZARIEGO  | MAZARIEGO  |           |            |            |
| MARPOZOS          | MARZOVILLA | MAZOH      | MAZARIEGOS |           |            |            |
| MARPUFFO          |            | MAZORPA    |            | MEJA      | MEHA       | MENEZ      |
| MARRUFO           |            | MAZORPA    |            | MEJIAS    | MENACHE    | MENJAPES   |
| MARRUJO           |            | MAZQUIRAN  |            | MEJICO    | MENCHACA   | MENJUGA    |
| MARSACH           |            | MAZUCCA    |            | MEJIDO    | MENCHAEA   | MENOCAL    |
| MARSALIA          |            | MAZULLOS   |            | MEJILLAS  | MENCHAYEZ  | MENOSCAL   |
| MARSELLOS         |            |            |            | MEJORADA  | MENCHEGO   | MENOUO     |
|                   |            |            |            | MEJORADO  | MENCIA     | MENOYO     |
| MARTE             |            | MASTAS     | MASTAS     |           | MENCIO     |            |
| MARTELLON         |            | MAVE       | MAVE       |           | MENCOS     |            |
| MARTENEZ          |            |            |            |           |            |            |
| MARLES            |            | MAULEON    | MAULEON    |           |            |            |
| MARTEZ            |            | MAURA      | MAURA      | MELANDEZ  | MENJANA    | MERANCO    |
| MARTICORENA       |            | MAURICOME  | MAURICOME  | MELIARO   | MENAROS    | MERAS      |
| MARTINDELCAMPO    |            | MAURAS     | MAURAS     | MELICHO   | MENDEZOLA  | MERAZ      |
| MARTINES          |            | MAURICIO   | MAURICIO   | MELICUN   | MENEZ      | MERCADU    |
| MARTINEZ          |            | MAURIES    | MAURIES    | MELCUN    | MENDIA     | MERCADAL   |
|                   |            | MAUROSA    | MAUROSA    | MELECIO   | MENDIAS    | MERCADIE   |
|                   |            | MAUROZA    | MAUROZA    | MELERA    | MENDIAZ    | MERCADER   |
|                   |            |            |            | MELKIANO  | MENDIBLES  | MERCADO    |
|                   |            |            |            | MELNDES   | MENDIBURU  |            |
|                   |            |            |            | MELNDEZ   |            |            |
| MARTINEZ          |            | MADELLS    | MADELLS    |           |            |            |
| MARTINEZ          |            | MEDELEZ    | MEDELEZ    |           |            |            |
| MARTINEZDECASTRO  |            | MEDELLIN   | MEDELLIN   |           |            |            |
| MARTINEZGARCIA    |            | MEDERO     | MEDERO     | MELINDRES | MENDIETA   | MERCEDES   |
| MARTINEZGONZALEZ  |            | MEDEROS    | MEDEROS    | MELINDREZ | MENDIQUITA | MERCHAIN   |
| MARTINEZORTIZ     |            | MEDIAVILLA | MEDIAVILLA | MELNEZ    | MENJANE    | MERCADO    |
| MARTINEZRODRIGUEZ |            | MEDIA      | MEDIA      | MELERDO   | MENDIOLA   | MERCOLA    |
| MARTINIZ          |            | MEDINA     | MEDINA     | MELGAR    | MENDIOLLA  | MERCOCINTI |
| MARTIR            |            | MEDINAS    | MEDINAS    | MELGAR    | MENDIONDO  | MERELLES   |
| MARTIRENA         |            | MEDINILLA  | MEDINILLA  | MELGAREJO | MENIITA    | MERENDON   |
|                   |            | MEDIZ      | MEDIZ      | MELGARES  | MENDIVEL   |            |
|                   |            | MEDOLA     | MEDOLA     | MELGOSA   | MENDIVIL   |            |
| MARTIZ            |            |            |            | MELGOZA   |            |            |
| MARTIARO          |            |            |            |           |            |            |
| MARTINEZ          |            |            |            |           |            |            |

\*\*\*\*\*  
 MARQUEZ - MERIZALDE  
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1980 CENSUS LIST OF SPANISH SURNAMIES

|            |             |          |            |            |          |
|------------|-------------|----------|------------|------------|----------|
| NABA       | NAVEJAR     | HEJAR    | NIGABLIONI | NOBALES    | NOVIAS   |
| NABARRETE  | NAVEJAS     |          | NILGOS     | NOGARE     | NOVELA   |
| NABARRETTE | NAVERAN     | NERADA   |            | NOGUE      | NOVELLO  |
| NABATAN    | NAVIA       | NEREY    | KOLA       | NOGUEDA    | NOVEMBRE |
| NABETA     | NAVIDAD     | NERIA    |            | NOGUEJAS   | NOVTAN   |
|            | NAVO        | NERIO    |            | NOGULLES   | NOVILLO  |
| NACCR      | NAVODA      | NERIS    | NTN        | NOGUER     | NOVO     |
| NACHCN     | NAYA        | NERIS    | NINA       | NOGUERA    | NOVOA    |
| NACIANCENO | NAVARES     | NERVALS  | NINO       | NOGUERAS   |          |
|            | NAVATZ      | NEVAFES  |            | NOGUES     |          |
| NADAL      | NAVAREZ     | NEVAHEZ  | NIRA       | NOQUEZ     | NOYA     |
|            | NAVARTE     | NEVARREZ |            | NOYAS      | NOYAS    |
|            |             | NEVARREZ |            | NOYOLA     |          |
| NAFAKRATE  | NAZABAL     | NEVAYES  | NISREPOS   | NIANES     |          |
| NAFARRETE  | NAZARIO     | NEVAREZ  | NISTAL     | NIANEZ     |          |
|            | NAZUR       | NEYRA    |            | NIANEZ     |          |
| NAGORE     | NEBLINA     |          |            |            |          |
|            | NEBRADA     | NIALS    | NIVAL      | NIOMERANA  | NUCHE    |
|            | NEBRIDA     | NIAVE    | NIYAR      | NIOMERANO  |          |
|            |             | NIAVES   | NIVES      |            |          |
| NAJAR      | NECO        | NIAVEZ   | RIZ        | NOPERI     | NUEVO    |
| NAJARA     | NECOCHEA    |          |            |            | NUEZ     |
| NAJARES    | NECODECHEA  | NICACIO  |            |            |          |
| NAJARRO    | NECODEZE    | NICASSIO | NOA        | MORALS     |          |
| NAJERA     |             | NICOT    |            | MORALEZ    |          |
|            |             |          |            | MORAT      |          |
| NALDA      | NEGRE       | NIDEZ    | NOBARA     | MORDA      | NUMEZ    |
|            | NEGREIRA    | NIDO     | NOBADA     | MORDELLA   |          |
| NAJOIN     | NEGRET      |          | NOBADA     | MORDELO    |          |
| NAJOINO    | NEGRETTE    |          | NOBREGAS   | MOREGA     | MUNCIO   |
| NAMEZ      | NEGRETTE    | NIETELA  |            | MOREMA     | MUNEZ    |
|            | NEGRIN      | NIELLAG  | NOCAS      | MORERO     | MUNARAY  |
|            | NEGRON      | NIESGO   | NOCEDA     | MORLA      | MUNTEZ   |
| NAPOLES    | NEGRONCOLON | NIETIS   | NOCEDAL    | MORIEGA    |          |
|            | NEGRONT     | NIETO    | NOCHRE     | MORIEGO    |          |
|            | NEGUERUELA  | NIETVA   | NOCHERA    | MORILIZ    |          |
|            |             | NIETVE   |            | MORHARDIA  |          |
| NAKANO     | NETRA       | NIETVES  | NODAL      | MORONA     |          |
| NAKRO      | NETTO       | NIETVEZ  | NOGAR      | MORONIA    |          |
| NAKSCIA    | NETVES      | NIEZ     | NOGARE     | MORRIE     |          |
| NAKREDO    |             |          |            | MORZAGARAY |          |
| NAKRES     |             |          |            |            |          |
|            |             |          |            | NOVALES    |          |

\*\*\*\*\*  
NABA - NUNTEZ  
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1980 CENSUS LIST OF SPANISH SURNAMES

\*\*\*\*\*  
 Oritz - OZUNIGA  
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|          |            |           |         |
|----------|------------|-----------|---------|
| ORITZ    | ORTA       | OTAZO     | OYOLA   |
| ORIVE    | ORTAL      |           | OTORQUE |
| ORIZABA  | ORTAS      |           |         |
|          | ORTEC      | OTEQUI    | OYUELA  |
| ORJALES  | ORTEGA     | OTEIJA    |         |
| ORJUELA  | ORTEGAS    | OTELO     | OZAETA  |
|          | ORTESON    | OTERA     |         |
|          | ORTES      | OTERO     |         |
| ORNELAS  | ORTEZ      |           | OZETA   |
| ORNELAZ  | ORTIGAS    | OTHON     |         |
| ORNELES  |            |           | OZORES  |
|          | ORTIGOSA   |           | OZORIA  |
|          | ORTISOZA   | OTI       | OZORNIA |
| OROBIO   | ORTIVEZ    |           |         |
| OROL     | ORTIVIZ    | OTONDO    | OZUNA   |
| ORONCZ   | ORTIZ      |           | OZUNIGA |
| ORONCZ   | ORTIZVITHO |           |         |
| OROPESA  | ORTOLAZA   | OVADIA    |         |
| ORUPEZA  | ORTUNO     | OVALLIF   |         |
| ORUSA    | ORTUNO     | OVALLIES  |         |
| ORUSCO   | ORTUZAR    | OVANRIO   |         |
| ORUZ     |            | OVARES    |         |
| ORUZCO   | ORUE       |           |         |
| ORZEO    | ORUNA      | OVIEDA    |         |
|          |            | OVIEDO    |         |
| ORPILLA  | ORVAHANCOS |           |         |
| ORPINEL  |            | OXIOS     |         |
|          | ORZA       | OYACA     |         |
| ORQUIZ   | ORZABAL    | OYAZUE    |         |
|          | ORZO       | OYANGUREN |         |
|          |            | OYARBIDE  |         |
| ORRACA   | OSIA       | OYARZABAL |         |
| ORRABRE  | OSANO      | OYARZUN   |         |
| ORRANTE  |            | OYAS      |         |
| ORRANTIA | OSCCS      | OYERBIDES |         |
| ORREGO   | OSCOY      | OYERVIDES |         |
| ORRIOLA  |            | OYERVIDEZ |         |
| ORRIOLS  | OSUNA      |           |         |
|          | OSEDA      |           |         |
| ORSABA   | OSQUEDA    |           |         |
| ORSUA    | OSQUERA    |           |         |
|          | OSEJO      |           |         |

\*\*\*\*\*  
 ORITZ - OZUNIGA  
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1980 CENSUS LIST OF SPANISH SURNAMES

\*\*\*\*\*  
 PABEY - PELAEZ  
 \*\*\*\*\*

PABEY  
 PABLO  
 PABLO  
 PABLOS  
 PABON  
 PABROS

PACHARZINA  
 PACHEC  
 PACHECAHO  
 PACHECO  
 PACHIELO  
 PACHIEDO  
 PACHERO  
 PACHICANO  
 PACHICO  
 PACHON

PACHUCA  
 PACIAS  
 PACIFICAR  
 PACILLAS  
 PACIN  
 PACINA  
 PACO

PADDILLA  
 PAUER  
 PADIA  
 PADIAL  
 PADIAS  
 PADIERNA  
 PADILL  
 PADILLA  
 PADILLA  
 PADILLO

PADIN  
 PADON  
 PADRES  
 PADRING  
 PADRO  
 PADRON  
 PADUA

PAEZ  
 PAGAN  
 PAGANRIVERA  
 PAGES  
 PAGOLA  
 PAGON  
 PAGUADA  
 PAGUELO

PAUISSA  
 PAIACIOS  
 PAIRADA  
 PAIRIS  
 PAIZ

PAJARITO  
 PAJARO  
 PAJUELO

PALACIES  
 PALACIO  
 PALACIOS  
 PALADINES  
 PALAFOS  
 PALAFOX  
 PALAGANAS  
 PALAMO  
 PALASOTA  
 PALATO

PALAU  
 PALAZON  
 PALAZUELOS  
 PALENCIA  
 PALENZUELA  
 PALED  
 PALGON  
 PALICIO  
 PALITOS  
 PALIZO

PALLAIZ  
 PALLAN  
 PALLANCS  
 PALLANEZ  
 PALLARES  
 PALLAREZ  
 PALLEJA  
 PALLENS  
 PALLLOT  
 PALLMARES

PALHAREZ  
 PALMARIN  
 PALMAS  
 PALMEIRO  
 PALMERIN  
 PALMEROS  
 PALOMA  
 PALOMAS  
 PALOMARES  
 PALOMAREZ

PALOCHEQUE  
 PALOQUERA  
 PALOHIN  
 PALOHINO  
 PALOHINKOS  
 PALOHND  
 PALOP  
 PALOS

PALANES  
 PALARAN  
 PALBLANCO  
 PALIAS  
 PALINFUAN  
 PALINPIN  
 PALPLONA

PANALES  
 PANALEZ  
 PANAMA  
 PANATEMO  
 PANARISO

PANCERAN  
 PANIHANA  
 PANCHO  
 PANCURBO  
 PANDAL  
 PANDAS  
 PANDOS  
 PANDO  
 PANEDRO  
 PANELD

PANENO  
 PANENJE  
 PANERO  
 PANETO  
 PANIAGUA  
 PANIAGUA  
 PANIZ  
 PANOFIO  
 PANOTA  
 PANOTA  
 PANTAJA

PANTALEON  
 PANLIGA  
 PANLIN  
 PANLLEO  
 PANTOJA  
 PANTOJAS  
 PANTOYA  
 PARTUSA  
 PANUCO  
 PANZARDI

PANLIERA

PAPACHE  
 PARADA  
 PARADEDA  
 PARADELA  
 PARADELO  
 PARADES  
 PARADEZ  
 PARAFD  
 PARAPAR  
 PARAPINO

PARAYUELOS  
 PARAZO  
 PASCES  
 PARAYE  
 PARQUILLO  
 PARQUINAS  
 PARDO  
 PARDO  
 PARDO  
 PARDUCHO  
 PAREDES

PARBEZ  
 PAREIRA  
 PAREJA  
 PARELLADA  
 PARERA  
 PARES  
 PARETS  
 PAREYA  
 PAREYA  
 PARGA

PARGOS  
 PARGUA  
 PARGUE  
 PARRA  
 PARRADO  
 PARRAGA  
 PARRAI  
 PARRALES  
 PARRAS

PARRAZ  
 PARRERO  
 PARRIERA  
 PARRILLA  
 PARRINHO  
 PARTASAS  
 PARTIDA  
 PARTIDO

FASADA  
 PASAMONTE  
 PASANTES  
 PASARELL

PASARET  
 PASARIN  
 PASCACIO  
 PASCUAL  
 PASCUALI  
 PASUNA  
 PASTILAS  
 PASOLS  
 PASOS  
 PASSAPERA

PASTORA  
 PASTURIZA  
 PASTRAN  
 PASTRANA  
 PASTRANO  
 PATINA  
 PATINO  
 PATLAN  
 PATRANELLA  
 PATRON

PAUDA  
 PAULA  
 PAULLADA  
 PAVDES  
 PAVILA  
 PAVON  
 PEDRAJA  
 PEDRAJA  
 PEDRAN  
 PEDRAYS  
 PEDRAZ  
 PEDRAZA  
 PEDRE  
 PEDREGAL  
 PEDREGO  
 PEDREGON

PEDECUERA  
 PEDREIRA  
 PEDREIRO  
 PEDRESA  
 PEDRERO  
 PEDRIANES  
 PEDRINO  
 PEDROCHE  
 PEDROGO  
 PEDROLA  
 PEDROSA  
 PEDROSO  
 PEDROZA

PEGO  
 PEGODA  
 PEGUERO  
 PEGUEROS  
 PEINADO  
 PEIRO  
 PELACHE  
 PELAIZ

\*\*\*\*\*  
 PABEY - PELAEZ  
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1980 CENSUS LIST OF SPANISH SURNAMES

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 PELAIZ - FONPA  
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PISENO  
 PISONERO  
 PLAZOLA

PLIA  
 PITALLUGA  
 PITARCH  
 PITONES  
 PITRONES

PIZANA  
 PIZANO  
 PIZARD  
 PIZARRA  
 PIZARRO  
 PIZULA

PLA

PLACENCIA  
 PLACENCJO  
 PLACENSIA  
 PLACENTIA  
 PLACERES  
 PLAJA  
 PLANAS  
 PLANAS  
 PLANICARTE

PLANCENCIA  
 PLANELL  
 PLANELLAS  
 PLANES  
 PLANOS  
 PLANTELLAS  
 PLANTO  
 PLASENCIA  
 PLASENCIO

PLATA  
 PLATANDINE  
 PLATAS  
 PLATERO  
 PLAZA  
 PLAZAS

\*\*\*\*\*  
 PELAIZ - FONPA  
 \*\*\*\*\*

PIHALEZ  
 PIHARES  
 PINAY  
 PINEDA  
 PINEDO  
 PINERA  
 PINERO  
 PINFIA  
 PINI  
 PINILLA  
 PINILLO  
 PINILLOS  
 PINO

PIRUL  
 PIRINEY  
 PIQUES  
 PINTADO  
 PINTOR  
 PINTOS  
 PINUELA  
 PINZON

PICADO  
 PIEDRA  
 PIEDRANITA  
 PIEDRAS  
 PIELAGO  
 PIERRAS

PIJUAN

PILA  
 PILAR  
 PILARTE  
 PILLADO  
 PILOTO

PIMENTA  
 PIMIENTO  
 PINTHEL

PINA  
 PINAREARCS  
 PINAL  
 PINALES

PEREZJIMEZ  
 PEREZLOPEZ  
 PEREZMONDEZ  
 PEREZMONTES  
 PEREZRAMOS  
 PERFECTO  
 PERFINO  
 PERICAS  
 PERLAS  
 PERMUT

PERNAS  
 PEROLDO  
 PEROZO  
 PERRES  
 FERRIRAZ  
 PERIERRA  
 PERU  
 PERUMEN  
 PERUSINA  
 PERUSQUITA

PERUYERA  
 PERUYERO  
 PERVEZ  
 PERYATEL

PESANTE  
 PESANTES

PESANTEZ  
 PESCAADO  
 PESCADOR  
 PESINA  
 PESQUERA  
 FESTUCIRA  
 PESQUERA  
 PESQUERA

PEYRO  
 PEYHARD  
 PEYRO

PEZA  
 PEZEZ

PERERAS  
 PEPTO

PEQUEÑO  
 PEQUERO

PERAL  
 PERALES  
 PERALEZ  
 PERALTA  
 PERALTO  
 PERATIS  
 PERAZA  
 PERCHES  
 PERCHES  
 FERDICES

PERDIDO

PERDIGON  
 PERDOMO  
 PEREA  
 PEREDA  
 PEREDIA  
 PERENO  
 PEREGRINA  
 FERECRINO  
 PEREIDA

PEREJO  
 PERELES  
 PERERA  
 PERES  
 PEREYOA  
 PEREYO  
 PEREYRA  
 PEREZ  
 PEREZA  
 PEREZCANO

PEREZCHTCA  
 PEREZCDLON  
 PEREZDELEJO  
 PEREZDELOTO  
 PEREZDIAZ  
 PEREZGONZALEZ

PELAIZ  
 PELALLO  
 PELATA  
 PELAYO  
 PELGPIHA  
 PELLECER  
 PEILERRANO  
 PELLICIER  
 PELLOT  
 PELUFFO

PEÑA  
 PENABAN  
 PENADO  
 PENAFIEL  
 PENAFIOR  
 PENAFLOLIDA  
 PENAGARZA  
 PENAHERRERA  
 PENALBA  
 PENALES

PENALDO  
 PENALOSA  
 PENALDOZA  
 PENALVER  
 PENALVERT  
 PENANDO  
 PENARANDA

PENATE

PENATE  
 PENAS  
 PENEZ

PENICHE  
 PENICHEY  
 PENILLA  
 PENON  
 PENSADO  
 PENUELA  
 PENUELAS  
 PENUELAZ  
 PENUMURI

PEON

1960 CENSUS LIST OF SPANISH SURNAMES

\*\*\*\*\*  
 FONCABARE - PUYOL  
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|  |   |  |  |  |
|--|---|--|--|--|
| <p>                     FONCABARE<br/>                     FONEE<br/>                     FONCEDELEON<br/>                     FONCHO<br/>                     FONCIAND<br/>                     FONCICIO<br/>                     FONDOMEHECH<br/>                     FONZDA<br/> <br/>                     FORATA<br/>                     FORCAYO<br/>                     FORCHAS<br/>                     FORCHGO<br/>                     FORDZA<br/>                     FORFEL<br/>                     FORLMS<br/>                     FORRAS<br/>                     FORRATA<br/>                     FORRAZ<br/> <br/>                     FORRERO<br/>                     FORRES<br/>                     FORROS<br/>                     FORTAL<br/>                     FORTALATIN<br/>                     FORTALES<br/>                     FORTALEZ<br/>                     FORTELA<br/>                     FORTELLES<br/>                     FORTES<br/> <br/>                     FORTIELES<br/>                     FORTILLA<br/>                     FORTIINO<br/>                     FORTILLOS<br/>                     FORTOCARRERO<br/>                     FORTULAN<br/>                     FORTORREAL<br/>                     FORTUGUES<br/>                     FORTUGUEZ<br/> <br/>                     FORTUCHO<br/> <br/>                     FOSADA                 </p> | <p>                     POSADAS<br/>                     POSAG<br/>                     POSO<br/>                     POSOS<br/>                     POSTIGO<br/>                     POSTILL<br/> <br/>                     POTESTAD<br/> <br/>                     POUGES<br/>                     POUZA<br/> <br/>                     POVEDA<br/>                     POVENTUD<br/>                     POWIONES<br/> <br/>                     POYORENA<br/> <br/>                     POZA<br/>                     POZAS<br/>                     POZERO<br/>                     POZO<br/>                     POZOS<br/>                     POZUELOS<br/> <br/>                     PRADAS<br/>                     PRADRE<br/>                     PRADIA<br/>                     PRADO<br/>                     PRAT<br/>                     PRATS<br/>                     PRATTS<br/> <br/>                     PRECIADO<br/>                     PRELEZO<br/>                     PREMES<br/>                     PRENEZ<br/>                     PRENIZ<br/>                     PRESA<br/>                     PRESAS                 </p> | <p>                     PRIADO<br/>                     PRIASMO<br/>                     PRISTAMO<br/>                     PREZAS<br/> <br/>                     PRIDA<br/>                     PRIEDE<br/>                     PRIEGU<br/>                     PRIEGUEZ<br/>                     PRIETO<br/>                     PRIMELLS<br/>                     PRIMERA<br/>                     PRIMERO<br/>                     PRIO<br/> <br/>                     PROA<br/>                     PROANO<br/>                     PROCEL<br/>                     PROCELA<br/>                     PROCSAL<br/>                     PROENZA<br/>                     PROGHAS<br/>                     PROO<br/>                     PROVENCIO<br/>                     PROVETER<br/> <br/>                     PROMENCIO<br/>                     PRUNA<br/>                     PRUNEDA<br/>                     PROMES<br/> <br/>                     PUBILL<br/>                     PUBILLONES<br/> <br/>                     PUCHADES<br/> <br/>                     PUEBLA<br/>                     PUELLA<br/>                     PUELLO<br/>                     PUENTC<br/>                     PUENTES                 </p> | <p>                     FUENTEZ<br/>                     FUERTAS<br/>                     FUERTOS<br/>                     FUETO<br/> <br/>                     FUGA<br/>                     FUGEDA<br/> <br/>                     FUG<br/> <br/>                     FUJADAS<br/>                     FUJAL<br/>                     FUJALS<br/>                     FUJOL<br/>                     FUJOLS<br/> <br/>                     FUGAR<br/>                     FUGARIN<br/>                     FUGIA<br/>                     FUGIDO<br/>                     FUGOMENA<br/> <br/>                     FUMAR<br/>                     FUMARADA<br/>                     FUMAREJO<br/>                     FUMARES<br/>                     FUMARTEGA<br/>                     FUMARDE<br/> <br/>                     FUMALES<br/>                     FUMARA<br/>                     FUMIO<br/>                     FUMTA<br/>                     FUMTIEL<br/> <br/>                     PUPO                 </p> | <p>                     FURA<br/>                     FURCELLA<br/>                     FURLSINA<br/> <br/>                     FUYADA<br/>                     FUYOL                 </p> |
|--|---|--|--|--|

\*\*\*\*\*  
 FONCABARE - PUYOL  
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1980 CENSUS LIST OF SPANISH SURNAMES

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 QUADRENY - QUIZ  
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QUIROL  
 QUIROLA  
 QUIROS  
 QUIROZ  
 QUITA  
 QUITANTA  
 QUITOS  
 QUITUGUA  
 QUIZ

QUIMAL  
 QUINCOCES  
 QUIBIE  
 QUIMONEZ  
 QUIMENES  
 QUIMES  
 QUINI  
 QUINHONES  
 QUINOA  
 QUINONE  
 QUININES  
 QUIMONEZ  
 QUIMUNOS  
 QUINGRES  
 QUINTAMA  
 QUINTANA  
 QUINTANAL  
 QUINTANAR  
 QUINTANILLA  
 QUINTANS

QUINTARO  
 QUINTAS  
 QUINTEIRO  
 QUINTELA  
 QUINTENILLA  
 QUINTERA  
 QUINTERO  
 QUINTEROS  
 QUINTIRO  
 QUINTONA  
 QUINTONES  
 QUINTOREZ  
 QUINTOS  
 QUIPARTE  
 QUIRCH  
 QUIRENO  
 QUIRINDONSO  
 QUIRINDO  
 QUIRO  
 QUIROA  
 QUIROBA  
 QUIROGA

QUADRENY  
 QUALLA  
 QUASADA

QUECLAS  
 QUELPO  
 QUEIRO  
 QUEIFUGA  
 QUELLAR  
 QUEMADA  
 QUEPALI  
 QUERDO  
 QUERIDO  
 QUERO  
 QUERT  
 QUESADA  
 QUESADO  
 QUETEL  
 QUETGLAS  
 QUEVEDO  
 QUEZADA

QUIALA  
 QUIAN  
 QUIBUYEN  
 QUICEND  
 QUICHOCCHO  
 QUIDERA  
 QUIHUIS  
 QUIJADA  
 QUIJALVO

QUIJANO  
 QUIJAS  
 QUIJAJA  
 QUIJARTAN  
 QUILENDERINO  
 QUILES  
 QUILEZ  
 QUILIJACO  
 QUIMBAR  
 QUIMIRO

\*\*\*\*\*  
 QUADRENY - QUIZ  
 \*\*\*\*\*























1980 CENSUS LIST OF SPANISH SURNAMES

\*\*\*\*\*  
VIRAHONTE - VUELTA  
\*\*\*\*\*

|             |             |
|-------------|-------------|
| VIRAHONTE   | VIVO        |
| VIRAHONTES  | VIZCAINO    |
| VIRAHONTEZ  | VIZCARRA    |
| VIRATA      | VIZCARRO    |
| VIRAI       | VIZCARRONDO |
| VIRCHIS     | VIZCAYA     |
| VIRELLA     | VIZCON      |
| VIRGEN      | VIZOSO      |
| VIRJAN      | VIZUET      |
| VIROLA      | VIZUETA     |
| VIRREY      | VOLBEDA     |
| VIRRUETA    | VOSQUEZ     |
| VIRUEGAS    | VOZQUEZ     |
| VIRUET      | VUELTA      |
| VIRUETE     |             |
| VIRUZO      |             |
| VISARRAGA   |             |
| VISARRIAGAS |             |
| VISCAINA    |             |
| VISCAINO    |             |
| VISCARRA    |             |
| VISCABILLAS |             |
| VISCAYA     |             |
| VISERTO     |             |
| VISOZO      |             |
| VISPERAS    |             |
| VISSEPO     |             |
| VISTRO      |             |
| VITAL       |             |
| VITAP       |             |
| VITELA      |             |
| VITIER      |             |
| VIVANCO     |             |
| VIVANCOS    |             |
| VIVAR       |             |
| VIVAS       |             |
| VIVERO      |             |
| VIVEROS     |             |
| VIVES       |             |

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VIRAHONTE - VUELTA  
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1980 CENSUS LIST OF SPANISH SURNAMES

\*\*\*\*\*  
XIMENES - XJAREZ  
\*\*\*\*\*

XIMENES  
XIMENEZ  
XIMINEZ

XIQUES

XOCHICALE

XJAREZ

\*\*\*\*\*  
XIMENES - XJAREZ  
\*\*\*\*\*

1990 CENSUS LIST OF SPANISH SURNAMES

\*\*\*\*\*  
 YABUT - YZQUIERDO  
 \*\*\*\*\*

|         |             |              |               |           |
|---------|-------------|--------------|---------------|-----------|
| YABUT   | YEDO        | YANCERA      | YIARTE        | YIURRIA   |
| YANAS   | YEDOR       | YNCLAN       | YIBARRPIH     | YIURRIGA  |
| YANES   | YEDRA       |              | YIBBE         |           |
| YANEZ   |             | YIDA         | YIGOLLA       | YUBETA    |
| YANEZA  | YEPA        |              | YIGOLLEN      |           |
| YANIZ   | YEPES       | YNEGAS       | YIGUYEN       | YUCUPICIO |
| YANOSO  | YEPZ        | YNEGES       | YIIGUE        |           |
|         |             |              | YIIGUI        |           |
|         |             |              | YIISARRI      |           |
| YAQUES  | YERA        | YNFANTE      | YIZARRY       | YUDESIS   |
| YARA    | YERAS       |              |               | YUDICE    |
| YARRITO | YERENA      | YNIGO        | YROZ          | YUDICO    |
| YARRITU | YERO        | YNIGUEZ      |               |           |
| YARTE   |             | YNIQUEZ      |               | YULAN     |
|         | YESCAS      | YNDA         | YRUEGAS       | YULFO     |
| YASBEN  | YESETA      | YNDA         | YRURGARAY     |           |
| YANZ    | YESTE       | YNDENCIO     | YRURETAGOYENA | YURIAR    |
| YARA    |             | YNDENCIO     |               |           |
| YARRITO | YEVERTINO   | YNOSTROSA    | YSAGUIRRE     | YUSTE     |
| YARRITU |             | YNOSTROZA    | YSAIS         |           |
| YARTE   |             |              | YSAGUIRRE     | YVANEZ    |
| YASBEN  | YBLFCTAS    | YNZUNZA      | YSASAGA       | YVARRA    |
| YANZ    | YBLESIAS    |              | YSASI         |           |
| YARRITO |             |              | YSASSI        |           |
| YARRITU | YGNACIO     | YOGUEZ       | YSER          | YZABAL    |
| YARTE   | YGNACIO     |              | YSERN         | YZAGUIRRE |
| YASBEN  | YGUADO      | YORBA        | YSET          | YZMAGA    |
| YANZ    | YGUERABIDE  | YORDAN       |               |           |
| YARRITO |             | YPARRAGUIRRE | YSLA          | YZQUIERDO |
| YARTE   | YLARREGUI   | YPARRA       | YSLAS         |           |
|         |             |              | YSLAYA        |           |
| YASBEN  | YLIZALITURI | YPTNA        | YSQUIERDO     |           |
| YANZ    |             |              |               |           |
| YARRITO | YLLA        | YRACENURU    | YTIARTE       |           |
| YARTE   | YLLADA      | YRACHETA     | YTIURBE       |           |
| YASBEN  | YLLANES     | YRATORZA     | YIURPALOE     |           |
| YANZ    | YLLESCAS    |              | YIURRI        |           |

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 YABUT - YZQUIERDO  
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1980 CENSUS LIST OF SPANISH SURNAMES

\*\*\*\*\*  
 \*\*\*\*\* ZABAL - ZUZUARREGUI \*\*\*\*\*  
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|           |           |             |           |          |             |
|-----------|-----------|-------------|-----------|----------|-------------|
| ZABAL     | ZABARIPPA | ZABENETA    | ZEAS      | ZEVALLOS | ZUBAYNA     |
| ZABALLA   | ZABARIPPA | ZABONNETTA  | ZERBALLOS | ZILUBAR  | ZUBIAGA     |
| ZABALLO   | ZABARIPPA | ZARDO       | ZERBILLO  | ZILLAS   | ZUBIAR      |
| ZABALZA   | ZABARIPPA | ZARDOYA     | ZERBINO   | ZOLETA   | ZUBIARNEGUI |
| ZACARIAS  | ZABARIPPA | ZARAGOZA    | ZERRAGA   | ZOMORA   | ZUBIRANO    |
| ZACUITO   | ZABARIPPA | ZARRAGOITIA | ZERRA     | ZOROLA   | ZUBIRARAN   |
| ZADRIMA   | ZABARIPPA | ZARRAGOZA   | ZERRA     | ZORRILLA | ZUBIRITA    |
| ZAENA     | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA | ZUBIRICA    |
| ZAFERED   | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA | ZUBIJA      |
| ZAFRA     | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA | ZUBIETA     |
| ZAGALA    | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA | ZUZUARREGUI |
| ZAGALES   | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZAGONA    | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZALACAIN  | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZALACE    | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZALAMEA   | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZALAPA    | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZALAZAR   | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZALDARA   | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZALDIVAR  | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZALDUA    | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZALDUENDE | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZALDUENDE | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZALVIDEA  | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZAMACONA  | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZAMAGO    | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZAMANIEGO | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZAMARILLO | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZAMANO    | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |
| ZAMAR     | ZABARIPPA | ZARRA       | ZERRA     | ZORRILLA |             |

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 \*\*\*\*\* ZABAL - ZUZUARREGUI \*\*\*\*\*  
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APPENDIX A

CONSTRUCTING THE LIST OF SPANISH SURNAMES FOR THE 1980 CENSUS:  
AN APPLICATION OF BAYES' THEOREM\*

by

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and

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\*Paper presented at the Annual Meeting of the Population Association of America, Denver, Colorado, April 10-12, 1980.

The authors would like to thank Milton Schuman and Norman Kaplan for their timely, accurate, and creative computer programming in processing the file of 85 million tax returns; and Beverly D. Causey for his assistance in developing the Bayesian function.

The transfer of Federal tax returns to the Bureau of the Census for statistical uses is provided for in the Internal Revenue Code, Section 6103(j)(1), as amended by the Tax Reform Act of 1976, and the temporary regulations, section 404.6103(j)(1)-1(b), as amended.

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CONSTRUCTING THE LIST OF SPANISH SURNAMES FOR THE 1980 CENSUS:  
AN APPLICATION OF BAYES' THEOREM

Abstract

Previously developed lists of Spanish surnames have proven to be "only adequate" identifiers of the Hispanic population. Research reported here and other work performed at the Census Bureau shows that the relatively poor performance of Spanish surname lists in identifying the Hispanic population is largely attributable to the surnames on the list rather than the concept itself. In this paper, the authors report on a mathematically-based procedure used to construct the list of Spanish surnames for the 1980 census which alleviates the shortcomings of previous lists.

The list of Spanish surnames used to code the 1980 census is based on the premise that a particular surname is Spanish if it has a geographic distribution similar to that of the Hispanic population. The degree of similarity is determined by a function based on Bayes' Theorem and the multinomial distribution. Data for developing the list come from more than 85 million 1977 Federal tax returns condensed to 1.4 million distinct surnames and tabulated for 858 geographic areas.

The final list of 12,497 names was compared with self-designated Spanish origin as reported in the March 1976 Current Population Survey. A very high level of agreement was found not only in the Southwestern United States but also in other areas with large Hispanic populations. Further applications of the list and the technique are discussed.

CONSTRUCTING THE LIST OF SPANISH SURNAMES FOR THE 1980 CENSUS:  
AN APPLICATION OF BAYES' THEOREM

by

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Spanish surnames have been used to identify the Hispanic population of the Southwestern United States in censuses since 1950. A study conducted following the 1970 census (U.S. Bureau of the Census, 1975) concluded that the performance of Spanish surnames as an identifier of the Hispanic population was "only adequate" in the Southwestern United States and considerably worse in the rest of the country. Partly as a result of this study, the Spanish surname identifier has fallen into disfavor in some circles. This characterization of the Spanish surname concept is unfortunate because Spanish surnames provide a means of generating much needed demographic and administrative data on the Hispanic population that is otherwise unobtainable; for example, data sets in which information on ethnic origin was not collected when the data were initially generated can be used as a source of data on the Spanish surname population. Furthermore, surnames, for males at least, supply a consistent identifier which is not subject to respondent variability as is self-designated ethnic origin.

Examination of the 1970 list of Spanish surnames and the research reported here indicate that the less than adequate overall relationship between Spanish surname and Spanish origin is the result of the composition of the 1970 list rather than the concept itself. Two not atypical examples of poor choices of "Spanish" surnames appearing on the 1970 list are the names A-B-E-L and M-O-R-A-N. Although there are persons named A-B-E-L, pronounced Ah-BELL, who are Spanish, most persons in the U.S. with this name pronounce it AY-bl and are of Germanic origin. Similarly almost all of the Moran's in this country are of Irish not Hispanic origin. Additional examples of predominantly non-Spanish names in the U.S. on the 1970 list are Barber,

Bernard, Costa, Gallo, and Giles. This paper reports an essentially objective and replicatable method which avoids the serious errors of including names that are not Spanish and, moreover, which selects names which belong almost entirely to persons who are Hispanic, including frequently occurring names that can be inadvertently omitted with traditional subjective procedures.

The principle underlying the objective method for constructing the 1980 list of Spanish surnames is based on the extreme geographic concentration of the Hispanic population in the U.S. Sixty-five percent of the Spanish origin population of the U.S., but only 15 percent of the non-Spanish population, lives in the five Southwestern States of Arizona, California, Colorado, New Mexico, and Texas plus Puerto Rico. With four more States--New York, New Jersey, Illinois, and Florida--over 85 percent of the Hispanic population is included but less than 40 percent of the non-Hispanic. Furthermore, the geographic concentration of the Hispanic population is even greater when specific areas within States are examined. The basic principle used to construct the list is:

For a particular surname to be considered Spanish, the geographic distribution of persons with that surname must be "similar" to the distribution of the Hispanic population.

Table 1 illustrates this principle. Both surnames in each pair appeared on the 1970 list; yet, in each case, the first name is possessed almost entirely by persons of Hispanic origin and the other, predominantly by persons of Portuguese origin. This can be clearly seen by comparing the distribution of each name with the distribution of the Spanish and Portuguese origin populations; note the concentrations of Portuguese in Rhode Island, Massachusetts, Hawaii, and Northern California.

Since there are nearly one and one-half million distinct surnames in the United States and since the determination of "similarity" can be subjective, we attempted to develop an objective numerical index to select the Spanish surnames from the very large set of surnames. The method used is based on partitioning all surnames into two mutually exclusive categories--Spanish and non-Spanish--and an application of the multinomial distribution and Bayes' Theorem. The derivation of the screening function is given in the appendix. This function can be loosely interpreted as the logarithm of the odds that a name belongs to the set of Spanish surnames. The function, which is calculated for every surname, is the weighted sum of the occurrences of the name in each of the predefined areas. Each weight, which is specific to an area, is the logarithm of the ratio of the proportion of the U.S. Spanish population in the area to the proportion of the U.S. non-Spanish population in the same area. A positive weight implies that an area is "more Spanish" than the country, a negative weight, "less Spanish."

The first step in selecting the Spanish surnames involved defining the areas for which the weights were to be calculated. The country was subdivided into 858 mutually exclusive areas--mainly central cities, suburbs, counties, and nonmetropolitan remainders of States. Using the 1970 census as a guide, we attempted to delineate areas which were either very highly Spanish or highly non-Spanish and areas which contained concentrations of other ethnic groups.

The data set for implementing an objective selection mechanism such as the one used obviously requires a large number of records containing both names and geographic identification. The Internal Revenue Service Individual Master File is just such a file. For tax year 1977, it contains over 85 million tax returns, representing over 1.4 million distinct surnames. Calculation of the

area weights required a percentage distribution of the Spanish and non-Spanish populations as reflected in the entire tax file. Data on the Spanish origin population from the 1970 census could have been utilized without affecting the outcome. However, our solution to this problem involved selecting a short list of undeniably Spanish names and use of the distribution in the tax file of persons with these names to represent the distribution of the Spanish population. This short list, available from a previous pilot study (Word, et al., 1978), included roughly 600 names which virtually everyone would agree were Spanish, such as Martinez, Gomez, Fernandez, Estrada, etc. (Individuals with these names accounted for over 70 percent of our final Spanish surname population.) The area weights calculated from the starting list ran from a high of 1.87 for Laredo, Texas, indicating that it has almost 75 times more Spanish population than would be expected based on its non-Spanish population, to a low of -1.96 for Parkersburg, West Virginia, which has only 1 percent of its expected share of the Spanish population.<sup>1/</sup>

With these weights, a function value was computed for each of the over 1.4 million distinct names in the file of tax returns. A sliding scale was used in selecting infrequently occurring names but basically the function had to exceed 3.0 to select a name (corresponding to theoretical odds of 1,000 to 1 of the name being Spanish). Roughly 16,500 names occurring on at least 2 tax returns file in the U.S. met this standard. For commonly occurring names, the selection procedure worked very well, that is, no non-Spanish names were selected. However, as the frequency of occurrence decreased, the chance that non-Spanish names would appear

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1/ Area weights calculated from the final list of 12,497 names were similar to the initial area weights. The entire procedure proved to be quite robust. It should be noted that the procedure for constructing the list is not particularly sensitive to the choices of areas, starting lists, or values of the weights so long as reasonable precautions are taken.

on the list increased. On the other hand, the selection procedure is obviously not capable of identifying Spanish names (generally of low frequency) concentrated in areas less Spanish than the country.

Examination of the names selected initially revealed certain predictable problems and a need for further screening of the list. Some ethnic groups tend to live in the same areas as the Hispanic population and names common to these groups appeared on the list. The major difficulties were attributable to Portuguese names (from Northern California), Oriental names (New York and California), Navajo and Hopi names (New Mexico and Arizona), Jewish names (New York and Florida), Italian names (New York, San Francisco, and Chicago), and a very few French names. In order to remove the non-Spanish names from the list, a screening function based on the same principles as the selection function was developed for each ethnicity. The weights for these screening functions are the logarithms of the ratio of the proportion of the national Spanish population in the area to the proportion of the national "ethnic" (that is, Portuguese, Oriental, etc.) population in the area. For each of these "ethnic" functions a list of names which unquestionably belong to the particular ethnic group was used to derive the function values. Table 2 shows the effect of the ethnic screening tests on the original selection of 16,500 names.

Still another set of tests was performed to account for the low filing rate for tax returns from Puerto Rico. In general, for the 50 States, the ratios of exemptions on the 1978 tax file to estimated population in 1978 are between 0.9 and 1.0. For Puerto Rico, however, this ratio is less than 0.05. Consequently, use of the file as collected would result in an underrepresentation of names concentrated in Puerto Rico. In order to make the ratio of exemptions to population for Puerto

Rico consistent with the other areas, all returns from Puerto Rico were weighted by a factor of 20. Then, weights were calculated and the selection and screening tests were run both with the file as collected and multiplying all occurrences of names in Puerto Rico by 20. This procedure proved to be extremely successful in selecting names belonging to persons of Puerto Rican rather than Mexican descent.

After the ethnic screening tests, the list as constituted would perform quite well, from a statistical point of view, as an identifier of Hispanic persons. However, since the overall objective was to develop a list with only Spanish names on it, which would identify as much of the Hispanic population as possible, further modifications of the list were required. We turned at this point to the actual orthographic structure of the names. For example, the letters "K" and "W" are not in the Spanish alphabet, so any name containing either of these letters was deleted from the list. Another screening device was based on the work of Buechley (1976). He has developed a list of 3-letter combinations which are found at the beginning of Spanish surnames, for example, G-A-R (as in Garcia) or R-O-D (Rodriguez), and 3-letter combinations which occur at the end of Spanish surnames, for example, N-E-Z (Martinez) or A-G-O (Santiago). Examination of the names rejected with Buechley's lists of allowable beginnings and endings indicated that his lists were too restrictive. Based on the rejected names, the lists of beginnings and endings were supplemented and then used to prune the name list further. (For example, names beginning with S-C-H or ending with I-T-Z were deleted.) As a final editorial step, the list was screened manually. Certain letter combinations such as T-H or S-H tend not to occur at all in Spanish. This type of information guided our decisions to delete names from the list. This last screening device also involved searching for names in telephone directories. The presence of Spanish or other identifiably ethnic first names provided evidence whether or not a surname was Spanish.

At every stage of the mechanical screening procedure, the culled names were examined and certain surnames which were verified as Spanish, for example, with telephone books, were added back to the list. As a final step, about 1300 names occurring on only 2 to 9 tax returns but which had appeared on previous Census Bureau lists of Spanish surnames and had function values greater than zero (but less than 3.0) were added to the list. This final list includes 12,497 names and accounts for 5.5 percent of all tax exemptions, the same percentage as represented by the Spanish-origin population in the Current Population Survey. Although over half of the initially selected names were deleted, Table 2 shows that these names accounted for only 12 percent of the initially selected population. Similarly, the names added constitute roughly one-third of the names on the 1980 Census list but account for only 8 percent of the Spanish surname population. This is further evidence that surnames occurring with reasonable frequency were not affected by the screening and orthographic tests; that is, frequently occurring surnames were clearly defined as Spanish or non-Spanish by the original selection test and subsequent mathematical tests.

Almost no errors were made in selecting frequently occurring names. Table 3 shows the top 100 Spanish names on the list--they are all clearly Spanish.<sup>2/</sup>

Table 4 shows the relative importance of these names in that they account for

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2/ Almost all names in the United States, especially frequently occurring names, are over 90 percent Spanish or less than 1 percent Spanish. There are exceptions, however. For example, the "Portuguese" names shown in Table 1 may include persons of Spanish origin as much as 20 percent of the time. Probably no more than 75 percent of persons named PACHECO (ranked 68) and FRANCO (79) are Spanish in the United States. Four commonly occurring names--SANTOS, SILVA, ROMAN, MARTIN--present special problems. The first three appear to be evenly divided between Hispanic and non-Hispanic populations. MARTIN, although probably not much more than 5 percent Hispanic in the Southwest, is so common (12th most common name in the United States) that a significant number of persons with this surname are Hispanic. Accordingly, in coding the 1980 census, these four names receive special treatment, i.e., they will be considered Spanish surnames only if the respondent says he/she is of Spanish origin. (MARTIN alone was treated in this manner in 1970.)

For other applications of the 1980 list of Spanish surnames, this special treatment is not possible. Accordingly, we recommend the following treatment: SANTOS should be considered a Spanish surname while SILVA, ROMAN, and MARTIN should not. The data presented in tables 5 through 9 are based on this treatment of the 4 special

more than half of the Spanish surname population as defined by the 1980 list. The first 1,000 names account for seven-eighths of the population on the list. This would indicate that for many applications, a short list of only common names would be quite adequate. Furthermore, these names result in almost no errors of falsely identifying persons as Spanish.

To evaluate the performance of the newly constructed 1980 list, data on self-designated ethnic origin from the March 1976 Current Population Survey were used. Some results of the evaluation are shown in Tables 5 through 7. In these tables, an error of commission is defined as a person with a Spanish surname, according to the list being evaluated, who did not designate himself or herself as of Spanish origin. An error of omission is a person of self-defined Spanish origin having a surname which is not on the list in question. Note in Table 5 that the performance of the 1970 list in our test showed a marked improvement over its own performance in the earlier test (U.S. Bureau of the Census, 1975). This improvement can be attributed to more careful editing of the CPS file for transcription and keypunch errors and the use of computer rather than clerical matching.

Before the performance of the two lists is discussed, a word is in order regarding the self-designated Spanish origin identifier. Several studies of response variability show that between 5 and 11 percent of persons who report Spanish origin in a census or survey will report a non-Spanish origin when reinterviewed (U.S. Bureau of the Census, 1974 and 1979, especially pp. 9-14). For example, among persons reporting Central or South American origin, almost 20 percent report a non-Spanish origin in some reinterview studies; for the "Other Spanish" category, this "ethnic shift" can reach 30 percent. The inconsistency of response to the Spanish origin identifier places an upper bound on the performance of any Spanish surname list--a point which should be borne in mind when interpreting Tables 5 through 7.

In every category, the 1980 list clearly outperforms the 1970 list--that is, the 1980 list makes fewer errors of commission and of omission. All tests show fewer errors for males than females and fewer for never-married females than ever-married females as would be expected. All of the comparisons show that performance is better in the five Southwestern States than in the rest of the country.

The error rates for males in the Southwest according to the 1980 list--6.3 percent commission and 11.5 percent omission--approach the limit of the precision of our standard, self-designated Spanish origin. The error rates for the 1970 list are 50 percent higher for omission errors and 85 percent higher for commission errors. For females in the Southwest, the 1980 list shows lower error rates than were reported in the earlier test for males in the Southwest. Thus, if the 1970 list could be called an adequate identifier of the Hispanic population in the Southwest (as it was in U.S. Bureau of the Census, 1975), then clearly the 1980 list is a very good identifier for this population.

Outside the Southwest, the error rates for the 1980 list are somewhat higher. However, for males outside the Southwest the error rates for the 1980 list are superior to the error rates previously reported in the Southwest for the 1970 list. For females residing outside the Southwest, especially married females, the error rates for the 1980 list could be considered high although here too the performance is clearly much superior to the 1970 list; this is especially true in terms of commission errors. However, the 1980 list has sufficiently low rates of commission errors for all segments of the Hispanic population that it can serve as an adequate identifier for the Hispanic population. For all categories, the commission error rates for the 1980 list are lower than the omission rates. Thus very few individuals with a surname on the 1980 list are not Hispanic but a somewhat larger number of people who call themselves Hispanic will not be identified on the basis of their surnames.

More detailed examination of the performance of the 1980 list highlights its strengths and weaknesses. Fully one-sixth of the commission errors outside the Southwest occur in the three areas which include most of the population of Portuguese descent in the United States--Hawaii, Rhode Island, and the Fall River-New Bedford, Massachusetts SMSA. Even though names which are primarily Portuguese were removed from the list, many persons of Portuguese descent have Spanish surnames. (We would not recommend using any Spanish surname list in these areas.)

Table 6 shows that the 1980 list is a great improvement over the 1970 list in that fewer persons of European, especially Italian, origin are designated as Spanish. Almost all of the commission errors made with the 1980 list are persons in the "other" category. Case-by-case analysis of commission errors indicates two main sources of these errors other than persons of Portuguese origin. Some American Indians, especially some Navajos in New Mexico and Arizona, have Spanish surnames but do not consider themselves to be of Spanish origin. Similarly, many Filipinos have Spanish surnames but only a small percentage consider themselves to be of Spanish origin.

Table 7 shows omission errors by type of Spanish origin. By far the highest rates occur in the "Central or South American" and "Other Spanish" categories. This means that many persons without Spanish surnames place themselves in these categories. Some of the errors are undoubtedly of the type found in the 1970 census--persons from the central or southern U.S. (but clearly not Hispanic) who say that they are of Central or South American origin. These are the same two categories which show the highest rates of response inconsistency so that the high omission error rates are not unexpected. Again, it appears that these error rates are limited by the precision of the standard--self-designated Spanish origin.

More detailed geographic analysis (not shown in the tables) supports the high quality of the 1980 Spanish surname list. In the three areas outside the Southwest with the largest Hispanic populations--the New York City, Chicago, and Miami SMSA's--the 1980 list performs very well. In fact for males, the commission error rate is actually lower in these areas than in the Southwest while the omission error rate is only slightly higher than in the Southwest.

This new list demonstrates that the concept of using surnames to identify the Hispanic population is viable, and not just in the Southwest. Consequently, the 1980 list of Spanish surnames opens the possibility of analyzing the Hispanic population in many data sets which could otherwise not be so used because of the lack of a Hispanic identifier. There are some limitations, however. The list should be used primarily in areas with a sizeable Hispanic population, whether in the Southwestern U.S. or not, and should be used cautiously or not at all in Hawaii, Rhode Island, and the Fall River-New Bedford, Massachusetts area or in areas where the Filipino population is large relative to the Hispanic population.<sup>3/</sup> Because the list generally results in more omission than commission errors, the size of the Spanish surname population as measured by the 1980 list is generally 5 percent or so smaller than the Spanish origin population.<sup>4/</sup> However, for many uses this is not a serious limitation.

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<sup>3/</sup> Certain counties in New Mexico, Arizona, and Utah with large Indian populations present similar problems.

<sup>4/</sup> It is possible that further examination of the March 1976 CPS data for typographical errors may reduce this figure.

Table 8 indicates the basis for some possible applications. It shows the proportion of tax filers in 1978 for each State who have Spanish surnames. The 1980 list of Spanish surnames together with Federal tax returns and vital statistics data could provide the basis for developing post-censal estimates of the Hispanic population for States and local areas. The Bureau plans to ask State vital statistics offices to code vital statistics on the basis of the 1980 Spanish surname list and to furnish vital statistics data tabulated by Spanish surname, in addition to race, which is already coded. Internal migration data can be developed by coding tax returns with Spanish surnames and then calculating migration rates for the Spanish surname population by standard methods. Finally, figures on legal immigration from abroad can be obtained from Immigration and Naturalization Service statistics on country of origin and place of intended residence. Many other applications of a comprehensive and accurate list of Spanish surnames could be found--Medicare data, school enrollment data, mortality analysis, labor force composition (in individual firms), or any set of data which includes names but no other Hispanic identifier.

This application of Bayes' Theorem has proven successful in producing the list of Spanish surnames for the 1980 census. The same techniques and data set have other obvious applications. Surname lists could be developed for other ethnic groups--Chinese, Japanese, Korean, Vietnamese, Italian, Polish, Scandinavian, or any group which is geographically concentrated. While we attempted to make the list of Spanish surnames for the census exhaustive, this would not be necessary for many applications to the Hispanic population and other groups. Shorter lists consisting of common, but representative names could be used to obtain accurate distributional measures. Furthermore, if data

were developed for 1980 and subsequent years for ethnic surnamed populations as defined by short lists, these data could be used to measure change from a 1980 baseline, as provided by the 1980 census. Research into these areas is now underway at the Census Bureau.

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Table 1. Geographic Distribution of 1978 Federal Tax Returns for Selected Spanish and Portuguese Surnames  
(Puerto Rico treated as State)

| Name or Surname       | Returns/ (000's) | So. Cal. | Texas | Ariz., Colo. | Ill. | Fla. | Puerto Rico | New York | New Jersey | Mass., Conn. | No. Cal. | Hawaii | Other |
|-----------------------|------------------|----------|-------|--------------|------|------|-------------|----------|------------|--------------|----------|--------|-------|
| Ident Population 1978 | {x}              | 6.0      | 5.9   | 2.8          | 5.1  | 3.9  | 1.5         | 8.0      | 3.3        | 4.4          | 4.1      | 0.4    | 54.6  |
| Spanish origin 1970   | {x}              | 13.9     | 15.8  | 6.9          | 3.4  | 3.3  | 23.1        | 11.6     | 2.5        | 1.2          | 6.5      | 0.2    | 12.6  |
| Portuguese stock 1970 | {x}              | 5.6      | 0.4   | 0.3          | 0.4  | {x}  | {x}         | 4.7      | 5.4        | 50.2         | 25.2     | 2.0    | 5.6   |
| S                     | 44.4             | 14.7     | 8.2   | 2.5          | 4.0  | 8.4  | 32.0        | 11.8     | 3.8        | 1.8          | 5.1      | 0.1    | 7.7   |
| S                     | 3.1              | 6.1      | 2.1   | 1.5          | 0.8  | 2.1  | 0.6         | 5.4      | 4.3        | 30.4         | 25.9     | 5.3    | 15.6  |
| names                 | 29.6             | 11.5     | 7.3   | 3.3          | 2.9  | 16.9 | 19.3        | 11.8     | 5.3        | 1.7          | 7.3      | 2.1    | 10.7  |
| names                 | 3.4              | 6.0      | 1.5   | 0.5          | 2.6  | 1.8  | 0.6         | 7.9      | 7.5        | 42.0         | 17.1     | 2.1    | 10.6  |
| names                 | 35.6             | 22.4     | 18.0  | 7.1          | 3.9  | 5.1  | 11.4        | 7.3      | 2.6        | 1.5          | 9.2      | 0.3    | 11.2  |
| names                 | 4.9              | 6.6      | 0.6   | 0.6          | 0.8  | 1.3  | 0.4         | 6.5      | 5.0        | 34.7         | 25.8     | 9.0    | 8.8   |
| names                 | 92.1             | 19.9     | 15.0  | 7.4          | 3.7  | 4.2  | 21.0        | 7.4      | 2.4        | 1.2          | 8.0      | 0.4    | 9.3   |
| names                 | 3.5              | 4.2      | 1.4   | 0.7          | 0.8  | 1.5  | 0.6         | 5.7      | 7.5        | 44.3         | 18.4     | 5.4    | 9.3   |
| names                 | 11.4             | 22.4     | 11.1  | 5.6          | 4.4  | 5.7  | 14.6        | 13.5     | 3.7        | 1.9          | 6.8      | 0.1    | 10.2  |
| names                 | 3.2              | 8.4      | 1.0   | 0.9          | 2.4  | 1.3  | 0.6         | 5.0      | 3.6        | 26.3         | 10.2     | 2.6    | 9.8   |
| names                 | 136.8            | 12.2     | 15.6  | 2.7          | 3.4  | 5.9  | 31.0        | 10.3     | 3.2        | 1.2          | 5.0      | 0.1    | 7.5   |
| names                 | 5.4              | 7.0      | 3.9   | 1.1          | 1.0  | 1.4  | 4.1         | 6.2      | 7.1        | 25.8         | 22.9     | 10.4   | 9.2   |
| names                 | 4.8              | 13.5     | 21.4  | 3.9          | 3.9  | 8.6  | 19.2        | 11.2     | 3.7        | 1.4          | 4.3      | 0.1    | 8.7   |
| names                 | 3.9              | 5.7      | 0.7   | 1.0          | 0.6  | 2.3  | 0.5         | 4.1      | 4.0        | 52.0         | 18.7     | 0.5    | 9.9   |
| names                 | 6.6              | 5.8      | 0.4   | 0.9          | 0.7  | 1.4  | {x}         | 1.3      | 1.0        | 40.1         | 30.9     | 10.1   | 7.4   |
| names                 | 10.1             | 9.3      | 8.0   | 1.3          | 3.4  | 16.3 | 29.7        | 12.7     | 5.1        | 1.6          | 3.1      | 0.1    | 9.4   |
| names                 | 2.7              | 6.4      | 0.4   | 0.7          | 0.1  | 1.3  | {x}         | 4.0      | 4.2        | 40.5         | 26.6     | 7.9    | 8.1   |

Tax returns in Puerto Rico inflated by factor of 20 to account for low filing rate (see text). Includes counties of Los Angeles, Orange, San Diego, San Bernardino, Riverside, Ventura, Kern, Santa Barbara and Imperial. Northern California includes remaining 19 counties. PU(2)-10 Persons of Spanish origin. Assumes Puerto Rico to be 95% Spanish origin. 1978 census of population, table 111 country of origin of foreign stock; Fortuna 1115 Azores.

Table 2. Diary of Construction of the 1980 List of Spanish Surnames:  
Number of Names and Exemptions<sup>1/</sup> Added and Deleted by Various Tests  
(See text for explanation of tests)

| Test                                    | Names         |                            |                  |                              | Exemptions <sup>2/</sup> |                                |                          | Percent of Initial Selection |
|---|---------------|----------------------------|------------------|------------------------------|--------------------------|--------------------------------|--------------------------|------------------------------|
|   | Deletions (x) | Additions or Overrides (x) | Cumulative Total | Percent of Initial Selection | Deletions (000's)        | Additions or Overrides (000's) | Cumulative Total (000's) |                              |
| Initial Selection                       | (x)           | (x)                        | 16,514           | 100.0                        | (x)                      | (x)                            | 11,855.0                 | 100.0                        |
| "Ethnic" Tests (P.R.-20)                |               |                            |                  |                              |                          |                                |                          |                              |
| Portuguese                              | 267           | 20                         | 16,267           | 98.5                         | 103.1                    | 13.3                           | 11,771.2                 | 99.3                         |
| Oriental                                | 1,391         | 63                         | 14,939           | 90.5                         | 652.3                    | 23.1                           | 11,162.0                 | 94.0                         |
| Southwest Indian                        | 200           | 10                         | 14,749           | 89.7                         | 43.6                     | 1.5                            | 11,099.9                 | 93.6                         |
| French                                  | 10            | 1                          | 14,740           | 89.3                         | 2.8                      | 0.2                            | 11,097.3                 | 93.6                         |
| Italian                                 | 54            | 1                          | 14,687           | 88.9                         | 16.7                     | 0.1                            | 11,080.8                 | 93.5                         |
| Jewish                                  | 388           | 105                        | 14,604           | 87.2                         | 69.9                     | 21.7                           | 11,032.5                 | 93.1                         |
| Orthographic Tests                      |               |                            |                  |                              |                          |                                |                          |                              |
| "W/W" Test                              | 1,529         | 2                          | 12,877           | 78.0                         | 94.6                     | 0.2                            | 10,938.1                 | 92.7                         |
| 3-Letter Beginnings                     | 1,418         | 72                         | 11,530           | 69.8                         | 88.4                     | 7.6                            | 10,657.3                 | 91.6                         |
| 3-Letter Endings                        | 1,419         | 69                         | 10,181           | 61.7                         | 95.2                     | 8.6                            | 10,770.7                 | 90.9                         |
| Tests with Puerto Rican                 |               |                            |                  |                              |                          |                                |                          |                              |
| Passed Spanish Test (P.R.-20)           |               |                            |                  |                              |                          |                                |                          |                              |
| Failed Spanish Test (P.R.-1)            | 1,235         | 512                        | 9,458            | 57.3                         | 217.2                    | 28.6                           | 10,582.1                 | 89.3                         |
| Failed "Ethnic" Test (P.R.-1)           | (x)           | 39                         | 9,497            | 57.5                         | (x)                      | 27.3                           | 10,609.4                 | 89.5                         |
| Failed Spanish Test (P.R.-20)           | (x)           | 1,461                      | 10,958           | 66.4                         | (x)                      | 74.0                           | 10,683.3                 | 90.1                         |
| Passed All Tests (P.R.-1)               | (x)           | 139                        | 11,097           | 67.2                         | (x)                      | 17.4                           | 10,700.7                 | 90.3                         |
| Failed "Ethnic" Test (P.R.-1)           | (x)           | 61                         | 11,158           | 67.6                         | (x)                      | 8.3                            | 10,709.0                 | 90.3                         |
| Passed All Tests (P.R.-1)               | (x)           | (x)                        | 10,401           | 63.0                         | 48.5                     | (x)                            | 10,660.5                 | 89.9                         |
| Editorial Deletions                     | 757           | (x)                        | 10,400           | 63.0                         | 61.1                     | (x)                            | 10,599.4                 | 89.4                         |
| SILVA                                   | 1             | (x)                        |                  |                              |                          |                                |                          |                              |
| Editorial Additions                     | (x)           | 507                        | 10,907           | 66.0                         | (x)                      | 30.3                           | 10,629.7                 | 89.7                         |
| Names from previous lists <sup>3/</sup> | (x)           | 1,286                      | 12,193           | 73.8                         | (x)                      | 15.5                           | 10,645.1                 | 89.8                         |
| 10 or more Tax Returns                  |               |                            |                  |                              |                          |                                |                          |                              |
| 9 or fewer Tax Returns                  |               |                            |                  |                              |                          |                                |                          |                              |
| Other Names                             |               |                            |                  |                              |                          |                                |                          |                              |
| Spanish Function (P.R.-20)              | (x)           | 290                        | 12,483           | 75.6                         | (x)                      | 10.5                           | 10,655.6                 | 89.9                         |
| Greater than 0.05 <sup>4/</sup>         | (x)           | 14                         | 12,497           | 75.7                         | (x)                      | 5.4                            | 10,661.0                 | 89.9                         |
| Less than 0.05 <sup>4/</sup>            |               |                            |                  |                              |                          |                                |                          |                              |
| Gross Deletions                         | 8,669         | (x)                        | (x)              | 52.5                         | 1,493.4                  | (x)                            | (x)                      | 12.6                         |
| Gross Additions                         | (x)           | 4,652                      | (x)              | 28.2                         | (x)                      | 299.5                          | (x)                      | 2.5                          |
| Net Change                              | -4,017        | (x)                        | (x)              | -24.3                        | -1,193.9                 | (x)                            | (x)                      | -10.1                        |

<sup>1/</sup> Exemptions on 1978 Federal Tax Returns.

<sup>2/</sup> Names from earlier census lists of Spanish surnames which had Spanish functions greater than 0.00 but less than the selection criterion (P.R.-20).

<sup>3/</sup> Names with 10 or more returns and Spanish functions greater than 0.00 but less than the selection criterion (P.R.-20).

Table 3. Frequency Distribution of 100 Most Frequently Occurring Spanish Surnames: 1978 Federal Tax Returns

| Rank | Name      | Returns <sup>1/</sup> | Percent <sup>2/</sup> | Rank | Name       | Returns <sup>1/</sup> | Percent <sup>2/</sup> |
|------|-----------|-----------------------|-----------------------|------|------------|-----------------------|-----------------------|
| 1    | GARCIA    | 107.6                 | 2.97                  | 51   | GUERRERO   | 11.0                  | .30                   |
| 2    | MARTINEZ  | 97.2                  | 2.69                  | 52   | SANTIAGO   | 10.5                  | .29                   |
| 3    | RODRIGUEZ | 90.7                  | 2.51                  | 53   | VEGA       | 10.4                  | .29                   |
| 4    | LOPEZ     | 72.1                  | 1.99                  | 54   | SILVA*     | 10.4                  | .29                   |
| 5    | HERNANDEZ | 68.2                  | 1.89                  | 55   | LEMA       | 10.3                  | .28                   |
| 6    | GONZALEZ  | 59.6                  | 1.65                  | 56   | ESTRADA    | 10.1                  | .28                   |
| 7    | PEREZ     | 56.9                  | 1.57                  | 57   | MARQUEZ    | 10.1                  | .28                   |
| 8    | SANCHEZ   | 50.9                  | 1.41                  | 58   | DURAN      | 10.1                  | .28                   |
| 9    | GONZALES  | 42.8                  | 1.18                  | 59   | MALDONADO  | 9.8                   | .27                   |
| 10   | RAMIREZ   | 40.6                  | 1.12                  | 60   | MONTOYA    | 9.9                   | .27                   |
| 11   | TORRES    | 37.2                  | 1.03                  | 61   | DOMINGUEZ  | 9.8                   | .27                   |
| 12   | RIVERA    | 35.5                  | .98                   | 62   | ACOSTA     | 9.7                   | .27                   |
| 13   | FLORES    | 35.0                  | .97                   | 63   | MUNES      | 9.6                   | .27                   |
| 14   | GDMEZ     | 31.1                  | .86                   | 64   | CONTRERAS  | 9.6                   | .27                   |
| 15   | DIAZ      | 29.9                  | .83                   | 65   | ALVARADO   | 9.6                   | .26                   |
| 16   | ORTIZ     | 26.0                  | .72                   | 66   | RODRIGUEZ  | 9.5                   | .26                   |
| 17   | GUTIERREZ | 24.9                  | .69                   | 67   | NAVARRO    | 9.3                   | .26                   |
| 18   | CHAVEZ    | 23.7                  | .66                   | 68   | PROCECO    | 9.2                   | .25                   |
| 19   | FERNANDEZ | 23.8                  | .65                   | 69   | GUERRA     | 9.2                   | .25                   |
| 20   | RAMOS     | 23.5                  | .65                   | 70   | TREVINO    | 9.1                   | .25                   |
| 21   | REYES     | 23.1                  | .64                   | 71   | GALLEGOS   | 9.1                   | .25                   |
| 22   | MORALES   | 23.1                  | .64                   | 72   | CORTEZ     | 8.9                   | .25                   |
| 23   | CRUZ      | 22.8                  | .63                   | 73   | VILLARREAL | 8.8                   | .24                   |
| 24   | GARZA     | 22.0                  | .61                   | 74   | BELEDN     | 8.5                   | .24                   |
| 25   | RUIZ      | 20.9                  | .58                   | 75   | MIRANDA    | 8.5                   | .23                   |
| 26   | ROMERO    | 20.8                  | .58                   | 76   | SALINAS    | 8.4                   | .23                   |
| 27   | ALVAREZ   | 20.4                  | .56                   | 77   | FIGUEROA   | 8.3                   | .23                   |
| 28   | VASQUEZ   | 19.6                  | .54                   | 78   | ESPINOZA   | 8.1                   | .22                   |
| 29   | CASTILLO  | 18.4                  | .51                   | 79   | FRANCO     | 8.1                   | .22                   |
| 30   | MORENO    | 18.3                  | .50                   | 80   | MOLINA     | 8.0                   | .22                   |
| 31   | MERREFA   | 16.8                  | .46                   | 81   | LEON       | 8.0                   | .22                   |
| 32   | MEDINA    | 16.7                  | .46                   | 82   | AVILA      | 7.8                   | .22                   |
| 33   | MENDOZA   | 16.4                  | .45                   | 83   | CARRILLO   | 7.7                   | .21                   |
| 34   | CASTRO    | 15.9                  | .44                   | 84   | CAMPOS     | 7.6                   | .21                   |
| 35   | JIMENEZ   | 15.4                  | .43                   | 85   | COLON      | 7.5                   | .21                   |
| 35   | VALDEZ    | 15.1                  | .42                   | 86   | ROBLES     | 7.4                   | .21                   |
| 37   | SALAZAR   | 14.8                  | .41                   | 87   | SANTOS*    | 7.4                   | .20                   |
| 38   | MUNOZ     | 13.9                  | .38                   | 88   | VAZQUEZ    | 7.4                   | .20                   |
| 39   | PENA      | 13.6                  | .37                   | 89   | LUCERO     | 7.3                   | .20                   |
| 40   | VARGAS    | 12.7                  | .35                   | 90   | CANTU      | 7.2                   | .20                   |
| 41   | SOTO      | 12.5                  | .35                   | 91   | SUAIREZ    | 7.0                   | .19                   |
| 42   | DELGADO   | 12.2                  | .34                   | 92   | AGUIRRE    | 6.9                   | .19                   |
| 43   | PADILLA   | 12.1                  | .34                   | 93   | SOLIS      | 6.5                   | .18                   |
| 44   | AGUILAR   | 12.1                  | .33                   | 94   | AYALA      | 6.5                   | .18                   |
| 45   | SANDOVAL  | 12.0                  | .33                   | 95   | VIGIL      | 6.4                   | .18                   |
| 46   | GUZMAN    | 11.9                  | .33                   | 96   | OCHOA      | 6.3                   | .18                   |
| 47   | RIOS      | 11.7                  | .32                   | 97   | ROJAS      | 6.3                   | .17                   |
| 48   | MENDEZ    | 11.7                  | .32                   | 98   | LARA       | 6.3                   | .17                   |
| 49   | ORTEGA    | 11.5                  | .31                   | 99   | VELASQUEZ  | 6.2                   | .17                   |
| 50   | TRUJILLO  | 11.1                  | .31                   | 100  | CARDENAS   | 6.1                   | .17                   |

1/ In thousands.

2/ Base of percent is the number of 1978 Federal tax returns with a Spanish surnamed primary filer — 3,617.7 thousand.

\* Estimated number of returns from persons of Spanish origin. These names are given special treatment in the 1980 census — see text.

Table 4. Percent of Spanish Surname Population Accounted For By  
Most Frequently Occurring Names: 1978 Federal Tax Returns

| <u>Cumulative Percent of<br/>Spanish Surname Population</u> | <u>Number of Names<br/>(Most Frequently Occurring)</u> |
|---|--|
| 26.0  | 17 Names   |
| 50.0  | 90 Names   |
| 75.0  | 384 Names  |
| 90.0  | 1337 Names   |
| 95.0  | 2774 Names   |
| 99.0  | 7475 Names   |
| 99.5  | 9025 Names   |
| 99.9  | 11130 Names  |

| <u>Number of Names<br/>(Most Frequently Occurring)</u> | <u>Cumulative Percent of<br/>Spanish Surname Population</u> |
|--|---|
| 100 Names  | 51.9  |
| 200 Names  | 63.8  |
| 500 Names  | 78.6  |
| 1000 Names   | 87.3  |
| 2000 Names   | 93.0  |
| 5000 Names   | 97.7  |
| 7500 Names   | 99.0  |
| 10000 Names  | 99.7  |

Table B. Persons of Spanish Origin and Persons of Spanish Surname, According to the 1980 and 1970 Lists of Spanish Surnames, by Sex, for Persons 14 years and over, for the United States, Five Southwestern States, and the Remainder: March 1976 Current Population Survey

(Based on unweighted counts)

| Surname List   | United States |       |         |                       | Five Southwestern States |       |         |                      | Remainder of United States |            |       |         |                      |
|--|---------------|-------|---------|-----------------------|--------------------------|-------|---------|----------------------|----------------------------|------------|-------|---------|----------------------|
|  | Both Sexes    | Males | Females | Never-Married Females | Both Sexes               | Males | Females | Ever-Married Females | Never-Married Females      | Both Sexes | Males | Females | Ever-Married Females |
| of <u>OMISSION</u> <sup>1/</sup>   |               |       |         |                       |                          |       |         |                      |                            |            |       |         |                      |
| Net of Spanish Origin  | 6304          | 3060  | 3298    | 2411                  | 887                      | 1775  | 1884    | 1361                 | 813                        | 3835       | 1231  | 1404    | 3090                 |
| Net of Spanish Surname   | 1007          | 459   | 848     | 875                   | 175                      | 306   | 387     | 302                  | 85                         | 718        | 254   | 461     | 373                  |
| Net List   | 1881          | 696   | 1005    | 784                   | 221                      | 305   | 488     | 378                  | 116                        | 870        | 351   | 619     | 414                  |
| Net Errors of Omission   | 30.7          | 16.3  | 25.7    | 28.0                  | 19.8                     | 11.5  | 20.4    | 22.2                 | 16.9                       | 27.1       | 20.6  | 32.8    | 36.5                 |
| Net List   | 26.3          | 31.8  | 30.8    | 33.5                  | 24.8                     | 17.2  | 25.7    | 37.3                 | 21.8                       | 33.0       | 28.5  | 37.0    | 39.4                 |
| Net List (March 1971) <sup>2/</sup>  | 31.7          | 38.2  | 34.1    | (X)                   | (X)                      | 24.7  | 28.1    | (X)                  | (X)                        | 39.5       | 36.2  | 47.8    | (X)                  |
| of <u>COMMISSION</u> <sup>2/</sup>   |               |       |         |                       |                          |       |         |                      |                            |            |       |         |                      |
| Net of Spanish Surname   | 6880          | 2940  | 3040    | 2220                  | 820                      | 1678  | 1761    | 1264                 | 487                        | 2443       | 1164  | 1279    | 958                  |
| Net of Spanish Origin  | 263           | 293   | 800     | 464                   | 106                      | 108   | 284     | 203                  | 48                         | 823        | 187   | 336     | 229                  |
| Net List   | 6887          | 3199  | 3468    | 2839                  | 930                      | 1867  | 1730    | 1255                 | 475                        | 3270       | 1538  | 1738    | 1283                 |
| Net of Spanish Origin  | 2034          | 849   | 1175    | 811                   | 204                      | 187   | 322     | 264                  | 59                         | 1593       | 452   | 863     | 649                  |
| Net Errors of Commission   | 35.0          | 18.3  | 19.4    | 21.8                  | 12.9                     | 6.3   | 14.4    | 15.2                 | 9.9                        | 21.4       | 16.1  | 28.3    | 29.2                 |
| Net List   | 30.4          | 28.6  | 33.9    | 35.9                  | 28.4                     | 11.7  | 18.8    | 21.0                 | 12.2                       | 48.0       | 42.6  | 49.1    | 50.4                 |
| Net List (March 1971) <sup>2/</sup>  | 38.1          | 33.5  | 38.9    | (X)                   | (X)                      | 16.2  | 21.6    | (X)                  | (X)                        | 53.6       | 51.7  | 55.7    | (X)                  |
| error of omission is falling to include a person of Spanish origin in the Spanish surname population.            |               |       |         |                       |                          |       |         |                      |                            |            |       |         |                      |
| error of commission in designating a person not of Spanish origin as a member of the Spanish surname population. |               |       |         |                       |                          |       |         |                      |                            |            |       |         |                      |
| Net List (March 1971) <sup>2/</sup>  |               |       |         |                       |                          |       |         |                      |                            |            |       |         |                      |

Source: U.S. Bureau of the Census, Technical Paper No. 38, Table A.

available.

Table 6. Persons of Spanish Surname According to the 1960 and 1970 Lists of Spanish Surname by Origin,  
For the United States, Five Southern States, and the Remainder: March 1976 Current Population Survey

(Based on unweighted counts.)

| Area, sex, and list               | Total<br>Persons | Percent Distribution               |                  |               |       |         |         |        |             |       |                      |       |       |       |     |     |     |     |     |     |     |     |     |     |  |
|-----------------------------------|------------------|------------------------------------|------------------|---------------|-------|---------|---------|--------|-------------|-------|----------------------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|                                   |                  | Total Spanish                      |                  |               |       |         | Spanish |        |             |       | Percent Distribution |       |       | Other |     |     |     |     |     |     |     |     |     |     |  |
|                                   |                  | Mexican, Chicano, Mexican American | Central American | Other Spanish | Other | Spanish | Irish   | French | Non-Spanish | Other | Black                | Other | White |       |     |     |     |     |     |     |     |     |     |     |  |
| <b>United States</b>              |                  |                                    |                  |               |       |         |         |        |             |       |                      |       |       |       |     |     |     |     |     |     |     |     |     |     |  |
| Total                             | 5881             | 51.3                               | 15.7             | 5.8           | 4.1   | 10.0    | 0.6     | 0.7    | 0.4         | 0.3   | 0.1                  | 0.1   | 0.1   | 0.1   | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |     |  |
| 1960                              | 5967             | 42.2                               | 10.8             | 5.1           | 3.2   | 8.4     | 1.2     | 3.8    | 1.7         | 0.9   | 0.4                  | 0.2   | 0.2   | 0.2   | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |  |
| 1970                              |                  |                                    |                  |               |       |         |         |        |             |       |                      |       |       |       |     |     |     |     |     |     |     |     |     |     |  |
| Male                              | 2940             | 55.2                               | 13.6             | 6.8           | 4.1   | 11.2    | 0.7     | 0.7    | 0.4         | 0.3   | 0.1                  | 0.1   | 0.1   | 0.1   | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |  |
| Female                            | 3189             | 48.5                               | 10.5             | 4.9           | 3.1   | 9.4     | 1.1     | 4.9    | 1.7         | 0.9   | 0.3                  | 0.3   | 0.3   | 0.3   | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |  |
| 1960                              | 3040             | 47.7                               | 13.9             | 6.1           | 4.1   | 8.8     | 0.7     | 0.6    | 0.7         | 0.4   | 0.1                  | 0.1   | 0.1   | 0.1   | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |  |
| 1970                              | 3478             | 39.0                               | 11.0             | 5.3           | 3.3   | 7.4     | 1.4     | 3.1    | 1.6         | 1.0   | 0.5                  | 0.5   | 0.5   | 0.5   | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |  |
| <b>Five Southern States</b>       |                  |                                    |                  |               |       |         |         |        |             |       |                      |       |       |       |     |     |     |     |     |     |     |     |     |     |  |
| Total                             | 3437             | 74.8                               | 8.4              | 0.8           | 2.2   | 11.5    | 0.3     | 0.3    | 0.3         | 0.3   | 0.3                  | 0.3   | 0.3   | 0.3   | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |  |
| 1960                              | 3197             | 79.4                               | 8.4              | 0.8           | 2.0   | 11.2    | 0.4     | 1.1    | 0.4         | 0.2   | 0.1                  | 0.1   | 0.1   | 0.1   | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |  |
| 1970                              |                  |                                    |                  |               |       |         |         |        |             |       |                      |       |       |       |     |     |     |     |     |     |     |     |     |     |  |
| Male                              | 1676             | 79.6                               | 8.0              | 0.7           | 3.0   | 11.9    | 0.3     | 0.3    | 0.3         | 0.3   | 0.3                  | 0.3   | 0.3   | 0.3   | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |  |
| Female                            | 1667             | 73.5                               | 8.0              | 0.7           | 1.8   | 11.6    | 0.2     | 1.4    | 0.3         | 0.1   | 0.1                  | 0.1   | 0.1   | 0.1   | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |  |
| 1960                              | 1761             | 71.2                               | 8.3              | 0.9           | 2.8   | 11.2    | 0.3     | 0.5    | 0.4         | 0.1   | 0.1                  | 0.1   | 0.1   | 0.1   | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |  |
| 1970                              | 1730             | 67.3                               | 8.3              | 0.6           | 2.3   | 10.9    | 0.5     | 0.8    | 0.5         | 0.2   | 0.1                  | 0.1   | 0.1   | 0.1   | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |  |
| <b>Remainder of United States</b> |                  |                                    |                  |               |       |         |         |        |             |       |                      |       |       |       |     |     |     |     |     |     |     |     |     |     |  |
| Total                             | 2443             | 16.3                               | 32.4             | 13.3          | 0.8   | 7.8     | 0.8     | 1.1    | 0.7         | 0.8   | 0.2                  | 0.2   | 0.2   | 0.2   | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |  |
| 1960                              | 3870             | 12.8                               | 31.8             | 9.8           | 4.4   | 3.6     | 2.2     | 6.6    | 2.3         | 1.7   | 0.8                  | 0.3   | 0.3   | 0.3   | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |  |
| 1970                              |                  |                                    |                  |               |       |         |         |        |             |       |                      |       |       |       |     |     |     |     |     |     |     |     |     |     |  |
| Male                              | 1164             | 21.5                               | 32.4             | 10.8          | 7.1   | 10.1    | 0.4     | 1.5    | 0.3         | 0.3   | 0.2                  | 0.2   | 0.2   | 0.2   | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |  |
| Female                            | 1532             | 15.1                               | 31.4             | 9.5           | 4.4   | 7.0     | 2.1     | 7.9    | 1.0         | 1.8   | 0.6                  | 0.1   | 0.1   | 0.1   | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |  |
| 1960                              | 1278             | 15.4                               | 32.4             | 13.7          | 6.5   | 6.7     | 1.3     | 8.9    | 1.3         | 0.8   | 0.2                  | 0.2   | 0.2   | 0.2   | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |  |
| 1970                              | 1738             | 10.9                               | 21.7             | 10.1          | 4.3   | 4.0     | 2.2     | 5.4    | 2.8         | 1.7   | 0.9                  | 0.5   | 0.5   | 0.5   | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |  |

1/ Errors of nonintention. 0.0 = rounds to zero. -- No occurrence.

Table 7. Percent Error of Omission<sup>1/</sup> for 1980 and 1970 Lists of Spanish Surnames by Type of Spanish Origin and Sex, for the United States, Five Southwestern States, and Remainder: March 1978 Current Population Survey

(Based on unweighted counts)

| Area, Sex, and List        | Total Spanish Origin | Mexican, Puerto Rican, and Cuban Origins | Mexican(o), Chicano, Mexican-American Origins | Puerto Rican Origin | Cuban Origin | Central or South American and Other Spanish Origins | Central or South American Origin | S. D. |
|----------------------------|----------------------|--|---|---------------------|--------------|---|----------------------------------|-------|
| United States              |                      |  |   |                     |              |   |                                  |       |
| Total                      |                      |  |   |                     |              |   |                                  |       |
| 1980                       | 20.7                 | 16.0                                     | 15.3  | 15.1                | 23.2         | 38.3  | 40.2                             |       |
| 1970                       | 26.3                 | 21.9                                     | 21.1  | 24.2                | 23.8         | 42.7  | 47.7                             |       |
| Males                      |                      |  |   |                     |              |   |                                  |       |
| 1980                       | 15.3                 | 11.3                                     | 10.0  | 11.5                | 22.0         | 30.3  | 33.9                             |       |
| 1970                       | 21.8                 | 18.1                                     | 16.4  | 22.7                | 23.4         | 36.0  | 44.6                             |       |
| Females                    |                      |  |   |                     |              |   |                                  |       |
| 1980                       | 25.7                 | 20.2                                     | 20.3  | 18.1                | 24.2         | 45.3  | 45.2                             |       |
| 1970                       | 30.5                 | 25.4                                     | 25.6  | 26.5                | 24.2         | 48.5  | 50.0                             |       |
| Five Southwestern States   |                      |  |   |                     |              |   |                                  |       |
| Total                      |                      |  |   |                     |              |   |                                  |       |
| 1980                       | 16.1                 | 13.6                                     | 13.1  | (B)                 | (B)          | 28.0  | 36.1                             |       |
| 1970                       | 21.6                 | 19.5                                     | 19.1  | (B)                 | (B)          | 31.0  | 42.0                             |       |
| Males                      |                      |  |   |                     |              |   |                                  |       |
| 1980                       | 11.5                 | 9.6                                      | 9.4   | (B)                 | (B)          | 21.3  | (B)                              |       |
| 1970                       | 17.2                 | 15.8                                     | 15.6  | (B)                 | (B)          | 24.3  | (B)                              |       |
| Females                    |                      |  |   |                     |              |   |                                  |       |
| 1980                       | 20.4                 | 17.4                                     | 16.6  | (B)                 | (B)          | 33.5  | 41.7                             |       |
| 1970                       | 25.7                 | 23.1                                     | 22.5  | (B)                 | (B)          | 36.6  | 45.8                             |       |
| Remainder of United States |                      |  |   |                     |              |   |                                  |       |
| Total                      |                      |  |   |                     |              |   |                                  |       |
| 1980                       | 37.1                 | 19.7                                     | 26.3  | 13.2                | 22.5         | 48.2  | 42.0                             |       |
| 1970                       | 53.0                 | 25.7                                     | 30.7  | 23.5                | 23.2         | 53.7  | 50.0                             |       |
| Males                      |                      |  |   |                     |              |   |                                  |       |
| 1980                       | 20.6                 | 14.2                                     | 13.6  | 11.1                | 22.0         | 38.5  | 38.2                             |       |
| 1970                       | 28.5                 | 22.0                                     | 20.1  | 22.6                | 23.6         | 46.5  | 47.7                             |       |
| Females                    |                      |  |   |                     |              |   |                                  |       |
| 1980                       | 32.8                 | 24.5                                     | 37.6  | 18.7                | 22.9         | 56.9  | 48.8                             |       |
| 1970                       | 37.0                 | 28.9                                     | 40.4  | 24.3                | 22.9         | 50.2  | 51.9                             |       |

(B) Less than 50 cases.

<sup>1/</sup> Percent of Spanish origin population not having Spanish surnames.

Table C. Exemptions on Federal Tax Returns for Total and Spanish-Speaking Persons, and Estimated Population, for States: 1975

| STATE                | ESTIMATED RESIDENT POPULATION (000's) | EXEMPTIONS ON FEDERAL TAX RETURNS (000's) |                  | PERCENT OF STATE WITH SPANISH-SPEAKING PERSONS | PERCENT OF NATIONAL SPANISH-SPEAKING IN STATE |
|----------------------|---------------------------------------|---|------------------|--|---|
|                      |                                       | TOTAL                                     | SPEAKING SPANISH |  |   |
| United States        | 218,250                               | 189,735                                   | 10,027.1         | 4.3  | 100.0   |
| California           | 22,314                                | 20,738                                    | 3,642.4          | 17.8   | 34.2  |
| Texas                | 12,047                                | 12,065                                    | 2,501.2          | 18.1   | 21.7  |
| New York             | 17,744                                | 15,431                                    | 1,017.2          | 5.8  | 8.4   |
| Illinois             | 11,728                                | 10,472                                    | 881.0            | 5.2  | 6.2   |
| Florida              | 8,861                                 | 7,331                                     | 488.4            | 5.2  | 6.8   |
| New Mexico           | 1,215                                 | 1,157                                     | 380.7            | 33.8   | 2.4   |
| New Jersey           | 7,315                                 | 6,935                                     | 348.3            | 5.0  | 2.0   |
| Arizona              | 2,275                                 | 2,189                                     | 326.3            | 14.8   | 2.1   |
| Colorado             | 2,708                                 | 2,460                                     | 227.0            | 10.0   | 2.4   |
| Michigan             | 8,341                                 | 8,381                                     | 122.7            | 1.5  | 1.1   |
| Pennsylvania         | 11,740                                | 10,500                                    | 87.9             | 0.8  | 0.6   |
| Massachusetts*       | 6,771                                 | 6,141                                     | 25.4             | 1.7  | 0.4   |
| Ohio                 | 10,732                                | 9,189                                     | 78.9             | 0.8  | 0.4   |
| Connecticut          | 3,116                                 | 2,746                                     | 78.3             | 2.7  | 0.7   |
| Louisiana            | 3,978                                 | 2,621                                     | 70.5             | 2.2  | 0.7   |
| Washington           | 3,793                                 | 3,507                                     | 66.4             | 2.0  | 0.8   |
| Indiana              | 5,317                                 | 5,003                                     | 55.9             | 1.3  | 0.4   |
| Hawaii†              | 807                                   | 881                                       | 82.0             | 7.3  | 0.4   |
| Kansas               | 4,483                                 | 4,314                                     | 46.4             | 1.1  | 0.4   |
| Montana              | 2,347                                 | 2,221                                     | 44.2             | 2.1  | 0.4   |
| Utah                 | 1,212                                 | 1,241                                     | 40.1             | 3.2  | 0.4   |
| Virginia             | 1,277                                 | 1,090                                     | 38.0             | 0.8  | 0.4   |
| Idaho                | 844                                   | 831                                       | 37.1             | 5.5  | 2.4   |
| Maryland             | 1,248                                 | 1,234                                     | 26.7             | 2.2  | 0.1   |
| Oregon               | 2,484                                 | 2,253                                     | 29.1             | 1.8  | 0.2   |
| Wisconsin            | 4,847                                 | 4,376                                     | 31.4             | 0.7  | 0.3   |
| Oklahoma             | 2,843                                 | 2,641                                     | 30.3             | 1.2  | 0.2   |
| Idaho                | 892                                   | 870                                       | 22.8             | 2.8  | 0.2   |
| Georgia              | 1,073                                 | 1,078                                     | 21.8             | 0.8  | 0.2   |
| Nebraska             | 1,848                                 | 1,479                                     | 20.8             | 1.1  | 0.2   |
| Hawaii Island†       | 832                                   | 848                                       | 19.8             | 2.5  | 0.2   |
| Montana              | 4,584                                 | 3,784                                     | 19.1             | 0.5  | 0.2   |
| North Carolina       | 3,571                                 | 3,068                                     | 18.7             | 0.4  | 0.2   |
| Wyoming              | 429                                   | 419                                       | 18.6             | 4.5  | 0.2   |
| Iowa                 | 2,904                                 | 2,701                                     | 15.2             | 0.5  | 0.1   |
| North Carolina       | 2,708                                 | 2,598                                     | 9.9              | 0.4  | 0.1   |
| Tennessee            | 4,323                                 | 3,888                                     | 4.8              | 0.2  | 0.1   |
| District of Columbia | 471                                   | 471                                       | 3.2              | 1.8  | 0.1   |
| Kentucky             | 2,488                                 | 2,308                                     | 2.7              | 0.2  | 0.1   |
| Alabama              | 3,728                                 | 3,201                                     | 1.6              | 0.2  | 0.1   |
| Alaska               | 421                                   | 387                                       | 1.6              | 2.0  | 0.1   |
| Mississippi          | 2,409                                 | 2,010                                     | 1.3              | 0.4  | 0.1   |
| South Dakota         | 780                                   | 728                                       | 0.2              | 0.8  | 0.1   |
| Arkansas             | 2,197                                 | 1,938                                     | 0.0              | 0.3  | 0.1   |
| Delaware             | 584                                   | 557                                       | 5.8              | 1.0  | 0.1   |
| West Virginia        | 1,861                                 | 1,508                                     | 4.8              | 0.3  | 0.1   |
| New Hampshire        | 840                                   | 844                                       | 3.5              | 0.4  | 0.1   |
| Nevada               | 1,072                                 | 1,009                                     | 2.7              | 0.3  | 0.1   |
| South Dakota         | 180                                   | 171                                       | 2.4              | 0.4  | 0.1   |
| North Dakota         | 152                                   | 143                                       | 2.3              | 0.4  | 0.1   |
| Vermont              | 487                                   | 444                                       | 1.0              | 0.4  | 0.1   |

1/ U.S. Bureau of the Census, Current Population Reports, Series P-28, No. 475.

2/ Internal Revenue Service Individual Master File records used for Federal Income Sharing methods.

3/ Spanish speakers greatly overrepresented the Spanish-speaking population in

Technical Appendix:

Mathematical Derivation of Surname Classification

Define two mutually exclusive classes of persons:  $\mathcal{S}$  is persons with "Spanish surnames";  $\mathcal{N}$  is persons with "Non-Spanish surnames." Then, let  $S_i$  denote the proportion of primary filers with "Spanish names" who filed Federal tax returns in area  $i$ . ( $S_i$  is calculated for 858 areas--central cities, suburbs, counties, nonmetropolitan remainders of States, Puerto Rico, overseas, and military.

$$\sum S_i = 1 \quad (1)$$

Let  $NS_i$  be the proportion of the "non-Spanish named" primary filers who file Federal tax returns in area  $i$ .

$$\sum NS_i = 1 \quad (2)$$

In addition, let  $S$  and  $NS$  denote the proportion of primary filers in the universe of filers that have Spanish and non-Spanish names, respectively.

$$\begin{aligned} S + NS &= 1 \\ S &= 1 - NS \end{aligned} \quad \text{or} \quad (3)$$

$S$  and  $NS$  are prior probabilities that the name of an individual selected randomly will or will not be Spanish.

We wish to determine whether a particular surname "U" should be categorized as Spanish or non-Spanish solely on the basis of the geographic distribution of "U" as it occurs in the file of 1978 Federal tax returns. The concept of a posterior probability is used to determine how all "U's" should be categorized. Let us denote the frequency distribution of "U" as:

That is  $f_1$  tax returns with primary filers named "U" were filed from in area 1,  $f_2$  in area 2, .....  $f_k$  in area k ..... "U" occurs a total of n times in the sample.

If "U" is indeed a Spanish name, the probability of obtaining this exact distribution by area is given by the expression:

$$P(S) = \left( \frac{n!}{f_1! f_2! \dots f_k!} \right) \cdot s_1^{f_1} s_2^{f_2} \dots s_k^{f_k} \quad (5)$$

The first term in equation (5) is the number of permutations (sequences) of n given  $f_1$  occurrences in area 1,  $f_2$  occurrences in area 2, etc. The second term is the probability that any one of these sequences would occur knowing that "U" occurs exactly n times and that "U" is Spanish. A more compact notation is:

$$P(S) = \frac{n!}{\prod f_i!} \cdot \prod s_i^{f_i} \quad (5a)$$

On the other hand if "U" is not Spanish the exact probability of obtaining the given distribution would be:

$$P(NS) = \frac{n!}{\prod f_i!} \cdot \prod NS_i^{f_i} \quad (6)$$

The total probability of getting this particular distribution regardless of whether "U" is Spanish is:

$$S \cdot P(S) + NS \cdot P(NS) \quad (7)$$

The posterior probability that "U" is Spanish (i.e., "U" is an element of the Spanish universe) is then given by Bayes' theorem as:

$$P(U \in S) = \frac{S \cdot P(S)}{S \cdot P(S) + NS \cdot P(NS)} \quad (8)$$

Likewise:

$$P(U \in S) = \frac{NS \cdot P(NS)}{S \cdot P(S) + NS \cdot P(NS)} \quad (9)$$

For computational ease, we will look at the "odds",  $O(U \in S)$  that "U" is Spanish rather than the probability that "U" is Spanish.

$$O(U \in S) = S \cdot P(S) \div NS \cdot P(NS) \quad (10)$$

Substituting previous formulas for  $P(S)$  and  $P(NS)$  from equations (5) and (6) yield

$$\begin{aligned} O(U \in S) &= \left\{ \frac{S \cdot n!}{\prod (f_i!)} \cdot \prod (S_i^{f_i}) \right\} \div \left\{ \frac{NS \cdot n!}{\prod (f_i!)} \cdot \prod (NS_i^{f_i}) \right\} \quad (11) \\ &= \frac{S}{NS} \cdot \prod \left( \frac{S_i}{NS_i} \right)^{f_i} \end{aligned}$$

Note that many of the terms cancel -- the reason for working with odds rather than probabilities.

As a final step we will take logarithms base 10 of equation (11) and define  $w_i$ , the weight for area  $i$ , as:

$$w_i = \log \frac{S_i}{NS_i} \quad (12)$$

Then positive values of  $w_i$  indicate areas with a larger proportion of Spanish names than the national average; negative values, areas with an underrepresentation of Spanish.

$$CS = \log O(U \in S) = \log \frac{S}{NS} + \sum f_i w_i \quad (13)$$

In practice, we used a measure of the "average degree of Spanishness":

$$\overline{CS} = \sum f_i w_i \div \sum f_i$$

According to the theory developed here, odds of being Spanish can be calculated for any surname "U" (i.e., for  $CS = 3$ , the odds are 1,000 to 1 of being Spanish, for  $CS = -3$ , the odds are 1,000 to 1 against being Spanish). However, the theory is based on the assumption that the geographical locations of individuals with the surname "U" are independent. In practice this is not true as families tend to be clustered in the same State. This presents a serious problem for rarely occurring names and led us to use a sliding scale for selecting Spanish names for infrequently occurring names. For frequently occurring names, the departure from independence is not critical.

EVALUATING THE PASSEL-WORD SPANISH  
SURNAME LIST: 1990 DECENNIAL CENSUS  
POST ENUMERATION SURVEY RESULTS

by

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August 1993

TECHNICAL WORKING PAPER NO. 4

This paper reports the general results of research undertaken by the Census Bureau staff. The views expressed are attributable to the author and do not necessarily reflect those of the Census Bureau.

This paper was initially presented during the "Immigrants and Migrants Within the United States" contributed paper session of the Summer 1993 American Statistical Association Meetings.

The author would like to thank the following people for their technical expertise and comments concerning this paper: Jennifer Day, Jorge del Pinal, Edward Fernandez, Randy Klear, John Long, Nampeo McKenney, Kenneth Sausman, Signe Wetrogan, and David Word.

August 1993

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**EVALUATING THE PASSEL-WORD SPANISH SURNAME LIST:  
1990 DECENNIAL CENSUS POST ENUMERATION SURVEY RESULTS**

**INTRODUCTION**

The 1990 Decennial Census collected statistical data on the Hispanic population by directly asking each respondent to identify their Hispanic origin. Use of this self-identifier approach, however, may be impractical or impossible in other surveys, requiring another method of detecting the Hispanic population. One such method involves matching the respondents' surnames against a list of common Hispanic surnames. Further research into this method led to the Passel-Word Spanish surname list, developed by Jeffrey Passel and David Word for the 1980 Decennial Census. The continued growth of the Hispanic population in the United States during the 1980's and 1990's prompted an evaluation of the Passel-Word list, to see if it retained its effectiveness in identifying the Hispanic population. This report evaluates the performance of the Passel-Word Spanish surname list in determining the Hispanic origin of respondents found in a sample of the 1990 Decennial Census Post Enumeration Survey data.

**HISTORY**

The United States Bureau of the Census has used Spanish surname lists as a method of identifying the Hispanic population for more than 40 years. In 1950, the first Spanish surname list helped indicate the Hispanic population found in Arizona, California, Colorado, New Mexico, and Texas. New Spanish surname lists developed whenever additional significant Spanish surname data became available. In his 1975 United States Bureau of the Census technical paper, entitled Comparison of Persons of Spanish Surname and Persons of Spanish Origin in the United States, Edward Fernandez analyzed the effectiveness of the 1970 Census Spanish surname list in identifying the Hispanic population in the five aforementioned Southwestern states. He concluded that while the list was an adequate measure of Spanish origin for these five states, it fared badly in identifying Hispanics in the remainder of the country. Later research by Jeffrey Passel and David Word, as documented in their paper, Constructing the List of Spanish Surnames for the 1980 Census: An Application of Bayes' Theorem, concluded that the list's difficulties stemmed more from the surnames on the list than from the concept of surname lists.

Consequently, for the 1980 Decennial Census, Passel and Word developed a Spanish surname list. They started with the premise that Spanish surnames and the United States' Hispanic population share a similar geographic distribution. Passel and Word divided the country into 858 mutually exclusive geographic areas, creating both highly Spanish and highly non-Spanish areas. For each area, they assigned a numerical geographic weight, a logarithmic comparison of the area's concentration of the

Hispanic population as compared to the concentration of the Hispanic population in the country. The 1977 Federal Income Tax Returns provided a large national list of surnames with geographic identifiers. A statistical function based on Bayes' Theorem and the multinomial distribution used the geographic weights to assign values of Hispanic similarity to each unique surname from the tax returns. From the initial 1.4 million distinct surnames, the statistical function assigned 16,514 surnames to the preliminary Spanish surname list.

Non-Spanish surnames had a better chance of making the preliminary list if they occurred infrequently within the Federal Tax Returns. Additional tests were performed on the preliminary list to weed out these surnames. Surnames more commonly associated with other ethnic groups were eliminated, as well as surnames with letters not found in the Spanish alphabet. Those infrequently occurring surnames commonly found among the small number of Puerto Rico returns remained on the list. Surnames also stayed on the list if they appeared on the 1970 Census Spanish surname list or an extended surname list developed after consultation with linguistic experts evaluating the 1970 Census list. The resulting 12,497 Hispanic surnames became the Passel-Word (PW) Spanish surname list.

To compare the effectiveness of their list against the 1970 Census Spanish surname list, Passel and Word utilized the March 1976 Current Population Survey (CPS) results. They ran the surnames from the CPS records through each surname list and recorded whether or not the surname was found on either list. They then compared these matching results against the Hispanic identifier in the CPS records. Table 1 presents the results of the CPS test.

**Table 1. Comparison of Surname Lists - March 1976 CPS Test**

|  | <u>Overall<br/>Results</u> | <u>Southwestern<br/>States</u> | <u>Remainder of<br/>United States</u> |
|--|----------------------------|--------------------------------|---------------------------------------|
| Percent of Respondents With Hispanic Surnames Detected By Surname List Who Reported a Non-Hispanic Origin: |                            |                                |                                       |
| 1970 Census List   | 30.4%                      | 15.3%                          | 46.0%                                 |
| Passel-Word List   | 15.0%                      | 10.5%                          | 21.4%                                 |
| Percent of Respondents Who Reported a Hispanic Origin That Have Surnames Not Found On Surname List:        |                            |                                |                                       |
| 1970 Census List   | 26.3%                      | 21.6%                          | 33.0%                                 |
| Passel-Word List   | 20.7%                      | 16.1%                          | 27.1%                                 |

The PW list's lower percentages indicate that it performed better than the 1970 Census list in both the five Southwestern states and the remainder of the country in two important measures. First, of those CPS records with surnames included on the PW list and 1970 Census list, roughly 15.0 percent and 30.4 percent, respectively, came from Non-Hispanic respondents. Fewer matched Non-Hispanic records result from an increase of strong Hispanic surnames and/or a decrease of weak Hispanic surnames on a Spanish surname list. Second, the PW list did not identify 20.7 percent of the surnames belonging to self-reported Hispanic CPS respondents as Hispanic, compared to 26.3 percent for the 1970 Census list. Fewer missed Hispanic records result from an increase of Hispanic surnames on a Spanish surname list. These results led to the use of the PW list as the Spanish surname list for the 1980 Decennial Census.

#### RESEARCH BACKGROUND

An effective evaluation of the PW Spanish surname list requires a large number of records evenly distributed across the United States which contains, at minimum, respondents' surnames and their Hispanic origins. Even when used internally, the basic Decennial Census record does not include the respondent's surname, prompting the need for a file that does include surnames. The 1990 Spanish Origin Research (SOR) file meets these requirements. The SOR file contains unedited and unallocated data taken from a sample of the 1990 Decennial Census questionnaires. The SOR sample includes all housing units and group quarters in or near the Census-defined blocks sampled for the Post Enumeration Survey. The Post Enumeration Survey was conducted by the United States Bureau of the Census to provide estimates of the 1990 Decennial Census undercount.

Each SOR record contains the geographic and demographic data for each individual listed on the sampled questionnaire. Geographic data found on the record includes codes for the state, county, and block where the individual lives. The SOR file covers data collected for all 50 states and the District of Columbia. Unedited and unallocated demographic data found on the record covers the population questions asked on all 1990 Decennial Census questionnaires. These demographic data include sex, age, race, Hispanic origin, marital status, and relationship to householder. Unedited and unallocated data means that none of the Census edit and allocation procedures have been performed on the data. The SOR data comes directly from the individual's answers on the questionnaire, including blank fields for those questions the individual did not answer.

Before proceeding with the PW Spanish surname list evaluation, a name standardization program was developed to process each individual's full name as found in the SOR file. The surname matching program used in the evaluation required exact matches,

making the standardization of surnames to the PW list format important to improve matching efficiency. The standardization program first identified each element, defined as a character string delimited by blanks, recorded in an individual's first name, middle initial, and surname fields. It determined the base name for the first name and surname fields, labelling any additional elements as prefixes and suffixes. For records with compound surnames, it marked the first surname as the base name and the additional surnames as suffixes. It then formatted each base name, if needed, to match the PW list surname format, possibly changing the names recorded in the other fields. Formatting procedures included eliminating prefix and suffix titles, compressing common surname prefixes into the base surname, removing middle names from the first name and surname fields, and recognizing entries such as "ADULT MALE" as non-names.

Only SOR records with a standardized surname and a valid Hispanic origin code qualified for the PW Spanish surname list evaluation. Blank or unknown values in either field disqualified the record. The SOR file initially contained 7,154,390 records, but only 5,609,592 records (78.4 percent) met the requirements for the evaluation. The reason for eliminating most SOR records was respondents failing to include their surname and/or Hispanic origin. Additionally, the name standardization process eliminated 29,681 records (0.4 percent) and changed either the first name or surname field on an additional 198,104 records (2.8 percent). Within this report, the term "matchable SOR records" will define those SOR records with standardized surname and valid Hispanic origin codes.

The evaluation of the PW Spanish surname list began by the collection of all matchable SOR records, complete with their geographic and demographic data, into a single database. A surname matching program then read each standardized surname in this database and looked for an exact match within the PW list. This program concluded by adding an additional record match field to the database, storing the results of whether the PW list contained an exact match or not. Separate programs created frequency tables from the SOR records that compared the PW list match results to the self-reported Hispanic origin answers. These tables served as the source of the statistics used to judge the effectiveness of the PW list. Geographic and demographic variables found on the SOR records served as partitions for the database when creating the frequency tables. Only those matchable SOR records with a valid non-blank value for the partitioning variable were used to create that variable's frequency tables.

Two important statistics judge the effectiveness of the PW Spanish surname list. The surname commission (SCOM) rate defines the percentage of people whose surnames appeared on the PW list

that reported a Non-Hispanic origin. The lower the SCOM rate, the more reliable the surnames on the PW list are at detecting the Hispanic population. The surname omission (SOM) rate defines the percentage of people who reported a Hispanic origin that had a surname not appearing on the PW list. The lower the SOM rate, the greater proportion of the Hispanic population the PW list finds. For example, using the percentages reported in Table 1, the PW list had a 15.0 percent SCOM rate and a 20.7 percent SOM rate for the March 1976 CPS data. Surname omission rates can be calculated for the specific Hispanic origin categories as well. For example, the Mexican SOM rate defines the percentage of people who reported a Mexican origin but whose surnames did not appear on the PW Spanish surname list.

### MATCHING RESULTS

#### **Overall Results**

The PW Spanish surname list performed better on the 1990 SOR data than it did on the March 1976 CPS data. The PW list has a 10.02 percent surname commission rate and a 20.55 percent surname omission rate for the 1990 SOR data. The standard errors for these estimates are 0.04 percent and 0.05 percent, respectively. Although the SOR data's SOM rate compares with favor to the CPS data's SOM rate (20.73 percent), the SOR data's SCOM rate is a one-third reduction over the CPS data's SCOM rate (15.02 percent). There was no mention of either standard errors or the number of respondents processed during the March 1976 CPS test in Passel and Word's findings.

A larger, more tightly clustered Hispanic population existed in 1990 than in 1976, partially explaining the PW list's improved performance on the 1990 SOR data. Several survey-related differences exist between the 1976 CPS and 1990 SOR data that also may help explain the differences in their surname error rates: survey methods, sampling population, and sampling design.

The 1976 CPS used personal and telephone interviews to collect its data, while the 1990 Census relied mostly on mailback questionnaires. Enumerators conducting personal and telephone interviews have the advantage of eliminating any confusion surrounding the questions asked, but they can possibly, even unknowingly, influence the respondents' answers. Some respondents may answer questions incorrectly if they feel pressured by an enumerator. Other respondents may give answers they feel the enumerator, as a member of the Census Bureau and the federal government, wishes or wishes not to hear. A questionnaire allows the respondents time to answer the questions, preventing possible enumerator bias, but it might return less information than an interview. Respondents might not answer questions if they either do not understand it or simply refuse to answer it.

While the 1990 Decennial Census SOR data set contains a cross-section of the country's population, the March 1976 CPS data set used to test the PW list contained only respondents 14 years of age or older. Based on the 1990 SOR data, the SCOM rate for children 13 years and younger was 8.81 percent. Without this group, the SOR data's overall SCOM rate would have been 10.59 percent. At this age, children still have their parents' surname, which more reliably reflects their Hispanic origin (if any) than any other surname they may acquire in their lives. Children have a very small probability of changing their surname legally, such as through marriage or a court-approved name change. Thus, children have low surname error rates, partially causing the SOR data's lower SCOM rate.

Although the number of individual records was not reported, the March 1976 Current Population Survey interviewed 50,000 households, with a double sampling of Hispanic households. Estimating the number of individuals in the March 1976 CPS data file and comparing it to the 1990 SOR file, the SOR file contained approximately 50 times more records than the CPS file. The more surname records, the more reliable the surname statistics; although taking a large sample did not guarantee lower SCOM rates, it presented a better estimate of the true SCOM rate.

### Hispanic Origin

Of the individuals listed in the 5,609,592 matchable SOR records, 597,533 individuals (10.7 percent) reported a specific Hispanic origin. Table 2 compares the 1990 SOR data's PW Spanish surname list matching results by Hispanic origin.

**Table 2. PW Spanish Surname List Performance - Hispanic Origin**

|                | Number and Percent of<br>Hispanic SOR Records<br>With Origin | SURNAME<br>OMISSION |           |
|----------------|--|---------------------|-----------|
|                |  | Rate                | Std Error |
| Mexicans       | 359,293 (60.1%)  | 16.10%              | 0.06%     |
| Puerto Ricans  | 95,298 (15.9%)   | 18.84%              | 0.13%     |
| Cubans         | 23,094 (3.9%)  | 26.12%              | 0.29%     |
| Other Hispanic | 119,848 (20.1%)  | 34.18%              | 0.14%     |

The Mexican population has the smallest specific Hispanic SOM rate at 16.10 percent. Mexicans form the single largest Hispanic population in the United States, comprising 60.1 percent of the self-reported Hispanics found in the 1990 SOR file. They reside mostly in states adjacent to the Mexican border, such as Arizona, California, New Mexico, and Texas. Approximately 69.8 percent of the Mexicans sampled in the SOR file live in either California or Texas. When creating their Spanish surname list, Passel and Word wanted to include only those Spanish surnames that have a geographical distribution similar to the distribution of the

Hispanic population in the United States. Because of the heavy concentration of Mexicans in the Southwest region, common Spanish surnames from this region made the list, leading to low Mexican SOM rates.

Puerto Ricans and Cubans also have similar concentrated areas in the United States, although not as large as the Mexican population. Puerto Ricans form the second largest Hispanic population in the country, comprising 15.9 percent of the self-reported Hispanics found in the 1990 SOR file. They live mostly in the Northeast, particularly in Illinois, New Jersey, and New York. Their SOM rate is 18.84 percent, 1.71 percentage points smaller than the overall SOM rate, but 2.74 percentage points greater than the Mexican SOM rate. Cubans make up only 3.9 percent of the self-reported Hispanics, their largest concentration residing in Florida. They have a 26.12 percent SOM rate, 5.57 percentage points greater than the overall SOM rate.

The Other Hispanic group consists of self-reported Hispanic respondents who do not consider themselves Mexicans, Puerto Ricans, or Cubans. They have the largest specific Hispanic SOM rate at 34.18 percent. Two reasons may explain this high SOM rate. First, any unique surnames that fall within this group had a small probability of ending up on the PW Spanish surname list. Respondents in the Other Hispanic category may have origins based in Central or South American countries or in Spain. They may have a broader array of surnames than the other three Hispanic categories. However, unless concentrated in a heavily Hispanic-populated state, they were not large enough to influence the selection of surnames on the PW list at the time of its creation. Second, respondents who had difficulties answering the Hispanic question during the 1990 Decennial Census may have selected this group. The latter situation more likely occurred than the former situation. Previous Census research of response variabilities during reinterview studies, as noted by Passel and Word in their 1980 Spanish surname list research, showed that up to 30 percent of respondents that initially reported the Other Hispanic category as their Hispanic origin will report a Non-Hispanic origin when reinterviewed. Research into the written Hispanic origin responses that accompanied the Other Hispanic records could better explain the reasons for the high Other Hispanic SOM rate.

A strict comparison between the specific Hispanic SOM rates of the March 1976 CPS data and the 1990 Decennial Census SOR data would not be statistically viable. The CPS included a Central or South American category as one of its Hispanic origin choices. Respondents with Central or South American origins would have chosen the Other Hispanic category on the 1990 Decennial Census questionnaires. The mixture of these respondents into the SOR Hispanic origin categories prevented a fair comparison with similar categories from the CPS test.

Table 3. PW Spanish Surname List Performance - States

| State                | SURNAME COMMISSION |           | SURNAME OMISSION |           |
|----------------------|--------------------|-----------|------------------|-----------|
|                      | Rate               | Std Error | Rate             | Std Error |
| Alabama              | 44.26%             | 1.86%     | 63.05%           | 1.47%     |
| Alaska               | 41.51%             | 2.39%     | 54.41%           | 2.14%     |
| Arizona              | 10.85%             | 0.23%     | 22.50%           | 0.29%     |
| Arkansas             | 35.67%             | 2.18%     | 48.68%           | 2.03%     |
| California           | 8.43%              | 0.07%     | 17.74%           | 0.09%     |
| Colorado             | 12.21%             | 0.34%     | 21.67%           | 0.41%     |
| Connecticut          | 13.07%             | 0.50%     | 20.16%           | 0.57%     |
| Delaware             | 20.65%             | 2.02%     | 33.95%           | 2.15%     |
| District of Columbia | 15.40%             | 1.81%     | 33.79%           | 2.10%     |
| Florida              | 10.15%             | 0.18%     | 26.06%           | 0.24%     |
| Georgia              | 21.14%             | 0.92%     | 39.82%           | 0.96%     |
| Hawaii               | 61.39%             | 0.79%     | 59.54%           | 0.82%     |
| Idaho                | 18.74%             | 0.91%     | 32.16%           | 1.00%     |
| Illinois             | 5.87%              | 0.13%     | 15.99%           | 0.19%     |
| Indiana              | 23.98%             | 1.50%     | 38.80%           | 1.54%     |
| Iowa                 | 30.46%             | 2.01%     | 50.48%           | 1.65%     |
| Kansas               | 12.96%             | 0.68%     | 28.64%           | 0.82%     |
| Kentucky             | 26.35%             | 1.04%     | 45.47%           | 1.02%     |
| Louisiana            | 40.73%             | 0.89%     | 42.86%           | 0.88%     |
| Maine                | 57.14%             | 3.07%     | 70.94%           | 2.32%     |
| Maryland             | 30.52%             | 1.38%     | 45.84%           | 1.32%     |
| Massachusetts        | 35.83%             | 0.79%     | 34.40%           | 0.79%     |
| Michigan             | 20.05%             | 0.88%     | 37.57%           | 0.94%     |
| Minnesota            | 29.62%             | 1.57%     | 44.33%           | 1.52%     |
| Mississippi          | 66.80%             | 2.09%     | 69.06%           | 1.98%     |
| Missouri             | 41.15%             | 1.76%     | 54.73%           | 1.56%     |
| Montana              | 41.69%             | 2.32%     | 48.02%           | 2.22%     |
| Nebraska             | 23.05%             | 1.66%     | 31.96%           | 1.73%     |
| Nevada               | 17.55%             | 0.68%     | 29.38%           | 0.75%     |
| New Hampshire        | 53.51%             | 2.59%     | 59.34%           | 2.39%     |
| New Jersey           | 9.08%              | 0.25%     | 21.23%           | 0.33%     |
| New Mexico           | 6.84%              | 0.17%     | 15.90%           | 0.24%     |
| New York             | 8.38%              | 0.11%     | 22.75%           | 0.15%     |
| North Carolina       | 21.48%             | 0.55%     | 36.55%           | 0.58%     |
| North Dakota         | 60.87%             | 10.18%    | 75.00%           | 7.22%     |
| Ohio                 | 25.20%             | 1.04%     | 37.62%           | 1.06%     |
| Oklahoma             | 21.23%             | 0.89%     | 37.93%           | 0.93%     |
| Oregon               | 19.58%             | 0.76%     | 33.26%           | 0.82%     |
| Pennsylvania         | 13.67%             | 0.43%     | 23.13%           | 0.50%     |
| Rhode Island         | 51.60%             | 1.66%     | 40.70%           | 1.80%     |
| South Carolina       | 43.28%             | 2.45%     | 54.15%           | 2.22%     |
| South Dakota         | 58.06%             | 8.86%     | 50.00%           | 9.81%     |
| Tennessee            | 37.45%             | 1.82%     | 58.20%           | 1.52%     |
| Texas                | 4.22%              | 0.06%     | 11.99%           | 0.09%     |
| Utah                 | 24.75%             | 1.04%     | 40.05%           | 1.06%     |
| Vermont              | 66.67%             | 4.15%     | 63.87%           | 4.40%     |
| Virginia             | 31.47%             | 0.91%     | 44.87%           | 0.87%     |
| Washington           | 22.34%             | 0.52%     | 30.67%           | 0.55%     |
| West Virginia        | 60.21%             | 2.88%     | 55.43%           | 3.09%     |
| Wisconsin            | 17.42%             | 1.05%     | 24.67%           | 1.14%     |
| Wyoming              | 17.64%             | 1.22%     | 33.61%           | 1.35%     |

## States

Table 3 compares the 1990 SOR data's PW Spanish surname list matching results for all matchable SOR records by state, including the District of Columbia.

A fair inverse correlation exists between the Hispanic concentration within a state and that state's SCOM rate. The Pearson's correlation coefficient between the two variables stands at  $-0.58$ , statistically significant evidence that an inverse trend exists between them. The larger the proportion of Hispanics within the state, the smaller the SCOM rate; the smaller the proportion, the larger the SCOM rate. This correlation suggests the strength of established Hispanic communities. These communities become strong Hispanic cultural bases, attracting immigrant Hispanics and promoting Hispanic families. Hispanics who live in such communities are easier to identify with surname lists than Hispanics who live elsewhere. Established Hispanic communities exist more within states of high Hispanic concentration than in states of low Hispanic concentration, causing the associated SCOM rates. An exception to this theory comes when a state has a strong presence of a Non-Hispanic population with Hispanic surnames, such as Native Hawaiians and Filipinos.

A stronger inverse correlation also exists between the Hispanic concentration within a state and that state's SOM rate. The Pearson's correlation coefficient between the two variables stands at  $-0.66$ , statistically significant evidence that an inverse trend exists between them. Established communities usually cater to a specific Hispanic origin, however, making individuals of other Hispanic origins possibly more difficult to detect. For example, Florida serves as the home for several established Cuban communities. The state's Cuban SOM rate is 22.0 percent, while the combined SOM rate for the remaining Hispanic origins is 29.9 percent. The PW Spanish surname list works well at identifying specific Hispanic origins within their states of high concentration, but not as well outside those states.

## Geographic Regions

Table 4 compares the 1990 SOR data's PW Spanish surname list matching results for all matchable SOR records by geographic region. The Mexican Southwest group includes Arizona, California, Colorado, New Mexico, and Texas. The Puerto Rican Northeast group includes Connecticut, Illinois, New Jersey, New York, and Pennsylvania.

Table 4. PW Spanish Surname List Performance - Geographic Region

| <u>Geographic Region</u> | <u>SURNAME COMMISSION</u> |                  | <u>SURNAME OMISSION</u> |                  |
|--------------------------|---------------------------|------------------|-------------------------|------------------|
|                          | <u>Rate</u>               | <u>Std Error</u> | <u>Rate</u>             | <u>Std Error</u> |
| Mexican Southwest        | 7.11%                     | 0.05%            | 16.05%                  | 0.06%            |
| Puerto Rican Northeast   | 8.26%                     | 0.08%            | 20.86%                  | 0.11%            |
| Florida                  | 10.15%                    | 0.18%            | 26.06%                  | 0.24%            |
| Hawaii                   | 61.39%                    | 0.79%            | 59.54%                  | 0.82%            |
| Rest of United States    | 26.74%                    | 0.19%            | 38.57%                  | 0.19%            |

Among the defined geographic regions, the PW Spanish surname list performs best in the Mexican Southwest region. The region's SCOM and SOM rates are 7.11 percent and 16.05 percent, respectively. The large number of Mexicans living in the region explain the low surname error rates. Approximately 80.8 percent of the Mexican respondents sampled in the 1990 SOR file live in this region. As noted in The Hispanic Population of the United States, a book written by Frank Bean and Marta Tienda that analyzed the 1980 Decennial Census Hispanic demographic data, the United States victory in the Mexican-American war resulted in the creation of the five states that form the Mexican Southwest region. The Mexican communities established in this region became part of the country, and a large Mexican population continues to live there today. Numerous surnames from this region appear on the PW Spanish surname list because of these large concentrated Mexican communities. The Mexican SOM rate for this region is 13.91 percent, while the Mexican SOM rate for the remainder of the country is 25.35 percent.

Another region that contributed a number of surnames to the PW Spanish surname list is the Puerto Rican Northeast region. Approximately 79.4 percent of the Puerto Rican respondents sampled in the 1990 SOR file live in this region. Bean and Tienda noted that the wave of Puerto Ricans that entered the United States during the 1950's settled in the Northeast, providing their industries with cheap labor. The communities the Puerto Ricans established in this region led to its high Hispanic concentration, which aided placing its common surnames on the PW list. The Puerto Rican Northeast's 8.26 percent SCOM rate falls below the overall average SCOM rate, but its 20.86 percent SOM rate is 0.31 percentage points above the overall average SOM rate. The Puerto Rican SOM rate for this region is 16.14 percent, while the Puerto Rican SOM rate for the remainder of the country is 29.26 percent.

Unlike Puerto Ricans, the first waves of Cubans that immigrated to the United States in the 1950's resided primarily in Florida, the state nearest their homeland. According to Bean and Tienda, they quickly established cultural communities within the state, providing a home for future Cuban immigrants. Approximately 69.0 percent of the Cuban population sampled by the SOR files lives in Florida. As an effect of these communities, most unique Hispanic

surnames concentrated in this state ended up on the PW Spanish surname list. Florida's Cuban SOM rate stands at 22.05 percent, 4.07 percentage points smaller than the overall Cuban SOM rate, while the Cuban SOM rate for the remainder of the country rests at 35.18 percent. Despite the state's low Cuban SOM rate, its overall SCOM and SOM rates are 10.15 percent and 26.06 percent, respectively, both rates greater than their national averages.

Hawaii presents a special problem for the PW Spanish surname list. While 10.1 percent of the state's population sampled in the SOR file considered themselves having a Hispanic origin, Hawaii's SCOM and SOM rates are 61.39 percent and 59.54 percent, respectively. Hawaii's geographic location partially explains its high SCOM rate. Located within the Pacific Ocean, Hawaii serves as a home for many of the Asian and Pacific Island races. Two races in particular, Native Hawaiians and Filipinos, have surnames that appear on the PW list. Separated from the other races, Native Hawaiians and Filipinos constitute 30.5 percent of the sampled Hawaiian respondents. More importantly, they form 53.4 percent of the sampled Hawaiian respondents with surnames found on the PW list. Although not considered Hispanics, the Native Hawaiian and Filipino cultures incorporate many Hispanic surnames, resulting in a combined 82.65 percent SCOM rate within Hawaii. Without the respondents of these two races, Hawaii's SCOM rate drops to 39.93 percent, similar to states with very low Hispanic population proportions.

Hawaii's high SOM rate, however, could not be explained by the numerous races populating the state. Hawaii's overall 59.54 percent SOM rate is approximately 2.9 times greater than the national SOM rate. Among the individual race categories in the state with more than 10 self-reported Hispanics, the SOM rates range from 40.00 percent (for American Indians) to 85.11 percent (for Blacks). Hispanics living in this multicultural state appear to take surnames from other sources than their ethnicity. One possible theory is that marriages between members of different ethnic groups are more acceptable within the multicultural state, making it more difficult to detect Hispanic origin via a surname list. Based on these findings, it appears doubtful that the PW list, or any other Spanish surname list, would work in identifying Hawaii's true Hispanic population.

The remaining 18 states and the District of Columbia combine for a 26.74 percent SCOM rate and a 38.57 percent SOM rate. These surname error rates are 16.69 percentage points and 18.02 percentage points, respectively, higher than the national rates. The low concentration of Hispanics in this region helps decipher its high surname error rates. Within their combined SOR sample, only 2.2 percent of their respondents claim a Hispanic origin. Fewer established Hispanic communities exist in this region than any of the other defined regions, leading to a stronger blend of Hispanics within the Non-Hispanic communities. Common Spanish

surnames found only in this region, if any, had a small probability of making the PW Spanish surname list in its development. The Hispanic respondents in these states, away from their focal points of cultural heritage and traditions, may adapt more easily to American culture. Side effects of this adaptation include marrying a Non-Hispanic mate or Americanizing their surnames, making it harder to identify their origin correctly and pushing up the surname error rates.

### Relationships

Table 5 compares the 1990 SOR data's PW Spanish surname list matching results for all matchable SOR records where respondents recorded their relationship to the householder. Relatives not usually found in the household, like the householder's parents, siblings, and grandchildren, are grouped together in the "Other Relatives" category. Non-relatives are all persons living within the household not related to the householder, including roommates, housemates, roomers, foster children, and unmarried partners. Group quarters include people living in orphanages, nursing homes, prisons, dormitories, and boarding houses.

Table 5. PW Spanish Surname List Performance - Relationship to Householder

| <u>Relationship</u> | <u>SURNAME COMMISSION Rate</u> | <u>Std Error</u> | <u>SURNAME OMISSION Rate</u> | <u>Std Error</u> |
|---------------------|--------------------------------|------------------|------------------------------|------------------|
| Householder         | 9.66%                          | 0.08%            | 19.44%                       | 0.10%            |
| Husband/Wife        | 17.07%                         | 0.13%            | 26.17%                       | 0.15%            |
| Son/Daughter        | 8.45%                          | 0.06%            | 18.97%                       | 0.08%            |
| Stepchildren        | 10.83%                         | 0.34%            | 23.40%                       | 0.42%            |
| Other Relatives     | 6.97%                          | 0.11%            | 17.95%                       | 0.16%            |
| Non-Relatives       | 8.21%                          | 0.16%            | 22.63%                       | 0.23%            |
| Group Quarters      | 13.57%                         | 0.33%            | 27.06%                       | 0.39%            |

The most noteworthy item of interest from Table 5 concerns the PW Spanish surname list differences when it comes to identifying the Hispanic origins of householders and their spouses. Householders have SCOM and SOM rates of 9.66 percent and 19.44 percent, respectively, while their spouses have SCOM and SOM rates of 17.07 percent and 26.17 percent, respectively. The higher spouse miss rates most likely result from marital surname changes. Most married couples complete the questionnaires by signifying the male as the head of the household and the female as his spouse. Males make up 67.1 percent of the householders in the SOR file, while females make up 92.2 percent of the spouses. When either a Non-Hispanic wife takes her husband's Hispanic surname or a Hispanic wife takes her husband's Non-Hispanic surname, the PW Spanish surname list will incorrectly identify the spouse's origin. No known modifications to the surname list will correct this problem, although an adjoining list of strong Hispanic first names, like "Jesus" and "Blanca", might lower the SOM rate.

Similar surname problems would occur in those marriages where the husband takes the wife's surname.

### Sex

Table 6 compares the 1990 SOR data's PW Spanish surname list matching results for all matchable SOR records where respondents recorded their gender.

**Table 6. PW Spanish Surname List Performance - Sex**

| <u>Sex</u> | <u>SURNAME COMMISSION</u> |                  | <u>SURNAME OMISSION</u> |                  |
|------------|---------------------------|------------------|-------------------------|------------------|
|            | <u>Rate</u>               | <u>Std Error</u> | <u>Rate</u>             | <u>Std Error</u> |
| Male       | 7.71%                     | 0.05%            | 18.25%                  | 0.07%            |
| Female     | 12.41%                    | 0.07%            | 22.88%                  | 0.08%            |

The PW Spanish surname list correctly identifies a larger share of males than females within the SOR file. Non-Hispanic males and females comprise 7.71 percent and 12.41 percent, respectively, of the Spanish surname matches made. Among the Hispanic respondents, the surname list failed to identify 18.25 percent and 22.88 percent, respectively, of the Hispanic males and females. The higher female miss rates most likely result from the tradition that wives take their husbands' surnames after they marry. The PW list will misclassify a married female respondent if either a Non-Hispanic wife takes her husband's Spanish surname or a Hispanic wife takes her husband's non-Spanish surname. Similar differences between both the SCOM and SOM rates suggest both cases occur equally as often.

The effects of marriage on identifying female Hispanics by surnames can be seen when dividing each sex into marital status classifications. Among the never married males and females of all ages listed in the SOR file, never married females have a slightly higher SCOM rate (8.62 percent) than never married males (8.18 percent). Never married males and females have similar SOM rates (19.95 percent and 20.02 percent, respectively). A comparison of now married males and females in the same file finds that married females have a significantly greater SCOM rate (17.63 percent) and SOM rate (26.56 percent) than married men (7.17 percent and 15.42 percent, respectively). These comparisons show that surnames taken after marriage make it more difficult to properly identify female respondents. Acquiring and matching the maiden names of married females should improve the performance of the surname matching process. The research on Hispanic first names may also help to overcome this weakness.

### Race

Table 7 compares the 1990 SOR data's PW Spanish surname list matching results for all matchable SOR records where respondents recorded their race. American Indians, Eskimos, and Aleutians

form the AIEA category, while the various Asian and Pacific Island races form the API category.

Table 7. PW Spanish Surname List Performance - Race

| <u>Race</u> | <u>SURNAME COMMISSION</u> |                  | <u>SURNAME OMISSION</u> |                  |
|-------------|---------------------------|------------------|-------------------------|------------------|
|             | <u>Rate</u>               | <u>Std Error</u> | <u>Rate</u>             | <u>Std Error</u> |
| Whites      | 14.38%                    | 0.07%            | 23.05%                  | 0.08%            |
| Blacks      | 49.33%                    | 0.59%            | 66.05%                  | 0.46%            |
| AIEA        | 33.22%                    | 0.64%            | 29.22%                  | 0.63%            |
| API         | 48.16%                    | 0.34%            | 32.49%                  | 0.37%            |
| Other Races | 1.20%                     | 0.03%            | 16.36%                  | 0.08%            |

Those SOR respondents that consider Hispanic a separate race answered the race question by checking the "Other Races" category. While the "Other Races" category covers 4.0 percent of all SOR respondents, it contains 39.7 percent of all Hispanic respondents that answered the race question. The PW Spanish surname list proves effective in detecting the large number of Hispanics in this category, resulting in the category's low surname error rates. The SCOM and SOM rates for races not separately listed on the Census questionnaire are 1.20 percent and 16.36 percent, respectively. The sizable proportion of Hispanic respondents found in the "Other Races" category and its surname error rates verify that many Hispanic SOR respondents considered their ethnicity as their race.

Whites dominate the SOR records, comprising 76.5 percent of all respondents and 53.6 percent of the Hispanic respondents. The SCOM and SOM rates for Whites are 14.38 percent and 23.05 percent, respectively. These rates would be smaller if the SOR respondents could not classify their Hispanic ethnicity as their race. Black Hispanics prove most difficult for the PW Spanish surname list to identify. The small percentage of Black Hispanics in the SOR file, as compared to Black Non-Hispanics, help explain the 49.33 percent SCOM rate and 66.05 percent SOM rate. While Blacks define 16.0 percent of the SOR respondents, they only define 2.2 percent of the Hispanic respondents. The high surname error rates suggest that Black Hispanics integrate themselves better into the American culture than Hispanic members of other races.

The SCOM and SOM rates for the AIEA category are 33.22 percent and 29.22 percent, respectively. With American Indians comprising 97.6 percent of the AIEA data, mixed American Indian and Hispanic cultures located in the Southwestern states may explain these surname error rates. Being roughly two similar cultures, mixed communities of American Indians and Mexicans (or other Hispanic races) could lead to Non-Hispanic American Indians with Hispanic surnames and Hispanic American Indians with Non-Hispanic surnames, causing increases in both AIEA surname error rates.

The API group has a 48.16 percent SCOM rate and 32.49 percent SOM rate. A comparison between the individual API races and the "Other API" category shows some unusual results. The SCOM rates for the individual API races range from 43.55 percent for Vietnamese to 91.06 percent for Filipinos, while their SOM rates range from 40.31 percent for Guamanians to 88.11 percent for Chinese. The "Other API" category, which covers all API races not listed separately on the 1990 Decennial Census questionnaire, has a 3.34 percent SCOM rate and a 21.20 percent SOM rate. Without this category, the individual API races have a combined 88.04 percent SCOM rate and 66.76 percent SOM rate.

Two surname patterns emerge from the API group. First, the Native Hawaiian and Filipino races share many of the surnames found on the PW Spanish surname list. Although not considered Hispanic races, the Native Hawaiian and Filipino cultures have been influenced by the Spanish within their pasts. The two races, which make up 24.0 percent of the SOR file's API respondents, have a combined 89.94 percent SCOM rate and 65.36 percent SOM rate. Deletion of surnames that are significantly more popular among Native Hawaiians and Filipinos than Hispanics will lower both the API and overall surname error rates. Second, the "Other API" category may contain a number of incorrect race responses. This catch-all category, which makes up 17.8 percent of the SOR file's API respondents, includes 75.2 percent of the self-reported API Hispanics. On 1990 Decennial Census questionnaires, the write-in box for the "Other API" response is also the write-in box for the "Other Race" response. Some Hispanics may have filled in the "Other API" circle accidentally when they recorded their race as Hispanic. It is also possible that a Hispanic-influenced API race has become established within the United States, but the former case seems much more likely. An examination of Hispanic API surnames and/or the write-in "Other API" responses would benefit the future use of the PW Spanish surname list.

### Marital Status

Table 8 compares the 1990 SOR data's PW Spanish surname list matching results for all matchable SOR records where respondents recorded their marital status. The "Were Married" group includes divorced, widowed, and separated respondents.

**Table 8. PW Spanish Surname List Performance - Marital Status**

| <u>Marital Status</u> | <u>SURNAME COMMISSION</u> |                  | <u>SURNAME OMISSION</u> |                  |
|-----------------------|---------------------------|------------------|-------------------------|------------------|
|                       | <u>Rate</u>               | <u>Std Error</u> | <u>Rate</u>             | <u>Std Error</u> |
| Now Married           | 12.18%                    | 0.08%            | 20.83%                  | 0.09%            |
| Were Married          | 12.19%                    | 0.14%            | 21.16%                  | 0.17%            |
| Never Married         | 8.39%                     | 0.05%            | 20.01%                  | 0.07%            |

Never married respondents have the lowest SCOM rate at 8.39 percent. Now married respondents have a 12.18 percent SCOM rate, while those respondents that were married have a 12.19 percent SCOM rate. Non-Hispanic spouses who take the surname of their Hispanic partner upon marriage prompt the PW Spanish surname list to classify them incorrectly as Hispanic, causing the now and were married respondents' higher surname commission rates.

Never married respondents also emerge with the significantly lowest SOM rate at 20.01 percent. Now married respondents show a 20.83 percent SOM rate, while those respondents that were married show the highest SOM rate at 23.16 percent. Hispanic spouses taking the surname of their Non-Hispanic partner again affects the SOM rates among the marital statuses the most, causing the lower SOM rate among the never married respondents. A look among the surname omission rates for the specific Hispanic populations, however, shows no clear trend among the three marital statuses. Never married respondents have the smallest Other Hispanic SOM rate at 32.98 percent. Now married respondents have the smallest Mexican SOM rate at 15.69 percent, while respondents that were married have both the smallest Puerto Rican (18.25 percent) and Cuban (24.33 percent) SOM rates. The percentage breakdown of Hispanics within each status also affects their overall SOM rates.

### Age

Table 9 compares the basic PW Spanish surname list matching results for all matchable SOR records where respondents recorded their age.

**Table 9. PW Spanish Surname List Performance - Age Group**

| <u>Age Group (Years)</u> | <u>SURNAME COMMISSION</u> |                  | <u>SURNAME OMISSION</u> |                  |
|--------------------------|---------------------------|------------------|-------------------------|------------------|
|                          | <u>Rate</u>               | <u>Std Error</u> | <u>Rate</u>             | <u>Std Error</u> |
| Children (0-18)          | 8.47%                     | 0.06%            | 19.85%                  | 0.09%            |
| Young Adults (19-30)     | 10.20%                    | 0.08%            | 21.03%                  | 0.11%            |
| Adults (31-44)           | 11.80%                    | 0.10%            | 21.59%                  | 0.12%            |
| Mature Adults (45-64)    | 11.06%                    | 0.12%            | 20.10%                  | 0.15%            |
| Elderly Adults (65+)     | 12.49%                    | 0.21%            | 20.53%                  | 0.25%            |

A similar pattern exists between SCOM and SOM rates when broken down into the defined age groups. Children have the lowest SCOM (8.47 percent) and SOM (19.85 percent) rate among all the age groups. Both surname error rates increase as the age group gets older - with the exception of mature adults. An unexplained decrease in both the SCOM and SOM rate occurs from adults to mature adults. Despite having similar patterns, no trend appears to exist among the defined age groups as measured by the SCOM and SOM rates. The surname error rates for mature and elderly adults break the pattern established by the younger age groups.

Several factors might explain the surname error rate pattern established by the defined age groups. First, the surname handed from parents to children is the best surname identifier of Hispanic origin. Children have the least chance of changing their legal surnames, prompting the lowest SCOM and SOM rates. Second, the initial increases in the SCOM and SOM rates from children to adults come mostly from women that take new surnames upon marriage. Non-Hispanic women taking their Hispanic husband's surname increases the SCOM rate, while Hispanic women taking their Non-Hispanic husband's surname increases the SOM rate. Third, the elderly adults age category contains more females than males due to men's shorter life expectancies. Females comprise 59.2 percent of the SOR file respondents of age 65 years or older. Within this age group, female elderly adults have a higher SCOM rate (13.69 percent) and a higher SOM rate (23.14 percent) than male elderly adults (10.83 percent and 16.74 percent, respectively). Having higher surname error rates than males, due to marital surname changes, the larger proportion of elderly adult females translates into an increase in the age group's surname error rates.

#### EVALUATION

One way of measuring the effectiveness of the PW Spanish surname list is to compare the attributes of the true Hispanic population to the population determined by the PW list as Hispanic. If both populations' attributes are similar, then it can be said that the PW list identifies a population that contains Hispanic attributes. Table 10 compares the three standard deviation ranges of the geographic and demographic point estimate compositions of two SOR record lists. The first list contains those SOR records that claim a Hispanic origin, while the second list contains those SOR records where the respondents' surnames fall on the PW list.

The PW Spanish surname list detects a population similar to the Hispanic population when investigating the sex, age, and householder relationship demographics. The overlapping of three standard deviation ranges between the Hispanic origin and matched Spanish surname lists denotes a similarity between attributes, the size of the overlap an estimated measure of the strength of similarity. The greatest disparities between the two groups came in geographical location and the race demographic.

A better understanding at where the sampled Hispanic population and the Hispanic population as determined by the PW Spanish surname list differ comes from examining where the two populations do and do not overlap. Table 11 examines the geographic and demographic percentage compositions for various subsets of the SOR file. The first subset contains SOR respondents who reported a Hispanic origin and whose surnames were on the PW list. The second subset contains respondents with

Table 10. Comparing Attributes of Hispanic Origin  
Against Fassel-Word Surname List

| Variable                       | HISPANIC ORIGIN |          |         | PW SURNAME LIST |          |         |
|--------------------------------|-----------------|----------|---------|-----------------|----------|---------|
|                                | Minimum         | Estimate | Maximum | Minimum         | Estimate | Maximum |
| <b>GEOGRAPHY:</b>              |                 |          |         |                 |          |         |
| Mexican                        |                 |          |         |                 |          |         |
| Southwest                      | 58.22%          | 58.41%   | 58.60%  | 59.59%          | 59.79%   | 60.00%  |
| Puerto Rican                   |                 |          |         |                 |          |         |
| Northeast                      | 24.12%          | 24.28%   | 24.45%  | 23.55%          | 23.72%   | 23.90%  |
| Florida                        | 5.38%           | 5.47%    | 5.56%   | 5.01%           | 5.10%    | 5.19%   |
| Hawaii                         | 0.57%           | 0.60%    | 0.63%   | 0.68%           | 0.71%    | 0.75%   |
| Rest of<br>United States       | 11.12%          | 11.24%   | 11.36%  | 10.55%          | 10.67%   | 10.80%  |
| <b>RELATIONSHIP:</b>           |                 |          |         |                 |          |         |
| Householder                    | 27.56%          | 27.74%   | 27.91%  | 27.80%          | 27.99%   | 28.18%  |
| Husband/Wife                   | 15.12%          | 15.26%   | 15.40%  | 15.22%          | 15.37%   | 15.53%  |
| Son/Daughter                   | 37.06%          | 37.25%   | 37.44%  | 37.10%          | 37.31%   | 37.51%  |
| Stepchildren                   | 1.68%           | 1.73%    | 1.78%   | 1.63%           | 1.68%    | 1.73%   |
| Other Relatives                | 9.95%           | 10.07%   | 10.19%  | 9.93%           | 10.05%   | 10.18%  |
| Non-Relatives                  | 5.67%           | 5.76%    | 5.86%   | 5.40%           | 5.50%    | 5.59%   |
| Group Quarters                 | 2.14%           | 2.20%    | 2.25%   | 2.04%           | 2.10%    | 2.16%   |
| <b>SEX:</b>                    |                 |          |         |                 |          |         |
| Male                           | 50.47%          | 50.67%   | 50.86%  | 50.62%          | 50.82%   | 51.03%  |
| Female                         | 49.14%          | 49.33%   | 49.53%  | 48.97%          | 49.18%   | 49.38%  |
| <b>RACE:</b>                   |                 |          |         |                 |          |         |
| White                          | 53.38%          | 53.60%   | 53.81%  | 54.00%          | 54.23%   | 54.46%  |
| Black                          | 2.16%           | 2.23%    | 2.29%   | 1.62%           | 1.68%    | 1.74%   |
| AIEA                           | 1.03%           | 1.07%    | 1.12%   | 1.23%           | 1.28%    | 1.33%   |
| API                            | 3.31%           | 3.39%    | 3.46%   | 4.86%           | 4.96%    | 5.06%   |
| Other Races                    | 39.51%          | 39.72%   | 39.93%  | 37.63%          | 37.85%   | 38.07%  |
| <b>MARITAL STATUS:</b>         |                 |          |         |                 |          |         |
| Now Married                    | 35.01%          | 35.20%   | 35.39%  | 35.72%          | 35.92%   | 36.13%  |
| Were Married                   | 10.69%          | 10.82%   | 10.94%  | 10.59%          | 10.72%   | 10.85%  |
| Never Married                  | 53.79%          | 53.98%   | 54.18%  | 53.15%          | 53.36%   | 53.57%  |
| <b>AGE:</b>                    |                 |          |         |                 |          |         |
| Children<br>(0-18 Years)       | 37.33%          | 37.52%   | 37.71%  | 36.98%          | 37.18%   | 37.38%  |
| Young Adults<br>(19-30 Years)  | 25.31%          | 25.48%   | 25.65%  | 25.17%          | 25.36%   | 25.54%  |
| Adults<br>(31-44 Years)        | 19.59%          | 19.75%   | 19.91%  | 19.70%          | 19.87%   | 20.04%  |
| Mature Adults<br>(45-64 Years) | 12.40%          | 12.53%   | 12.66%  | 12.60%          | 12.74%   | 12.88%  |
| Elderly Adults<br>(65+ Years)  | 4.63%           | 4.72%    | 4.80%   | 4.76%           | 4.85%    | 4.94%   |

Table 11. Comparing Subsets of Hispanic Origin  
Against Passel-Word Surname List

| <u>Variable</u>                | <u>HISPANIC ORIGIN<br/>&amp; SURNAME MATCH<br/>Percent</u> | <u>HISPANIC ORIGIN<br/>BUT NO MATCH<br/>Percent</u> | <u>SURNAME MATCH<br/>BUT NO ORIGIN<br/>Percent</u> |
|--------------------------------|--|---|--|
| <b>GEOGRAPHY:</b>              |  |   |  |
| Mexican Southwest              | 61.7%  | 45.6%   | 42.4%  |
| Puerto Rican                   |  |   |  |
| Northeast                      | 24.2%  | 24.6%   | 19.6%  |
| Florida                        | 5.1%   | 6.9%  | 5.2%   |
| Hawaii                         | 0.3%   | 1.7%  | 4.4%   |
| Rest of<br>United States       | 8.7%   | 21.1%   | 28.5%  |
| <b>RELATIONSHIP:</b>           |  |   |  |
| Householder                    | 28.1%  | 26.2%   | 26.8%  |
| Husband/Wife                   | 14.2%  | 19.4%   | 26.0%  |
| Son/Daughter                   | 38.0%  | 34.4%   | 31.2%  |
| Stepchildren                   | 1.7%   | 2.0%  | 1.8%   |
| Other Relatives                | 10.4%  | 8.8%  | 6.9%   |
| Non-Relatives                  | 5.6%   | 6.3%  | 4.5%   |
| Group Quarters                 | 2.0%   | 2.9%  | 2.8%   |
| <b>SEX:</b>                    |  |   |  |
| Male                           | 52.1%  | 45.0%   | 39.1%  |
| Female                         | 47.9%  | 55.0%   | 60.9%  |
| <b>RACE:</b>                   |  |   |  |
| White                          | 52.7%  | 56.8%   | 65.5%  |
| Black                          | 1.0%   | 6.8%  | 7.0%   |
| AIEA                           | 1.0%   | 1.4%  | 3.6%   |
| API                            | 2.9%   | 5.1%  | 20.1%  |
| Other Races                    | 42.4%  | 29.9%   | 3.8%   |
| <b>MARITAL STATUS:</b>         |  |   |  |
| Now Married                    | 35.1%  | 35.5%   | 43.1%  |
| Were Married                   | 10.5%  | 12.1%   | 12.9%  |
| Never Married                  | 54.4%  | 52.3%   | 44.1%  |
| <b>AGE:</b>                    |  |   |  |
| Children<br>(0-18 Years)       | 37.9%  | 36.2%   | 31.2%  |
| Young Adults<br>(19-30 Years)  | 25.3%  | 26.1%   | 25.6%  |
| Adults<br>(31-44 Years)        | 19.5%  | 20.7%   | 23.2%  |
| Mature Adults<br>(45-64 Years) | 12.6%  | 12.3%   | 14.0%  |
| Elderly Adults<br>(65+ Years)  | 4.7%   | 4.7%  | 6.0%   |

Hispanic origins but unmatched surnames, while the third subset contains respondents with matched surnames but Non-Hispanic origins. Respondents in the second subset contributed to the PW list's surname omission rates, while respondents in the third subset contributed to its surname commission rates.

Table 11 emphasizes the PW Spanish surname list's difficulties in accurately detecting Hispanics in traditional Non-Hispanic geographic areas. While 8.7 percent of the Hispanics detected by the PW list come from traditional Non-Hispanic states, 21.1 percent of the Hispanics not detected by the list also come from these states. Additionally, 28.5 percent of the Non-Hispanics whose surnames fall on the PW list comes from these Non-Hispanic states. A review of SOR records with either a Hispanic origin or a matched surname, but not both, might reveal more about the list's low detection rates in these states.

The influence of Native Hawaiians and Filipinos upon the PW Spanish surname list's performance comes out in two categories. First, Hawaii serves as home for 4.4 percent of the Non-Hispanics detected by the PW list, as compared to 0.3 percent of the detected Hispanics. Second, Asians and Pacific Islanders make up 20.1 percent of the Non-Hispanics detected by the PW list, as compared to 2.9 percent of the detected Hispanics. Determining and eliminating the surnames that occur significantly more often for Filipinos than Hispanics could bring both sets of rates into a smaller range.

Another race that the PW Spanish surname list had difficulties identifying correctly is Blacks. Approximately 1.0 percent of the SOR records with Hispanic origins and surnames found on the PW surname list identify Black as their race. This rate jumps to 6.8 percent for Hispanic SOR records with surnames not found on the list and 7.0 percent for Non-Hispanic SOR records with surnames found on the list. Most Black Hispanics are Puerto Rican, which developed from an African heritage. In their book The Hispanic Population of the United States, Bean and Tienda note that Puerto Rican communities tend to border on Black communities. Such occurrences increases the probability of the intermingling of the two communities and leads to the higher percentages of Blacks containing either a Hispanic origin or a matched PW surname but not both.

The effects of married females taking their husbands' surnames comes across clearly in three of the demographic categories: relationship, sex, and marital status. Spouses encompass 14.2 percent of the Hispanic respondents detected by the PW list, 19.4 percent of the Hispanic respondents not detected by the PW list, and 26.0 percent of the Non-Hispanic respondents that the PW list identified as Hispanic. Females make up 47.9 percent of the Hispanic respondents detected by the PW list, 55.0 percent of the Hispanic respondents not detected by the PW list, and 60.9

percent of the Non-Hispanic respondents the PW list identified as Hispanic. Now married individuals comprise 35.1 percent and 43.1 percent of Hispanics and Non-Hispanics, respectively, identified by the PW list as Hispanic. This increase is offset by the percentages for never married individuals, who comprise 54.4 percent and 44.1 percent of Hispanics and Non-Hispanics, respectively, identified by the PW list as Hispanic.

Although a greater number of records show that Hispanic wives are acquiring Non-Hispanic surnames, the larger percentages occur when Non-Hispanic wives take their husbands' Hispanic surnames. This problem stems directly from the premise of using a surname list to identify Hispanics. Solutions to this problem can come in many forms. Limiting the survey sample to males and never married females eliminates the problem, but such a solution is not practical when gathering data for the general population. Other possible solutions include the use of a Hispanic first name list or the request of a maiden name for married females.

#### CONCLUSIONS

The PW Spanish surname list appears to detect the Hispanic population as effectively, if not better, as it did in the March 1976 CPS test. Of the respondents in the 1990 Decennial Census SOR file identified by the PW list as Hispanic, 89.98 percent reports a Hispanic origin. The PW list also identifies 79.45 percent of the Hispanic respondents found in the SOR file. Such comparisons of the PW list among different data sets illustrates the list's reliability, as well as possibly any changes in the Hispanic population across time.

In geographic terms, the PW Spanish surname list performs well where it is expected to perform well - in regions with high Hispanic concentration. For the eleven states with high concentrated Mexican, Puerto Rican, and Cuban populations, the PW list provides low surname error rates. Non-Hispanic respondents comprise 7.59 percent of the respondents whose surnames are on the PW list, while 17.99 percent of the Hispanic respondents did not have matching surnames on the list. For the rest of the United States, the PW Spanish surname list does not perform well. Non-Hispanic respondents comprise 28.91 percent of the respondents whose surnames are on the surname list, while 39.63 percent of the Hispanic respondents did not have matching surnames. Whether these latter surname error rates result because of either the surnames on the PW list or the integration of Hispanics into the American culture remains a matter of further research.

Demographically, the PW Spanish surname list has two major weak points. First, the list has difficulties identifying currently or previously married Hispanic and Non-Hispanic women. The new surname taken by the wife after the marriage may not accurately

reflect her Hispanic or Non-Hispanic origin. This problem arises as a general effect of using surname lists to identify a population, not specific to the PW list itself. Second, the Native Hawaiian and Filipino races have genuine Spanish surnames, which results in high SCOM rates for those races and any region that contains a high concentration of them. States that contain a large number of these races include Hawaii and California. Whether or not this is a fixable problem depends on how popular the Spanish surnames shared by Native Hawaiians and Filipinos are among other Hispanics.

Improvement in the PW Spanish surname list can come in a variety of ways. Using the 1990 SOR file, a review of surnames not found on the PW list might reveal a few surnames overwhelmingly reported by Hispanic respondents. Adding the surnames to the PW list would improve its overall SOM rate. A review of surnames on the PW list might find a few surnames rarely reported by Hispanics in the SOR file. Deleting these surnames from the PW list would improve its SCOM rate. A more detailed analysis of areas with numerous cultures may provide information about the popularity of surnames on the PW Spanish surname list among other cultures, most notably, the Native Hawaiian and Filipino cultures. Surnames more popular with these cultures than the Hispanic population should be removed from the PW list. Incorporating an adjoining list of significant Hispanic male and female Hispanic first names, like "Jesus" and "Blanca", with the PW Spanish surname list might identify the correct Hispanic origin for those respondents that change surnames after marriage, decreasing the overall SOM rate. The inclusion of a woman's maiden name before marriage might prove to be a better identifier on this matter. Results generated by undertaking these research projects on the 1990 SOR file will be presented in future Hispanic surname research reports.

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