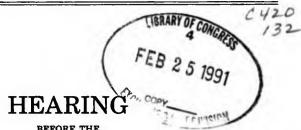
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## 1990 CENSUS COVERAGE EVALUATION OPERATIONS



BEFORE THE

SUBCOMMITTEE ON CENSUS AND POPULATION

OF THE

COMMITTEE ON POST OFFICE AND CIVIL SERVICE HOUSE OF REPRESENTATIVES

ONE HUNDRED FIRST CONGRESS

SECOND SESSION

SEPTEMBER 11, 1990

Serial No. 101-79

Printed for the use of the Committee on Post Office and Civil Service



U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON: 1991 37-822

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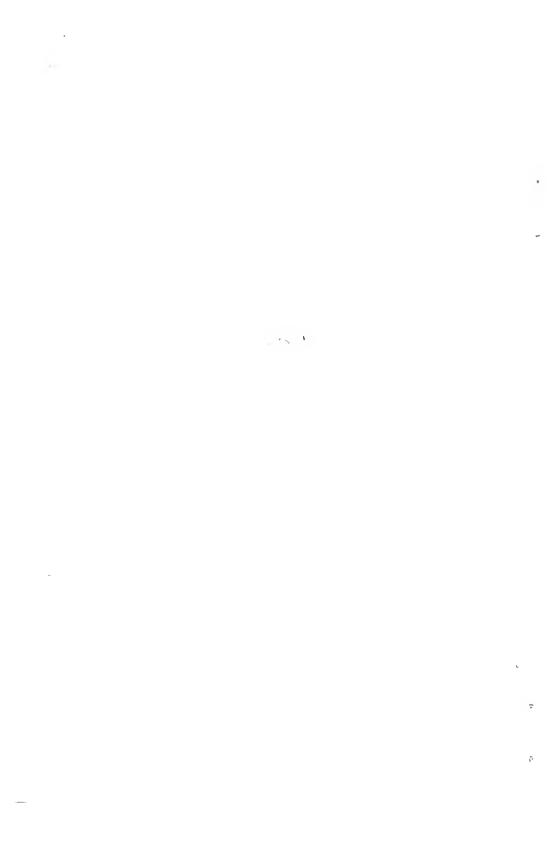


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# 1990 CENSUS COVERAGE EVALUATION OPERATIONS

### TUESDAY, SEPTEMBER 11, 1990

House of Representatives,
Subcommittee on Census and Population,
Committee on Post Office and Civil Service,
Washington, DC.

The subcommittee met, pursuant to call, at 10:36 a.m., in room 311, Cannon House Office Building, Hon. Thomas C. Sawyer (chairman of the subcommittee) presiding.

Mr. SAWYER. Good morning. On behalf of the Subcommittee on Census and Population, I would like to welcome our witnesses and

public and members of the press to this hearing.

Our topic this morning is the Census Bureau's program to measure the accuracy of the 1990-census counts. The 1990 census marks the sixth time that the Bureau will produce an estimate of the number of people who have been left out of the count, as well as those who were counted in error.

Since 1940, procedures to measure the coverage of each census have been an important part of census operations. They have provided the Census Bureau and policymakers and the public with a comprehensive, objective measurement of the accuracy of the de-

cennial count.

This year, however, in addition to measuring the extent of census error, the Post Enumeration Survey and the related procedures may be used to correct census figures for any undercounts or overcounts. The Post Enumeration Survey and the subsequent matching process will play a key role by providing the data necessary to evaluate the quality of the raw count and statistically to adjust the census, if necessary.

An objective, scientific measurement of census accuracy has never been more important than in 1990, when operational problems have raised many questions about the thoroughness of the count. This subcommittee has closely monitored the execution of

the census and there are sufficient reasons for concern.

The Census Bureau has experienced operational problems throughout the process, including misdelivery of forms, a low mail response rate, delays in completing nonresponse follow-up work and others. Although the Census Bureau finished follow-up work within a month of its scheduled deadline in most areas, the high percentage of housing units counted through last-resort procedures have raised legitimate concerns about the completeness of the count.

Evaluations of previous censuses indicate that problems of process, such as the kind that have been experienced in 1990, have had

a distinct impact on the quality of census data.

Concern about the accuracy of the 1990 count was renewed late last month when the Census Bureau released to local governments the preliminary population and housing unit counts under the Post Census Local Review Program. In many States, the counts were significantly lower than the Bureau's own population estimates released earlier this year. Although the Post Census Local Review counts are preliminary, and do not reflect much of the Bureau's work to improve coverage, many local officials have expressed misgivings about the Bureau's ability to achieve an accurate count in the final analysis, given the data they have seen so far.

I want to stress that it is too early to tell whether the discrepancy between the population estimates and the preliminary counts is as a result of erroneous estimates or an incomplete count or conceivably both. However, the confidence of local officials and the public in the census was already fragile as a result of both real and perceived operational difficulties, and the uncertainty created by the preliminary counts may have diminished that confidence even

further.

So we must look to the Post Enumeration Survey for a precise and quantifiable evaluation of census accuracy that will help ensure a fair count and preserve public confidence in the census. It is the responsibility of this subcommittee to make sure that the program is progressing according to schedule, unfettered by ideological or political concerns.

It is important to stress that the decision about whether or not to correct the census must turn on the results of the coverage evaluation procedures. Only through a thorough, unbiased, and nonpartisan review of the data can we produce a decision that will preserve

the integrity of the census.

If scientific sampling techniques will bring the census out closer to the truth, then they should be applied. That really remains the

fundamental test of that pivotal question.

Recently, some public officials have questioned the intent of the Census Bureau in considering statistical correction of the census count. Some have suggested that the process involves adding "ghosts" or "nonexistent persons" to the census count or implied that adjustment would be tantamount to taking a poll to determine

the population of the United States.

Those statements, sadly, I think, clearly misrepresent the nature of the process that is widely recognized as a well-researched and refined scientific methodology. They also miss the real problem entirely. That problem is that the census, despite extraordinary efforts, misses people. Adjustment, if applied, could improve, and I emphasize the use of the word "could," improve the accuracy of the census counts based on the Bureau's scientific determination that real people were missed.

These people are not ghosts and the fact that they are difficult to count does not relieve us of the responsibility to include them in

the census.

Before we begin, I want to mention that this subcommittee has planned a subsequent hearing two weeks from today to evaluate

the Post Census Local Review Program that is currently under way. The program is one of the key elements in the Bureau's effort to improve preliminary census counts before they become final.

Let me mention one other thing and that is that we are using a slightly different procedure today. Rather than a timer with an audible sound to warn when time has expired, we are using the lights which will show green for a period of testimony, amber during the last minute of testimony and go red after the 5 minutes has elapsed.

Our first panel this morning will join us, but first let me turn to my friend and colleague from Pennsylvania, Congressman Tom

Ridge, the ranking minority member on the committee.

Mr. Ridge. Thank you, Mr. Chairman.

I would like to welcome our distinguished guests and panelists and our colleagues who will comprise, I believe, the first two panels of today's hearing. It is also always a pleasure to hear from Dr. Bryant and Dr. Plant. We are certainly reaching the point in the 1990 census where the views of the members of the Special Advisory Panel on Adjustment are critical to any evaluation of the quality of the census.

Ever since the preliminary census figures started coming out, many local elected officials and others and the media have been claiming the figures are inaccurate. It is interesting to note that everyone, those from areas that lost population, and those that gained population are saying the counts are too low. Of course, the Census Bureau cautioned when the figures were released that they were preliminary and that additional numbers would be added.

One of the biggest problems seems to be that the numbers are generally lower than the original projections. In some areas, it appears unlikely that the additional numbers that may be added due to post census local review, enumeration of overseas military and dependents and other efforts will be sufficient to raise the totals to the levels of the earlier projections.

I think that we may have raised some levels of expectation so high that no matter what we do, we may not be able to fulfill them. The Post Enumeration Survey should provide data to indicate whether the actual enumeration or the earlier projections are

more accurate.

Considering the tremendous effort put forth so far by so many, many people, I personally hope that we find that the actual count was not only more accurate than the projected figures, but that the count was so accurate, no adjustment would significantly improve the totals. I emphasize, "hope."

At the same time, it should be pointed out the preliminary counts did not bring any real surprises. They confirmed what many have suspected. People are leaving our cities for the more suburban areas and that the population is continuing to shift from the Northeast and Midwest to the warmer climes along both coasts. Under our Constitution, that means the numbers of congressional representatives will be reapportioned to reflect those population

My own district lost population and my State, Pennsylvania, will probably lose two seats in the House. I am certainly not happy with either one of these results and I would like to be sure that whatever the final count in Pennsylvania or anywhere else, is that it is an accurate count. I would be less than honest with you to say that the preliminary results, however, came as any surprise to me or, by that matter, to anybody in the Pennsylvania delegation.

The losses were greater than we had expected. However, when the final additions are made, I think the totals will not be far from

what we had projected.

What we are going to discuss this morning is the quality of the census effort to date. Will the final figures show that the 1990 census produced the most accurate count in our Nation's history? Will that level of accuracy be sufficient to satisfy the citizens and the courts that the people have been numbered, or will there be reason to believe that the results of the enumeration must be adjusted to guarantee that minorities and the poor are properly represented?

We know the Census Bureau has put in place many safety nets designed to catch the people who are missed in previous enumerations. There should be no question that the census was designed to capture all the people, enumerate all the people, as the Constitution has mandated, residing in the United States and our citizens overseas.

Hopefully, the testimony we hear today will enlighten us on just what the quality of the 1990 census has been as we reach this final

home stretch.

I thank you all again for taking the time to come here and give us the benefit of your expert knowledge and your judgment and, Mr. Chairman, I continue to applaud your continuing efforts to monitor this most serious and most important undertaking of the Federal Government. It is a pleasure to work with you on it.

Mr. Sawyer. Thank you for those thoughtful comments and a

thoughtful statement.

Mr. McNulty, do you have an opening statement as well?

Mr. McNulty. Thank you, Mr. Chairman.

I just want to say that as a local official for many, many years, I know the potential impact of an undercount as far as future Federal aid is concerned. I share the concerns that have been expressed by many local officials across the country and which have been very eloquently expressed by many of our colleagues who will testify here today about those potential impacts.

I look forward to working with you and the other members of the committee and with Dr. Bryant to ensure that we have an accurate

count all across the country.

Thank you.

Mr. SAWYER. Thank you, Mr. McNulty.

Our first panel this morning is made up of Members of Congress who have worked closely with this panel throughout the course of the census, and have taken an active and thoughtful interest in its outcome and the process that leads to that outcome.

We will go in the order in which they are listed on the witness list today. They include as our first member of the panel the Honorable Martin Frost of Texas. Martin, it is a pleasure to have you

with us this morning.

### STATEMENT OF HON. MARTIN FROST, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. Frost. Mr. Chairman, thank you for the opportunity to again appear before this subcommittee to express my concerns about the accuracy of the 1990 census. As you are aware, I have a

longstanding interest in this subject.

I testified before this subcommittee earlier this year on proposed Commerce Department guidelines, on the issue of a statistical adjustment for the census. I have met with census officials here in Washington. In the spring, I met with regional and district census managers in Dallas to discuss the conduct of the census in my part of Texas.

I also took part in a field hearing conducted by this subcommittee in Austin this summer, where we heard firsthand of the widespread problems that occurred during enumeration work in Texas.

I have been concerned from the outset about the undercount of minorities that occurred in 1980 and the likelihood that a similar undercount will occur again in 1990, thus making a statistical adjustment essential. I have now had the opportunity to review the county-by-county preliminary population figures for Texas released in late August. I have come to a troubling conclusion.

Our worse fears have been realized. The Census Bureau has done an excellent job of counting white suburbanites, but for some reason, cannot count minorities very well. This is true for minorities in big cities and in some rural areas as well. While the pattern I am about to describe is not uniformly true for every single county in Texas, it does occur often enough to raise very serious questions about the accuracy of the count in my State.

The analysis I have done is for Hispanics because they are heavily concentrated in certain counties, though the pattern revealed may also hold true for blacks once census tract data is available.

Included in this testimony are two charts which show 16 Texas counties, eight that are predominantly white and suburban in character, and eight that are heavily Hispanic, some urban and some rural. Displayed in these charts are population figures projected by the Census Bureau in 1988 and the preliminary population figures released by the Census Bureau two weeks ago.

There is a very clear and disturbing pattern. In the eight suburban white counties, the 1990 count exceeded the 1988 projection and in each of the heavily Hispanic counties, the 1990 count was

less than the 1988 Census Bureau projection.

Are we to seriously believe that the Census Bureau consistently found more whites than they estimated, but was unable to find even the number of Hispanics that they estimated as of 1988? Texas is in the middle of a deep recession, and yet they say the suburban white population continues to exceed estimates while the Hispanic population does not even reach estimates that are two years old? There is something fishy here and it doesn't have gills or a tail, Mr. Chairman.

Let's look at these two charts in some detail. On the first chart, dealing with white suburban counties, you will notice that three counties in the Dallas/Fort Worth area, Collin, Denton and Tarrant, all exceed their estimates by significant amounts. In Collin and Denton Counties, the Census Bureau exceeded its 1988 projections by more than 15 percent. Also, the three suburban counties in the Houston area, Fort Bend, Brazoria, and Montgomery, exceed their 1988 estimates.

The two counties around Austin, Travis and Williamson, also are

higher than the 1988 estimates.

The story for the heavily Hispanic counties in the second chart is exactly the opposite. First, let's examine the counties where three large cities are located: Bexar, where San Antonio is located; El Paso, where El Paso is located; and Nueces, where Corpus Christi is located. All three are below the 1988 estimates, with Bexar County falling 34,428 below.

[The charts follow:]

### Chart I

White, Suburban County	'88 Projection	'90 Count	Difference	
Collin (D/FW Suburbs)	225,700	262,079	+36,379	
Denton (D/FW Suburbs)	228,900	270,257	+41,357	
Tarrant (Fort Worth)	1,128,600	1,162,247	+33,647	
Fort Bend (Houston Suburbs)	204,900	224,751	+19,851	
Brazoria (Houston Suburbs)	184,600	190,891	+ 6,291	
Montgomery (Houston Suburbs)	178,900	180,257	+ 1,357	
Travis (Austin)	556,300	571,593	+15,293	
Williamson (Austin Suburbs)	128,900	139,124	+10,224	

	CHART II		
Hispanic County	*88 Projection	190 Count	Difference
Bexar (San Antonio)	1,211,700	1,177,274	-34,426
El Paso (El Paso)	585,900	577,458	- 8,442
Nueces (Corpus Christi)	297,900	289,964	- 7,936
Hidalgo (Valley)	387,900	368,314	-19,586
Cameron (Valley)	264,000	251,793	-12,207
Brooke (Valley)	9,300	8,089	- 1,211
Maverick (border)	39,600	35,787	- 3,813
Val Verde (border)	40,200	38,099	- 2,101

Next, let's look at three counties in the Rio Grande Valley: Hidalgo, Cameron, and Brooks. All are below the 1988 projections and one by more than 19,000.

Two other counties along the border with Mexico, Maverick, and

Val Verde, are also below the 1988 estimates.

I have not included the two largest counties in the State, Dallas, where the city of Dallas is located, and Harris, where Houston is located in either chart because both are decidedly mixed counties. They have large minority populations and large white suburban populations.

For the record, however, Dallas came in about 17,000 under the 1988 estimate and there are serious concerns that this is due to an undercount of minorities, both black and Hispanic. Harris County's growth was less than anticipated by local officials, again, raising

the issue of a minority undercount.

What are the possible explanations for this pattern in Texas?

The most obvious is that the Census Bureau simply did not do a very good job of counting minorities. Let's look at what happened

in Dallas and Houston, as examples.

In the two center city census districts that covered most of the minority population of those two cities, the Census Bureau received less than 50 percent of the mail-back questionnaires, as compared with a national figure of about 62 percent. The remaining 50 percent-plus households had to be counted by door-to-door enumerators. When I pressed Census Bureau officials about the manner of this door-to-door work at the subcommittee hearing in Austin this summer, they acknowledged that about 15 percent of the remaining households were counted by the last-resort method, talking to a neighbor or to a postman, but not interviewing the actual residents.

Also, when I met with Census Bureau officials in Dallas this spring to discuss the door-to-door work that was beginning that very week in Dallas, they could not even tell me how many bilingual enumerators that had been hired to work the heavily Hispanic neighborhoods. Also, they were hiring proportionately the same number of enumerators for white areas of town that they were for minority areas, even though the questionnaire return rate was much lower in the minority neighborhoods and even though they acknowledged that minority areas are harder to count.

Mr. Chairman, if this weren't such a serious matter, we could all be amused by it. After all, it is just another example of bureaucratic bumbling, but it is not funny at all. It could mean the loss of millions of dollars in Federal funds to Texas and other States and it could mean less political representation for minority residents of

my State.

I sincerely hope that your subcommittee will force the Census Bureau to do a better job during the concluding stages of the census and that you will continue to press the issue of a statistical

adjustment.

Mr. SAWYER. Thank you very much, Mr. Frost. I know that you are operating on a very tight schedule this morning. Unless there are compelling questions, we thank you for your thoughtful and thorough work in presenting this testimony today.

Mr. Frost. Thank you, Mr. Chairman. I have to go to the Rules Committee where we are working on the Department of Defense authorization bill. Thank you very much.

Mr. Sawyer. Thank you very much.

Mr. Frost. And I thank you for the leadership that this subcommittee has displayed on this subject throughout the year.

Mr. Sawyer. Thank you on behalf of all of us.

Our second witness this morning is Charles E. Schumer, of New York. Charles, it is good to have you back with us.

### STATEMENT OF HON. CHARLES E. SCHUMER, A REPRESENTA-TIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. Schumer. Thank you very much, Mr. Chairman, and I would like to thank you and the ranking minority and the members of this subcommittee for your continued leadership in the fight for an accurate census.

The fact that the preliminary census numbers were within 2 or 3 percent of their targets is, in part, credit to the oversight of your subcommittee.

Mr. Chairman, that notwithstanding, the census has failed, and as frustrating as it is to make such a statement, what is most exas-

perating is that this failure could have been avoided.

For nearly a year, many of us in this room have been pinpointing specific shortcomings with the Bureau's approach to counting America. We issued warnings; we identified problems and we offered suggestions. We predicted that without changes, there would be a disaster and with the release of the preliminary census figures, we have unfortunate confirmation of this prognosis.

My city, New York, epitomizes this tragedy. Almost everything that could have gone wrong with the census in New York did. The Bureau's preliminary count of 7 million New Yorkers reflects the culmination of an effort incompletely planned, haphazardly carried

out, and poorly evaluated.

New York City and other localities across the country are now in the process of conducting, as you know, a 2-week Post Census Local Review of the preliminary census figures released by the Bureau during the week of August 27. New York will report its findings on September 19.

The Bureau has indicated that review is an essential aspect of the overall census and that the results of local reviews are expected to significantly impact the ultimate census results. But if this is indeed to be the case, it will be a departure from past practice.

In 1980, by the Census Bureau's own admission, Post Census Local Review was little more than a minor cosmetic operation that added only 76,000 people to the count nationwide. In 1990, New York officials estimate an undercount in New York City alone of 1 million people, 200,000 missing housing units in a decade when there was unprecedented building and prosperity and growth in New York City, the Census Bureau saw no increase in housing units, and 6,000 blocks with discrepancies in the city alone. Cities from Newark to Atlanta are reporting similar inconsistencies with Census Bureau numbers.

Now, Post Census Local Review was never meant to fix a problem of this magnitude. It is as if a painter were called in to do a touch-up job and discovered a whole suite of rooms left unpainted. But if Post Census Local Review is really to be an integral part of the 1990 census, several questions and concerns must be addressed and I have, incidentally, Mr. Chairman, sent a letter to Director Bryant which outlines a number of these concerns.

First, why has the Bureau only allocated localities 15 days for an operation that the Bureau took a better part of 6 months to carry

out?

Second, why did the Bureau allot itself only 10 days to recanvass and react to localities' challenges, particularly now with so many discrepancies reported in our city areas? That time is inadequate.

Finally, why has the Bureau never responded in the past in writing to challenges made either after either Post Census Local Review or Pre-Census Local Review? The Director of the Bureau has agreed to review every block on which five challenges are raised. Will the Bureau respond in writing to challenges localities make on a block-by-block basis? That is extremely important, Mr. Chairman, and we have not yet had an answer from the Bureau.

Finally, another main area of concern, and a focus of today's hearing, is that the fact that the Post Census Local Review is only a housing unit check. The review does not address the question of in-household misses. Leading experts believe that as much as 70 percent of the population missed in the 1980 census came from in-household misses. In other words, housing units that were accounted for, but people who were missed within these households. Examples of people doubled up who wouldn't be caught, who wouldn't be counted because they didn't want to come forward. Examples when in the phase 3 of the enumeration process, they simply went over leases with the landlord and put one person, the name on the lease, for each apartment.

These kinds of things are not even within the ambit right now of

Post Census Local Review.

So the fourth question is why isn't it possible to find a way such as using cities' administrative records, to look at population misses, as well as housing unit misses, in local review. A joint check of this sort would also be an excellent opportunity to recheck many of the cases closed throughout the use of last-resort information, which probably contains many housing units with undercounted households.

Mr. Chairman, time and time again, New York officials at the local, State, and Federal level, have come forward and offered to help the Bureau with the difficult task of counting a city as dynamic and diverse as New York. Time and time again, from the rejection of lists of housing units likely to contain people illegally doubled up to the failure to mail out Spanish-language census forms, the Bureau has rejected these offers.

Let us not have a sense, in the words of Yogi Berra, "deju vu all over again." There are good-faith suggestions offered on how to improve Post Census Local Review. Let us not repeat past history and have those suggestions be ignored and then, when the results come in, the Post Census Local Review proves falling far short of the

mark.

Certainly Post Census Local Review, Mr. Chairman, is not a panacea, but we urge the Bureau to treat it with the gravity it deserves and to truly cooperate with the localities in the endeavor to help secure an accurate count.

I thank the committee.

Mr. SAWYER. Thank you very much for your testimony. Are you pressed for time?

Mr. SCHUMER. I will be happy to wait.

Mr. Sawyer. Good, let us go on to Congressman Donald Payne of New Jersey, who, although this is his first term in Congress, has been an active participant in census issues throughout its conduct. Congressman Payne.

## STATEMENT OF HON. DONALD M. PAYNE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PAYNE. Thank you very much, Mr. Chairman. I am Donald Payne, Representative of the 10th Congressional District of New

Jersey.

I want to express my appreciation to you for calling this very important hearing today and your subsequent hearing 2 weeks from now. Because the information gathered during the census process is used to make critical decisions, including the allocation of key Federal funds for programs which directly impact the lives of our citizens, I think it is very important that we work together to ensure an accurate count.

Over the past several months, I have been working with the mayors and other local officials within my district to try to overcome the problems that historically have led to an undercount in urban minority areas such as the 10th Congressional District of New Jersey. Among others, I have received input from Mayor Sharpe James of Newark, Mayor Cardell Cooper of East Orange, Mayor Ralph Milteer of Hillside, Mayor Robert Brown of Orange,

and Mayor Michael Steele of Irvington.

As you know, some of the factors which prevent an accurate count include unconventional living arrangements, illiteracy, poverty, homelessness, and a general distrust of government. After the preliminary figures for the 1990 census were released at the end of August, I had the opportunity to review the data and to speak with local officials about the results. Unfortunately, there is every indication that an undercount has again occurred in the 10th Congressional District of New Jersey.

Mr. Chairman, let me say that I recognize the Census Bureau is charged with a monumental task. My purpose in testifying today is not to place blame, but rather to urge that necessary steps be taken to correct the record in the interest of fairness and accuracy.

The Census Bureau reported that my hometown of Newark, New Jersey, in Essex County, lost 70,000 residents, or 27 percent of its population—this is outrageous—over the past 10 years. This is the largest reported decline of any city in the Nation, a drop from 329,248 persons to 260,097, an overwhelming majority of whom are minority.

Local officials, including Sharpe James, the mayor of Newark, immediately questioned the official count based on first-hand

knowledge of Newark and of the services that the city delivers to its citizens.

Within days after the figures were released, Newark code enforcement officers found 1,001 housing units missed in the preliminary census count. Since then, that figure has jumped to 3,097 housing units missed in the original count.

The Essex County Department of Planning and Economic Development has determined that another 8,709 units throughout the county were missed. Officials reached this conclusion after a review

of tax records and other population tax information.

In addition to Newark, other areas of Essex County, which I represent in Congress, include Orange, East Orange, Irvington, and Belleville and I also represent Hillside in Union County. Representatives from each of these municipalities have conveyed to me their skepticism about the accuracy of the figures reported by the Census Bureau.

In Irvington, for example, preliminary census figures indicate a population of 58,194, a loss of about 1,000 persons since the last census. However, the Mayor of Irvington, Michael Steele, estimates that the population is actually between 65,000 and 70,000. One of the important points that Mayor Steele has made is that the makeup of the population has changed from older residents without children to a younger population of families with children. This change is reflected in the extreme overcrowding of the Irvington school system during the past 10 years.

Mayor Cardell Cooper of East Orange has pointed out that a number of Caribbean immigrants may not have been counted because census material was not available in their native French or

Creole languages.

Mr. Chairman, in light of the discrepancies which have been brought to my attention, I strongly urge the Department of Commerce to take the necessary steps to correct the undercount in the

1990 census, using statistical adjustment techniques.

If the initial figures are not corrected, it is going to be disastrous for low-income areas which are already operating on stretched budgets. Cities in the 10th Congressional District are struggling to provide citizens with adequate housing, schools, health care for the elderly, and other vital services.

The AIDS epidemic, which has disproportionately affected the

urban population, is also draining valuable resources from cities.

I would just like to mention that there is no problem in the count of our minorities in the military. We have 30 percent in the Army, 20 percent in the Marines, between 15 to 20 percent in the Air Force and the Navy. These men and women will be returning back to Newark and East Orange because that is where they live. They are going to be returning, looking for housing, looking for educational opportunities for their children. They are proud to fight and defend America for principles of democracy, but it is absolutely shameful that people will return to areas that we know for a fact have been undercounted. That is un-American.

Thank you, Mr. Chairman.

Mr. Sawyer. Thank you, both, gentlemen, for your testimony. I particularly appreciate the detailed effort that has gone into both the posing of concerns that speak on behalf of Congressmen of both parties from across the United States and some of the detailed work that has gone into evaluating conditions within your own States and districts. Both are important and we will continue to pursue those questions, both in the light of the broader evaluation effort, particularly in the Post Enumeration Survey, the subject of today's hearing, and as we pursue questions of the Post Census Local Review in the next couple of weeks.

Just let me mention that, Chuck, your third question that you posed in your testimony is one that Mr. Ridge and I have written to the Bureau about. We will pursue the remainder in the next couple of weeks, but while I wouldn't want to speak on behalf of the Bureau with regard to your third question, indications that you

have identified a sound concern seem to be forthcoming.

In any event, I have no questions, per se. Do any of my col-

leagues?

Mr. McNulty. I have just a brief question for Congressman Schumer. Chuck, on the second page of your testimony, you have four bullets there and I can understand how responses could be made to the first three. I just wanted to have you expand a little bit more on number four, concerning the in-household misses.

As Don Payne pointed out in his testimony, there are a number of reasons for that, including a general distrust of the government. I was just wondering if you could expand the mechanics of that,

how that would be accomplished?

Mr. Schumer. Sure. I thank you, Mike, and it is a good question. Right now, as you know, Post Census Local Review is simply aimed at missing households so when New York or Albany or any other locality housing units has Post Census Local Review, they could say, "Well, you missed this house, you missed this block, you missed this apartment building." Unfortunately, that doesn't allow, if—for instance, let's say the Census Bureau has found that in one area, every single apartment unit in a 100-unit apartment house only has one person in it. You know that something is wrong, and the city has administrative—most cities have administrative records, whether they be in the Health Department, Education Department or wherever else, as to the number of people in the units.

Now, they are not foolproof, either, but certainly that kind of information might help the census pinpoint—Census Bureau pinpoint problems within households as well. New York Housing Department has a list of families that they know are doubled up in public housing. There are many more in private housing, but in public housing, I think they estimate something like 60,000 families are

doubled up. A lot of people.

They know that. They don't kick them out, even though they are living against the housing laws because they would be out on the street and be homeless, giving the housing shortage in New York City. That kind of information should be made available to the Census Bureau in Post Census Local Review and they should be able to incorporate it as they go over things.

Right now, under the ambit of Post Census Local Review, that is

not allowed.

Mr. McNulty. Thank you, Chuck.

Mr. PAYNE. Mr. Chairman, may I comment just briefly on that, too?

In a letter that was sent to me yesterday by one of the Mayors, Mayor Cardell Cooper, from East Orange, and I might include this in the record—he indicated under this same question that the Bureau recognizes that housing units in the city of East Orange average approximately four persons per household, as opposed to the census determination of the national average of 2.9. That is another factor that really has not been looked at. We have a large Portuguese, Hispanic and Haitian population with larger families and this is a point that I just wanted to——

Mr. SAWYER. Don, could you repeat for the record what that 2.9

percent represented?

Mr. PAYNE. There has been an estimate, and when estimates have to be used, they say the average family size in the United States today is 2.9 persons. In our district, it exceeds 4.0, and I just wanted to bring that in so that in a technical adjustment, individual factors can be taken into consideration.

Mr. SAWYER. Thank you very much. I would like to thank all of the members of our panel, I would particularly like to thank you for an astute question. It goes right to the heart of a serious question and I very much thank the panel for your continuing effort on

behalf of an important topic. Thank you.

Our second panel is composed of Congressman Norm Mineta. Norm, it is a pleasure to welcome you here today. I had hoped you would be joined by your colleague from California, and if he joins us in the course of your testimony, we will welcome him as well.

## STATEMENT OF HON. NORMAN Y. MINETA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. Mineta. Thank you very much, Mr. Chairman, and members of the subcommittee. I really do appreciate the opportunity to appear before you today to discuss the issue of undercount adjustment for the 1990 decennial census and I would like to ask unanimous consent that my full statement be submitted and made a part of the record.

Mr. Sawyer. Without objection.

Mr. Mineta. Mr. Chairman, I would also like to take this opportunity to thank you personally for your dedicated leadership during the planning and execution of this 1990 census. Your assistance and that of your staff has been invaluable in addressing the concerns of my district and of the Asian Pacific American community.

Mr. Chairman, as part of the process of measuring a potential adjustment to the 1990 census figures, the Census Bureau is currently conducting a Post Enumeration Survey, the PES, of 150,000

households nationwide.

On the 25th of June, I learned that the PES would be used to calculate undercount estimates for only three racial categories: namely black, nonblack Hispanics, and all others. Because of the expected low sample size of Asian Pacific American households, sample data from those households would be combined with whites. The Asian Pacific American community now includes over 3 million recent immigrants who are probably the most vulnerable to being missed by the census data and to collapse data from such a

group with Caucasians, the group most likely to be overcounted, is to ensure that the undercount in the Asian Pacific American com-

munity will be effectively buried.

On June 28, Congressman Bob Matsui and I, along with 14 other members of the California and Hawaii Delegations, wrote to Secretary of Commerce, Robert Mosbacher, protesting this decision. Mr. Chairman, in the full statement that I submitted, that letter and

the Secretary's reply are in that submission.

At a July 5, meeting with the staff of interested members, representatives of the Census Bureau made a commitment to examine the results of the PES and to report separate Asian Pacific American undercount estimates where possible. Unfortunately, it seems that this is the most that can be accomplished without placing the entire undercount adjustment process in jeopardy. Major revisions to the PES sample would almost certainly delay the reporting of the results beyond the July 15, 1991, deadline for an adjustment decision.

Mr. Chairman, this problem with the PES is seen by the Asian Pacific American community as yet another instance of the Census Bureau's ignoring their concerns. In response to inquiries by Senator Dan Akaka as to why this issue was not discussed with the Asian Pacific Advisory Committee, the Bureau replied that the committee had not specifically requested the PES as an agenda

item for meetings.

In other words, they didn't ask, so the Bureau didn't tell them. Mr. Chairman, my most immediate concern is ensuring that the Bureau follows through on its commitment to examine the PES results and to determine separate Asian Pacific American undercount estimates where possible. In the longer-term, however, I believe that the Census Bureau must make Asian Pacific American concerns a regular part of its own planning, not just its efforts at damage control.

This type of problem cannot be allowed to reoccur as we saw it

again in 1980 and we see it now in 1990.

Finally, Mr. Chairman, let me again commend you for your leadership in this matter and for your constant efforts to ensure the quality of the 1990 decennial census. I know that I speak for my very fine colleague, Mr. Matsui, in stating that I look forward to working with you and the members of this subcommittee toward that goal.

Thank you very much, Mr. Chairman. [The statement of Mr. Mineta follows:]

Testimony of
Norman Y. Mineta, M.C.
before the Subcommittee on Census and Population
September 11, 1990

Mr. Chairman, Members of the Subcommittee, I appreciate the opportunity to appear before you today and I appreciate your organizing this forum to examine the progress of the Census Bureau's evaluation of the undercount in the 1990 decennial Census.

I would also like to take this opportunity to thank you, Mr. Chairman, for your dedicated leadership during the planning and execution of the 1990 Census. Your assistance, and that of Teri Ann Lowenthal, Shelly Wilkie and Maggie Stebbins of the Subcommittee staff, has been invaluable in addressing the concerns of my district and of the Asian Pacific community.

As you are aware, Mr. Chairman, the central feature of the Census Bureau's efforts to measure the undercount in the 1990 Census is the Post Enumeration Survey, or PES. The PES is a nationwide survey of 150,000 households which the Census Bureau will use to calculate any potential undercount adjustment.

On June 25, my office was informed by the National Coalition for an Accurate Count of Asian Pacific Americans that the design of the PES would not allow the Census Bureau to determine separate adjustment factors for Asian or Pacific Islander Americans. Rather, for purposes of measuring the undercount, the PES would use three racial categories: Black, non-Black Hispanic and ell Other.

It appeared from this survey design that the Census Bureau had made a judgement that the undercount for Asian Pacific Americans and that for Caucasians were likely to be the same. There are no data to support such a conclusion, and in fact there is every reason to believe that the undercount among Asian Pacific Americans would be substantially higher than for Caucasians.

Fueled largely by the arrival of 3 million immigrants in the last 10 years, the growth in our country's Asian Pacific population has been tremendous. Recent immigrants, both by virtue of economic status and language skills, are among the most vulnerable to being missed by the Census. To collapse statistics from such a group with Caucasians, the group most likely to be overcounted, is to ensure that the undercount in the Asian Pacific community will be effectively buried.

page 2 Norman Y. Mineta, M.C. September 11, 1990

On June 28, Congressman Robert Matsui and I, along with 14 other Members of the California and Hawaii delegations, wrote to Secretary of Commerce Robert Mosbacher protesting this decision. I would ask that that letter and the Secretary's reply of August 14 be entered into the hearing record.

Through the assistance of your staff, a meeting between representatives of the Census Bureau and the staff of interested Members was arranged for July 5. At that meeting, the Bureau indicated they could not guarantee that the PES would yield sufficient information to make a separate determination of the undercount in the Asian Pacific community.

The Bureau made a committment, however, to examine the actual results of the PES and to report separate Asian Pacific undercount estimates where the data were sufficiently rich.

Unfortunately, it seems impossible at this point to expand the PES sample without placing the whole undercount adjustment process in jeopardy. Under the settlement agreement in the adjustment lawsuit, the Secretary of Commerce must make a decision on adjustment no later than July 15, 1991. Major revisions in the PES sample would almost certainly delay the reporting of the results past that date.

The Bureau's committment to report separate Asian Pacific adjustment factors if possible seems to be the best that can be done under the circumstances. We are currently awaiting the results of the PES, and are anxious to know the Bureau's finding in this matter.

This is a matter of vital importance to the Asian Pacific community. I am puzzled that the Census Bursau and the Commerce Department do not seem to understand the depth of concern this issue has generated.

It is true that the Census Bureau has undertaken a number of unprecedented efforts in reaching out to the Asian Pacific community during the 1990 Census. Unfortunately, those of us who have dealt with the Bureau on Asian Pacific issues know that, all too often, they must be forced through concerted pressure and legislative action to recognize the needs of the Asian Pacific community.

page 3 Norman Y. Mineta, M.C. September 11, 1990

The controversy surrounding the Post Enumeration Survey's treatment of Asian Pacific Americans is a case in point. One might expect that, once the Census Bureau realized the PES would be unable to separately measure the undercount of Asian Pacific Americans, they would have immediately recognized this as a source of potential concern to the Asian Pacific community. One might expect that they would have raised this issue with their Asian-Pacific Islander Advisory Committee, but this is not the Case.

In response to inquiries by Senator Daniel Akaka as to why this was not discussed with the API Advisory Committee, the Bureau replied that the Committee had not specifically requested the PES as an agenda item for meetings. In other words, they didn't ask, so the Bureau didn't tell them.

At this point, Mr. Chairman, I have two main concerns. First, the Bureau has given assurances that it will make every effort to determine separats Asian Pacific undercount figures where the PES data will allow it. We need to make sure that the Bureau follows through on that commitment. I greatly appreciate your continued interest in this issue as it develops.

Second, the example of the PES shows clearly that the Bureau has a long way to go in making sure it routinely takes Asian Pacific Americans into account. If the Bureau knew the current PES sample would be inadequate to separately measure the Asian Pacific undercount, why was this particular sample selected? Consideration of Asian Pacific concerns should be a regular part of the Bureau's planning, not just its efforts at damage control.

The current controversy over the design of the Post Enumeration Survey evidences a "blind spot" in the Bureau's planning that must be corrected. This type of problem cannot be allowed to reoccur.

Finally, Mr. Chairman, let me commend you again for your leadership in this matter and your constant efforts to ensure the quality of the 1990 decennial Census. I look forward to working with you toward that goal.

### Congress of the United States House of Representatives Mashington, DC 20515

June 28, 1990

Honorable Robert A. Mosbacher Secretary of Commerce U.S. Department of Commerce Room 5854 HCHB 14th and Constitution Streets, N.W. Washington, D.C. 20230

Dear Mr. Secretary:

We would like to bring to your attention an issue of great concern to us regarding the race designation within the U.S. Bureau of Census' postenumeration survey.

As you are undoubtedly aware, we fought successfully to have included in the decennial census questionnaire specific designation and tabulation of nine different Asian or Pacific Islander groups. We were successful on this issue despite considerable initial resistance from the Bureau. In fact, it was only after legislation was introduced mandating the count of Asian Pacific Americans that the Bureau conceded to correct the problem by including a checkoff format to tabulate individual subgroups of Asian Pacific Americans. We should add, however, that in the final analysis our call for a checkoff system prevailed on its merits: creating a census category for "Asians" as a homogenous minority simply perpetuates the misconception that Asian Americans are all the same.

It seems that the lessons learned by the Bureau in our battle to have Asian Pacific Americans delineated separately and distinctly have been lost on the creators of the post-enumeration survey. In fact, it appears that the Bureau has taken an enormous step backward. It is our understanding that the post-enumeration survey form, through which the level of undercount in the 1990 Decennial Census is to be ascertained, includes individual categories for Blacks, Hispanics, and Whites only. This form not only fails to tabulate individual categories of Asian Pacific Americans, but it also neglects Asian Americans as an ethnic entity altogether.

We find this apparent regression in policy by the Census Bureau extremely distressing, particularly in light of the recent campaign we led over this issue. We see no reason to enter into this same debate again, yet we remain committed to assuring a fair and accurate decennial census process. Excluding Asian Pacific Americans in the post-enumeration survey will serve to thwart that goal; will be unfair to states, such as California, which have large concentrations of Asian Americans; and will produce tabulations that do not accurately reflect the range of ethnic diversity and the need for public resources within the United States.

Therefore, we respectfully request that the Sureau take immediate action on this matter to include the fastest growing minority group in the United States as a full player in the census process. We do not wish to revisit the feud which this issue has previously created, but we must insist on corrective measures for what we believe to be an inadequacy in the survey.

Sincerely,

ROBERT T. MATSUI Menber of Congress	NORMAN Y. MyNETH Member of congyess
DANIEL K. INDUYE United States Senator	DANIEL K. AKAKA United States Senator
BARBARA BOXER Member of Congress	RANCY PELOSI Member of Congress
VIC FAZIO Member of Congress	MATTHEW S. MARTINEZ  Member of Congress
MERVYN M.) DYMARLY Member of Congress CHARLES PASHAYAN, JR. Member of Congress	DON EDWARDS Member of Congress HAWAL Burner HOWARD L. BERMAN Member of Congress
HENRY A. WAXMAN Member of Congress	Mel Levine MEL LEVINE Member of Congress
FORTNEY PETE STARK Member of Congress	ESTEBAN EDWARD TORRES Member of Congress



August 14, 1990

Honorable Normal Y. Mineta House of Representatives Washington, DC 20515-0513

Dear Mr. Mineta:

Thank you for your cosigned letter about including Asian and Pacific Islander Americans in the Census Bureau's Post-Enumeration Survey (PES). Contrary to what you have been told, we are including Asian and Pacific Islanders in that Survey. The questionnaire identifies them as such.

Our current plans will produce estimates of the undercount/ overcount of Asian and Pacific Islanders using the same methods as we use for other groups. We are investigating whether we can produce more accurate estimates of the undercount/overcount for the Asian and Pacific Islander population in selected geographic areas. If we can improve on the current plan, we will.

In discussing the undercount, let us remember that the best approach is to avoid or at least minimize it. Let us not forget that it is still not too late. The Census Bureau has printed "Were You Counted?" forms in over 30 languages. We hope that you will encourage those who think that they have been missed to fill out one of these forms and send it in.

We are trying to conduct a fair and accurate enumeration. We are also striving to make the PES as fair and as accurate as it can be. The Census Bureau staff are always available to answer questions and explain their decisions, and would be happy to meet with you or members of your staff to discuss this issue in more detail. We hope that by working cooperatively with you and your staff, we can make sure that you have available to you the most accurate information about our plans.

Sincerel

Robert A. Mosbacher

Mr. Sawyer. Thank you very much for that thoughtful and thorough testimony and I just have to tell you that the timing on this double-play combination is worthy of all-star status. Let me turn to the second member of our panel this morning, the Honorable Robert Matsui, also of California.

Bob, it is a pleasure to have you with us.

## STATEMENT OF HON. ROBERT T. MATSUI, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. Matsui. Thank you very much, Mr. Chairman. I would like to thank you and other members of your subcommittee for calling these oversight hearings on the 1990 census. We appreciate it very much.

Every Member of Congress has a personal stake in the results of the 10-year census, and as difficult as it is to balance the opinions of 435 individuals while setting important public policy, you and your staff have shown an extraordinary accessibility and willingness to accommodate those of us who have particular interests in the census issues.

I would like to especially single out your subcommittee Staff Director, TerriAnn Lowenthal, who has been invaluable to me and my staff and others in sharing her breadth of knowledge and for bringing the warring factions together on these very important issues.

Mr. Chairman, I am here today, along with my colleague, Representative Mineta, as a good friend to discuss a facet of the 1990 census which has grown out of a particular interest to the Asian American community, the Post Enumeration Survey. It appears, once again, that Asian Americans will suffer actions by the Census Bureau that not only contribute to an undercount of Asian Pacific Islanders, but which also demonstrate a continued insensitivity on the part of the Bureau toward Asian Americans as minority groups.

As you are well aware, Mr. Chairman, the Bureau's Post Enumeration Survey is an attempt to asses and adjust for the amount of overcount or undercount of certain segments of the U.S. population by a resampling of a select cross-section of society and matching the results of this sample with the regular 10-year census results.

If the Post Enumeration Survey indicates an undercount or overcount of some groups, the Bureau, at the discretion of the Secretary of Commerce, may adjust the official census figures to account for these discrepancies. Since governmental assistance is often tied to census data, it is important that all segments of our population be counted as fairly and as accurately as possible, and it is my conviction that a fair and accurate Post Enumeration Survey adjustment should play a pivotal role in the overall census figures.

By failing to create a model for the Post Enumeration Survey that breaks out the separate strata for Asian Pacific Islanders, the Census Bureau has jeopardized the validity of the results of the 1990 census. Furthermore, because Caucasians tend to be overcounted, grouping Asians in the Caucasian post enumeration strata

will have the likely effect of creating a downward adjustment for Asian Americans.

This situation, one in which the fastest growing minority group in the United States could be adjusted downward while other minority groups are adjusted upward is untenable and should be corrected. Truthfully, I think we all know that it probably could be resolved by the Bureau increasing its sample size to a level which would create a statistically valid Asian strata. The Bureau contends, however, that in light of the tight schedule facing the Post Enumeration process, revising the methodology by which the post enumeration data is collected would endanger the possibility of making any adjustment for any strata. This leaves the Asian American community and its leaders in a very precarious position. We either accept this unfair treatment or we rock the boat and risk undermining the adjustment for all minority groups.

It is a catch-22 situation which I frankly resent because it pits minorities against each other. It also is a situation which could have been avoided. If the Bureau had infused its previous experience with the Asian American community into its formulation of the Post Enumeration Survey, it would not have put the Asian Pacific Islander community in the position of competing against other

minority groups for fair treatment.

Whether intended or not, the Bureau has divided minority groups into two distinct categories: blacks and Hispanics, which have individual strata and whose number will, therefore, be more accurately adjusted; and Asians, which will not be. The net effect may be an unraveling of the Post Enumeration Adjustment process.

The complaints of coalition members of Congress which has formed around this issue have yielded responses from the Secretary of Commerce and Census Director would seem sympathetic, yet really entirely satisfactory. Director Bryant, importantly, indicated a willingness to heighten the overall sensitivity to the Asian Pacific Islander community and to examine the possibility of creating separate post enumeration strata for Asian Pacific Islanders.

Secretary Mosbacher was less hopeful. He said in discussing the

undercount.

Let's remember the best approach is to avoid or at least minimize it. Encouraging people to fill out their forms is fine, but that does not begin to address the disparate treatment Asian Pacific Islanders are receiving in the post enumeration census.

Mr. Chairman, in addition to voicing my displeasure with this situation and with the limits to which the Census Bureau is willing to take action, I do wish to encourage you and other members of your subcommittee to act now in order to ensure that this debate does not have to be played out again 10 years from now. I would like to pledge my willingness to you, Mr. Chairman, and your committee to assist in a field review of post enumeration surveys to produce a process that is fair to all groups.

I would like to thank you for giving us this opportunity to appear before you and make one final observation, if I may. I did mention that fact that it appears that minority groups are being pitted against other minority groups in this particular effort and that really is true. I know we are going to have other Asian Ameri-

can leaders testify and suggest that the whole issue of the Post Enumeration Survey be thrown out and done over again. That, of course, would jeopardize other minority groups and we are kind of trapped, especially with the deadline fast approaching. But there has to be some way within the next few weeks that the Census Bureau can come up with some solution that would be satisfactory to all parties. We have a lot of talent out there and certainly, with the help of your subcommittee and other people involved in this issue, we might be able to solve the problem, but I think it is going to take a lot of leadership on the Census Bureau's part and a willingness to really work this issue out.

Again, I would like to thank you very much.

Mr. SAWYER. Gentlemen, we all thank you both for your testimo-

ny.

I don't have any questions. I just have a couple of comments I would like to mention. First of all, I want to thank you for the sensitivity that both of you have shown to the importance of the whole Post Enumeration Survey process and its effect on any potential decision about whether or not to adjust. It is a critical and finely balanced question and your sensitivity to that is important.

I wanted to comment also that, as you may know, my counterpart in the Senate, Senator Kohl, has written to Director Bryant on precisely these questions and has received an answer that indicates the kind of sensitivity that you have indicated, the heightened sensitivity, and a willingness to use post-strata techniques to help refine the evaluation with regard to Asian American populations.

We will continue to work with them and with you as you are able to make sure that this is done in the most effective way possible and, for my own part, I thank you both for your sensitivity, as

well as your concern.

Mr. Mineta. Mr. Chairman, if I might just interject, on page 8 of Director Bryant's statement on the feasibility of Asian Pacific Islanders post strata statement, I again, as Congressman Matsui has indicated, and you have indicated, their willingness to cooperation, but I think we really have to tie this down to some specifics, not this kind of glossing over that we are getting in terms of yes, cooperation, yes, we will take a look at it, but I think we really have to get something much more specific than what is in this statement, as well as what we have been hearing in the past.

Mr. SAWYER. I will be pleased to share with you Director Bryant's reply to me and discuss with you any further steps that may

be required.

Mr. Mineta. Thank you very much, Mr. Chairman.

Mr. SAWYER. Thank you.

Our third panel this morning will be made up of the Honorable Barbara Everitt Bryant, Director of the U.S. Bureau of the Census; and Dr. Mark W. Plant, Deputy Under Secretary for Economic Affairs of the U.S. Department of Commerce.

My understanding is that Dr. Plant has requested to testify first, although I am happy to leave it to either of you to decide which

order you want to go in.

We are going to use the timer, however I want to emphasize that we have been flexible in this process throughout. Time is always difficult to manage and it is a long hearing that we have set for today, so we will use the timer as a guide and to the degree that you can summarize your testimony and remain effective in presenting it, we would appreciate it if you would do so.

In addition, if you would identify your colleagues who join you at

the table for the record, we would all be grateful.

Dr. Plant.

STATEMENT OF MARK W. PLANT, DEPUTY UNDER SECRETARY FOR ECONOMIC AFFAIRS, U.S. DEPARTMENT OF COMMERCE, ACCOMPANIED BY CHARLES JONES, ASSOCIATE DIRECTOR FOR THE DECENNIAL CENSUS, AND JOHN THOMPSON, CHIEF OF THE STATISTICAL SUPPORT DIVISION

Mr. PLANT. Thank you, Mr. Chairman.

I am pleased to appear before this subcommittee to discuss the status of coverage measurement activities in the 1990 census. I would like to note that Dr. Bryant and I are accompanied by Charles Jones, the Associate Director for the Decennial Census and John Thompson, the Chief of the Statistical Support Division.

Of all my responsibilities, the task of gathering the information necessary for the Secretary to make his decision whether or not to adjust the 1990 census must take precedence and critical to that decision is the census coverage evaluation program which includes

the Post Enumeration Survey.

All of us recognize the importance of that decision, but few recognize the extent of the work leading to that decision and the complexity of the statistical policy issues involved in that decision. Mr. Chairman, the Department of Commerce is committed to a full, fair and accurate census and that includes a high-quality Post Enumeration Survey, a thorough evaluation of the quality of that Post Enumeration Survey and an even-handed examination of whether

or not the census should be adjusted.

The timeframe for accomplishing all that work is extremely tight. May I respectfully remind the committee that we have repeatedly noted that in the judgment of the professional staff of the Census Bureau, there is only a 50/50 chance that enough information will be available to allow a possible adjustment of the census by July 15, 1991. That in no way reflects a lack of willingness on the part of the Department to consider adjustment. Rather, it reflects our over-riding concern with data quality and particularly the quality of decennial census data on which the quality of so many of our other statistics depend.

Dr. Bryant, the Director of the Census Bureau, will discuss the status of the Post Enumeration Survey in detail. I would here simply like to provide the policy context for that survey by reviewing briefly our progress toward making the adjustment decision

itself.

As you know, the stipulation and order signed by the plaintiffs and defendants in the New York lawsuit required the Department to publish guidelines that articulate what we believe are the relevant technical and nontechnical statistical and policy grounds for the decision. After publication of preliminary guidelines in December of last year, we received extensive comments, and in response to those comments published substantially revised final guidelines in March of this year.

Mr. Chairman, there has been considerable media comment on the guidelines and on the attempt of plaintiffs to overturn them. In fact, a casual reading of the popular press might lead an uninformed observer to believe that the court had supported the efforts

of plaintiffs to do so.

I believe it is important for the sake of accuracy to remind everyone that plaintiffs challenged those guidelines, but the court upheld the guidelines as being valid in the face of that challenge. I would like to quote the presiding judge in the case, Judge McLaughlin, here.

Although plaintiffs interpret the guidelines as biased against adjustment, the Court does not view them that way. The Stipulation is not perfectly neutral and that lack of neutrality sometimes works in the plaintiffs' favor. The ultimate decision on whether to adjust, of course, must be fresh and unbiased, following the Secretary's de novo review of the record. That good faith discretion, I am convinced is preserved under the guidelines.

The Judge goes on to say:

I find most troublesome plaintiffs' third and final objection, that the guidelines allow the Secretary to rely on impermissible factors in making the critical decision on adjustment. It is more accurate to say, however, that the guidelines list valid factors for decisionmaking, but they are subject, like any set of rules to being imper-

missibly contorted to justify a flawed final decision.

Plaintiffs' protection against such anticipated abuse is the added requirement under the stipulation that defendants fully explain a decision not to adjust. Because the defendants have chosen to contribute adequate but minimal performance to satisfy their obligation at this stage, defendants clearly incur a heavier burden to explain why no adjustment was made in the event the Secretary elects to proceed with an actual enumeration.

Mr. Chairman, although we disagree with the characterization of our contribution as minimal, we understand our obligation to explain the Secretary's decision in the event he elects not to adjust the census. We are gratified that the court has recognized the va-

lidity of our efforts to that end.

Shortly after the guidelines were published in March, we published a Federal Register notice alerting the public that a set of technical operational plans were available for scrutiny. These plans outlined the Census Bureau data collection and investigatory activities to be undertaken to evaluate the 1990 decennial census and the Post Enumeration Survey. Besides outlining the use of the PES and demographic analysis, this document briefly describes some 30 individual studies to be done to check the quality of the data and assess whether an adjustment would make the census more accurate. It includes a schedule for completion of these studies.

The studies include projects to evaluate the matching process, the effects of missing data, the sensitivities of any proposed adjustment to statistical assumptions and the quality of small area data. The demographic analysis being done for the 1990 census is particularly innovative in several ways. First, the Census Bureau demographic experts will have error bounds on the various population estimates demographic analysis gives us based on the errors in sources. Second, they are taking a hard look at the accuracy of various administrative records and other sources used in making de-

mographic projections.

In addition to these "in-house" Census efforts, and in recognition of the fact that many professionals not working for the government are knowledgeable about these matters, we have under contract more than a dozen experts from outside the Federal government to give us a fresh perspective on many facets of this complicated problem, including the estimation of the effect illegal immigration on the Census, matching errors, and dual-system estimation. The staff at the Census Bureau have developed the details of their workplans, and are working closely with these consultants to be sure that their work will be helpful in assessing the accuracy of the decennial census.

As I indicated above, we also included in the package of operational plans a detailed time table that showed when these operations would take place. The schedule shows that there is virtually no slack between now and July 15. I will work closely with Barbara Bryant to ensure the quality of the data gathered and the analyses done and, to the extent possible, to complete these tasks on time.

We also look forward to the continued support of and advice from the Secretary's Special Advisory Panel. All members of the Panel have been active in their roles as investigators and advisors. The Panel will play a crucial role in ensuring that the Secretary hears all sides of the adjustment issue before he makes his decision. We will continue to work with the Panel as they carry out their important task.

Mr. Chairman, this extraordinary public policy decision will be made in the open. The mechanism put in place by the stipulation and order ensures that the basis for the Secretary's decision will be

well-known and explained.

We look forward to working with the many individuals and groups concerned with the coverage of the 1990 Census, especially this committee.

Thank you.

[The following response to written questions was received from Dr. Plant.]



UNITED STATES DEPARTMENT OF COMMERCE The Under Secretary for Economic Affairs Washington, D.C. 20230

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Honorable Thomas C. Sawyer Chairman, Subcommittee on Census and Population Committee on Post Office and Civil Service House of Representatives Washington, D.C. 20515

Dear Mr. Chairman:

I very much appreciated the opportunity to testify at the Subcommittee's September 11, 1990, oversight hearing to review the status of the coverage measurement activities in the 1990 decennial census. Enclosed is an edited version of my remarks along with the written responses to your follow-up questions as requested.

Sincerely,

Mark W. Plant

Deputy Under Secretary for Economic Affairs

Maw. West

Enclosure

- 1. "In your statement, you refer to "many professionals not working for the government" who will have input into the adjustment decision."
- Q "Please provide the subcommittee with a listing of those individuals outside the Department of Commerce who will have input into the adjustment decision."

At the present time the following individuals are conducting research relating to the adjustment decision.

Special Advisory Panel:

Eugene R. Eriksen, Temple University Leobardo F. Estrada, University of California at Los Angeles William Kruskal, University of Chicago J. Michael McGehee, McGehee and Associates V. Lance Tarrance, Jr., Tarrance Associates John W. Tukey, Princeton University Kenneth Wachter, University of California at Berkeley Kirk M. Wolter, A.C. Nielsen Company

Persons Conducting Research Related to Adjustment:

John M. Abowd, Cornell University Yuha Alho, University of Illinois Paul Biemer, New Mexico State University George Borjas, University of California at San Diego Clifford Clogg, Penn State University Chuck Cowan, Opinion Research Corporation Noel Cressie, Iowa State University John Hartigan, Yale University Daniel Levine, Levine and Associates Michael Murray, Bates College Paul O'Rourke, Charles River Associates Jeff Passel, Urban Institute John Rolph, Rand Corporation Don Rubin, Harvard University Terence Speed, University of California at Berkeley Bruce Spencer, Northwestern University Lynn Stokes, University of Texas Don Ylvisaker, University of California at Los Angeles Alan Zaslasky, Harvard University

- "It is my understanding that the Department of Commerce will decide whether to create additional post-strata for Asian and Pacific Americans during the coming months."
- Q "When will that decision be made?"

The Census Bureau announced an increase in the number of post enumeration survey (PES) post-strata to improve measurement of the coverage of Asians and Pacific Islanders in the 1990 census on October 18, 1990.

O "What factors will be considered in the decision?"

The main factor enabling the Census Bureau to make this decision was the substantial size of the growth of these population groups. The Census Bureau was able to identify five geographical areas of the country, where a significantly large number of Asians and Pacific Islanders were included in the PES.

The Census Bureau therefore is able to form five major post-stratum groups for Asians and Pacific Islanders: New York City; homeowners in the central cities of all metropolitan statistical areas (MSAs) in Alaska, California, Hawaii, Oregon, and Washington; renters in the same central cities; the balance of the MSAs outside of the central cities, primary statistical areas (PMSAs), and the balance of the states (primarily rural areas).

For each of these five major post-stratum groups, individual post-strata will be made separately for both male and female Asians and Pacific Islanders, separated into six age categories. Thus, estimates will be made for 60 separate Asians and Pacific Islander sub-populations, namely, 12 different age and sex combinations for each of the five major post-stratum groups described above.

- In your testimony, you stated that the Secretary of Commerce would not require every one of the tests contained in the Technical/Operational Plan to be completed before a decision on adjustment is made.
- Q Who will establish the priorities for determining which tests must be completed before a decision on adjustment can be reached?

As I stated in my testimony, our goal is to complete all studies. As they are completed we will evaluate them. When it is time for the Secretary to make his decision, he will make the decision on the basis of the information that we have available.

4. "Will the statistical methods being used to calculate the adjustment factors be documented and published prior to the July 15, 1991, decision on adjustment?"

To a considerable extent, these methods are documented in "Technical Operational Plans for Coverage Measurement and Other Adjustment-Related Activities of the Bureau of the Census for the 1990 Decennial Census of Population and Housing." It is our intention to make any additional materials available, if possible, prior to the Secretary's making the adjustment decision.

5. Will the Department of Commerce make public any written opinion or recommendation it receives from the Director of the Census Bureau, regarding the adjustment decision?

If not, why not?

The Department does not currently plan to release such materials. Predecisional memoranda and opinions are generally protected from public disclosure to ensure a full and candid discussion within an agency. Given the public attention surrounding this issue, the pending litigation, and the Secretary's need to receive uninhibited and candid advice on this important issue, a commitment to a public release of such recommendations is not prudent.

Mr. SAWYER. Thank you very much. Dr. Bryant.

## STATEMENT OF BARBARA EVERITT BRYANT, DIRECTOR, U.S. BUREAU OF THE CENSUS

Ms. Bryant. Dr. Plant has already introduced our two colleagues. I might point out that for Charles Jones, who directs the decennial census, this is his fourth census, and that Mr. Thompson is in charge of the statistical methodology for the Post Enumera-

tion Survey.

We reached a very important milestone two weeks ago. Block level preliminary population housing unit and group quarters counts, as well as preliminary population figures, were sent to all local units of government by August 29, as well as to Members of Congress. The purpose of releasing preliminary figures is to give every local government its chance to review and challenge the count while the census is still in progress.

The preliminary population count, as was mentioned, was

245,837,681.

Mr. SAWYER. Details, details.

Ms. Bryant. Details, details. [Laughter.]

Press reports have emphasized that this 246 million—I won't use the details—figure is short of an estimate of 250 million made by the Census Bureau just before the census. Some demographers have questioned whether the count is wrong or the estimate is wrong.

One purpose of the census, in fact, is to benchmark the population count every 10 years. In any event, the difference between the two figures is less than 2 percent and will narrow as the census

progresses.

The census count will increase in practically every jurisdiction throughout the country because the 1990 census is still in progress. We expect to add millions of people before the count is delivered to the President as the result of the following coverage improvement projects.

First of all, local review itself, local government review. If local government challenges are found valid upon recanvass, additions

will be reflected in final population and housing counts.

Second, we will be adding probationers and parolees who were

not counted at their homes to the count.

Third, other search match procedures proceed such as usual

home elsewhere.

Fourth, housing recanvass. The Census Bureau has used data from analyses of calls to its 800 numbers, construction permits, media reports and a variety of other sources to identify areas to look for missed housing units. Housing recanvass is in progress across the country and I can assure Mr. Schumer that there are no such things as 100-unit apartment buildings with one person per unit.

Fifth, a certain proportion of residual field follow-up remains to

be added.

Sixth, data submitted from the "Were You Counted?" forms will be added.

Seventh, additional persons from housing units that remain unclassified after field follow-up procedures in the enumeration will be added.

Eight, we are continuing to conduct the quality assurance checks that I spoke about at Anaheim and finally, in addition to these, State apportionment counts will include overseas military and ci-

vilian Federal employees and their dependents.

Now let me talk about local government review of census housing counts and the 15-day working limit. Each local government has 3 weeks, or 15 working days, in which to challenge these preliminary counts by block. Those governments that meet this deadline can be sure that their challenges will be reviewed. The 15-day deadlines occur between September 10, which was yesterday—we got the first of them in—and September 24. The Census Bureau must be firm regarding the 15-working-day limit for two reasons. First, by October 15, all late addition census interviews must be completed and into the computer in order not to delay the Post Enumeration Survey being used to evaluate census coverage.

Analysis of this Post Enumeration Survey will provide the basis for the Secretary of Commerce's decision whether or not to adjust the census for under or overcount. One crucial operation, follow-up interviewing in the PES, as we call the Post Enumeration Survey, of those whose names cannot be matched to the census is scheduled to begin on November 15 and end in mid-December. Past experience tells us that we must complete the operation before the holiday season. This is because it is both very difficult to hire people to conduct the interviews and to find people at home to be inter-

viewed during the last 2 weeks in December.

Previous experience with field work also tells us it is difficult to stop an operation for 2 weeks and then restart it again without encountering further difficulties. Thus, a 2-week delay in the census timetable at this point, if we were to delay post-census local review, could pose significant risks to the PES operation as currently planned and could result in delays of as much as four to six weeks. Dr. Plant has already pointed out what a tight timeframe we are

on.

If the start-up of follow-up interviewing is significantly delayed, subsequent PES operations would be similarly delayed. This would almost surely put the July 15 adjustment decision at greater risk.

Second, by law, in Title XIII of the United States Code, the Census Bureau has an absolute deadline of December 31 to deliver to the President the population and apportionment count. The 15-working-day limit is realistic for local governments since it takes into account the much longer lead time, warnings going back to 1986 and frequent announcements in 1987, 1988, 1989, so they have had this lead time to prepare for local review.

I will also remind this subcommittee that in 1980, only 10 days were provided for local review and we did not have a precensus

local review in that census.

Now let's consider the discrepancies between preliminary population counts and estimates. Over the past few weeks, we saw a great deal of media coverage on the release of preliminary population counts. As we have emphasized, time and time again, these are preliminary numbers, that we expect to change, in fact,

to increase for most jurisdictions.

Further, there is probably an uneven variance in these numbers. Some will increase more than others. I applaud the members of the committee and others in Congress who worked diligently to publicize the local review program and urge local officials to gear up for the process earlier this summer when they received their maps from us. I should make one point about the preliminary numbers. As you know, the Census Bureau makes estimates and projections starting with one decennial census and moving up to the next. We have done this during the past decade for States and sub-State areas such as counties and cities.

Having studied estimates and projections for many years, we understand that these are not perfect because they are based on certain relationships and assumptions. As I mentioned earlier, that is why we take a census once in 10 years. We know that errors can have a compounding effect over time, so once in 10 years, we re-

benchmark the estimates and projections.

You will recall that in 1980, Census Bureau estimates predicted several million fewer people than we enumerated. The Post Enumeration Survey is really the topic of this hearing and the progress on that continues.

I want to address six major issues related to this PES. First, progress and timetable-related issues; then PES security; quality assurance; the feasibility of adding Asian and Pacific Islander post strata; minimizing missing data in the PES; and the challenges ahead

First and most important today, I am very pleased to report to this subcommittee that we are largely back on schedule with PES operations. The Census Bureau has carefully monitored progress toward the timely completion of each stage of PES. As Director of the Bureau, I personally monitor the progress of the PES on a regular basis with key senior staff. As a result of our efforts, almost 90 percent of 449 district office areas began PES interviewing within 2 weeks of the originally scheduled start date. We accomplished this despite a major delay. Nonresponse follow-up took up to 8 weeks longer than scheduled in some hard-to-enumerate areas.

The Bureau's decision to process the PES results on a flow basis—meaning that we did not wait for all offices to complete work—was a decisive factor in minimizing delay. Thus, the 90 percent of offices areas were not held back by the 10 percent that were significantly behind schedule on nonresponse follow-up. All PES interviews are now completed. Last week, on September 4, we began one of the most critical stages in the PES, the clerical matching of persons who live at the same address on census day to

the census records for that address.

This operation is one of the most complex and time-consuming operation the Bureau will undertake during the cycle. Beginning

this operation on time is a major accomplishment.

Second, we are continuing to safeguard PES security. We took extensive precautions to protect confidentiality of the PES sample and consequently, the integrity of the PES. To provide accurate coverage measurement estimates, we must ensure that the evaluation sample blocks do not receive any special treatment. We are

keeping the identification of those areas as restricted as feasible. To accomplish this, we conducted the field work from centralized regional permanent offices, not from the district offices where the census field work was conducted.

This prevented local areas from knowing which blocks are in the PES sample. We are splitting up the work of the regional offices so that all the information regarding sample blocks is not in the same

place at the same time.

For example, while the segment maps were being prepared in the regional offices, the block maps were being prepared in our data processing facilities in Jeffersonville, Indiana. We think that these and other precautions will help dispel any myths there is a chance that the PES could be rigged.

We will remain concerned with PES security until the publica-

tion of the final PES data.

Third, we are implementing quality assurance, or QA, in the PES. In Anaheim last month, I spent considerable time discussing quality assurance in census operations. We have similar programs for PES operations. We developed QA plans for 13 different operations. I believe the funds spent on quality assurance are well

spent.

Now, let me turn to the issue of the feasibility of Asian/Pacific Islander post strata. As I reported this summer to the Senate Committee on Governmental Affairs, we are currently examining the feasibility of creating additional PES post strata for Asian and Pacific Islanders in selected areas. I stated that the Census Bureau would make every effort to obtain valid estimates for APIs within those geographic areas where sufficient concentrations live and sufficient data exists.

We are now investigating whether we may be in a position to support a limited number of Asian post strata in the PES and if we could incorporate these data without jeopardizing the July 15 deadline. We are looking for adequate concentrations in several geographic areas. We are also assessing the feasibility of including age and sex categories. We must make certain that we can produce an estimate with the precision necessary for use with a possible statistical adjustment.

One major priority for the PES in 1990 is to minimize missing data. In 1980, high rates of missing data contributed to the uncertainty of the coverage estimates. This uncertainty was one of the major reasons for the recommendation by the Census Bureau Executive Staff that 1980 coverage estimates were not sufficiently accu-

rate to adjust the census.

In 1980, 8.4 percent to 9.7 percent of the PES data were unresolved. This year, in 1990, approximately 3 percent of the PES records were incomplete or unsuccessful noninterviews. Another 3 percent were gathered by proxy; that is, from someone outside of the household.

We took two important steps to minimize noninterview rates. The PES procedures provided for numerous call-backs during the interview process and up to 5 weeks to complete an interview. In areas with the higher than 2 percent noninterview cases, we sent these cases back to the field office for refielding by our current survey experienced interviewers.

I want to assure the committee we are taking all feasible steps to

minimize the amount of missing data wherever possible.

As this subcommittee and the General Accounting Office have repeatedly noticed, we have major challenges in remaining months. I will point out those that our technical staff consider the most formidable. One, controlling the complex matching operations at seven different processing offices. Two, integrating late census data from coverage improvement programs in the census into the PES process. Three, assuring successful follow-up operations. Fourth, ensuring smooth flow of work at PES processing and interview. Fifth, continued software development for processing and estimation and, of course, producing the evaluation studies.

The Census Bureau considers this last task, the timely completion of evaluation studies, to be the part of the PES timetable at greatest risk. Dr. Plant referred to 30 studies. These break down to 18 studies of the PES, 11 studies of demographic analysis, and one

study of synthetic assumptions underlying adjustment.

These studies are scheduled for completion by next May, May, 1991. This is another component of the information that will be available for the Secretary of Commerce as he makes the final decision on whether or not to adjust the census results.

As you can see, we have an ambitious work load which must be completed within a very short period of time. We are making every effort to achieve our goal of having all the data available to make an informed judgment on the issue of adjustment before July 15, 1991.

We at the Census Bureau are mindful of the competing goals of timeliness and data quality. If we do experience further delays, this subcommittee will be informed in a timely fashion. We are sensitive to the special concerns surrounding the PES and its related operations.

We can't judge the quality of the census by anecdotes; rather we

need to wait for the results of the PES.

I thank this subcommittee for the opportunity to present this testimony. This concludes my prepared remarks. My colleagues and I will be pleased to answer any question you may have, Mr. Chairman, and Mr. Ridge, and Mr. McNulty.

[The statement of Dr. Bryant follows:]

## TESTIMONY OF DR. BARBARA EVERITT BRYANT

# BEFORE THE SUBCOMMITTEE ON CENSUS AND POPULATION

# **SEPTEMBER 11, 1990**

We reached an important milestone in the 1990 Census two weeks ago. Block level housing unit and group quarters counts, as well as preliminary population figures, were sent to all local units of government by August 29, as well as to Members of Congress, Governors, and majority and minority leaders in state legislatures. The purpose of releasing preliminary housing unit and group quarters figures is to give every local government its chance to review and challenge the counts (i.e., document discrepancies in the number of housing units) while the census is still in progress.

The preliminary population count was 245,837,681. Press reports have emphasized that this 246 million figure is short of an estimate of 250 million made by the Census Bureau just before the census. Some have questioned whether the count is wrong or the estimate is wrong. One purpose of the census in fact is to benchmark the population estimates every ten years. In any event, the difference between the two figures is less than 2 percent, and will narrow as the census progresses.

The census count will <u>increase</u> in practically every jurisdiction throughout the country because of ongoing coverage improvement programs. We expect to add <u>Millions</u> of persons before the count is delivered to the President as the result of the following operations:

- Post Census Local Government Review If local government challenges are found valid upon examination and recanvass, additions will be reflected in the final population and housing counts
- Check of probationers and parolees. The Census Bureau is working with state and local officials to add probationers and parolees not counted at their home addresses
- Other search match procedures such as "Usual Home Elsewhere," etc. This procedure adds people to the census at the address and area they report as their usual residence

- Housing recanvass The Census Bureau has used data from analyses of calls to its 800-numbers, construction permits, media reports and a variety of other sources to identify areas to look for missed housing units. Housing recanvass is in progress across the country
- A certain portion of residual field follow-up
- Data submitted from "Were You Counted?" forms
- Additional persons from housing units that remain unclassified after field follow-up procedures
- Quality assurance checks, such as reinterviews conducted by Bureau field staff
- Finally, <u>State</u> apportionment counts will include overseas military and civilian federal employees and their dependents

# LOCAL GOVERNMENT REVIEW OF CENSUS HOÙSING COUNTS AND THE 15 WORKING DAY LIMIT

Over 39,000 units of local government (cities, counties, etc.) received preliminary housing unit counts, by block, as well as counts of group quarters (dormitories, jails, shelters, etc.) in mid-to-late August. Each has three weeks (15 working days) from receipt in which to challenge these counts by block. The Census Bureau will review and, where necessary, recanvass the challenged blocks. Those local governments that meet the 15 working day limit can be sure their challenges will be reviewed. If found valid upon recanvass, revised figures will be reflected in their final housing and population counts. The fifteen day deadlines occur between September 10 and 24.

The Census Bureau must be firm regarding the 15 working day time limit for two reasons.

1. By October 15, all late addition census interviews must be completed and into the computer in order not to delay the post-enumeration survey, which is used to evaluate census coverage. Analysis of this post enumeration survey will provide a basis for the Secretary of Commerce's decision whether or not to adjust the census for under or over count. This decision must be made by July 15, 1991, as agreed upon by all parties to the lawsuit filed in New York.

Critical parts of the post-enumeration survey involve matching names of those interviewed in the survey with names of those in the census, sending enumerators back into the field to recheck discrepancies, and performing complex statistical estimation processes.

One crucial operation, followup interviewing in the PES of those whose names cannot be matched to the census, is scheduled to begin on November 15 and end in mid-December. Past experience tells us that we must complete this operation before the holiday season. This is because it is very difficult both to hire people to conduct the interviews and to find people at home during the last two weeks in December. Previous experience with field work also tells us that it is difficult to stop an operation for two weeks and restart again without encountering further difficulties. Therefore, a two week delay in the census timetable at this point could pose significant risks to the PES operation as currently planned, and could result in delays of as much as 4-6 weeks in the completion of PES followup interviewing. If the start of followup interviewing is significantly delayed, this operation may not be completed until the middle of January. Subsequent PES operations would be similarly delayed. This would almost surely put the July 15 adjustment decision deadline at greater risk.

2. By law, the Census Bureau has an absolute deadline of December 31, 1990 to deliver the population and apportionment counts to the President.

The 15-working day response time is realistic for local governments since it takes into account the much <u>longer</u> lead time localities had to prepare for local review.

In November 1986, a letter announcing the local review program was sent to each eligible government. In the summer of 1987, a Local Review Information book was sent to all local governments. The booklet described the program, how to compile local estimates and included the first notice about the 15-working day review period for postcensus local review. Furthermore, three subsequent separate notices in 1989 and 1990 were sent to local officials reminding them of the limit.

Finally, as this subcommittee knows, we sent all governmental units a preliminary set of maps in late summer and early fall of 1989. In late June and early July of 1990, corrected Post Census Local Review maps were sent out so local governments could have two months to consult their own records and be ready to prepare challenges during the 15 day working period. I will also remind this subcommittee that in 1980 only 10 days were provided for local review, and there was no precensus local review in that census.

# DISCREPANCIES BETWEEN PRELIMINARY POPULATION COUNTS AND ESTIMATES

Over the past few weeks we saw a great deal of media coverage on the release of preliminary population counts. As we have emphasized time and time again, these are preliminary numbers that we expect to change, to increase in fact, for most jurisdictions. Further, there is probably an uneven quality variation to these numbers. Some will increase more than others. I am concerned about how local officials compare these preliminary counts with estimates and criticize the census, but I am more concerned that some local officials may not fully participate in local review because they are pleased with the preliminary numbers. I want to encourage every local official to participate in local review so that we can make the 1990 census the most accurate practicable.

The Census Bureau makes estimates and projections throughout a decade, with the most recent decennial census all the way to the next decennial census. We have done this during the past decade for states, and substate areas such as counties and cities. Having studied estimates and projections for many years, we understand that these are not perfect because they are based on certain relationships and assumptions. As I mentioned earlier, that is why we take a census once in ten years; to get the estimates rebenchmarked. We know that errors in estimates will accumulate, we know that assumptions are not always valid. We have noticed that errors can have a compounding effect over time, so once every ten years we re-benchmark the estimates and projections. I would add that in 1980 Census Bureau estimates predicted several million fewer people than we enumerated.

# POST ENUMERATION SURVEY (PES) PROGRESS CONTINUES

At this point, I will address six major issues related to the PES:

- I) Progress and Timetable Related Issues
- 2) PES Security
- 3) Quality Assurance
- 4) The Feasibility of Adding Asian and Pacific Islander Post-Strata for the PES
- 5) Minimizing Missing Data
- 6) Challenges Ahead

# 1. PES TIMETABLE IS LARGELY BACK ON SCHEDULE

The Census Bureau has carefully monitored progress toward the timely completion of each stage of PES operations. As Director of the Bureau of the Census, I personally monitor the progress of the PES on a regular basis with

key senior staff. So far we have been able to accommodate delays in the PES and other census-related operations.

As a result of our efforts, almost 90 percent of 449 district office areas began PES interviewing within two weeks of the originally-scheduled start date. We accomplished this despite a major delay; nonresponse follow-up took up to eight weeks longer than scheduled in some hard-to-enumerate areas. The Bureau's decision to process the PES results on a flow basis (meaning that we did not wait for <u>all</u> offices to complete nonresponse follow up work) was a decisive factor in minimizing this delay. Thus, the 90 percent of the office areas were not held back by the ten percent that were significantly behind schedule. Today, I am pleased to report to this subcommittee that we are largely back on schedule. All PES interviews are completed. Last week (September 4), we began one of the most critical stages in the PES, the clerical matching of persons who live at the same address on census day to the census records for that address. This operation is one of the most complex and time-consuming operations the Bureau will undertake during the cycle. Beginning this operation on time is a major accomplishment.

The Bureau's technical staff was both flexible and creative in devising solutions to operational difficulties. These behind-the-scenes innovations didn't make headlines, but they produced impressive results. The Bureau staff produced an optimistic plan to complete PES and adjustment related activities by July 15, 1991. The Bureau has developed solutions to the operational difficulties and delays we have encountered. In short, "the plan" is working. I will illustrate with a few examples.

Using information from the computerized management and information system (MIS), high level technical and operational experts at the Bureau implemented several steps to accommodate the delays in beginning PES interviewing. One such action was to begin Search/Match Operations for the census (which use the same hardware resources as the PES) earlier than originally scheduled. In addition, we ordered more equipment (microfilm access devices) to assure both Census and PES matching operations are adequately served. We are using this equipment on three shifts instead of one, expanded the space allocation for the PES processing work, and hired additional technical specialists to accommodate an expanded matching staff. We significantly modified PES software to accommodate "mover matching" on a separate track from non-movers. We take no shortcuts in producing either census or PES data of sufficient quality to meet these timetable objectives. Despite much pressure, we allowed minimal overlap between PES interviewing and nonresponse follow-up operations. We accelerated certain procedures by allocating needed staffing, supervision, equipment, and priority to the task.

#### 2. SAFEGUARDING PES SECURITY

We took extensive precautions to protect confidentiality of the PES sample and consequently, the integrity of the PES.

To provide accurate coverage measurement estimates, we must ensure that the evaluation sample blocks do not receive any special treatment. We are keeping the identification of these areas as restricted as feasible, both in terms of block identifiers and associated maps. To accomplish this:

- We conducted the field work from centralized regional
  permanent offices not from the district offices (where census
  field work was conducted). The listing, the quality assurance on
  the listing, the interviewing, and any follow-up interviewing
  was managed at the regional office level. This prevented local
  areas from knowing which blocks were in the sample.
- We restricted access to the list of block identifiers to only a few people on the regional office staff and at headquarters. Also, the regional staff only had a list of sample blocks in their region, not the entire list.
- All transmittals of block listings contained a confidentiality notice that the material was restricted data for office use only and protected by Title 13.
- Training emphasized the importance of keeping the identification of the PES blocks confidential.
- Work was split up at the regional offices so that all the information regarding the sample blocks was not in the same place at the same time.
- While the segment maps were prepared in the regional offices, the block maps were prepared in Jeffersonville, IN.
- At the time PES interviewing began, the vast majority of the census field work was completed and the processing offices were well into data capture of census information.

We think that these and other precautions will help dispel any concerns that there is a chance that the PES could be compromised. We will take all necessary precautions to safeguard the integrity of the PES until the publication of final PES data.

# 3. QUALITY ASSURANCE (QA) IN THE PES

In Anaheim last month, I spent considerable time discussing quality assurance in census operations. We have similar programs for PES operations. Feedback is given continuously in order to improve ongoing operations. We developed QA plans for the following operations:

Listing
Subsampling
E-sample Identification
Address List Data Entry
Group Quarters Listing/Subsampling
Interviewing
Review for Census Day Address
Interview Form Data Entry
Full Name Data Entry (Census Form)
Matching
Followup Preparation
Followup
Libraries

# Some examples of QA plans are:

- 1. Listing -- We used either an administrative or independent listing to gauge lister performance. A sample of addresses from an independent source was matched to the listing in most urban areas. In remaining areas, an independent listing (similar to the Prelist) was used as a check.
- 2. Interviewing As interview forms flow into the field office, all forms undergo an edit for completeness and consistency. A random sample of cases and all forms failing edit undergo a reinterview check. The effective reinterview sample rate is approximately one in four.
- Matching The clerical matching is done twice independently and compared by the computer. All differences are resolved by a technician. Automated output is used to provide continuous feedback to the matching clerks.

We use quality assurance in all census and survey operations to assure a high quality product. I believe these funds are well spent.

# 4. FEASIBILITY OF ASIAN/PACIFIC ISLANDER (API) POST STRATA

As I reported this summer to the Senate Committee on Governmental Affairs, we are currently examining the feasibility of creating additional PES post-strata for Asian and Pacific Islanders in selected areas. I stated that the Census Bureau would make every effort to obtain valid estimates for API's within those geographic areas where suffcient concentrations live and sufficient data exist.

We continue to investigate whether we may be in a position to support a limited number of Asian post-strata in the PES, and if we could incorporate these data without jeopardizing the July 15 deadline. We are looking for adequate concentrations in several areas. We are also assessing the feasibility of including age and sex categories. We must make certain that we can produce an estimate with the precision necessary for use with a possible statistical adjustment.

#### 5. MINIMIZING MISSING DATA IN THE PES

One major priority for the PES in 1990 is to minimize missing data. In 1980 high rates of missing data contributed to the uncertainty in coverage estimates. This uncertainty was one of the major reasons for the recommendation by the Census Bureau executive staff that 1980 coverage estimates were not sufficiently accurate to adjust the census in that year. In 1980, 8.4 percent to 9.7 percent of the PES data were unresolved. If missing data rates are as high in 1990 as they were in 1980, we will have severe technical reservations about the accuracy of the PES as an adjustment tool. In cases where one models or estimates whether each person was missed or counted in the census, increased uncertainty is added if a significant portion of those estimates are based on missing data.

In 1980 different reasonable methods of modeling missing data resulted in substantially different estimates of coverage error (undercounts and overcounts). For example, the range of estimates derived from the PES ranged from a national <u>undercount</u> of 2.1 percent to a national <u>overcount</u> of 1.0 percent.

In 1990 approximately 3 percent of the PES records were incomplete or unsuccessful—"non-interviews." Another 3 percent were gathered by proxy (a non-household member).

We took two important steps to minimize non-interview rates:

 The PES procedures provided for numerous call backs during the interview process and up to five weeks to complete an interview.  In district office areas with a higher than 2 percent noninterview rate, we sent the non-interview cases back to the field offices. The field offices will use highly experienced staff (such as current survey interviewers) to help reduce non-interview rates. At the present time, over 3500 (over 80 percent) of the initial non-interview cases are being rechecked.

We considered sending all non-interviews back to the field, but decided that to send more cases would greatly jeopardize the flow of PES processing. We intend to work diligently to minimize all unresolved cases in all subsequent operations including follow-up interviewing, geocoding and matching. Clearly, we are taking <u>all</u> feasible steps to minimize the amount of missing data wherever possible.

# 6. MAJOR CHALLENGES IN REMAINING OPERATIONS

A number of potential difficulties lie ahead in the coming weeks and months. I will point out those that our technical staff consider most formidable:

- Controlling complex matching operations at seven processing office sites
- Integrating late census data from coverage improvement programs in the Census into the PES process
- · Assuring successful follow-up operations
- Insuring smooth flows of work in PES processing and interviewing
- Continued software development for processing and estimation
- Producing evaluation studies

The Census Bureau considers this last task, the timely completion of evaluation studies to be the part of the PES timetable at greatest risk. We will produce 18 studies of the PES, 11 studies of demographic analysis, and 1 study of synthetic assumptions underlying adjustment. These studies are scheduled for completion by May of 1991. This is another component of the information that will be available for the Secretary of Commerce as he makes the final decision on whether or not to adjust the census.

As you can see, we have an ambitious workload which must be competed within a very short period of time. We are making every effort to achieve our goal of having all the data available to make an informed judgment on

the issue of adjustment before July 15, 1991. We at the Census Bureau are mindful of the competing goals of timeliness and data quality. We note with considerable interest the concerns of the General Accounting Office. In testimony before this subcommittee, GAO urged that "changes in planned operations or time schedules be carefully considered in light of the potential risk of impairing the quality of PES data or, of even more importance, interfering with or impairing the quality of the census itself." If we do experience further delays, this subcommittee will be informed in a timely fashion. We are sensitive to the special concerns surrounding the PES and related operations.

Mr. Chairman, we are all pleased with the progress of the census, and the progress of the post-enumeration survey, to date. However, I feel a responsibility to end my statement with some words of caution. The post-enumeration survey is not yet over. Until the post-enumeration survey is over, and until the studies evaluating it are completed, we will not know how good it was and how confident we should be as we put it to different uses. In particular, it is premature to infer from anything I have said, or from anything that we now know, what the quality of the post-enumeration survey will be. The decision whether or not to adjust the census count on the basis of a post-enumeration survey requires that we know the strengths and weaknesses of that survey. We know that we have planned well and learned from the 1980 census, the test censuses, and the dress rehearsal, but we cannot know how good the actual full scale post-enumeration survey is until it is over and fully evaluated.

I thank this subcommittee for the opportunity to present this testimony and for its continuing support of the 1990 Census.

Mr. SAWYER. Thank you, both, for your thorough testimony. I assure you that I recognize that you made heroic efforts to truncate your oral presentation and the full text of your testimony will

be preserved in the record.

Let me, just by way of opening comments, suggest that we did a chart of the detail of the flow of tests that you have outlined; in fact, the flow of technical operations, and you are quite right when you describe the fact that one operation literally abuts up against the next in ways that allow very little slack in a timetable.

I am going to limit my first round of questions, Dr. Plant, to you, around that particular concern. Because that schedule is so demanding, is it your view that the Secretary will require the completion of virtually every one of these 29 or 30 or perhaps even

more tests of the PES before he reaches a decision?

Mr. Plant. Our goal, sir, is to complete all those studies. As the studies are completed, we will evaluate them, look at them, look at the results, and when it comes time for the Secretary to make his decision, he will make his decision on the basis of the information that we have available.

Mr. Sawyer. When you say "on the basis of the information that is available," should I conclude from that that you will make whatever efforts you can to complete all of those tests, but that you will make your decision based on the information available?

Mr. Plant. That is correct, sir.

Mr. Sawyer. I want to assure that slippage in that schedule does not in itself become a self-fulfilling prophesy, rather than working with the Congress to try to adjust whatever schedules may be necessary in the intervening time so that the best set of data is possible.

Mr. Plant. We have been over that schedule repeatedly. I have been over it with Mr. Jones and Mr. Thompson. We think the schedule is doable, but it is a very tight schedule and as we go through that schedule, we will have to see what data are available. There are certain additional operations that have to be done to see how timely those are completed and make judgments as we go along as to what information we can get to the Secretary by decision day.

Mr. SAWYER. I, for one, strongly agree with several of the assertions that you have made in the course of the hearings that we have held and again today that accuracy takes predominance over everything else. If, in fact, some of the logistical steps were to stand in the way of that accuracy, are there adjustments in the timetable that you have laid out that would remain consistent with

choosing accuracy over logistics?

Mr. Plant. Again, we will emphasize accuracy. It is important that we know the quality of the Post Enumeration Survey in order to make the adjustment, if an adjustment is to be made. Our focus will be on judging the quality of the Post Enumeration Survey.

Mr. Sawyer. I do understand that.

Let me go to a specific point, then. One of the guidelines—I guess it is No. 7—says that if there is a disruption to the political process, that itself is among the grounds that would be sufficient for deciding not to adjust. If, in fact, that guideline were to predominate and, clearly, I understand that Dr. Darby has suggested that

not all of the guidelines are equal and that some are less equal than others, I guess the pressure to produce data in a timely way becomes almost its own argument against adjustment if it begins to slide on that schedule.

I am looking for assurance that you would change the logistics of those tests, particularly considering the fact that similar tests, at least statistical tests, have not been applied to the raw census data itself, that failure to complete your own very demanding schedule would not, in itself, become grounds for a decision not to adjust.

Mr. Plant. We have to be sure the Secretary has sufficient information on which to make a decision to adjust. Failure to make that schedule is not, in and of itself, sufficient grounds. We have to look at the body of information that is gathered together at the time the Secretary has to make his decision and see if there is sufficient information there to judge the quality of the census, the quality of the PES and the quality of any adjustment that might be made.

Mr. Sawyer. Let me ask you this: Current law requires the Census Bureau to release data to the States by April 1. The release of adjusted data, or the decision to adjust several months later could, in and of itself, be construed as causing a disruption of sorts. Given the demanding character of the timetable, what would the position of the Department be or what would your guidance be with regard to whether or not Congress should be encouraged to put all of that on a similar timetable to release that data simultaneous with the decision to adjust; in short, to move the April 1 deadline to July 15 in order to minimize disruption?

Mr. PLANT. The Department hasn't taken any position on that

particular issue.

Mr. Sawyer. Let me encourage the Department to give that some thought if, in fact, the schedule is demanding, as you say it is. With that, I am going to yield and move to my colleagues and return to Dr. Bryant in a second round.

Mr. RIDGE. Dr. Plant, let me just reiterate for a moment, if I might, the concern that is expressed by Chairman Sawyer and I

think shared by all members of the subcommittee.

The decision to make an adjustment depends completely on the ability to forward to the Secretary complete and accurate information. The process of acquiring that information is compressed into a

very short period of time.

The process of acquiring that information could potentially be used as a means to avoid making the decision, yes or no, there should be an adjustment. It could simply be said, "We did our best; we couldn't get sufficient information to the Secretary, and, absent sufficient information one way or the other, there will be no adjustment this year." I think what my colleague is saying is that we certainly, I think, speak strongly on both sides of the aisle that, although it does appear to be an incredibly difficult and complex schedule, and you are going about all these studies and you have a very compressed timeframe, we certainly hope that, come July of 1991, there is sufficient information, quality information, made available to the Secretary so that he can make a decision based on whether or not an adjustment is appropriate, not a decision based on whether or not you had the time to acquire sufficient information.

I just wanted to share that with you and need no response. I know you have got a lot of work to do and so little time to do it,

and I appreciate that effort.

Along those same lines, however, I just see you dealing with volumes of information in trying to undertake this work in such a short period of time. If you have an overload of material to process—you have got the census and you have the PES—which has priority, census material or PES?

Mr. Plant. The census material clearly would have the priority. However, we have worked out the detailed plan so that we can process all this information simultaneously. Unforeseen glitches in

the plans, the census material has priority.

Mr. RIDGE. Okay.

Is there any reason to believe, based on the 1980 experience, that you would have any difficulty at all doing them both simultaneously?

Mr. PLANT. As both you and Mr. Sawyer mentioned, it is ambitious to do both simultaneously. However, we have adequate staff in place, and we have a plan that I think is workable.

Mr. Ridge. All right.

On a very practical matter, some of my colleagues testified to the concerns of their mayors and their communities with regard to local review. I suspect that every Member of Congress has been in contact with a mayor or mayors in cities that they represent who have similar concerns.

I have a really strong feeling that there are going to be a lot of blocks that will be challenged. A lot of these numbers are going to be challenged by local governments as part of the local review

process.

Do you have the time and the resources to check all of them, and after, they have made the challenge to you, would you describe for me the process you employ to honestly assess the accuracy of the

challenge.

Ms. Bryant. First of all, we do think we have the resources for several reasons. First, one thing we have been doing is the housing recanvass, which involves about 500,000 blocks with about 15 percent of the housing units in the Nation. We expect that some of the local review challenges will turn out to be these same blocks that we are already in the process of recanvassing, so it is not as though we start today completely on the recanvassing.

We will, of course, prioritize the challenges in order of their seriousness so that we address them in that order, but our expectation

is that we have the people in place and the resources to do it.

Mr. Ridge. If I might, just along those same lines, the mayor of the city of Erie, Pennsylvania, considers the loss of 11,000 of her citizens extremely important, and the mayor of New York would consider the loss of 1,000,000, according to their projections, to be of the highest priority. When you go about determining who gets priority, is it strictly a numbers game?

Ms. Bryant. This will not be Erie versus New York City, but it

will be on a block-by-block basis; I will confirm that.

Mr. Jones. We will prioritize within each area. We will prioritize the work within each area from large to small discrepancies and start working down the lists. Mr. Ridge. Okay. That is somewhat reassuring. But I guess when I take a look at—and I commend my colleague for holding the hearing on local review—the projections of 250 million, in the actual count we may be three or four million short. We understand that the 1988 was just a projection, and, as the testimony has indicated, you anticipate probably adding a couple of million more people, and you gave us that lengthy list.

But somebody testified that the local review only generated an additional 76,000 Americans back in 1980. Do you have any reason to believe that the process of local review for this 1990 census will allow for addition of greater numbers than in previous years?

I have got to tell you, given all the municipalities and all the concerns that I am sure they had in 1980 over that local review, the idea that, after all of that, there were only 75,000 people added was somewhat surprising to me. I do not want to prejudge whether you add another person, but I am just wondering if there is a difference in how you conducted the local review this year as opposed to 1980.

Ms. Bryant. Well, I will give my impression from what I know, but then obviously I should turn it over to Charlie Jones who was here in the 1980 census.

First of all, I believe that the Census Bureau started working with the local communities, local redistricting officials, State legislative people—Governors, mayors—far, far earlier this time. As I say, there were early meetings and discussions in 1986; there were handbooks put out in 1987; there was precensus local review, which is almost like the dress rehearsal of local review; and, obviously, there has been an awful lot of ink about local review and a lot said about it on the airwaves. So I think there is a much higher recognition, but, Charlie, I will let you expand on that.

Mr. Jones. In the 1980 census, that was the first time we had done local review, and we had not prepared local officials for doing the local review as well as we have this time. This sounds like a fairly straightforward operation, but it is actually rather complicated to arrange your data in the order to do the review. So some of the things we have done this time, for example, are, we had 900 training sessions throughout the Nation, to which we invited people to come to these workshops and learn what is the process of local review, how to get ready for it, how to prepare challenges, and things of this nature. This is throughout the Nation we have had these.

I think this has raised the awareness and the ability of people. I think we have advertised this much more this time, and there is more awareness out there that this process is coming. For example, in the pre-census local review this time, we added a half a million housing units.

So I think we have some expectation we are going to add many

more housing units this time than we did in 1980.

Ms. Bryant. I should also point out that this time we have those famous Tiger maps, the computerized mapping system, which was not available in 1980 and makes it much easier for local governments to see their blocks and compare them.

Mr. Ridge. Thank you, Mr. Chairman.

Mr. SAWYER. We can return for another round, if you would care to.

Mr. McNulty.

Mr. McNulty. Thank you, Mr. Chairman.

I want to thank Dr. Plant, Dr. Bryant, Mr. Jones, and Mr. Thompson for testifying today and for their outstanding efforts in

what I know is a very difficult chore.

I guess I would direct this question to Dr. Bryant or to whoever should appropriately answer it, but when I was listening to the testimony of several of our colleagues earlier, the point that was most interesting to me was one of the ones that was made by Chuck Schumer regarding in-household misses, and me made the statement that leading experts believe that as much as 70 percent of the population missed in the 1980 census came from in-household misses.

Now, whether or not that 70 percent is correct, I think, is not important, but it points to a serious problem. I think that everyone would agree that within this whole process there are a number of instances where the number of people in a household is undercounted, and I guess that since the focus of this local review seems to be almost exclusively focused on the number of households, I am wondering how you are addressing this other problem.

Ms. Bryant. That has been addressed, of course, throughout the census. It is the most challenging single problem, I think, in counting America, and it was addressed by hiring people from the neighborhood. For example, in public housing we had residents of public housing doing the follow-up enumeration. It was done with an ex-

tensive outreach program.

The Census Bureau does not have search warrants to go inside individual's housing units, but we do use every local sort of effort that we can in getting cooperation by working with community people and hiring community persons.

As I say, we are doing a housing recanvass. We have gone back to some housing units where we thought that the housing count might be short and have done reinterviews and recanvassed there.

Mr. McNulty. Let me then ask you specifically, Dr. Bryant, about the response that Mr. Schumer gave to me when I questioned him on that. If, for instance, the city of New York or any other city that feels as though these undercounts are very serious, these in-household counts, if they have municipal administrative records that they want to submit to the Census Bureau, is there a mechanism by which that can be done? That is basically my question.

Ms. Bryant. There really isn't, because municipal records vary so much from every municipality. The local review is, you know,

that municipal record thing.

Now Mr. Schumer has spoken of great growth over 10 years in New York City. Why, then, did the school enrollment of New York drop by 54,000 between 1980 and 1988? Why do the moving vans show more going out than coming in? We have done everything we can to find the people, and if the local governments still feel there are people out there in housing units that we have missed, let them take a "Were you counted?" form out and find those people for us.

Mr. McNulty. I think we are getting off the topic here. I think we can all make general statements about where we think population is flowing and so on. I don't think that adds to the discussion. It would seem to me that if an administration going through a local review process can substantiate numbers of people in a household, that somehow there ought to be some kind of mechanism whereby they can transmit that to the Census Bureau. It doesn't seem to me to be a really complicated thing.

Mr. Jones. Usually the lists of administrative records that are available are not timely. For example, these are constructed over

time; they do not relate to April 1.

I think the best thing at this point would be if local officials or anyone else thinks anyone has been missed within a household, that they either try to get them to fill out a "Were you counted?" form and send that in or call our 800 number. We still have the 800 number in operation through September 30, and we have people there ready to take the calls and report anyone.

But the use of administrative records, we have looked at this,

and they have not been generally productive.

Mr. McNulty. Thank you.

Mr. Sawyer. Let me return to a line of questioning that I was following a little bit earlier with Dr. Plant and turn to you, Dr. Bryant. If, in the course of the PES in those 150,000 households, you identify folks who clearly were not counted in the actual census, will those people be added to the counts for those areas?

Ms. Bryant. No. The PES would be used for a possible decision on statistical adjustment of the census. I mean that is the purpose of the PES, to look at who was counted both times, one time, not

the other, and then to make adjustment.

Mr. SAWYER. It will be used strictly as an evaluative tool. Those people that you know and have identified—relatively small numbers, I agree—that were specifically not counted, they will not be added in as a result of the PES.

Ms. Bryant. No, because it is an evaluative tool.

Mr. Sawyer. Let me ask you this. You have shared with us that substantial list of processes that you use to evaluate the PES and to refine it and make it as precise as possible, and you have shared with us in Anaheim the tests of quality of execution in the census itself. Do you have similar tests of the raw census data that you have applied to the PES?

Ms. Bryant. I guess I didn't understand the question. Do we

have tests---

Mr. Sawyer. Do you have similar tests for error in the basic enumeration that you apply to—

Ms. Bryant. Well, the PES is the measure of error in the basic

evaluation.

There are quality control things we did in the census, but those were as we proceeded, but the evaluative test of the census is the

Post Enumeration Survey.

Mr. Sawyer. Let me return to that in a minute. In your confirmation hearing, you released an internal memo regarding the role that the Census Bureau will play in any adjustment decision and suggested that you would have an official Census Bureau position with respect to adjustment. When that document is transmitted to

the Under Secretary for Economic Affairs, will that transmittal be made public?

Ms. Bryant. That will really be for use by the Secretary of Com-

merce

Mr. Sawyer. Will it be released at any point? The career professional thought that goes into this decision is of importance, I think, to the members of the subcommittee and many Members of Congress as we evaluate that decision.

Ms. Bryant. Yes. You realize that the Secretary, whatever decision he makes, or if he makes a decision not to adjust, does have to

be very open about the reasons behind that decision.

Mr. SAWYER. Will we know the official Census Bureau position as outlined in your confirmation hearing, as opposed to the way it all blends together and what is ultimately a decision?

Maybe that is not a question you can answer. Maybe only the

Secretary or a representative can answer that.

Mr. Plant. I think at this point it is premature to answer that. We are going to gather all the information together. There will be many inputs; there will be inputs from the Census Bureau; there will be inputs from the special advisory panel; I am sure there will be inputs from Members of Congress; there will be inputs from people throughout.

Mr. Sawyer. Let it stand then that that remains a matter of in-

terest to the subcommittee.

Just as we go through all of these tests, particularly as we get into the critical time in the schedule, we get into the question of whether or not it is necessary to have adjusted small area data to compare the adjusted counts or potential accuracy of adjusted counts against raw counts. Is it necessary to have that to make the adjustment decision?

Mr. Plant. The guidelines state that if adjusted data is to be available, it is to be available at all levels at which census data is

used. We feel that is an important component.

Mr. Sawyer. Is there any statistical reason for the need for that data? Coming as it does in the final two months, its development in the final two months, you know, the census data itself for small areas is relatively less accurate. It seems to me that that diminishes the statistical need for—

Mr. Plant. The development of that data, the actual processing of that data, will occur simultaneously with the end of the evaluation process and looking at those evaluations. So, in fact, the one won't interfere with the other. The statistical judgment on the validity of any adjustment can be made simultaneously with the production of that data, so both will be available on July 15.

Mr. SAWYER. Given all this, is it fair to assume that State and national data will be available prior to the development of that

small area data?

Mr. Plant. Well, we develop the State and national data by adding the small area data up. We will have estimates of undercounts prior to the availability of that small area data.

Mr. SAWYER. Will those estimates of undercount be publicly

available prior to the small area data?

Mr. PLANT. That is a decision that we are still looking at at this point.

Mr. SAWYER. But it stands that that question remains of importance to this subcommittee as well.

Mr. Plant. Yes, sir.

Mr. SAWYER. Finally, I guess, Dr. Bryant, are there specific elements of this long and complex process that the Bureau might adjust or eliminate in order to expedite its adjustment activities or evaluation?

Ms. Bryant. No, we don't have any plans for elimination of any at this point. Obviously, you know, if we hit glitches, we always are in a continuous reevaluation mode, but they all are statistical tests. I mean the Census Bureau, I am very proud of it because, really, it is the place where all this Post Enumeration Survey methodology technique, I think, has been developed to its highest level, and that highest level does include making all of these different tests of what the accuracy level is based on different kinds of assumptions.

Mr. Sawyer. Let me just say that we have all been enormously impressed with the way in which, as there has been slippage that has occurred and surprises that have taken place in the course of this year's conduct of the census, you have been able to compress events, to move schedules, and to adapt, so that the kind of critical time tests, such as the clerical matching, can begin in a timely way. We would hope that that kind of flexibility and ability to adapt to change in the course of conduct of one of those few activities of governance that really is conducted in real time—that you would be able to make similar kinds of adaptations in the course of these next critical few months.

Ms. Bryant. John Thompson here will be riding herd on all of these tests.

Mr. SAWYER. I have extended past my time. Let me turn to Mr.

Ridge.

Mr. Ridge. I would like, if I might, just to ask a few follow-up questions on local review, because, from a Congressional perspective, I believe that most of my colleagues will be most concerned, at least over the next week or two, about how their mayors and local municipal officials interact with the Census Bureau in order to potentially change those figures.

I understand that the local officials have been given better notice, more advance notice, than they were in 1980, access to the Tiger maps, training sessions, and so, by and large, those communities who chose to be prepared in anticipation of the local review had adequate time to prepare for it. That is basically what you are

saying.

I am not saying that everybody takes advance notice as anything other than another slip of paper, but I suspect that some of these

communities have done so.

I guess the question still becomes, however, if they have taken advantage of everything that you have provided them and they challenge your local figures—I guess I am very interested for you to tell me what you mean by "you will review seriously their challenges." I mean is it a paper review? They say there are x number of units on this block; you say there are 25 fewer units; you win because you have someone who claims to have been on site, or do they win because they have gone administrative records that say

25 other people paid taxes on 25 other pieces of property in that

particular area? How is that review critically undertaken?

Ms. Bryant. Let's just take a block for an example. We get a challenge in, and, as you say, they say it has x number and we have it as x minus something else in the preliminary figure. The first thing we do is check it with the current figure, because while local review has been going on, these other things have been going on, including this housing canvas of 500,000 blocks, so we may already have caught the thing. But if there still remains a discrepancy, we will rank order those discrepancies by region in order of their size and go out and recanvass the blocks, and we will report back to local governments the result, the count, after recanvass of a challenge of a challenged block.

Mr. Ridge. The recanvass is only of housing units, correct?

Ms. Bryant. It is. The whole census is based on housing units;

the housing units drive population.

Mr. RIDGE. I certainly understand that, but if you find out that there have been housing units that have been ignored or missed, what kind of adjustment do you provide at that time? Then you go back and use the "Were you counted?" forms or whatever?

Ms. Bryant. No. We enumerate them right then and there and

add them to the census in the normal manner.

Mr. Ridge. And the follow-up to that is that I have a sense—talking to a lot of offices that are closed or near closing that most enumerators have been let go. Are you satisfied you have enough enumerators out there to do all this in 10 or 15 days?

Mr. Jones. Yes, we believe we have enough to carry out the complete recanvass that is needed in local review throughout the Nation.

Mr. Ridge. Okay.

I know that, as sure as we are sitting here, you are going to run into some problems with the Post Enumeration Survey; there is going to be a glitch; there are going to be delays; there is just something that is going to happen; it always does. Have you identified any PES activities that could be streamlined in the event of some unforeseen problems that would have a minimal impact on the quality of information in case there are some delays? I mean, looking at the PES, assuming there are going to be delays, do you have

a contingency plan?

Mr. Plant. We don't know the source of those delays. It is going to depend at which time in the schedule. We are going to have to be flexible, and I think we have demonstrated our flexibility so far,

and we are going to depend on it in the future.

Mr. Ridge. Okay.

I think that is all I have, Mr. Chairman. Obviously, my concern is to the completeness of the local review, the interaction between the Census Bureau and local municipalities, and the review, thereof, by the Census Bureau, and what happens in response to it. So I look forward, in this vein, to the hearing that we will be conducting in a couple of weeks.

Mr. SAWYER. We look forward to that continuing conversation on

September 25.

Let me suggest that among those concerns that I think we all share is the way in which completion of current census activities butts up against the PES. I am not going to ask you to review all of those today, but what we would like to do is just submit a series of pretty straightforward questions on that topic and just ask for a direct response, rather than waiting for the whole transcript of testimony to come back around and reply, in that timeframe, just to give us as direct as possible a reply on the way in which current completion of census activities abut with the PES.

Ms. Bryant. We would be happy to do that.

[The following response to written questions was received from Ms. Bryant.]

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September 18, 1990

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Dr. Barbara Everitt Bryant Director Bureau of the Census Washington, D.C. 20233

Dear Dr. Bryant:

Thank you for your thorough and informative testimony at our hoaring on September 11.

Because of time constraints, I was unable to ask you about the status of particular decennial cansus programs. I am interested in knowing the progress of several coverage improvement programs that are still underway: the Housing Coverage Check, the Parolee and Probationer Check, the Search/Match program, the Poet Cencus Local Review program, and any other "residuel field followsp" activities.

- I would like to know the following about each program:
- a. What is the current status of the program?
- b. How many persons have been added to the count through the program so far?
- c. What is the expected completion date?
- d. How might delays affect subsequent census operations, including those related to the adjustment decision?
- I would appreciate your prompt responses to those questions. I look forward to hearing from you.

Sincerely,

THOMAS C. SAWYER Chairman

TCS:ms

#### Question:

I am interested in knowing the progress of several coverage improvement programs that are still underway: the Housing Coverage Check, the Parolee and Probationer Check, the Search/Match program, the Post Census Local Review program, and any other "residual field followup" activities. I would like to know the following about each program:

- a. What is the current status of the program?
- b. How many persons have been added to the count through the program so far?
- c. What is the expected completion date?
- d. How might delays affect subsequent census operations, including those related to the adjustment decision?

#### Answer:

For the Housing Coverage Check, we have completed the recanvass of almost 523,000 blocks and conducted interviews for almost 322,000 potential adds identified from the recanvass. Note that the actual number of added units will be less than this because the interview is used to determine if the potential add existed on April 1, 1990. Once we complete updating of our address file and processing of the completed interview forms, we will be able to make a determination of the net coverage gain from this check, but these data are not yet available. We identified some additional areas for recanvass after the original lists went to our field offices. These areas will be recanvassed (and results processed) in conjunction with blocks being recanvassed for the Postcensus Local Review.

For the Parolee and Probationer check, additional efforts have increased the number of forms to be checked during the Search/Match activity from about 400,000 to over 1 million. The forms have been completed in the field and now are arriving in the processing offices. We believe these efforts are important, but they likely will delay the completion of the Search/Match activity by about 1 month (until November 17). We now are assessing the possible impacts/steps to be taken with respect to various activities, including Count Review and the Post-Enumeration Survey, but we believe we can and must accommodate this delay. We will not know the number of persons added from this check until Search/Match work has been completed, but we expect about one-third of them will be added.

For the Postcensus Local Review program, we currently are recanvassing all blocks where the local government's count exceeds the current census count by more than one housing unit, and all blocks where the current census count exceeds the local government's count by more than five housing units. We are

attaching a more detailed description of these criteria for your information. We now expect this recanvassing will take longer than scheduled. We will complete most recanvassing by the end of October, but we expect some areas will take until early November. As with the Parolee and Probationer check, we believe these efforts need to be made. For your information, with about one-third of the canvassing completed, we have added over 30,000 housing units and corrected the geography for some additional number of units.

During the Search/Match activity, we process questionnaires completed during some of the above activities and other enumeration and coverage improvement activities. These include "Were You Counted?" forms (about 300,000 received to date), questionnaires where the household indicated a usual home elsewhere (about 500,000 forms), Parolee and Probationer forms (over 1,000,000 forms so far), and individual census questionnaires (about 930,000 forms) completed during special operations, such as for military and shipboard personnel. For each form, we first must geocode the address to the appropriate census block. Then, we review the questionnaire for the address to see if the person(s) for this Search/Match case already are on the questionnaire, and add them if not. If the address is not on our file, we ask the U.S. Postal Service to verify that such an address exists before we add the housing unit and the persons to the census.

The Search/Match work is well underway, and we now project it will be completed by mid-November. This is about 1 month later than we had planned due mostly to the additional time needed to process additional Parolee and Probationer forms, but as mentioned above, we believe we can and must accommodate this delay.

As of October 6, we had completed Search/Match for nearly 1.3 million forms (about a third of the current workload), of which about 400,000 have resulted in at least one person being added to a census form. About 130,000 of the latter resulted from Parolee and Probationer forms processed to date, and about 70,000 resulted from "Were You Counted?" forms processed to date.

Note that the workload for Search/Match will increase as the processing offices receive additional Parolee and Probationer forms.

Several other activities are underway that can affect census counts:

During Count Review, headquarters staff review preliminary population and housing counts at the tract and governmental unit level. If comparisons to independent estimates indicate a potential count problem, additional research and field recanvassing (as needed) will be conducted to resolve the problem. These efforts are on schedule for completion by mid-November, at which point staff will begin the process of final clearance and certification of the apportionment counts.

- The final phase of Block Splits is on schedule to be conducted over the next month or so in the field. This operation is done in several phases to incorporate into our files information from local governments about their official boundaries as of January 1, 1990. The first two phases have been completed, but we still must complete this work for some governments who responded late to our request for such information.
- We are revisiting units in 24 district offices where a review of questionnaires completed with "last resort" data indicated some curbstoning of questionnaires may have occurred. As of October 9, this work nearly was complete, and preliminary results indicate that population counts will increase only by about 0.5 percent for these district offices.
- We continue using our Address Control File to ensure that there is a one-to-one correspondence between completed questionnaires and units on the file, and that we have accurately captured the persons and data for each questionnaire.

As mentioned above, we do not yet have separate data about the number of persons added from each of the various activities. For your information, however, we have added nearly 1.7 million persons to the census since we released the Postcensus Local Review counts. This does not include any of the results of Postcensus Local Review recanvassing, and we also will continue to add persons and housing units as we complete the Search/Match and other coverage improvement activities.

Attachment

# POSTCENSUS LOCAL REVIEW RECANVASS CRITERIA

Below we summarize the criteria established by the Census Bureau for identifying which challenged blocks we will recheck during Postcensus Local Review recanvass.

Initially, the Census Bureau planned to recanvass a minimum of one block and up to 2 percent of the total housing units for each governmental unit submitting acceptable challenges.

Our new criteria for selecting blocks for recanvassing within each local government submitting acceptable challenges are as follows:

- 1. Minimum of one block for each government.
- Blocks not previously recanvassed during the recanvass or count review operations:

Many blocks challenged by local governments already were recanvassed in August/September 1990 as identified through our own internal review and analysis. The Census Bureau will not recanvass these blocks as part of the Postcensus Local Review Program. Our recanvassing in advance of Postcensus Local Review should have provided any corrections or updates required for these blocks. Dropping these blocks from our Postcensus Local Review recanvassing also allows us to more effectively focus our available resources on those blocks that have discrepancies that have not been checked in the field.

Blocks where the local estimate is more than one housing unit higher than the postcensus local review counts:

The Census Bureau will recanvass all blocks not previously recanvassed for which the local housing unit estimates are higher than the postcensus local review counts by more than one. We are including these blocks to ensure complete housing coverage for the census. (In some situations we will recanvass blocks with a difference of one housing unit between the local estimate and the postcensus local review counts. This occurs if a block with a difference of one housing unit is contained in the 2 percent housing unit threshold under the initial recanvass criteria.)

4. Blocks where the local estimate is more than five housing units lower than the postcensus local review counts:

The Census Bureau will recanvass all blocks not previously recanvassed for which the local housing units estimates are lower than the postcensus local review counts by more than

2

five. We are including these blocks in the recanvassing work load to ensure that these discrepancies do not reflect geographic allocation or housing unit classification errors.

5. Pending Split Blocks:

If a local government challenges a pending split block, the Census Bureau will recanvass the associated collection block if the local estimate for the pending split block is greater than the postcensus local review for the collection block.

Selected blocks that were recanvassed during the Precensus Local Review Program:

In general, blocks that were recanvassed during precensus local review are not eligible for recanvass during postcensus local review. After October 15, the district offices may recanvass challenged blocks that were previously recanvassed during precensus local review if approved by the regional census center. The regional census center will make this decision based on: 1) whether the documentation provided by the local government indicates that changes have occurred since precensus local review and 2) the quality of the local government's challenges to other blocks based on the recanvassing done to date.

All blocks in Philadelphia:

The Census Bureau has taken a series of steps to correct errors in the initial assignment of addresses to their census blocks. We believe that most of these errors have been corrected through our previous efforts. To ensure that any remaining geographic allocation errors are corrected, we will recanvass all blocks challenged, regardless of the size of the discrepancy.

Based on these revised criteria nationwide the Census Bureau will recanvass nearly 150,000 blocks containing 5.5 million housing units. This represents nearly 5.5 percent of the housing units nationwide.

Mr. Sawyer. Let me just go back to the one question that I abandoned for a moment a little bit earlier, and that is the question of statistical quality check on the PES and a comparable check on the raw census data itself. I understand the PES is, in fact, that larger evaluative tool, but to suggest that as we look at the question of whether adjustment improve the quality of the raw data or the data that finally is presented as final, we have got to be able to judge one against the other, and using the evaluative tool to measure the raw data is a little like defining a term using the word itself in the definition.

The Department has stated that an appropriate model will be chosen to develop a numerical standard that will enable the Secretary to make a decision on adjustment, and what I am really asking you about with regard to the census data itself, without using the PES to define its own terms, how do you intend to achieve that? Again, that may not be a question that we can

answer here today, but is my question at all clear to you?

Mr. Plant. Let me try. Let me reiterate what you said, that the foremost means of evaluating the quality of census data is the PES, and in some sense the PES is now going to do double duty for us; it is going to be the evaluation mechanism, and if we were to adjust, it is the mechanism to give us the numbers by which we adjust.

It is very important in making that adjustment decision to understand the PES operation, how well the PES operation has worked, the matching operations, the refielding, the quality of a Census Day address, and so on and so forth, and that is what all those studies are designed for, to make sure the information that is coming out of the PES is good information, primarily operational studies rather than statistical studies, although there are some statistical studies as well.

Mr. SAWYER. And there are counterparts for those operational studies in the raw data.

Mr. Plant. Yes, there are.

Mr. Sawyer. In the development of the raw data.

Mr. Plant. We have an evaluation program. The management information system will give us a wealth of data as to what the census looked like, where operations went well in the census, and so on and so forth. So there is a wealth of data out there that can

be used operationally to evaluate the census as well.

Mr. SAWYER. Let me suggest that there are statistical checks that are being imposed on the PES that evaluate the overall accuracy of the PES. Are there similar kinds of statistical checks independent of the PES used to evaluate operational techniques, such as the use of last resort data and imputation and other techniques that bring the raw count to its final stage in much the same fashion as the PES is brought to its final stage?

Ms. Bryant. There are certainly error measurements you make on samples that you don't make on a census, which is supposed to be the whole thing. I think, you know, the census is the quality assurance processes within the census itself, and we keep repeating it a little, PES being the ultimate tool for evaluating a census, and a tool that has been much developed over the past decade or so.

Mr. SAWYER. This may be a question that I revisited another time. It really goes to the heart of whether or not the question of

whether the raw data can be improved as a matter of scientific measurement is being evaluated in numerical terms or perhaps in subjective terms, and I fully understand that it may not be possible to answer that today.

Thank you very much for your testimony. It has been very useful

to me and, I hope, to the rest of the members of the panel.

We seem to have dodged the Journal vote bullet here today, so we can proceed with our next panel as planned. That panel four will be made up of Dr. Eugene P. Ericksen, who is a professor of sociology at Temple University and cochair of the Special Advisory Panel; Mr. J. Michael McGehee, president of McGehee & Associates; Dr. John Tukey, professor of statistics at Princeton University; and Dr. Kenneth Wachter, professor of demography and statistics, University of California-Berkeley.

Gentlemen, we appreciate your patience. We have got Defense coming to the floor, and for those of you who have been through this, things move fast and furious at that point, and we may find it difficult to continue. So, with that, we are going to try and stick as close as possible to the clock, recognizing that, where we can, we

will try to be as flexible as time permits.

With that, let me call on our first witness this morning, Dr. Ericksen.

STATEMENT OF EUGENE P. ERICKSEN, PROFESSOR OF SOCIOLOGY, TEMPLE UNIVERSITY, AND CO-CHAIR OF SPECIAL ADVISORY PANEL

Mr. Ericksen. Thank you, Mr. Chairman.

I am pleased to be testifying here once again. I have, as you said, cochaired the special panel. I have been studying the undercount problem for 10 years. The conclusions I have come to so far are that differential census errors are inevitable, and that I am optimistic about the ability of the adjustment procedures provided by the Post Enumeration Survey to improve upon the raw count. Of course, we must wait for the data to come out so we can know for sure

For the past several months, I have been reviewing Bureau reports on the progress of the PES, and I have been discussing the subject with Bureau personnel. The current situation is good. Last week, I heard a report that interviews have been obtained at 96 percent of occupied housing units, that proxy interviews were obtained at 2 percent more, and there was a noninterview rate of 2 percent. These numbers change slightly day by day. I have also been told that the Bureau has sent interviewers to those district offices with the highest noninterview rates. That should reduce the noninterview rates where they are highest and further cut the national nonresponse rate.

The latest word that I have received from the Bureau can be simply summarized as "so far, so good." The interviewing seems to be successful, and the Bureau appears to be on the PES schedule, where they are supposed to be up to now. Clerical matching was

supposed to start on September 4, and it did.

Future schedules are a matter of some concern. I am quite concerned about the plethora of the evaluation studies, the 18 P stud-

ies and the 11 D studies. I am not convinced that all of these studies are necessary for an optimal decision on adjustment.

I am also concerned about the long list of late census operations

that have been added to the program.

Before I get to the details of those, when we talk about the PES, I think it is very important to discuss the PES in context. If the correction data indicate that the volume of undercount, the volume of omissions, volume of erroneous enumerations, is small, then we should have higher standards for adjustment, because the possibility of making things worse will be great. On the other hand, if it appears that the problem is great, then the standards for the adjustment data should not be as strict.

How good is this census? We have all read in the press about the shortfall of 4.1 million people. It is important to interpret that number correctly. The 249.9 million which is taken as the standard of comparison is the sum of the 1980 census count of 226.5 million and the Census Bureau's estimate of growth which has taken place since then. The 249.9 million does not include the 3.2 million undercount of the 1980 census. It also does not include the 1.2 million

military personnel living overseas.

So, the way that I interpret the 4.1 million is that it is the difference between how complete the coverage was in 1980 and how complete the coverage was in 1990. So, if we add the 4.1 to the 3.2 million, our current estimate of the shortfall of the census is 7.3 million.

lion people.

Now it is important to emphasize, as at least one of the previous speakers has done, that we are dealing with estimates here, and it is quite possible that the demographic estimate is too large. I have discussed with other experts in the field that possibility, and there seems to be some opinion that I respect that it may be too large by

as many as a million people.

So if it should turn out that this estimate is too large by a million people, and if it is possible that the Bureau might add another million people, not counting the military personnel overseas, by means of late census procedures, then the undercount would be 5.2 million. If the undercount is 5.2 million, that is a rate of about 2.1 percent. If it is 7.3 million, the rate would be about 2.9 percent. Both of these numbers are higher than the 1980 figure of 1.4 percent.

Of course, the national undercount is not the only figure in which we are interested. Even a high undercount would not affect allocation of the population for purposes of political representation if the undercount were evenly distributed across the country. We are interested in the differential undercount: Is the undercount

higher in some areas than it is in others?

In 1980, one of the strongest predictors of the undercount was the mailback rate. In areas where the mail response rate was less than 70 percent, omission rates on the census were three times the national average. In areas where the mail response rate was over 85 percent, the omission rate was substantially below the national average. In 1990, we see that there are substantial variations in the mailback rate. In those areas where the mailback rate is low, other census-taking problems, like too many last resort cases, are substantial.

The Bureau standard for an enumerator who has too many last resort cases has been was 20 percent. We see that in New York City where the mailback rate was 53.2 percent, 24 percent of the follow-up population was enumerated by last resort. In Washington, D.C., it was 33 percent.

I would just like to say one last thing about the follow-up programs like the housing recanvass, and the "Pop One" check, and so forth. These programs were not in the original census schedule;

they have been added later on.

I get very nervous about these kinds of programs that take place late in the census schedule for two reasons. One is, the rate of erroneous enumeration is likely to be a lot higher. In 1980, it was 16 percent in the Coverage Improvement Programs. Secondly, what these programs do is find the obvious error. For example, the "Pop One" check is supposed to go into those areas where there is a substantial proportion of one-person households. The housing recanvass is supposed to go to those areas where there is a substantial concentration of missed housing units. Unfortunately, the majority of the undercount is not likely to occur in those obvious areas. The majority of the undercount will be more subtle and therefore not capable of being found by these types of programs.

I will stop there, and I can answer questions.

[The statement of Mr. Ericksen follows:]

# Testimony of

# EUGENE P. ERICKSEN Temple University

Before the United States House of Representatives Committee on Post Office and Civil Service Subcommittee on Census and Population

September 11, 1990

Mr. Chairman and Members of the Subcommittee:

My name is Eugene P. Ericksen. I am a Professor of Sociology at Temple University and a Special Consultant to National Economic Research Associates, Inc. I testify today in my capacity as co-chair of the Special Advisory Panel on the 1990 cansus, appointed by the Secretary of Commerce to edvice him on the possibility of adjusting the 1990 census. As part of its responsibilities, the Penel progress of the census monitore the and Post-Enumeration Survey and is to avaluate the quality of the data collected and tabulated for each. I am grateful for the opportunity to testify today.

You have asked me to testify about execution of the PES and the possible effect of delays in earlier census operations on the Census Sureau's sbility to carry out PES sctivities as echeduled. That is understandably a subject of interest, since delays in census operations have been widely publicized, as her been the fact that those delays have been concentrated in certain areas.

For the past several months, I have been reviewing Bureau reports on progress of the PES and discussing the subject with Bureau personnel. The current situation is good. The Bureau reports that interviewe were obtained at 96 percent of occupied housing units in the PES sample and that "proxy interviews," conducted with neighbors, were obtained at 2 percent more. That leaves a non-interview rate of 2 percent, which may be reduced. I have been told that the Bureau has sent interviewers to those 200 (of 449) district offices with the highest non-interview rates. That should reduce non-interview rates where they are highest and further cut the national rate of 2 percent. The latest word that I have received from the Bureau can be simply summarized as, "So far, so good."

Future schedules are a matter of some concern. As I observed in my previous testimony before this Subcommittee, on January 30, 1990, the Department of Commerce has built a set of high hurdles for the PES to cross to be deemed acceptable; the Department has not adopted similarly demanding standards for judging the quality of other census operations. One reflection of

that attitude is the extended set of evaluation studies described in the so-called technical operations plans for the PES. The Panel is now reviewing the utility of those studies -- some of which appear duplicative, and others of which call for replication of research already done by the Bureau -- and will be accrutinizing their impact on the future schedule of PES activities. A decision whether to correct this census should not be delayed by studies that are providing no new and useful information about the quality of the PES.

Another source of concern about future echedules has been the recent creation of additional census operations. As I explain below, those programs are likely to increase erroneous enumerations in the census. By adding to the enumeration after the completion of the main body of the census, and after completion of PES interviewing, those late counts will also make interviewing and matching more difficult and may slow down the entire census process, including PES activities.

A proper evaluation of the PES should begin with an assessment of the quality of the unadjusted enumeration. If the net undercount and its components (omissions and erroneous enumerations) appear small in size, we should set higher standards for the quality of PES data. We would be more cautious in using the PES, as there would be less to be gained by adjusting and the

possibility of making things worse would be a more serious consideration. Conversely, the greater the undercount, the greater the need for a correction and the less the likelihood that correction will diminish overall census accuracy.

How good is this census? The Bureau has released preliminary population counts for the 50 states and the District of Columbia, which give a total population of 245.8 million. The Bureau has said the counts are preliminary and may rise in the future — although, contrary to some press accounts, the Bureau has refused to speculate about how much, if any, increase there may be. The standard of comparison for the preliminary counts is the sum of state estimates calculated by the Bureau on the basis of demographic procedures. That sum gives a national population of 249.9 million, indicating a shortfall of 4.1 million in the Bureau's reported census figures.

To interpret that shortfall, we must understand how the Bureau's demographic estimate of 249.9 million is calculated. The Bureau starts with the 1980 census count of 226.5 million, then adds its best estimate of growth through April 1990 -- 23.4 million. The Bureau reported that its best estimate of the 1980 undercount was 3.2 million and its best estimate of the national population in 1980 was 229.7 million. The 1980 undercount is not

included in the 1990 national population estimate of 249.9 million. Adding the Bureau's estimate of the 1980-90 growth to its best estimate of the actual population in 1980 (229.7 million) gives a total satimated national population of 253.1 million as of April 1, 1990.

Thus, adding to the 1980 count (226.5 million) an estimate of the 1980-90 growth (23.4 million) leaves us, at least conceptually, with the 1990 analog of the 1980 census count -- what we would get from a 1990 census with the same level of net undercount as occurred in 1980. If the total of the preliminary count were 249.9 million and the shortfall were therefore zero, then we could say that the 1990 census had about the same 3.2 million undercount as occurred ten years ago. With the reported shortfall of 4.1 million, our current estimate of the 1990 undercount is 7.3 million.

The 249.9 million figure is an estimate and therefore subject to error and revision. It has been suggested that that figure may be too large by as many as one million people. Assuming a downward revision of the estimate to 248.9 million and assuming that the Bureau were to add as many as one million people to the enumeration from ongoing programs, probably en upper bound, the remaining difference between the reported count and the Bureau's estimate would be 2.1 million, and the total undercount would be 5.3 million. Based on the

information currently at my dieposal, I believe that that is as low as the 1990 undercount might get. Expressed as a rate, the undercount would be 2.10 percent. If the conservative assumptions I have just made do not hold and the shortfall really is 7.3 million, the undercount rate in 1990 would be 2.88 percent. The corresponding rate in 1980 was 1.38 percent.

Of course, the national undercount is not the only figure in which we are interested. Even a high undercount rate would not affect allocation of the population for purposes of political representation, if the undercount were evenly distributed across the country. Historically, however, the undercount has been differential, with the greatest rates of undercount occurring among minority populations and the greatest impact of the undercount on areas in which those populations are concentrated. Data from this year's census indicate that that historical pattern is likely to repeat itself yet again.

Bureau studies of the 1980 ceneus showed that omissions were greatest in areas where the mailback rates were low. The highest omission rates, three times the national average, were among Black and Hispanic populations where the mail response rate was less than 70 percent. The lowest omission rates, less than 75 percent of the national average, were found among White

populations in areas where the mail response rate was greater than 85 percent. That there is a correlation between the mail response rate and the omission rate makes sense. Where fewer people return the forms, more snumerators must be hired, and enumerators make mistakes, cost money, and take a long time to complete the census. The original reason that the Bureau went to the mailout/mailback procedure in 1960 was to take counting out of the hands of enumerators.

Because the relationship between the mailback and omission rates was so strong in 1980, we can look at the differentials in mail return rates in 1990 to predict what the differentials in omissions might be. Here, we must use the mail return rate, which is the ratio of returned forms to forms sent out. That differs from the mail response rate statistic used in 1980, in which the denominator includes only occupied housing units. Mail response rate data are not yet available for 1990, but mail return and mail response rates generally follow the same pattern.

In Table 1, I list as "high mailback areas" the eight states with mail return rates over 70 percent (the highest rate for any state was 76 percent). I also list the two states, Louisians and South Carolins, with the lowest mail return rates along with three large cities, New York, Chicago, and Washington, D.C., where the

mailback rates are also very low. With their substantial minority populations and concentrated urban conditions, those cities are typical of major American cities, which generally experienced low mailback rates in this census, as in previous ones. The difference in mailback rates between high and low mailback areas averages 18 percent. It is reasonable to expect that large differences in omission, as well as net undercount, rates will be found between those two groups of areas.

TABLE I

INDICATORS OF CENSUS PROGRESS IN AREAS WITH HIGH AND LOW MAILBACK RATES

Area 1	Mail Return Rate	Modian Days Late Non-Response Follow-Up	Percent Last Resort
High Mailback Areas	73	13	14
Low Mailback Areas			
Louisiana	56	7	13
South Carolina	56	30	9
Washington, D.C.	55	33	33
Chicago	54	17	25
New York City	53	39	24
UNITED STATES	65	21	14

- l. "High mailback areas" are the eight states with the highest mailback rates,  $\underline{i}.\underline{e}.$ , over 70 percent. "Low mailback areas" are the two states with the lowest mail return rates and three large cities. Areas where the mailout procedure was used for less than 75 percent of the population are excluded.
- 2. The mail return rate is the ratio of census forms returned to the Census Bureau divided by census forms sent out. The denominator includes addresses of vacant and other nonresidential units.
- 3. By days late, we meen the number of days that non-response follow-up ended, by district office, after the scheduled date of June 6, e.g., June 20 is 14 days late.
- 4. Last resort information is less than complete information usually gathered from a proxy respondent, e.g., a neighbor or a postal worker, because a household mamber cannot be contacted.

#### Sources:

Mailbeck Rates: "Check-In Rate Report," Final Report, April 25, 1990, U.S. Bureau of the Census

Median Days Late: "State of the Census Report," August 10, 1990, U.S. Bureau of the Census

Percent Last Resort: "3102-03 NRFU Last Resort Cases," 1990 Decennial MIS, Report Date -- July 23, 1990 (final), U.S. Bureau of the Census

We can look at the Table to see the reasons why. Where one type of ceneus problem occurs, others are likely to occur also. The procedure during which ceneus enumerators knock on the doors of households who have not mailed back their census forms, known as Non-Reaponse Follow-Up (NRFU), was scheduled to end on June 6, 1990. To maintain the schedule of other census operations, the Bureau was under considerable pressure to complete NRFU on

time; as the table shows, however, the median district office closed 21 days late, on Juno 27. In the states with higher mailback rates, and therefore less work to do on NRFU, district offices were closed earlier, with the median closure coming 14 days late (June 20). In the low mailback rate areas, the Bureau was sometimes able to pour in resources, e.g., in Louisiana and Chicago, and to complete NRFU in a timely manner. In other cases, though, the work dragged on for a much longer period. In New York City, the median district office closed 39 days late (July 15), while the last district office closed 52 days late (July 28).

enumerators during NRFU when they are not able to collect the necessary data from the household being enumerated. Last resort information is best obtained from a neighbor, but in practice it is often taken from a convenient passerby. Only a few data items are obtained, and it is likely that in many cases the source for the information is simply guessing. Because last resort information is of poor quality, the Bureau's standard, in planning for the 1990 census, was that any enumerator whose percentage of last resort cases was 20 percent or higher would be presumed to have done unsatisfactory work and would be monitored by a supervisor.

Nationally, 14 percent of the NRFU workload for occupied units has been resolved by last resort data; in the high mailback rate states, the percentage was either at this level or slightly lower. In the two low mailback rate states (Louisians and South Carolina), the last resort rates, happily, were also low. Unfortunately, the proportion of last resort C4888 V48 unacceptably high in many urban areas (including all three on Table 1), reaching a peak of 33 percent in Washington, D.C. Just as low mailback rates were coupled with high omission rates among minority populations in 1980, the concentration of censue-taking problems among the same populations this year makes it likely that they will again be subject to a high rate of undercount.

Although we must await the results of the PES for confirmation, most signs point to a large and differential undercount in 1990. The goal now must be to concentrate resources on completing the best possible PES to provide accurate estimates of local undercounts and the basis for a statistically corrected census. With that in mind, I am especially troubled by an unexpected direction in which the Bureau is now going in its conduct of the 1990 Census.

As the evidence of an increased undercount has piled up, the Bureau has begun to invent new census-taking programs and to extend the lives of others. The Housing Coverage Check, announced in June, is a fresh procedure the details of which are still being worked out. The "Pop One" Check, in which areae with concentrations of one-person households are to be recanvassed, is even Additional energies are being focused on the newer. Parolees/Probationers Check, which was never vetted in any test census nor in the 1988 dress rehearsal. More time and effort is going into the "Were You Counted?" campaign. Still other programs may well be in the works. hurriedly put-together programs divert attention and resources from the PES. Furthermore, they are likely to increase the rate of cansus arror. Fully 16 percent of persons counted during "coverage improvement" programs in 1980 were erroneoue enumerations.

Those errors are inevitable. Each of the programs just mentioned necessarily involves a matching operation to determine whether en individual identified by the program is a proper addition to the count or was actually enumerated earlier. Ad hoc programs entail ad hoc matching operations, and matching, unfortunately, is one of the most complicated tasks the Bureau performs during the census. The PES, which is else critically dependent on successful matching, relies on a complex series of widely tested procedures that have been refined over many years of research to produce fast, accurate

matching. Programe designed virtually overnight and without testing cannot do nearly as well.

with the racognition that this census has encountered a serious problem of undercount should come the recognition that a solution to that problem is available. The PES was designed to address just that problem. The "coverage improvement" programs now being cranked out are merely expensive, inaccurate substitutes for a realistic approach to the issue.

Those programs also create a risk of increasing the difficulty of matching for the PES. The recently conducted interviewing phase of the PES focused on the forms as they were collected from April through June. The basic conception of the PES is that it is conducted after the enumeration, with the results of the enumeration and PES compared. With PES matching scheduled mainly for September, late additions to the enumeration will require another stage of matching, possibly delaying the progress of the PES.

There is, perhaps, a basic issue of census-taking philosophy that can be raised here. For a timely statistical correction to take place, the snumeration process must atop at some point before data are reported. In the extreme case, to prolong basic data collection until the eleventh hour would be simply to generate a flawed enumeration and render correction of

that enumeration impossible. Where correction could incresse the accuracy of the canaus, that epproach is no more than a design for a second-rate census.

In sum, my view of the census so it currently stands is that the undercount will in all likelihood be larger than it was in 1980. Statistical correction is, if anything, more urgently needed this year than it was ten years ago. Progress so far on the PES has been satisfactory, but, in light of the policies adopted by the Department of Commerce and the Bureau of the Census, we must watch its future closely and with attentive concern. The chances for a successful PES and a correction based on it will be enhanced if the Bureau shortly daclares that raw census data collection is over and focuses its attention on PES activities.

Mr. Sawyer. Thank you very much. Mr. McGehee.

## STATEMENT OF J. MICHAEL McGEHEE, PRESIDENT, McGEHEE AND ASSOCIATES

Mr. McGehee. Thank you, Mr. Chairman. My remarks will be

brief, as you have requested.

I want to thank you and the members of the committee for inviting me to speak before you today. In your invitation to testify, you raised two questions: One, are there any operations which the Bureau is performing with regard to the 1990 census process which are behind schedule? and, two, are these delays going to impinge upon the successful completion and evaluation of the Post Enumeration Survey?

The general public and members of this committee received their first news of potential difficulties with the 1990 census process in April when it was reported that the response rate to the initial questionnaires was considerably under the 1980 rate. Even taking into account that the Bureau had projected and budgeted for a lower response rate in 1990, the results of the initial mail-out/mail-

back were disappointingly low.

The effect of this was twofold. First, the Bureau had to return and ask for more money from Congress for field follow-up operations. Second, as expected, the increased workload caused the field follow-up to take longer than initially scheduled. Fortunately, however, as of September 4, field follow-up operations have been com-

pleted in all 449 district offices.

Mr. Chairman, one of the original requirements of the PES was that interviewing would not take place in each district office area until the nonresponse portion of field follow-up activities had been completed in that district area. It might seem at first glance that a time-saving device might be that there is no reason why the PES interviewing could not go forward in each district office area when the nonresponse follow-up had been completed in that area's PES sample cluster blocks. It was, and is, recognized, however, that proceeding on that basis would introduce unacceptable levels of bias into the PES itself.

It is my understanding that, although the Bureau has maintained this separation between nonresponse follow-up and the PES interviewing, that the PES interviewing was conducted and is now complete while certain additional field follow-up operations were coming to a conclusion in each district office. This processing allowed the PES to be completed even though field follow-up oper-

ations were five to six weeks behind in some district offices.

Although this situation did not directly delay the start of the PES matching, it nonetheless was initially running behind schedule. I was pleased to learn just yesterday, however, that the Bureau has been able to make up these delays by splitting the clerical matching and mover matching into two separate procedures. It is my understanding that the Bureau is now, for all intents and purposes, back on schedule and is hopeful of beginning the PES follow-up operations on time.

This is not to say that potential problems could not arise. The Bureau must still contend with census procedures, such as local review, the "Have you been counted?" program, and imputations resulting from the "Vacant/Delete" program. The impact of these procedures upon the PES cluster box must be watched closely. It is extremely important that all possible safeguards are taken to maintain the integrity of the PES. Without these safeguards, unacceptable bias could be introduced into the PES. This, in turn, could render the PES unsuitable as a vehicle for adjustment.

One area that also should be watched closely is the PES noninterview rate within selected district offices. There are some indications that the same problems of poor response encountered in the census are showing up in PES interviewing. Additional time could be lost in the PES process if the Census Bureau attempts to deal with the same resistance to the PES that was encountered to the

census.

My opinion is that the Bureau has done everything within its means to be flexible and to devote the necessary resources to adjust to a less favorable 1990 census climate. Indeed, the Bureau has shown a remarkable ability to respond to problems as they have arisen.

No one is asserting that the census has gone perfectly, but I also feel that assertions that the 1990 census is a disaster are unwarranted and are certainly not helpful to a process that is still ongoing. It is understandable that adjustment proponents, many of which you already heard and others that are waiting in the wings today, wish to paint as bleak a picture as possible concerning the success of this year's census. It is also clear that they would like to see adjustments simply mandated. It appears that there is no objective evaluation that could ever convince them that adjustments should not take place. Indeed, numerous statements have been made that if Secretary Mosbacher should decide not to adjust as they wish, they will simply return the issue to Federal court.

It is prudent, therefore, for this committee to take some of the comments of avid critics of the Bureau with a grain of salt. I believe that the Bureau and the director should be commended for carrying out a difficult process under less than ideal circumstances. In any event, an overall and comprehensive critique of the 1990 census process is not the function of our advisory panel, the Special Advisory Panel. Our function is to evaluate the PES process and that portion of the census process as it relates to the success of the PES and to advise the Secretary of Commerce concerning the "relevant technical and nontechnical statistical and policy grounds for a decision on whether or not to adjust the 1990 decennial census population counts." It is our mandate to carry out a thorough *de novo* reconsideration with an open mind and without any prejudgment.

Mr. Chairman, this brings me to my final point. Actions by some members of our panel have led me to conclude that they have never intended such a *de novo* reconsideration and, indeed, are functioning as nothing more than active partisans for the plaintiffs

and their attorneys.

One member of our panel has already publicly declared his decision on this issue without the benefit of waiting to see if the evidence will indeed support his position. This posturing has not only

violated the spirit of the agreement that created our panel but, unfortunately, has restricted the ability of our panel as a whole to review and assess the census and the PES in an objective and unbiased manner.

Further, it is not the mission of our panel to adjudicate the court case, New York v. Department of Commerce. Rather, our job is to distance ourselves from the lawsuit itself and to do our best to provide the Secretary of Commerce with all possible information and perspectives, both pro-adjustment and anti-adjustment, that he needs to make a correct decision.

In conclusion, we must keep in mind that the census and the PES process are still ongoing. There is every indication that the Bureau is doing whatever necessary to complete this process as quickly and as accurately as possible. We must all wait until the PES is completed and evaluated before we can make an informed judgment on the success of the 1990 census. Frankly, that is what I intend to do.

Thank you, Mr. Chairman.

Mr. SAWYER. Thank you, Mr. McGehee.

Our third witness this morning is Dr. John Tukey, professor of statistics at Princeton University.

# STATEMENT OF JOHN TUKEY, PROFESSOR OF STATISTICS, PRINCETON UNIVERSITY

Mr. Tukey. Thank you very much, Mr. Chairman. I am pleased to be able to be here.

I don't think I can add anything usefully to what the previous speakers have said about the present status of the PES procedure. I can, however, report that members of the Bureau's staff and I have been collaborating effectively on clarifying certain technical issues.

While clarification is not essential for the production of a reasonable adjustment, it will make possible a more precise and more accurate adjustment, and it may well save a little time in carrying out some of the essential preliminaries to adjustment, and I am very happy in the technical relation that I have had with the members of the Bureau, who are clearly being very careful about their responsibilities to do as careful and as thorough a job in this process as they can. I think that is what I mainly need to tell you, but I am here to answer questions.

[The statement of Mr. Tukey follows:]

#### TESTIMONY OF JOHN W. TUKEY (PRINCETON UNIVERSITY)

#### BEFORE THE

# SUBCOMMITTEE ON CENSUS AND POPULATION COMMITTEE ON POST OFFICE AND CIVIL SERVICE UNITED STATES HOUSE OF REPRESENTATIVES

#### 11 September 1990

My name is John W. Tukey. I am Donner Professor of Science, Emeritus and Professor of Statistics, Emeritus and (actively part-time) Senior Research Statistician at Princeton University. I have received the National Medal of Science, as well as medals from the American Statistical Association, the American Society for Quality Control and the Institute of Electrical and Electronic Engineers. I have received honorary degrees from five Universities: Brown, Case-Western, Chicago, Temple and Yale. I am a member of the National Academy of Sciences, and have served as Chairman of its Class 3. I served a term on the President's Science Advisory Committee. I am an Honorary Member of the Royal Statistical Society (London).

I have had experience in a wide variety of applications of statistical and data analytical techniques in fields ranging from oceanography to the clinical trial of medicines. I have made many contributions to the theory of such techniques, as well as their application. I have authored, co-authored or edited a number of books and several hundred published papers.

More specifically, I was a *pro bono* witness for the plaintiffs in the New York litigation concerning the adjustment of the 1980 Census, and am presently a member of the Special Panel appointed by the Secretary of Commerce under a stipulation order.

I have no direct information on delays in earlier Census procedures, or on the impact of such delays on the availability of adjusted results, so I shall leave direct reply to the subcommittee's inquiry to others.

I can report that members of the Bureau's staff and I have been collaborating effectively on clarifying certain technical issues. While clarification was not essential for the production of a reasonable adjustment, it will make possible a more precise and more accurate adjustment, and may save a little time in carrying out an essential preliminary to adjustment.

Mr. SAWYER. We appreciate and are grateful for your eminent presence and look forward to those questions and answers.

Dr. Wachter.

## STATEMENT OF KENNETH W. WACHTER, PROFESSOR OF DE-MOGRAPHY AND STATISTICS, UNIVERSITY OF CALIFORNIA-BERKELEY

Mr. WACHTER. Thank you, Mr. Chairman.

I have been asked to address three questions. I leave the first question of delays in the PES to my written testimony and move on to the second issue, which is the question whether the gaps between preliminary census counts and prior estimates can or cannot be interpreted as early warning signals of a substantial census un-

dercount. I have four main points to make on this issue.

First, the preliminary counts are preliminary in ways that have been described by Dr. Bryant today. Second, the preliminary counts are being compared against sets of estimates and projections which, in most States, have a range of uncertainty wider than the gaps we are trying to interpret. The uncertainty in the estimates derives most of all from our lack of knowledge about migration over the last decade.

Mr. Frost and Mr. Schumer, in their testimony, offered this kind of comparison between preliminary counts and various sets of estimates and projections, but neither of them discussed the uncertainties in the estimates which they were holding up against the preliminary counts. I discuss some reality checks I have done against some of these estimates in my written testimony, and I do hope that you will bear in mind when you look at this issue that there is very wide uncertainty in the numbers with which these counts are being confronted.

This leads me to my third point. Considering the range of uncertainty, I find that the volume of clamor, protest, and warning reported in the press bears little, if any, relationship to the strength

of actual evidence about prospective undercounts.

Fourth, nonetheless, there are some States in which the uncertainties in the estimates could be somewhat less than in others. I have examined one such case, the case of the State count for Colorado, and in that case I have concluded that there is at this stage some suggestive early evidence of undercounts on a scale to cause

concern but certainly not to cause alarm.

I turn now to the third issue, to the so-called timing or two-count problem. If the Secretary of Commerce decides to adjust the 1990 enumeration, States will receive a second set of official counts for redistricting probably in July of 1991. I fear that the prospects of severe disruption to State electoral processes might make it very difficult for the Secretary of Commerce to decide in favor of adjustment even if he finds himself inclined to favor adjustment on the basis of other evidence and advice. Our panel received testimony from a meeting of the National Conference of State Legislatures on the sources of this disruption.

Now time is running out to do anything about this, but it is perhaps not quite too late. I would like to urge you to consider the possibility of an act of Congress changing the date for provision of offi-

cial counts to July of 1991, and I was very pleased to hear you, Mr. Sawyer, address a question to Dr. Plant on this subject earlier on. I believe that such an act of Congress would give States strong incentives to follow the lead of States like Connecticut in changing their laws ahead of time to reduce the prospects of disruption. I further believe that this is an issue on which the Secretary of Commerce is helpless; this is an issue for the Congress, for you, Mr. Sawyer and Mr. Ridge, and your colleagues to take up; and I urge you to give it your most serious consideration.

[The statement of Mr. Wachter follows:]

## Testimony Submitted by Kenneth W. Wachter

Hearing of 11 September 1990

House Subcommittee on Census and Population Committee on Post Office and Civil Service U.S. House of Representatives 608 House Office Building Annex 1 Washington, D.C. 20515-6245

My name is Kenneth Wachter. I am Professor of Demography and Statistics at the University of California, Berkeley. I am a member of the Special Advisory Panel appointed under the stipulation order in City of New York versus the U.S. Department of Commerce (8% Civ. 3473) to advise the Secretary of Commerce on 1990 Census adjustment. I previously submitted testimeny to this Subcommittee at Chairman Sawyer's invitation on 30 January 1990, and 1 am pleased to have this opportunity to testify today.

Chairman Sawyer, in his letter of invitation of 2 August 1990, indicated that the Subcommittee would be interested in the likely effects of delays in the coverage evaluation schedule on the ability of the Secretary of Commerce to make a decision on adjustment by 15 July 1991. Subcommittee staff have indicated to me by telephone that the Subcommittee would also like me to address the question of whether the Preliminary Census Counts recently released for local review by the Census Bureau can or cannot be interpreted as giving "early warning signals" of substantial census undercounts. Finally, Subcommittee staff have asked me to comment on problems that the 15 July 1992 date and the possibility of two sets of official numbers for redistricting might cause to the states, a matter I raised in my previous testimony to you.

#### L. Effects of PES Delays

As part of my duties on the Special Advisory Panel, I have endeavored to understand the evolving schedule of Census and Post-Enumeration Activities and the likely effects of delays. Dr. Howard Hogan of the Census Bureau has been cooperative and patient in helping me. Nevertheless, I have been unable to arrive at a full independent assessment of the likely long-term effects of the short-term delays that did occur in the start of PES field activities.

I do note that information supplied to the Panel by the Census Bureau as of August 30 indicates that non-mover computer matching and clerical matching will be fully underway by the scheduled date of 4 September. This is a milestone. I take it to be a very favorable omen. For matching to be starting on time despite the widespread brief delays in the start of PES interviewing suggests to me that the PES team is coping very successfully with challenges to the schedule.

It remains, however, to see whether a steady flow of forms for matching can be maintained to make efficient use of the matching facilities and experts. It remains to see whether the completion of matching can be nearly as punctual as its beginning. These are points on which, as I have said, I find myself unable to offer an independent assessment of probabilities.

The schedule of interlocking operations is, as I have found, extremely complicated. It incorporates many elements of flexibility, which are desirable, but which make prediction of the effects of delays such as we are seeing very difficult. The Panel at its meeting of 11 January 1990 met with Paul O'Rourke of Charles Rivers Associates and later retained him and his associates to submit a report to us by 21 May 1990 evaluating Census schedules and supplying us with charts that might aid us in answering questions like those you have put to us. Unfortunately, Mr. O'Rourke has failed to deliver the report.

The key feature of the coverage evaluation schedule, as I understand it, is the need to complete PES field followup before the approach of the Christmas holidays. By early November, I would expect to be able to answer your question with some confidence and to reach an opinion as to whether or not delays will threaten the provision of adequate information to the Secretary of Commerce by the crucial 15 July 1991 deadline.

#### II. Preliminary Counts as Early Warning Signals

I now turn to the question of whether the gaps between preliminary counts and prior estimates and projections of national, state, and county totals can or cannot be interpreted as early warning signals of a substantial Census undercount. I have four chief points to make to you:

First, the preliminary counts are preliminary. These counts will rise through the process of local review and completion of ongoing activities, and reactions to them should emphasize their preliminary character.

Second, the preliminary counts are being compared against sets of estimates and projections which in most states have a range of uncertainty wider than the gaps we are trying to interpret. The uncertainty in the estimates derives most of all from our lack of knowlege about migration over the last decade.

Third, considering the range of uncertainty, I find that the volume of clamor, protest, and warning reported in the press bears little if any relationship to the strength of actual evidence about prospective undercounts.

Fourth, nonetheless, there are some states in which the uncertainties in the estimates could be somewhat less than in others. I have examined one such case, and in that case I have concluded that there is at this stage some suggestive early evidence of undercounts on a scale to cause concern but not alarm.

I take up these points in turn. While preparing this testimony, I have benefitted from advice from Dr. Reid Reynolds, Colorado State Demographer, but it should not be assumed that Dr. Reynolds holds any particular opinion presented here. The views I am expressing to you are my own views.

I begin, then, by emphasizing that any discussion of the preliminary counts must acknowledge their preliminary nature. The preliminary counts are being released to local officials while the census is in progress so that local officials can review the counts on a block by block basis and notify the Census Bureau of suspected errors. This process is happening as we meet. Many jurisdictions will file challenges and many additional bousing units and people will be counted as a result of these challenges. We can hope and expect that substantial errors in the preliminary counts will be detected by local officials and corrected by the Census Bureau, and that they will not end up as undercounts or overcounts.

At the same time, the Census Bureau and state agencies responsible for local population estimates are reviewing the jurisdictional totals to see whether there appear to be any gross errors in the population and housing counts at the jurisdictional level. Again, suspected errors will be reviewed by field personnel and corrected where warranted.

Furthermore, the preliminary counts reflect the results of operations only through early August. Operations being conducted between early August and the end of the year are likely to result in significant changes in the counts for some jurisdictions. These procedures should be allowed to run their course before anyone pronounces final judgment on the accuracy of the 1990 census.

Proceeding to my second point, consider now the estimates against which the preliminary counts are being compared. These estimates come from three main sources. First, there are the Census Bureau intercensal estimates for states, the most recent of which pertain to 1 July 1989 and have been distributed by the Census Bureau adjacent to the preliminary counts. Second, there are four sets of projections based on 1988 estimates carried forward to 1 July 1990 by Signe Wetrogan of the Census Bureau, published as Current Population Report 1053 in Series P-25. Third, in many states there are internal estimates prepared by states or cities, often within their bureaus of finance.

The intercensal estimates and 1990 projections are sophisticated component projections resting ultimately on 1980 Census results and incorporating information from a variety of administrative data series. Most important, they incorporate information about migration among states from Internal Revenue Service matches of tax returns for tax-filing units, matching returns for each year with returns from the preceding year. People and addresses found on tax returns do not of course correspond very exactly with the people and addresses we expect the Census to count. Furthermore, national levels of emigration and of illegal immigration assumed for these estimates and projections are not based directly on data but are round-number guesses. The uncertainty in the total cumulative illegal immigration in the 1980s is generally believed to be on the order of several millions, and that uncertainty is compounded by the uncertainties in the residences of all kinds of immigrants from state to state.

The scale of the uncertainties at the state level can be gauged by comparing the four sets of state projections for 1990 in the Wetrogran report which differ only in their handling of two years of interstate migration rates, keeping constant the assumptions about interstate migration from 1980 to 1988 and about emigration and national immigration. It is reasonable to think that the real range of uncertainty taking into account these other sources of error cumulating over ten years and not just two years would be a much broader error range than the range of these four projections. For California, these four projections range from 29.168 million to 29.313 million, compared to a preliminary count of 29.279 million. This is a range of 145,000. If, as is reasonable to suppose, the true error range is substantially broader than this, then for a place like California the size of the gap between preliminary counts and estimates is smaller than the uncertainties in the estimates, and we can tell next to nothing about undercounts from direct comparisons. For New York State, the range that corresponds to California's 145,000 range is 338,000 (the preliminary count is 17,626,568), and I draw the same conclusion.

It should be recognized that states and municipalities have their own sources of data and their own estimates, which may rely on more intimate knowledge of local conditions. But no one has reliable knowledge about the cumulative numbers of net immigrants to this country over the whole decade or their distributions among states and cities. Any state or local jurisdiction for which the national immigration levels are important to the local population size is faced with unavoidable uncertainty.

I come then to my third point. What would we expect to be hearing, if the volume of concern and protest occasioned by the preliminary counts reflected the real strength of the evidence about possible undercounts? We should expect to be hearing most from states that are little affected by the most uncertain factors like immigration. In states which are heavily affected by the most uncertain factors like immigration, we should be expect to find officials remaining quiet and cautious.

This does not seem to be the pattern we are finding in press reports of officials' reactions. This leads me to suspect that reported reactions have more to do with political tactics than with the actual strength of the demographic evidence at this stage.

I come now to my fourth point. I have examined one case, the state total for the state of Colorado, in order to satisfy myself whether some cautious inferences about possible levels of undercount might not be drawn despite the unavoidable uncertainties. Colorado is a state for which the share of international immigration is a smaller part of the picture of state population growth than in my own state of California. However, the different series of Wetrogan projections differ from each other by about 2.4 %, suggesting that the estimates for Colorado are still extremely uncertain.

With the assistance of Dr. Reynolds, I have compared state projections of the totals of people in counties with preliminary Census counts, and I have compared state projections of housing unit counts with preliminary Census housing unit counts. The housing unit estimates are subject to different sorts of errors from the person-total estimates. Both are uncertain, but they are subject to different uncertainties. From my analysis, I conclude that a reasonable interpretation of the data for Colorado would allow for a net undercount at or above a few tens of thousands, on a preliminary count of 3,272,460. In 1980 the various Post-Enumeration-Program estimates of net error for Colorado, based on various assumptions for replacing missing data with imputed

values, showed some estimates of net overcounts of half a per cent or more and some estimates of net undercounts of a per cent or more. Thus we do not have a firm grasp on percentage error in 1980 with which to compare my conjecture about possible 1990 undercount in Colorado. If we accepted some of the higher estimates for 1980 undercount, my conjecture for 1990 would look like very modest undercount; if we accepted some of the estimates of overcount in 1980, then my conjecture for 1990 would suggest undercounts justifying concern.

I emphasize that my inference about early evidence of undercount in this one state is highly conjectural and I present it to you with diffidence. To the rather limited extent that anything can be said about possible levels of undercount at this stage, I would say that there is some cause for concern and no cause at all yet for alarm.

#### III. The "Timing Problem"

In my testimony to you on 30 January 1990, I raised the so-called "timing problem": Official state counts for reapportionment are required by statute by 31 December 1990. Official local counts for state redistricting are required by statute by 1 April 1991. The decision by the Secretary of Commerce as to whether or not to adjust the Census counts is required by the Stipulation Order by 15 July 1991. If the decision is in favor of adjustment, a second set of official local counts would be provided to states, many of whom would have already had to proceed with redistricting plans because of deadlines in their own constitutions.

The Special Advisory Panel received extensive testimony from state legislators charged with redistricting and from their staff at a meeting in Baltimore of the National Conference of State Legislatures on 28 June 1990. From this testimony I am convinced that about a dozen states are likely to experience severe disruptions to their processes of redistricting as mandated in their state constitutions if a second set of official adjusted Census numbers is transmitted to them in July 1991. Such a prospect must weigh heavily on the mind of any responsible public official. I fear such prospects of disruption might make it very difficult for the Secretary of Commerce to decide in favor of adjustment, even if he finds himself inclined to favor adjustment on the basis of other evidence and advice.

There is no way that sufficient evidence could be available to the Secretary of Commerce for an informed decision on the merits of adjusted counts before 1 April 1991. In my view, it is not reasonable to expect the key evidence to be ready any earlier than the start of July. Accelerating the schedule further would run intolerable risks of compromising the quality of the PES and of the evaluation program.

I urge you to consider the possibility of an Act of Congress resetting the dates for provision of official counts for reapportionment and redistricting to 15 July 1991. Such an act, if passed soon, would prompt states to act ahead of time to restructure their redistricting processes to accommodate possible adjusted counts in July 1991. Connecticut appears to be a model for such action. From testimony at the Baltimore hearing, I understand that an amendment to the Connecticut State Constitution is going before the voters, an amendment which would reset Connecticut's deadlines for redistricting.

It is already late for action on this serious problem, but it may not yet be too late. I urge you to give it your full consideration.

Thank you for inviting me to appear before you today.

Mr. Sawyer. Gentlemen, I thank you all.

Let me begin with that last point first and then move back through a series of other concerns. I can appreciate—it was the genesis of the question I asked earlier—the potential for confusion that two sets of figures might cause. Is it your view—and this is just to clarify the point that you have made—that, in fact, that potential disruption of process could be a turning point issue, fundamental to the question of whether or not to adjust, in the mind of a responsible Secretary?

Mr. Wachter. I would be very sad to see it come to that, because I believe the decision about adjustment should be made on the merits of the counts, but I do believe that that is an issue that

must weigh so heavily that it could be a turning point issue.

Mr. Sawyer. Is it fair to say, in your estimate, coming from that point of view, that changing the date to coincide with the point of decision—that is, from April 1 to July 15—would eliminate that as

a turning point issue?

Mr. Wachter. Yes, I'm convinced that while changing the date would also cause difficulties to States, I believe that those difficulties would be less than the difficulties occasioned by two sets of official counts, and I think that congressional action to change the date would eliminate that consideration from an issue for the Sec-

retary's decision.

Mr. Sawyer. While I suspect there may be some State legislators around the country who would suggest that you are not in a position to make that judgment between the two levels of disruption, let me just make absolutely clear that while you recognize that there is disruption in both cases, that the disruption is less, in your view, making the dates coincide rather than having two sets of figures.

Mr. Wachter. That is so. Could I amplify that with one sentence perhaps?

Mr. SAWYER. Sure.

Mr. Wachter. I believe part of the difficulty in the two sets of figures disruption is that it could put a number of States with mandated deadlines into a position where, with the best faith and the best effort to do the right thing, there would be no right thing; they would be mandated to prepare plans on the basis of the earlier numbers; they would then come against the later numbers; and they would be subject to court challenges without any recourse for doing the right thing, there would be no right thing, and the courts would necessarily in many cases overturn one decision or another.

I think that if the date is pushed forward, at least there will be some clear rules to the game, and then people with good faith in

the process will act upon those clear rules.

Mr. Sawyer. That one single clarifying sentence sounded like

one of my single clarifying sentences.

Are any of the other members of the panel in a position to com-

ment on that particular question, or would you care to?

Mr. ERICKSEN. I would like to add one point. The issue of disruption is really not a scientific question. As statisticians, we are used to the kinds of constraints that practical people put upon our deliberations, and the constraint that the States have that they have to get their districts drawn up early is one. A second constraint is the

Supreme Court decision which mandates equal representation, and I am very troubled by the idea that we are going to hurry up and use inaccurate numbers if it would be possible to have accurate numbers later on. I think that is something for political people to deal with.

Mr. Sawyer. Let me return then to the question that I was asking earlier about small area data and the degree to which that may or may not be useful or necessary in coming to an appropriate decision on adjustment. Those are two pivotal months that are critical both to the question of disruption and to the question of accuracy. Could you comment on the usefulness of those small area data and how they affect particularly questions of accuracy?

Mr. ERICKSEN. I am not sure exactly what you mean by "small

area data." Are you referring to the-

Mr. SAWYER. I am talking about block level data that goes beyond the national and State level data that we heard earlier will be available at some point earlier than the work that has to go on in the final 2 months prior to July 15.

Mr. ERICKSEN. These are the block level data before adjustment.

Mr. Sawyer. That is correct.

Mr. ERICKSEN. It seems to me that we would want to use the same rules for the small area data as we would for the large area data, because the large area data are obviously an aggregation of them. The small area data are obviously useful to the local areas for local review, but what we really need is to have the full adjustment procedure go forward and see how well they work, and then we will make our decision whether or not to use those data.

Mr. McGehee. I think to answer your question, what I understand you are trying to get is, do we really have to go down and analyze down to the block level before you can make a decision about adjustment?—if I understood that is really what you are

trying to get at.

Mr. Sawyer. That is essentially the question, yes.

Mr. McGehee. The answer is yes, you absolutely must go—the analysis of the procedures that are involved with the PES has to take into account what the impact is going to be at the block level because the Department has decided—and I think correctly so—that the data has to add up back and forth and it has to be able to be used at ever level that census data is used, and that means down through the block level.

Mr. SAWYER. Dr. Tukey, Dr. Wachter, do you have any com-

ments?

Dr. Tukey.

Mr. Tukey. Yes. It seems to me that we have a little touch of confusion here.

Mr. Sawyer. I may have contributed to that.

Mr. Tukey. No, I wasn't suggesting that, sir, at all. If we accept all the assumptions that various people have made, there are two requisites for a decision to adjust. You need to have available the numbers that apply if adjustment is carried out, and you need to have carried out at least some of the procedures for evaluating the PES.

Now those two, to the best of my belief, are not linked head to tail. You do not have to have block adjustments in order to check

up on the PES. The process of checking the PES is based on samples and some reconsideration in the field, and it seems to me it only applies to the blocks in which the PES was actually conducted. So there the question of delay is a question of, How many of the P studies are you going to do? Are the D studies going to tell you anything? That is one part of the input.

You can't sensibly announce a decision to adjust without having the block level results available, and so for that branch of things you do have to do things at the block level and then add them up. So I think this separation is important, and it makes it easier to

think about what is going on.

Mr. SAWYER. It is helpful. Thank you very much.

Dr. Wachter, anything to add?

Mr. Wachter. Dr. Tukey made the point.

Mr. SAWYER. Good.

Tom, I have a got a couple of other questions I would like to ask, but I want to keep this in order.

Mr. Ridge. Okay. Thank you, Tom.

Dr. Ericksen, during the course of your testimony, you stated that one of the concerns you had was some last minute census checks that you felt, such as the housing canvassing check and the single member household check, were not likely to catch the significant undercount. Do you believe that there are any steps that the Census Bureau could have undertaken at the last minute to in any way catch what you consider to be an undercount?

Mr. ERICKSEN. No, I don't. The problem is—and perhaps I can shed a little bit of light on the issue of within household enumerations that we have talked about before. Studies vary. About 40 percent of the undercount in the Missouri test census appears to be of

the "within household" variety.

A lot of those people who are missed are children who are inadvertently left off census forms for some reason or another. Another group of people that get missed are people who don't have a strong relationship to the household where they live. There is evidence that the "within household" miss rate is higher for boarders and distant relatives, for example. A lot of these people change their residence, so they are not living in September at the same place where they are living in April, and it would be very hard to go back and find them.

A lot of the "within household" misses will occur on forms that are mailed back. People don't quite understand what the residence

rules are. That, to me, is an extremely intractable problem.

Second, I don't want to give the impression that the housing recanvass will not find omitted housing units. The problem, though, is that it is likely that the majority of missed housing units don't exist in clusters. They might be in blocks where there possibly could be no other misses or one or two others, but by the time you add those up across the country, it comes to a substantial number.

What the cities can do is identify blocks where there is an obvious miss, but that is likely to be a minority of all the housing units that are missed. So the only way that they could really do it would be to take a sample of blocks and send expert recanvassers out to a sample of all the blocks in the country and count again. Well, I have come pretty close to describing the Post Enumeration Survey

when I have done that. So that is why, in my view, a sampling and

survey approach from the PES is the way to go.

Mr. RIDGE. To follow up on that-I really would like answers from all four, or if one could speak for you collectively—this advisory panel is to be a totally independent group, as I understood it, providing a completely objective evaluation of the PES and serving in an advisory capacity to the Secretary of Commerce as he makes the very difficult decision as to whether or not there should be an adjustment. Do you think it is appropriate for the advisory panel to say one of the following or any combination thereof: The PES was conducted in a thoroughly professional, efficient, and effective manner, and we are convinced, based on our years of experience in the field, that the results are as accurate as possible; or is there an addendum that says we think the PES is accurate and we also think that an adjustment is appropriate? Where does the line of demarcation fall for this advisory panel? Do you limit your inquiry into the accuracy of the PES, or is it your function to make a collective recommendation as to whether or not there should be an adjustment? I don't know, and that is why I am asking.

Mr. McGehee. My opinion, in answer to your question, is twofold. First, I don't think it's possible that this panel will come to any collective agreement. Secondly, the stipulation itself calls for independent assessments. Independent documents that we will all provide to the Secretary with our individual recommendations

about---

Mr. RIDGE. With regard to the PES?

Mr. McGehee. With regard to whether or not we believe adjustments should be completed, or should be done or not done. And the justification for that opinion, I would assume that each one of us will justify it based upon the factors you outlined—the completeness of the PES and the 38 different evaluations and the policy grounds.

Mr. Ridge. Thank you.

Dr. Ericksen.

Mr. ERICKSEN. Yes, we were asked to submit individual recommendations, and that has been reinforced upon us by Under Secretary Plant.

It is my understanding—and I think that we would all agree that our mandate is to comment on whether or not adjustment im-

proves the data.

Mr. Ridge. Okay, which is not how I formulated the question.

Mr. Ericksen. That's right. So if we believe that adjustment brings the distribution of population closer to the truth, then I believe that we would individually recommend adjustment.

Mr. RIDGE. Dr. Tukey.

Mr. TUKEY. I concur with what Dr. Ericksen just said.

Mr. Ridge. Dr. Wachter.

Mr. Wachter. Yes, I concur with that, and I would like to add that I believe we have a responsibility to comment on whether each of the guidelines set forward and promulgated by the Secretary for his decision has been fulfilled or not, and to what extent. So I think we have a responsibility to address both the statistical and policy guidelines, to the extent that our expertise allows.

Mr. RIDGE. I understand.

Thank you, Mr. Chairman.

Mr. SAWYER. I genuinely appreciate the character of that question. It gets to a very sensitive and central issue and a matter that lies before all of us.

Let me just go back to a point that Mr. McGehee raised. I guess I agree, that if one of our previous witnesses can quote that eminent political scientists Yogi Berra, that "It's deja vu all over again," certainly we can invoke him when he said "It ain't over 'till it's over." I suspect that that applies to this as well. In that sense, I appreciate the concern that you have raised about whether or not people bring background and positions to this question and whether they can isolate it from a de novo consideration.

Let me engage in a similar exercise to what my colleague from Pennsylvania just engaged in. Let me read you another set of statements about the potential adjustment process. "This is not as much a statistical correction game as it is a power political game, dealing

in largess and preserving political strength."

Number two, "The thinking of those who are pro-adjustment is that they can save some inner city congressional seats for a State

like New York."

Three, "The philosophical dichotomy between being pro-adjustment and antiadjustment to the 1990 census is very real, indeed, and involves a view of not only statistical weighting procedures but also of the practicality of trying to maintain political power for certain special interest groups through the new adjustment process."

Would you concur that those statements are as inappropriate by the standards you've set as the ones that you suggested from an-

other---

Mr. McGehee. Not at all. Those comments were comments that I made. I believe, if I'm correct, when I was on the Population Advisory Committee, from basically—I'm still on that committee and just ended my chairmanship—from 1985 through 1989, those comments are from a large conference that, if I may say so, obviously appear different when they are presented without the corresponding comments on the other side, in a very heated debate that was taking place about whether or not the Census Bureau should even

be getting into the issue of trying to conduct the PES.

Our Advisory Committee was very similar to this panel and spent two years vigorously debating, analyzing, talking, and discussing with the Bureau the specific things that they were trying to do to solve the problem of the undercount. Our panel ended up recommending, on three separate occasions, to the Bureau, as early as 1986 and '87, that the time frame they were trying to do it in was not workable, that the procedure that they had developed had not been tested sufficiently, that, indeed, we recommended officially to the Bureau not to attempt to try and do this during this 1990 census. We recommended, on the contrary, that it be used in a research mode, that it was a good idea but not enough research had been done. Those comments that you refer to, I think, certainly were said in a different context and were the response to a vigorous and heated debate that had to do with why the Bureau was trying to do this. What the justification for it was. And to go right to the heart of the matter, the Bureau staff at that point had proposed to do the adjustment by December 31.

Mr. Sawyer. Well, that's an interesting definition of de novo consideration. I hesitate to—actually, I don't hesitate to point out that those quotes were not drawn from that particular source—at least not as primary material. We drew that from a Houston Chronicle op-ed that appeared in December of 1989 by another member of the panel not here today.

I guess my own view is that I agree with you in principle, that it may be too soon to declare this census an absolute success, just as I believe it's too soon to declare it an absolute failure. It is by scientific measures like the PES that we ought to come to that conclu-

sion

Just as I tend to believe that it's probably premature to say, as Secretary Mosbacher was quoted as saying, that there has been a full and complete count of everyone. I suspect what he meant to say was there has been a full and complete effort to count every-

one. I would agree with that.

With that, let me just ask the members of this panel, in the same vein, as to whether or not there is a consideration of this question anew, whether you would agree with the attribution made to a high-ranking elected official in this country in the New York Times earlier this year, that it was inconceivable—and I use that specific word—that an adjustment would result in a more accurate census count. Would any of you agree or disagree with that?

Dr. Wachter.

Mr. Wachter. I certainly don't think it's inconceivable that an adjustment could result in a more accurate census count.

Mr. Tukey. I would go at least that far.

Mr. Sawyer. Your gift for understatement is remarkable.

Dr. Ericksen.

Mr. ERICKSEN. I believe that in 1980 an adjustment would have improved that census. I believe it's very likely that the quality of adjustment data in 1990 will be better than the quality of adjustment data in 1980. I am therefore optimistic, but again, we have to wait and look at the data before we can be certain.

Mr. SAWYER. Mr. McGehee.

Mr. McGehee. I agree with the conclusion that we have to wait and look at the data, but I think it misses a fundamental point. I just want to make this observation, that it depends on what level you're talking about. I think most statisticians would agree with the statement that an adjustment at the national level probably gets you closer to the truth. When you bring that down to the state level, you drop off some statisticians that are prepared to agree with that. When you bring it down to the county level, you drop off a whole bunch more, and when you get it down to the block level, there is extreme controversy about whether it gets closer to the truth. The question is, do you get the majority of blocks closer to the truth, or just a few selected blocks in a few selected areas? The question that we have to look at in terms of the evidence is what the effect of any proposed adjustment actually is.

Mr. SAWYER. Thank you.

One final question, if you don't mind. I know we're pressed for time.

Yes, Dr. Tukey.

Mr. Tukey. I would just like to reply to that and say, in my testimony in the New York case concerning the 1980 census, I did present some mathematical results that show that under reasonable situations, if an adjustment does reduce the error at a larger level, then if you apply that same percentage adjustment to subareas, you will, on balance, reduce the error in the subareas. So from my point of view, this distinction between the small and the large runs against at least one mathematical result.

Mr. Sawyer. Dr. Tukey, the question that I was about to ask was precisely on that point. You refer in your testimony to the clarification of certain technical issues that may save time in carrying out an essential preliminary to adjustment. Is that the point that you're going at? Is the small area adjustment critical to the deci-

sion to adjust? Can you expand on what you meant?

Mr. Tukey. Well, the technical issues that I meant are the technical issues related to what the Bureau refers to as the smoothing factors, where you take the results for the poststrata and say, if you consider them as a whole, you may want to adjust them individually somewhat.

Now, there are questions about the conduct of the sort of regression, where the detailed procedure used depends on looking at what you see in a preassigned manner, that haven't been discussed in the literature anywhere that I know of, but where you can get

some better guidance as to how you chose things.

Also, there is further issues that were brought up. I was at the Bureau a week ago today and I think I see some ways of improving access to some of these further issues. But these really are technical questions, in putting the kind of high polish on the adjustment that would make the technical people in the Bureau feel happier about it. It's not the issue you were going to raise.

Mr. SAWYER. I understand.

Do you have further questions, Mr. Ridge?

Mr. RIDGE. Just one.

There is no indelicate way to ask this question, so I'm just going to ask it of all the panel members. Is there a conflict of interest that arises with members of an advisory panel advising either plaintiffs or working with plaintiffs or defendants in the pending lawsuit, and with their service to the Secretary of Commerce as a member of this independent advisory board? Is that a conflict of interest? Would anybody care to answer that?

Mr. Ericksen. I'll be happy to answer that question.

Mr. Ridge. Please.

Mr. Ericksen. First of all, in a way I will defer to attorneys who really—conflict of interest is a legal term. But this case, there was a case in New York City with Judge McLaughlin presiding. It was settled on July 17, 1989, one-half hour before I was scheduled to testify on behalf of the plaintiffs. That negotiation took place and the panel was set up, knowing full well that there were groups of statisticians who had testified both for and against the plaintiffs' case.

The Secretary of Commerce appointed myself and others, knowing that we had either testified or had been scheduled to testify on behalf of plaintiffs. So their view at that time was that was an appropriate thing to do because that's what they did. Nobody ever

asked any questions of me anyway as to whether I was a Democrat or Republican, and I don't believe that anybody has asked that question of anybody else that I've talked to.

Mr. McGehee. I would like to respond to that.

Mr. RIDGE. I want to make myself clear, that I said to serve in any capacity, advisory, formal or informal, with plaintiffs or defendants. I'm not taking sides. I'm just saying that it seemed to me in my mind, the consensus is that most within the statistical community—I think there was testimony that most statisticians would agree that an adjustment could improve the quality of national data, so you have that consensus within the professional community. Potentially, I'm just wondering if there's a conflict with providing advice to parties in the lawsuit and then serving on an advisory panel to the Secretary of Commerce, just your own personal opinions.

Mr. Ericksen. I would also like to say that all of us are subject

to the scrutiny of our scientific peers.

Mr. RIDGE. Correct.

Mr. ERICKSEN. In August, some of us appeared on a panel before the American Statistical Association. There were hundreds of people in the audience. I appeared before a group of the American Sociological Association and we talked about the kinds of data that would make us come out against adjustment, talked about the kinds of data that make us come out for adjustment. The good opinion of our peers is a very important issue to all of us and that's the ultimate jury as far as I'm concerned.

Mr. RIDGE. Thank you.

Mr. McGehee. I'll respond more directly to your point, and that is whether or not I think that it's a conflict of interest to have one member of the panel who, if not on retainer, is certainly actively involved in the lawsuit and at the same time serving on the panel. Of course, common sense dictates that it is absolutely a conflict of interest.

Specifically, let me give you an example. We have a major problem on this panel right now. Our panel has great difficulty in meeting because we anticipate, regardless of what's going to happen over the next 8 to 9 months, that somehow, somewhere, this whole issue is going to end up back in Federal court, or at some court somewhere, and that each one of us will be deposed to

varving degrees.

The question is, for example, what goes on in our meetings. I mean, is that private and confidential; is it subject to that deposition or not? The question was raised at the very beginning of our meeting. That was the first issue we discussed. We made, as a panel, a decision that we were not going to have transcripts taken of our meetings. We made this decision for the simple reason that we wanted to have our *de novo* reconsideration unbiased, objective, so that we could talk as colleagues, argue vigorously behind doors about particular aspects of the evidence. We felt that if we were allowed a transcript of those conversations, it would serve to dampen that kind of give-and-take that was necessary.

What has happened is that we now have someone taking notes on both sides. If you will, of the two competing factions. We have recently been told that at least one member of the panel—who is involved in the lawsuit—has shared those notes with counsel for the plaintiffs. The question becomes what's in those notes? The rest of the panel members have not seen these notes. We have asked the individual member to see those notes, so that we can be prepared to answer questions they may generate and he has simply refused.

So the bottom line is it is a major problem. It is a major conflict of interest. To answer Gene more directly, I would have thought, regardless of whether or not people were involved in the court case at the time, that once they had been appointed to the panel, that that would have served as a barrier as well as respect from our professional peers, to no longer be involved actively in the plaintiff's lawsuit. That apparently has not been the case and it is obviously not sufficient to the Justice Department or anyone else to suggest that that is a disqualifying activity for service on the panel.

Mr. RIDGE. My sense is that, as long as the Secretary is aware of

the extent of the involvement—

Mr. McGehee. It's certainly his call.

Mr. Ridge [continuing]. He can make an individual assessment of the recommendations from that particular individual. I just wondered, from a professional point of view.

Dr. Wachter.

Mr. Wachter. I wonder if I could invite Dr. Ericksen here perhaps to clarify the present state of play in the matter of the degree to which you discuss panel activities, panel plans, panel business, with Mr. Rifkind.

Mr. Sawyer. Let me suggest it is not the conventional practice of this committee to have one witness of a panel question another. Frankly, if any of the witnesses felt it was inappropriate to engage in——

Mr. Wachter. Then perhaps I could make a statement to Mr. Ridge's question.

Mr. SAWYER. That would be fine.

Mr. Wachter. I think the difficulty in this issue of conflict of interest is that there is no firm and on-the-record information about what is occurring, so that whereas in my own case I have had no contact with any lawyers for the defense or plaintiffs, no advice, no orders of any kind, many of us suspect that there is a strong relationship between Mr. Rifkind and Mr. Ericksen that affects the letters that we receive from Mr. Ericksen and which affects what is happening in the panel's business. Whether it's a legal conflict of interest or not, that uncertainty about the way in which the panel business is being conducted is certainly an obstacle to concentrating on the scientific questions. So I'm very sorry that that issue hasn't yet been clarified in any clear and open way.

Mr. Sawyer. Any further comments? Dr. Tukey.

Mr. Tukey. I would say two things. One, whenever I have submitted testimony, I have made it clear that I was a pro bono witness for the plaintiffs in the previous case. I'm sure that was well understood by the Secretary when he chose to appoint me.

Second, to the best of my belief and understanding, no activities within the panel have been influenced by anything that might have come from either the plaintiffs or the defendants as far as I am personally concerned. I have been told that I had no responsi-

bility to sever myself from the plaintiffs in their plaintiff capacity, but anything that has gone on has been a one-way flow. I do not anticipate any influence from the plaintiffs on what I will eventually say as an individual member of the panel. There we are.

I think the existence of the relationship clearly was known to the Secretary. It was his choice who to appoint from a list. He

chose to appoint me among others.

Mr. RIDGE. If I could interrupt, am I correct that all the members of the panel were appointed by the Secretary?

Mr. TUKEY. That's correct.

Mr. RIDGE. Thank you.

Mr. ERICKSEN. I would just like to add one thing. The statement has been made that I have been legally active since the panel was appointed. It is unfortunate that this has arisen, but plaintiff's appointees to the panel were having difficulty getting documents in a timely manner. There was a difference of opinion as to how the \$500,000 budget to the panel was supposed to be spent. I wrote an affidavit demonstrating the problems that we were having, and partly as a result of that, the problems were adjudicated and we now have access to the spending and we also are receiving documents generally in a timely manner.

Mr. RIDGE. I just want to follow up on that.

Were the documents that should have been provided to you by the Census Bureau of the Department of Commerce, those were not being received in a timely manner?

Mr. ERICKSEN. That's correct.

Mr. McGehee. What's important is to define "timely".

Mr. RIDGE. Pardon me?

Mr. McGehee. I was just going to say, it's important to define "timely". I mean, you have what is obviously an acrimonious situation that has resulted in an agreement that documents will be provided within 5 days. From the day that any panel member asks for anything from the Bureau, it has to be in their hands within 5 days, regardless of the complexity of the request. The complexity of some of the requests early on were substantial and took, 2 and 3 weeks. That turn around time became a matter of discussion. The point was that data was provided when it was asked—or at least I am not aware of any request from any panel member at any time that was not provided to them. It was simply a matter of timeliness.

Mr. Ridge. I appreciate your responses. Thank you.

Mr. SAWYER. Thank you all, gentlemen. We may have gone beyond what may be appropriate for this venue in resolving matters of obvious common concern, but we are all grateful for your participation today. It has been very helpful.

Our next witness is Mr. Robert Rifkind.

Mr. RIFKIND. Good afternoon, Mr. Chairman.

Mr. SAWYER. Let me identify you as associated with Cravath, Swaine & Moore, counsel for the plaintiffs. I am happy to welcome you back here today. If you will identify you colleagues for the record, we would appreciate it.

STATEMENT OF ROBERT S. RIFKIND, ESQ., CRAVATH, SWAINE & MOORE, COUNSEL FOR PLAINTIFFS, ACCOMPANIED BY SANFORD COHEN, NEW YORK ATTORNEY GENERAL'S OFFICE, AND DAVID GOLDEN, NEW YORK CORPORATION COUNSEL'S OFFICE

Mr. RIFKIND. Thank you, sir. On my left is Sanford Cohen of the New York Attorney General's Office, and on my right is David Golden, of the New York Corporation Counsel's Office.

With your permission, Mr. Chairman, I would like to begin with the last matter that was before you, since I heard my name in-

voked on a couple of occasions.

In creating a panel of expert advisers for the Secretary of Commerce on this issue, it would have been quite remarkable if one had picked eight men or women who had had nothing whatever to do with the U.S. Census ever before or given it any thought. It was not surprising, therefore, that the four people selected by the Secretary and the four people nominated by the plaintiffs in the case, which the order provided for, all had had some mode of association with the issues that were going to be before the court or they wouldn't have been picked.

It is quite true that Dr. Ericksen and Dr. Tukey are gentlemen who I had met in the course of the litigation, going back to 1980. We had sought them out because they seemed to have something important to say to the subject. They seemed to be wise men and, therefore, we thought they would make an important contribution.

Likewise, the Secretary, in naming Dr. Wachter, appointed someone who had testified for the Government in the 1980 litigation. And he appointed Mr. McGebee who had lobbied with the predecessor of the Secretary of Commerce on behalf of the Republican National Committee against adjustment. So I don't think it should come as any surprise that all of these men have given thought to the issue before them. None of that was a secret. I suppose the question is, what will the cogency of their thought be, and on that, you and the Secretary will have to form your own views.

As to the subject matter of communication with members of the panel, one of the critical provisions of the stipulation and order that we entered into, that creates this panel, is that each member of the panel must be absolutely free, without constraint, to speak to anyone they want to—the press, counsel, this committee, the court, or anybody else. That was a condition of the order and that has been followed. It is, therefore, not surprising that, "when the cochairman called me and said I am not getting documents that I'm asking for from the Census Bureau", I asked him to give me an affidavit, went to court, and worked out an agreement with counsel for the Department of Justice requiring the Bureau to respond within 5 working days, or to give a good reason for not doing so. That's the sort of thing that's been going on. I don't think it's alarming, but it has certainly been open, notorious, and public.

Sir, the hour is late, and I appreciate the patience the committee has shown all morning. I have submitted a longer statement. I really only want to make three points and then elaborate on them

until the lights start flashing.

I think the first point is to recognize how fortunate it is that there is the possibility of doing a statistical correction. There would not have been such a possibility but for this litigation. By pursuing this legislation, we evoked from the Secretary of Commerce, an

agreement to put the necessary machinery in place.

I don't know what data to credit at this point, but if it is an accurate summary of the whole situation that something like 7 million people, are presently not accounted for, a substantially larger number than in 1980, it would seem to me perfectly obvious that all of the coverage improvement devices, all the post census local reviews, are not going to account for 7 million, nor for 5 million. Therefore, I say thank goodness that there is the possibility of doing a statistical correction.

Some question was asked earlier on about the relationship between the estimates and the preliminary counts; the estimate being something like 250 million. I do remember vividly that in 1980, when we were challenging the accuracy of the counts, we were told by the Bureau: "Do not worry. We are counting more people than we have estimated are there. That gives us as very high measure of confidence in the accuracy of the census." Suddenly, now that the counts are coming in well below the estimates of the number of people there, there are doubts about the validity of those estimates. I did not hear any of those doubts expressed by the Director in 1980.

My second point is that, notwithstanding the availability of the correction devices, and thus the possibility of making an affirmative decision, there is circumstantial evidence that the Secretary of Commerce is not approaching the matter, as he is committed to do, with an open mind and without prejudgment. The evidence is circumstantial and not conclusive. Some of the positions that he has taken in the courthouse—for example, saying he does not know whether or not it is constitutional to adjust—although every court that has considered the question has found it to be constitutional—saying that he doesn't know whether the courts have the power to review his decision because it's a nonjusticiable matter, outside the competence of the Federal courts, a position that every court that has considered the matter has rejected, and the court has now rejected again—these positions suggest a certain reluctance about the whole thing.

The fact that the press continuously and repeatedly tells you that the perception in the sophisticated community of Washington is that the Secretary is not going to adjust, that it is a sure thing he is not going to adjust, or a prediction that he's not going to adjust, and that he's not going to adjust for partisan reasons, worries me. When the New York Times smells the aroma of partisanship, I don't know whether there's fire, but I suspect there is smoke. It is a matter of grave concern to those of us who are relying on a nonpartisan

decision.

Finally, there has been a great deal of discussion this morning about timing. I believe that it is, as a practical matter, inconceivable that, starting in July of 1989, with two years to go, the plans could not have been organized to produce a result before July of 1991, 2 years later. In fact, the evidence is that they took the July 15, 1991, date as the target date and decided to shoot for it, ignoring the fact that they had committed themselves to produce a result at the earliest practicable date.

We are advised by skilled management consultants, who have studied the matter with the Bureau and studied the Bureau's latest schedules down through June 26, that with appropriate attention, zeal and determination, an adjustment decision can be made in March of 1991, and the corrected data, if that is the decision, could be put out in April of 1991. It is a matter of concern that they are not planning to do that.

Indeed, one might ask, as I think you were asking before, until the PES data is available and analyzed, how do they know that the census is accurate, even if the decision is against adjustment? Since Mr. Plant told you that the PES is the device for determining the reliability of the census, until there's a PES thoroughly assessed in place, what business do they have in putting out any data that

anyone might rely on?

I'm afraid that the Secretary is pursuing a dilatory approach. I fear that he may be pursuing a partisan approach. I hope that this committee will make it clear that accuracy is not to be thwarted by either approach.

Thank you, sir.

[The statement of Robert S. Rifkind follows:]

# STATEMENT OF ROBERT S. RIFKIND Cravath, Swaine & Moore

Before the
U.S. House of Representatives
Committee on Post Office and Civil Service
Subcommittee on Cenaus and Population

September 11, 1990

Mr. Chairman and Members of the Subcommittee:

I am a member of the law firm of Cravath, Swaine & Moore. My firm represents, pro bono publico, the cities of New York, Los Angeles, Chicago, Houston and Phoenix, Dade County, Florida, the U.S. Conference of Mayors, the National League of Citizens, the League of United Latin American Citizens, and the National Association for the Advancement of Colored People, all of whom are plaintiffs in the action against the Department of Commerce and the Census Bureau pending before Judge Joseph McLaughlin in the United States District Court for the Eastern District of New York.

I am pleased to have the opportunity to set forth some thoughts on the developments of the past several months from the vantage point of that litigation. One thing above all has become even clearer than it was when I appeared before you on October 17, 1989, and again on January 30, 1990. It is now perfectly clear that the Commerce Department's 1987 decision that it would not, under any circumstances, permit the Census Bureau to carry out a

statistical correction of the 1990 Census was a mistake. It is very fortunate that the Secretary of Commerce was induced, by means of the litigation, to vacate that decision. Given all that appears to have gone wrong with the enumeration over the last five months, we can draw substantial comfort from the fact that a correction, based on the post-enumeration survey, remains a possibility--as it would not have been but for the litigation.

In retrospect, the Bureau's recommendation in 1987 that plans should be put in place to prepare for a statistical correction seems as far-sighted and wise as the Commerce Department's veto of that recommendation seems both foolhardy and foolish. In 1987 Undersecretary Robert Ortner explained that veto on the grounds that statistical correction could hardly improve on the "99% or better count of the population which we expect to achieve." That optimistic expectation was based on plans for "expanded publicity and outreach to convince people of the need to be counted"; on strengthening of the "minority outreach program"; on an expanded "Census Community Awareness Program" and on intensified efforts "to reach hard to count groups including the homeless." (Department of Commerce Press Release, October 30, 1987.)

The Director of the Bureau, John G. Keane predicted in 1987 that all those outreach and coverage

improvement programs would not eliminate the differential undercount and that the statistical correction techniques the Bureau recommended were "the only potential means of reducing the differential undercount". Indeed, all the outreach and awareness programs launched in this \$2.6 billion census were unable to achieve the 75% mail back rate achieved in 1980, were unable to achieve the 70% mail back rate the Bureau projected for 1990, but could only achieve a mail back rate of 65% nationwide—and very much lower in densely populated neighborhoods of many of our largest cities.

That serious fall off in the mail back rate placed an enormous burden on the Bureau and its vast army of enumerators. The evidence, developed by the Bureau itaelf, on the basis of its own prior experience, shows that where the mail-back rate goes down the undercount goes up. The preliminary counts released over the past few weeks appear to be consistent with that historical experience. At very least, the fact that the preliminary counts have fallen significantly below the Bureau's own estimates of the population, particularly in major cities, is a source of grave concern. And the reports that enumerators appear to have designated unexpectedly large numbers of housing units as "vacant" are a source of grave concern. And the exceptionally heavy reliance on so-called "last resort"

enumeration is a source of grave concern. And the report that large numbers of housing units appear to have been missed altogether—at least 200,000 in New York City alone—is a source of grave concern. And the reports of serious misconduct and misreporting by enumerators are a source of grave concern. All of these suggest that the traditional techniques, however intensified, expanded or costly have not been up to the challenge and that the hosts of enumerators, under enormous pressure to get the job done, have resorted to short-cuts and improvisations unlikely to produce the most accurate results.

The facts with respect to New York City strongly suggest that these concerns are warranted. In 1980 the Bureau reported the population in New York City as 7.07 million. Thereafter, the Bureau estimated it had undercounted the city by almost half a million. In 1988, without correcting for that undercount, the Bureau estimated the City's population had grown by 280,000. Independent studies, by Professor Emanuel Tobier at New York University, estimated significantly greater growth. Yet two weeks ago the Bureau's preliminary data gave the City's population as 7.03 million—a decline from the official count in 1980. That figure is simply incredible. And it should be noted that approximately 10% of the City's population was

accounted for not by mail return, nor by observation by enumerators, but by the so-called "last resort" techniques.

To be sure, the traditional processes have not yet run their course. Dr. Bryant and her colleagues hold out much hope for the improvements that will be achieved by the post-census local review program. But here again, history does not offer encouragement. According to the Bureau's own analyses, the local review program in 1980 managed to add no more than 75,741 persons to the total count of more than 224 million. It must be recognized that the 39,000 local governments eligible to participate in local review really do not have the resources or the time to bail out the deficiencies of the enumeration. In 1980 only 32% of eligible local governments participated and only 6.6% came up with evidence the Bureau deemed acceptable.

Even if there were much greater participation by local governments in 1990, it must be recognized that they are invited only to identify missing housing units. They cannot question the validity of vacancy rates. Indeed, they are not told which housing units were marked vacant by the enumerators. Nor are they to question whether all those who in fact live in identified housing units have in fact been counted. And it is well-established, again by the Bureau's own analyses, that a very substantial portion of the census undercount is comprised of individuals not counted though

they live in households that were counted. In short, important as the local review program may be, it cannot be expected to do the job of the Census Bureau.

In these circumstances, as I suggested at the outset, it seems to me remarkably fortunate that the Commerce Department and the Census Bureau consented to be bound by the Court's order of July 17, 1989, under which they not only vacated the decision against adjustment, but committed themselves to conducting a post-enumeration survey

". . . and such other procedures or tests as they deem appropriate, as part of the 1990 Decennial Census in a manner calculated to ensure the possibility of using the PES, not solely for evaluation purposes, but to produce corrected counts usable for congressional and legislative reapportionment, redistricting and all other purposes for which the Bureau of the Census publishes data." (Stipulation and Order, ¶ 3)

Further, they committed themselves to decide whether or not to carry out a statistical adjustment of the 1990 Decennial Census through a "thorough de novo reconsideration undertaken with an open mind [and] without any prejudgment" (¶ 2) and to do so at the earliest practicable date (¶ 5). As a result, there is available, as there would not have been but for the litigation, the prospect of the correction, based on what the head of the Census Bureau's undercount research staff described in 1987 as "a rigorous and professionally sound body of statistical theory, methods and operations for correcting the 1990 Census enumeration so as

to produce census figures with reduced differential undercount."

One would suppose that this development would be a source of cheer and comfort in the halls of the Commerce Department. One would suppose that over the past five or six months the Secretary of Commerce and his colleagues would have been assuring us that the machinery for a statistical correction was in place, that it was receiving the closest attention and that they were pressing forward to a prompt decision on utilizing that machinery. I regret to say that, so far as I am aware, they have said nothing of the sort. On the contrary, the evidence continues to accumulate that there remains the same intense hostility to a statistical correction, manifested by the now abandoned and discredited decision of 1987. I hope that I am wrong--I will be glad to be proved wrong--but I submit that there are good grounds to fear that the Secretary is not approaching the matter with an open mind and without prejudgment, as promised, but is instead steadily and persistently preparing us for the announcement of a negative decision already reached.

What are those grounds? First, there were the proposed guidelines for decision published last winter. You have on previous occasions received extensive testimony from me and many others, including eminent and dispassionate

statisticians, as to the bias against adjustment that those guidelines bespoke. And, while the District Court found that the guidelines, as finally published last March, constitute "the bare minimum required by the Stipulation and Order" it held that, in light of the minimalist nature of defendants' performance thus far, they would incur a particularly heavy burden in explaining any decision against adjustment. Indeed, the court felt obliged to admoniah the defendants that they "are expected and indeed required to honor their solemn commitments embodied in the Stipulation" and to make it clear "if it is not already clear, that back door attempts to evade their commitment will not be countenanced."

Secondly, the Secretary sent his lawyers into court to assert that he had not yet made up his mind whether or not a statistical correction is constitutional. Inasmuch as all the courts that have considered the question have held that a statistical correction is constitutional and, indeed, may be required as necessary to increase census accuracy, this purported indecision on the Secretary's part was very peculiar. Needless to say, the District Court had no difficulty in stating:

"It is no longer novel or, in any sense, new law to declare that statistical adjustment of the Decennial Census is both legal and constitutional . . .

"This Court concludes that because Article I, § 2 requires the Census to be as accurate as practicable, the Constitution is not a bar to statistical adjustment . . .

". . . The concept of statistical adjustment is wholly valid, and may very well be long overdue."

Thirdly, although the Secretary had a year ago stipulated to the entry of the Court's Order, he nonetheless sent his lawyers into court to urge that the dispute between the parties presented a nonjusticiable political question, outside the jurisdiction of the Federal Courts. Expressing some surprise that such an argument should be advanced at that late date, the Court rejected it, pointing out that the identical argument had been rejected a decade ago in the Second Circuit and, indeed, in every other court in which it had been raised.

None of these actions by the Secretary reflects any perception of statistical correction as a viable, potentially desirable or potentially necessary decision. Furthermore, as census operations have proceeded since April, we have witnessed a steady campaign of public relations clearly designed to suggest that all is well with the initial enumeration and, by implication, that statistical correction will be quite unnecessary. Thus, for example, the Secretary asserted in late July that:

"He saw no signs that poor people or the homeless had been undercounted. Evidence suggests that there

was a 'very complete, full and fair count of everyone'

he said." (N.Y. Times, 7/29/90).

live in households that are counted.

Only last month Undersecretary Darby assured this Committee that "based on what we know already, we remain content that this Census will be the best Census count ever achieved."

(Oral Statement of Michael R. Darby, 8/8/90). Earlier, on July 1, the Bureau put it out to the press that the 1990 Census had then counted 99% of all American homes

(N.Y. Times, 7/2/90). The Bureau's personnel knew perfectly well that that ststement was misleading. The Bureau knew that, at most, it could claim to have counted 99% of those homes appearing on its address lists, which were known to be

missing very large numbers of households. And the Bureau also knew that a very large proportion of the undercount is comprised of individuals who are not counted though they

In short, the Commerce Department appears to be proceeding on the assumption that, if only it can persuade the American public that all is well, the need to utilize the available machinery for producing the most accurate count practicable will go away. We are witnessing a modern rendition of the fable of the Emperor's New Clothes. I venture to hope that the Secretary's apparel will be just as transparent to the American people as was the Emperor's.

The Department of Commerce has repeatedly expressed its concerns that the American people might not understand and accept a statistical correction. But the public is wiser and understands more than the Commerce Department supposes. In an opinion poll conducted by the Gallup organization in April, the majority of those who had an opinion indicated that they favored an adjustment of the final count, even in response to a question that appears to be somewhat tilted against adjustment. 1/

Moreover, the Commerce Department has done little or nothing to enhance the public's understanding of statistical correction. Although swift to pounce on criticisms of the enumeration, the Department and the Bureau

### The responses were as follows:

Include estimates in counts	48%
Only include actual number counted	45%
No opinion	78
1	00\$

<sup>1/</sup> Gallup Newsletter, 54:48, 4/25/90. The question used in the poll reads as follows:

<sup>&</sup>quot;It has been suggested that parts of certain groups in America, particularly minorities and the poor in inner cities, are missed and not counted by the census. The suggestion has been made that the government estimate how many people are missed, and add these estimates into the final census count. Other people say that the census should only include the actual number of people counted. Which of these views comes closer to your own?"

remain strangely silent when the post enumeration survey and statistical correction are criticized. Thus, for example, when the minority leader of the House of Representative said that "it was inconceivable that the random interjection or removal of synthetic persons" would result in a more accurate count, (N.Y. Times, 7/29/90), no one, so far as I am aware, from the Department or the Bureau thought it appropriate to explain that the distinguished Member had fundamentally misunderstood the nature of the proposed statistical correction.

The inference that this whole course of conduct reflects a profound bias against statistical correction, regardless of the evidence, is not one that I am alone in drawing. Over and over again the press reflects the assumption that the Secretary will decide against a statistical correction however serious the shortcomings or the enumeration. The National Journal reported in July that the betting among its sources is that the Secretary will rule against adjustment. (National Journal, 7/28/90 at 1832). The Wall Street Journal stated last week that "many experts say a negative decision is inevitable." (W.S.J., 9/4/90 at Al.) Mr. Kiplinger asserted in his Washington Letter (7/20/90):

"No one knows for sure what the Commerce Sec. will finally decide. Political considerations may play as big a role as statistical purity.

"But we think he'll rule AGAINST adjusting for minorities missed in the nose count."

Likewise, the usually staid editors of the New York Times have detected the "aroma of partisanship" in the Department's approach to the decision on statistical correction. (N.Y. Times, 6/30/90, editorial, "Repairing the Census").

Consistent with the Department's apparent disregard of its solemn undertaking to make the correction decision with an open mind and without prejudgment is the Department's apparent disregard of its equally solemn undertaking to announce its decision "at the earliest practicable date and, in all events, not later than July 15, 1991." The evidence is strong that the Department has decided simply to disregard the requirement that they announce their decision "at the earliest practicable date" and have, instead, decided to hold out until July 15. As early as October 17, 1989, only 90 days after the Court's order was entered, Deputy Undersecretary Plant, testifying before this Committee, described July 15 as "the date for making a decision on adjustment . . . " Could the Bureau in 1989 have organized its affairs to reach a decision at an earlier date in 1991? Common sense suggests that they could of course have done so. Instead, they intentionally

designed a program that would defer decision until the last permissible moment. As the Associate Director of the Census Bureau, Charles Jones, has disclosed, the Bureau has treated July 15, 1991 as, "the date specified" for decision and has planned its work to continue until then. The most casual review of the Bureau's schedules reveals that PES activities have been timed to proceed until July 15--not to conclude as early as may be practicable.

But it is not yet too late for the Bureau to accelerate its schedule. Skilled management consultants, having meticulously studied the Bureau's latest schedule of operations and having consulted at length with Bureau personnel, have advised that the operations contemplated in the schedule and needed for a decision on adjustment can be completed and a decision with respect to statistical correction can be reached before the end of March 1991. Corrected data could be made available to the States during April 1991. That could be done without compromising the quality of the Bureau's work or indeed compressing the existing schedule for 1990 in any way. All that is required to achieve that result is the will to achieve it.

But that is precisely what appears to be lacking. Perhaps the Secretary hopes that by deferring decision until the summer of 1991 the availability of corrected data will come so late and cause so much practical inconvenience that

we will all decide to dispense with accuracy. Perhaps the Secretary hopes that by deferring decision until July 1991 it will seem unprofitable for us to seek judicial review of a negative decision.

Perhaps the Secretary hopes to find refuge in indecision, claiming on July 15 that the evidence he requires for an affirmative decision is still unavailable. If that is his expectation, his advisors should remind him that under the Stipulation and Order of July 1989 they undertook to complete not only the post enumeration survey but also "such other procedures or tests as they deem appropriate as part of the 1990 Decennial Census in a manner calculated to ensure the possibility of using the PES

. . . to produce corrected counts usable for congressional and legislative reapportionment and redistricting. (¶ 3). They should remind him as as well of the District Court's finding that

"When the parties entered into the Stipulation, defendants affirmatively represented that the PES and adjustment-related operations were feasible goals as scheduled. Stip. at 2. Intentional inaction will not be tolerated. Defendants are expected, and indeed required, to honor their solemn commitments embodied in the Stipulation."

Whatever may be prompting the Secretary's dilatory approach to the matter, I hope that this Subcommittee will make it abundantly clear that the quest for a fair and accurate Census is not to be thwarted either by partisan prejudgment or delay.

Mr. Sawyer. Thank you very much.

Let me ask you, you have said with regard to timing that you believe it's possible to produce the appropriate data to make a decision by March of next year. That would, by your own suggestion, require an act of considerable will to achieve.

In the event that that will or ability, whichever it may be, is not present, and we move toward July 15, what is your view with regard to the appropriateness of releasing data on April 1 that could be construed as confusing the process of the orderly transfer

of political power and violate the guidelines?

Mr. RIFKIND. I really do not see that that is a useful exercise. I am quite sympathetic to the question you raised earlier on. It is true that, under the order, they are required to put what the Wall Street lawyers call a "red herring" on such data, warning that it is subject to correction and not final. But it is certainly true that, people being people, they will tend to rely on it. I don't know why that sort of data ought to be floating around, building up a head of steam behind using it.

I think it would be very wise to provide that until the Secretary makes up his mind one way or the other, he should not put out any data. Whether that date ought to be April 1 or July 15 or some other date is a good question. But a provision that says do not put out final data until you have final data, would seem to me very

sensible.

If it is true that at the end of the day we find that the data they planned to put out on April 1 is off by 5 million, that is the same as not having finished taking the census. That is the same as having missed a half a dozen States. We wouldn't put out data for less than all the States, so why should we pretend that the census is completed

when it isn't.

Mr. Sawyer. Let me ask you a question that I had trouble formulating earlier today, and I'm not sure I'll have any greater success now. But there are numerous tests for measuring errors in the adjustment-related procedures. There is really no similar test for the census itself. The census becomes the benchmark against which the PES is tested. And yet it is filled with techniques like the use of last resort data imputation. There is no similar test of those techniques in relation to questions of accuracy.

I'm not sure that I can ask you whether or not that is needed, but do you know whether it was ever planned that there be similar tests of the census itself against which to measure that standard of

truth that we've all spoken of throughout the morning?

Mr. RIFKIND. As far as I'm aware, it has not been. It has been a source of very considerable concern to us that they have very elaborate tests for measuring the PES and nothing to measure

comparably the census.

Tests could have suggested themselves even on the basis of the discussion this morning. One, of course, was suggested by the Bureau, as I indicated earlier, in 1980: how are we doing in comparison to the estimates? Now, that's very rough and very crude, but where you find yourself falling below the estimates all over the country, you know that internal migration isn't accounting for that because everyone isn't moving no place.

Mr. SAWYER. Everybody's got to be somewhere.

Mr. RIFKIND. Everybody's got to be somewhere. And I guess we have a decent hold on the figures for outmigration from the Nation.

Another sort of test that could have been refined by heads wiser than mine is "last resort" utilization. The Bureau, as I understand it, regards a 20 percent last resort reliance as unacceptable from any census worker. And as you have heard, in New York City we've had 24 percent.

You have the historical knowledge, that has been testified to, that as the nonresponse rate goes up, the undercount goes up. That's a fairly well-documented historical relationship over time, developed by the Bureau. One might suppose that when you have a nonresponse rate, a nonmailback rate, that not only exceeds 1980 but exceeds what they predicted for 1990, and gets down to 63 percent nationwide and 54 percent for New York City, you've got a very serious problem on your hands.

So I say the objective criteria that are before us all are cause for

grave concern.

Mr. Sawyer. Let me give just one final follow-up question, and that is, given the very detailed and specific concerns that you have about measuring the quality of the raw data, so to speak, can you tell me why you would not want to have that available in the course of those final two months in order to have a full and public consideration of the relationship of that and the decision that is ul-

timately made on July 15?

Mr. Rifking. I take your point. I think it is essentially a question of style. The Bureau, Dr. Bryant and others, have continuously stated "we intend to report the official count on December 31, 1990 and April 1, 1991." Now, they don't usually add brackets, "but we're required to say this is subject to change", so I don't know what the official count means. I think, if they put out data on a sort of flow basis, just as they have the preliminary data for post census local review, everyone would understand what is going on and that this flow of data is being subject to scrutiny. But once you get to something that looks final and say, "Hey, fellows, unless we do something, this is it", I think that's deceptive, misleading, confusing, and it begins to generate a sort of political energy of a negative variety around the question of adjustment or not. There's enough political energy around it already, I suspect, without heightening the tensions involved.

It is better, by far—indeed, the Bureau originally recommended—better by far that the decision be made at a time when one doesn't really know how all the cookies crumble. That would be our

preference.

Mr. Sawyer. Thank you. I am beyond my time.

Tom?

Mr. RIDGE. Just a couple of questions to follow up on that.

It would be your preference that the Census Bureau not release—I guess there is no way we could prevent them from meeting the December 31 deadline that they put out, or the April 1, to give States a little bit of a "heads up" as they go about preliminary work dealing with the whole question of reapportionment. I guess I just don't quite understand what is to be gained by withholding this preliminary information until the last minute, since it is no longer any deep, dark secret, particularly because of the 1980 lawsuit and the lawsuit that was filed a year-and-a-half, 2 years ago, that clearly the question of adjustment will be resolved regardless of what the data is out there. So I guess I don't quite understand

what you see is gained by withholding that information.

Mr. RIFKIND. I'm really in favor, I guess, of making as much information available as much of the time as possible. What I'm concerned about is a sort of an official imprimatur to be put on December 30 and April 1 data.

Let me put the question to myself as simply as possible. On December 31, Congress or the President will get data of the population of each of the States on the basis of which anyone with a hand calculator can tell you what the apportionment of the House is. Is the House is going to proceed to reapportion itself? I would think that that was a mistake until we knew what the Secretary's decision was on adjustment.

Purporting to comply with the statutory reporting requirements is what seems to me a mistake. Making information available in

press releases seems to me fine and desirable.

Mr. Ridge. I just want to take that a little bit further. It seems to me that, depending upon the legislative mandate that the individual States have—and I guess that's one of the problems that I've seen as we've written to State legislators and discovered that some of them have to start that process constitutionally a lot earlier than others—that it is absolutely essential for them that we get this out there as quickly as possible and to—I don't want to use the term "withhold" because that's not what you mean—but to deny them access to at least even the preliminary information as they go about realigning or reconfiguring their political districts might in the long run be even more counterproductive than you see as the

potential injury for sending it out earlier.

That's just a statement. You really don't have to respond to that. It is something that my colleague from Ohio and I have been wrestling with because the individual States have very different requirements as to how they deal with the whole question of reapportionment. My sense is—and maybe you have a different sense—is that the reapportionment for House of Representatives purposes will unlikely be affected by the adjustment decision, possible, but unlikely. It may in New York City where maybe 1 million are missed and we can only find another half-a-million. You might well have one other area. But with rare exceptions, the decision may not impact the House of Representatives reapportionment. However, once you get down in the State Senate and House districts and other districts within that State, they could very well be impacted.

Mr. RIFKIND. And drawing the district lines for Members of the House.

Mr. RIDGE. Correct.

Mr. RIFKIND. I'm sure you're aware that the dates December 31 and April 1 were not put there by James Madison. They have changed over time and the States have somehow accommodated themselves to it.

Mr. RIDGE. They'll probably change them for the year 2000, too, because they're really bumping our head up against this last

minute problem that the States have.

Mr. RIFKIND. It is surely curious that the Bureau and the Department, having been repeatedly asked, not only this morning but

over the past several years, would they like more time, have never been able to say yes. It does make one wonder whether they're not counting on the refuge of their due date rather than taking the time

they need to get it right.

Mr. Ridge. You referred to the stipulation and order and you're much more familiar with it than I, since you were there as a drafter, or maybe even made some proposals. Does it say anything about the release of information generally in the stipulation and order by the Census Bureau to either the public or the individual States?

Mr. RIFKIND. It only says that any information released prior to the Secretary's decision shall carry a legend conspicuously stating this is subject to change, under consideration, or words to that

effect.

Mr. Ridge. Okay. I thank you for your testimony.

Mr. Sawyer. Let me just note that you and Dr. Wachter come to what is essentially the same recommendation from a very different direction. Let me recall his comment regarding the transmission of data prior to July of '91. "Such a prospect must weigh heavily on the mind of any responsible public official. I fear such prospects of disruption might make it very difficult for the Secretary of Commerce to decide in favor of adjustment, even if he finds himself inclined to favor adjustment on the basis of evidence and advice."

Would you concur with that?

Mr. RIFKIND. I do concur with that.

Mr. SAWYER. Thank you. And thank you very much for your tes-

timony.

Our final witness this afternoon is Mr. Henry Der, who represents the National Coalition for an Accurate Count of Asian Pacific Americans. Welcome, Mr. Der.

STATEMENT OF HENRY DER, EXECUTIVE DIRECTOR, CHINESE FOR AFFIRMATIVE ACTION, ON BEHALF OF THE NATIONAL CO-ALITION FOR AN ACCURATE COUNT OF ASIAN PACIFIC AMERICANS

Mr. Der. Thank you. Good afternoon, Chairman Sawyer, and

members of the House Committee.

I have submitted for the record written testimony, and I know that the hour is drawing to a close, so I will only highlight those relevant portions of my written testimony for your consideration this afternoon.

Mr. SAWYER. We have been flexible so far, so within those con-

straints, we will be happy to hear what you have to say.

Mr. Der. The National Coalition welcomes this opportunity to voice our grave concerns about the structural limitations of the Post Enumeration Survey to produce a separate population estimate of Asian Pacific Islanders with regard to the extent of the undercount of this minority group in the 1990 decennial census.

It is important to note that both, in separate fashions, the Census Bureau and the plaintiffs in the New York versus U.S. Department of Commerce lawsuit have noted that Asian Pacific Islanders are among those groups that are chronically undercounted, especially those Asian Pacific Islander individuals who are recent arrivals or who are limited English speaking.

My written testimony cites several reasons why we believe that there may have been an undercount in the April 1990 operations, and I won't repeat those causes. They are in the written testimony.

Equally important, in 1986, in the East Los Angles test census, the Census Bureau conducted a test for adjustment-related procedures which found that Asian Pacific Islanders were undercounted by 5 to 7 percent, whereas whites were undercounted by less than 1 percent. Even though Asian Pacific Islanders may constitute less than 3 percent of the national populations, this minority group accounts for 10 to 50 percent of some State and municipal populations. An inadequate or unfair adjustment for the undercount of this minority group will harm the political, social, and economic interest of Asian Pacific Islanders concentrated in those municipalities and States.

When we protested the lack of a post-stratum for Asian Pacific Islanders 2 months ago, Dr. Bryant of the Census Bureau informed the National Coalition, members of this subcommittee and other legislators, that "the Census Bureau staff are now investigating whether they can produce more accurate estimates of the undercount/overcount for the Asian and Pacific Islander population in

selected geographic areas.

While it may appear that Asian Pacific Islanders should be optimistic that the Census Bureau if making this good faith effort to take a second look at the structure of the PES, the National Coalition remains very pessimistic. If, in fact, the Bureau can create a separate post-stratum for Asian Pacific Islanders without collecting additional sampling data from those urban areas where Asian Pacific Islanders are heavily concentrated.

In her testimony before the U.S. Senate recently, Dr. Bryant

stated:

The adjustment factors are by a great many geographical stratifications, and if we find a large number of a particular group in a particular geographic stratification, we then can make a separate estimate for that group.

Interesting, in a fact sheet entitled "Estimating the Asian and Pacific Islander Undercount in the 1990 Post Enumeration Survey", the Census Bureau, on the other hand, concedes "Although the PES is large by most standards, we do not expect large numbers of Asians and Pacific Islanders to fall into the sample in areas for which we must make estimates."

Not to disparage in any manner the courageous efforts of other minority groups to move the Census Bureau to act affirmatively on the undercount problem, the National Coalition candidly views the PES as a survey that explores primarily the undercount among blacks and Hispanics, with all other groups, including Asian Pacific Islanders, lumped into the "all other" category.

Even though Asian Pacific Islanders constitute roughly 2.7 percent of the national population, it is highly unlikely, in our opinion, that 2.7 percent of the households surveyed in the PES will be Asian Pacific Islanders. Let me illustrate how difficult it will be to find Asian Pacific Islander households in the PES, let along "large numbers of Asian Pacific Islanders.

The population of San Francisco is approximately 711,000, with 28 percent, or 200,000 Asian Pacific Islanders. Half the size of San Francisco, the city of Oakland has 60 percent black and Hispanic residents, or roughly 210,000. As currently constructed, the PES will survey 478 households among 210,000 black and/or Hispanic Oakland residents. The PES, though, will survey only 231 households among 500,000 nonblack, non-Hispanic, San Francisco residents.

dents, including the 200,000 Asian Pacific Islanders.

The ratio of Oakland black and Hispanic households in the PES to the city's black and Hispanic population is .0023. On the other hand, the ratio for San Francisco, all other households, including Asian Pacific Islanders, in the PES is .0005, or less than 25 percent of the chance of a black or Hispanic household to be surveyed in Oakland. Further, there is no assurance whatsoever that among the six nonblack, non-Hispanic blocks to be surveyed in San Francisco, those blocks will have a 28 percent Asian Pacific Islander representation.

Clearly, finding Asian Pacific Islander respondents in the PES will be the proverbial attempt to find a "needle in a haystack." If San Francisco Asian Pacific Islands stand little chance of being surveyed in the PES, it is highly unlikely that Asian Pacific Islanders in other urban areas will have either the same or greater

chance of being included in the PES.

The Census Bureau has indicated that it may be able to collapse API data from diverse post strata in order to create the so-called separate Asian Pacific Islander post stratum. Assuming that it is even possible under the current parameters of the PES to do so, the National Coalition has serious reservations about this gesture by the Census Bureau to collapse Asian Pacific Islander data from different post strata. This proposed "collapsing" may lump highly educated, relatively affluent Asians living in areas such as Palos Verdes or Hillsborough, CA with recently-arrived, economically disadvantaged Southeast Asian refugees living in the very poor Tenderloin District of San Francisco.

However limited the Census Bureau's research of the Asian Pacific Islander undercount has been, there is consensus between our coalition and the Census Bureau that the undercount is likely to be higher among recently arrived, limited-English proficient immigrants than among educated professionals. The combination of Asian Pacific Islander individuals from very divergent socioeconomic backgrounds will obfuscate the true undercount of this com-

munity.

If the Census Bureau collapses Asian Pacific Islander data drawn together from the different post strata or collapses Asian Pacific Islander data with that of other racial/ethnic groups, this proposed collapsing should occur only if individuals of the same socioeconomic, English proficiency ability, and native/foreign born status are grouped together. Otherwise, we believe that there will be a strong likelihood that the PES will find Asian Pacific Islanders to be overcounted.

So that an Asian Pacific Islander post strata is created for selected geographic areas, the National Coalition strongly urges the Census Bureau to increase, as soon as possible, the sampling in urban areas with high concentrations of Asian Pacific Islanders.

In conclusion, the National Coalition has worked to achieve an accurate count of Asian Pacific Islanders. We ask for congressional

support to persuade the Census Bureau to increase the sampling of Asian Pacific Islanders in certain urban areas in the Post Enumeration Survey. We estimate that to achieve this, they might merely add 100 additional blocks to be sampled in addition to the

5,000 that they have already sampled.

Absent this increased sampling of Asian Pacific Islanders, the National Coalition rejects any undercount or overcount adjustments based on the results of the PES. As the PES is currently designed and conducted, the National Coalition questions whether the PES will yield statistically reliable information about the undercount or overcount of Asian Pacific Islanders.

Thank you.

[The statement of Henry Der follows:]

WATIONAL COALITION FOR AN ACCURATE COUNT OF ASIAN FACIFIC AMERICANS o/o 17 Walter U. Lum Place San Francisco, California 94108 (415) 982-0801

Testimony of

Henry Der, Executive Director Chinese for Affirmative Action on behalf of National Coalition for an Accurate Count of Asian Pacific Americans before

House Subcommittee on Census & Population Washington, D.C. September 11, 1990

Chairman Thomas C. Sawyer and members of the House Subcommittee on Census and Population, the National Coalition for an Accurate Count of Asian Pacific Americans (National Coalition) welcome this opportunity to:

- (1) voice our grave concerns about the structural limitations of the Post-Enumeration Survey (PES) to produce a separate population estimate of Asian Pacific Islanders with regard to the extent of the undercount of this minority group in the 1990 decennial census;
- (2) urge the Census Bureau to oversample urban areas with significant concentrations of Asian Pacific Islanders, as a necessary component of the PES;
- (3) cite certain conditions and circumstances which have led to a likely undercount of Asian Pacific Islanders in the 1990 decennial census.

Formed in 1987 and comprised of community groups throughout the country with the support of numerous federal, state and local legislators, the National Coalition has advocated successfully Page 2.

the specific listing of Asian Pacific Islander subgroups in the race question of the 1990 census questionnaire form, has worked vigorously to educate Asian Pacific Americans about the importance of participation in the decennial census, and has assisted the Census Bureau to recruit qualified job applicants, produce and disseminate outreach materials, and staff voluntary walk-in assistance centers. (List of coalition members is attached.)

of the six plus million Asian Pacific Islanders in America today, over 2 million Asians, mostly limited English proficient, newly-arrived immigrants and refugees, were first-time participants in last April's 1990 decennial census. As such, the English language barrier and general unfamiliarity with the purpose and intent of a decennial census made these Asian Pacific Americans some of the most vulnerable viotims of not being counted earlier this year.

The vulnerability of recently-arrived Asian immigrants and refugess is a view also shared by the Census Bureau and plaintiffs in the City of New York v. U.S. Department of Commerce lawsuit.

At the Fourth Annual Research Conference held on March 20-23, 1988, in discussing the hard-to-enumerate population, former Census Director John G. Keane observed:

"Our coverage improvement plans and undercount research focus on five population groups....Blacks (especially adult males), Hispanics, <u>Asian and Pacific Islanders (especially recent arrivals)</u>, American Indians and the homeless (especially those with no links to an address)."

Page 3.

Mr. Keane also admitted that, in comparison to Blacks, "the Census Bursau knows less about the undercount rate of Hispanics and <u>Asians</u>." (emphasis added)

The Census Sureau though has some significant information about the extent of the Asian Pacific Islander undercount. In conjunction with its 1986 Test Census held in Central Los Angeles County, the Census Bureau conducted a Test for Adjustment Related Procedures, which found that Asian Pacific Islanders were undercounted by 5-7%, whereas whites were undercounted by less than 1%.

In advocating for the Census Bureau to conduct a postenumeration survey so as to determine the undercount of "chronically undercounted" population groups, plaintiffs in City of New York v. U.S. Department of Commerce lawsuit have stated:

"In every decennial census since at least 1940, there has been an undercount of the population of the United States. The national undercount has been reduced progressively over this period, but the undercount of the following groups has remained consistently and substantially higher than the national undercount: Blacks, Hispanics, other racial and ethnic minorities, documented and undocumented aliens, homeless persons, persons who do not read and speak English well." (emphasis added)

More than all other "chronically undercounted" population groupe, the Asian Pacific Islander population is heavily concentrated in urban areas. In addition, over two-thirds of all Asian Pacific Islanders live in six states: California, Hawaii, New York, Texas, Illinois, and Washington. The City of New York plaintiffs cite the harmful, negative impact of the undercount against certain municipalities and states which have a higher

Page 4.

percentage of the "chronically undercounted", in comparison to the percentage of these minority groups in the national population. Even though Asian Pacific Islanders may constitute less than 3% of the national population, Asian Pacific Islanders account for 10-50% of some state and municipal populations. An inadequate or unfair adjustment for the undercount of this minority group will harm the political, social and economic interests of Asian Pacific Islanders concentrated in those municipalities and states.

When all parties in the City of New York lawsuit agreed last year for the Census Bureau to conduct a Post-Enumeration Survey of the 1990 decennial census, the National Coalition believed at the time that the PES would produce a separate population estimate for Asian Pacific Islanders, in addition to ones for Blacks and Hispanics. Unfortunately, we made two erroneous assumptions.

First, the National Coalition assumed that the Census Bureau would act in good faith to recognize the dramatic growth of the national Asian Pacific Islander population and initiate appropriate steps to secure a separate population estimate of Asian Pacific Islanders in the PES. Second, we believed that the Census Bureau would (a) respect the findings of its own testing programs which demonstrated a higher percentage of undercount among Asian Pacific Islanders and other minority groups, in comparison to whites and (b) utilize the PES to determine the extent of the undercount of Asian Pacific Islanders so as to

Page 5.

achieve an accurate count of this minority group.

imming this past dummer, it same to sur ultention that the 150,000 household sample size of the PES, agreed to by all parties in the City of New York lawbuit, does not include any post-strate for Asian Pacific Islanders. Abcent any corrective measure to include additional-sampling of-urban areas in the PES, the Consus Burnan will not be able to provide superuto population estimates for Asian Pacific Islanders, thereby precluding any reliable undercount percentage of this minority group.

Once we learned of the omission of any post-strata of Asian Pacific Islanders in the PES, the National Coalition protested and garnered the support of federal legislators and other organizations. (See attached list.) In a conciliatory gesture, Census Director Dr. Barbara Everitt Bryant has informed the National Coalition that "(t)he Cansus Bureau staff are now investigating whether they can produce more accurate octimated of the undercount/overcount for the Asian and Pacific Islander population in selected geographic areas."

While we appreciate the Census Bursau's efforts to be responsive, for the reasons cited below, the National Coalition does not believe that the Census Bureau will be able to produce separate population estimates for Asian Pacific Islanders in selected—geographic areas unless the Census Bureau immediately initiates additional sampling in urban areas with large concentrations of Asian Pacific Islander residents.

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## Structural Limitations of PES:

In recent testimony before the U.S. Denate and when questioned how separate population estimates are derived in the PES, Dr. Bryant stated:

"If an adjustment is decided upon, every group will be adjusted within the best estimate it is feasible to make. The adjustment ractors are by a great many geographical stratifications, and if we find a large number of a particular group in a particular geographic stratification, we then can make a separate estimate for that group."

Coupled with the promise to investigate whether it can produce more accurate population estimates of Asian Pacific Islanders, the Census Bureau appears to provide some optimism that some separate population estimates of Asian Pacific Islanders will surface.

Upon careful examination of the otructure and parameters of the PES though, the National Coalition is not optimistic that the Census Bureau will be able to produce any separate population estimate of Asian Pacific Islanders for any geographical area. We concur that, in order to produce statistically reliable estimates, the PES has to survey a large number of Asian Pacific Islanders in a particular geographic area. Yet, it is highly doubtful that the current PES will come across a "large number of Asian Pacific Islanders" because of the limitations of the 150,000 household sample size.

Interestingly, in a fact sheet entitled, Estimating the

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Asian and Pacific Islander Undercount in the 1990 Post-Enumeration Survey, the Census Bureau concedes:

"Although the PES is large by most standards, we do not expect large numbers of malan and racific relanders to rain into the sample in areas for shich we must make entimated."

Not to disparage in any manner the courageous efforts of other minority groups to move the Census Bureau to act affirmatively on the undercount problem, the National Coalition candidly views the PES as a survey that explores primarily the undercount among Blacks and Hispanics with all other groups including Asian Pacific Telanders lumped into the "all other" catagory. An examination of the PES post-strata reveals that the percentage of Black and Hispanic households in survey exceeds the percentage of Black and Hispanic households in the entire country.

Even though Asian Pacific Islanders constitute roughly 2.7% of the national population, it is highly unlikely that 2.7% of the households surveyed in the PES will be Asian Pacific Islander. Let us illustrate how difficult it will be to find Asian Pacific Islander households in the PES, let alone "large numbers of Asian Pacific Islanders."

The population of San Francisco is approximately 711,000, with 20% or 200,000 as Asian Pacific Islanders. Half the size of San Francisco, the City of Oakland has 60% Black and Hispanic residents, or roughly 210,000. The PES will survey 478 households among 210,000 Black and/or Hispanic Oakland residents. The PES though will survey only 231 households among 500,000 non-

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Black, non-Hispanic San Francisco residents (including the 200,000 Asian Pacific Islanders). The ratio of Oakland Black and Hispanic households in the PES to the city's Black and Hispanic population is .0023. The ratio for S.F. "all other" households (including Asian Pacific Islander) in the PES is .0005 or less than 25% of the chance of a Black or Hispanic household to be surveyed in Oakland. Further, there is no assurance whatsoever that, among the 6 non-Black, non-Hispanic blocks to be surveyed in San Francisco, those blocks will have a 28% Asian Pacific Islander representation.

Clearly, finding Asian Pacific Islander respondents in the PES will be the proverbial attempt to find "a needle in the hsystack." If San Francisco Asian Pacific Islanders stand little chance of being surveyed in the PES, it is highly unlikely that Asian Pacific Islanders in other urban areas will have either the same or greater chance of being included in the PES.

The Census Bureau has indicated that it may be able to "collapse" Asian Pacific Islander data from diverse post-strata in order to create an "Asian Pacific Islander" post-stratum. Assuming that it is even possible under the current parameters of the PES, the National Coalition has serious reservations about this gesture by the Census Bureau to collapse Asian Pacific Islander data from different post-strata. This proposed "collapsing" may lump highly-aducated, affluent Asians living in Palos Verdes or Hillsborough, California with recently-arrived, economically-disadvantaged Southeast Asian refugees living in the

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Tenderloin District of San Francisco. However limited the Census Bureau's research of the Asian Pacific Islander undercount has been, there is consensus between the National Coalition and the Census that the undercount is likely to be higher among recently-arrived, limited English proficient immigrants than among educated professionals. The combination of Asian Pacific Islander individuals from very divergent secio-economic backgrounds will obfuscate the true undercount of this community.

If the Census Bureau collapses Asian Pacific Islander data drawn together from the different post-strata or collapses Asian Pacific Islander data with that of other racial/sthnic groups, this proposed "collapsing" should occur only if individuals of same socio-economic, English proficient ability, and native/foreign-born status are grouped together. Otherwise, there is a strong likelihood that the PES will find Asian Pacific Islanders to be overcounted.

#### Remedy:

So that an Asian Pacific Islander post-strata is created for selected geographic areas, the National Coalition urges the Cansus Bureau to increase as soon as possible the sampling in urban areas with high concentrations of Asian Pacific Islanders. This remedy may involve no more than 50-100 additional block clusters to be surveyed, in comparison to the 5000+ block clusters already in the PES. The National Coalition recognizes that the Cansus Bureau is on a tight schedule to meet the July 15, 1991 deadline for the Secretary of Commerce to determine

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whether there will be an undercount adjustment or not. On the other hand, the proposed additional 50-100 block clusters do not present an onerous burden.

The Census Bureau fact sheet points out that the "diverse nature and rapidly changing distribution of the Asian and Pacific Islander population" argues against increasing the "number of sample areas containing Asian or Pacific Islanders." The National Coalition submits that the Census Bureau is utilizing a double standard against Asian Pacific Islanders. Between 1980 and 1990, the Hispanic population experienced tremendous growth and distribution throughout the United States. Yet, the Census Bureau is relying on 1980 census data to determine which Hispanic households will be included in the PES.

The Asian Pacific Islander community and local governments are very willing to collaborate with the Census Bureau to determine where there are large concentrations of Asian Pacific Islanders, especially newly-arrived immigrants and refugees. 1980 census data, combined with intuitive, general community knowledge, should be sufficient to determine where the Census Bureau should increase the sampling so as to increase the likelihood of the creation of an Asian Pacific Islander post-stratum. Cities including but not limited to East Los Angeles, San Gabriel Valley, Westminister, Houston, Lower Manhattan, Quesns, Oakland, San Jose, San Francisco, Chicago, Seattle and Honolulu are urban areas where the Census Bureau should increase sampling of Asian Pacific Islanders.

#### Causes of Asian Pacific Islander Undercount:

Notwithstanding the extensive involvement of numerous Asian Pacific Islander community groups in every aspect of the conduct of the 1990 census, deficiencies in the implementation of certain Census Bureau policies have raised the likelihood of a significant undercount among Asian Pacific Islanders. Listed below is a summary of some problems encountered by Asian Pacific Islanders:

- \* Even though it improved its outreach efforts from 1980, the Census Bureau did not allocate a specific line-item budget for national Asian Pacific Islander outreach. While there were notable component parts, insufficient budgetary support rendered disjointed outreach efforts in 1990. The quantity and quality of printed, bilingual outreach materials improved over 1980, but the dissemination of these materials by the Census Bureau was very spotty.
- \* The Census Director's National Office gave an early, green light for district offices to hire non-citizen bilingual enumerators if there was an insufficient number of qualified bilingual citizen appicants. Many district offices did not identify which census tracts needed bilingual enumerators or initiated efforts to recruit bilingual applicants. Others also did not hire qualified bilingual applicants until it was too late to be affective, even though these bilingual candidates had passed the eligibility test and were waiting to be hired. Worse yet, some bilingual enumerators were assigned to census tracts where their bilingual skills were not needed, while non-bilingual enumerators were sent to census tracts with significant limited English proficient populations. There are reports that non-bilingual enumerators may have relied heavily on "last resort"

tachniques such as inquiring neighbors about the number, race, sex, and age of non-responding household residents.

- \* The 800 Asian language hotline was a good concept, but inadequately staffed and trained. There were numerous reports of Asian Pacific Islanders receiving a busy signal more than once and then giving up to get through the hotline. Hotline operators did not have sufficient information to answer many of questions presented to them. Information disseminated by them was often inconsistent or contradictory.
- \* Census officials did not explain the burden and duties imposed on community groups which volunteered space and time to establish a voluntary walk-in assistance center. Absent assigned paid-staff, information disseminated at these walk-in centers was often times inconsistent. While informed by the Census Director that the 800 hotlines would answer any question from the walk-in assistance centers, voluntaers experienced tremendous in trying to get through to the hotlines and to receive accurate, timely information. As such, some assistance walk-in centers curtailed their volunteer hours drastically. There were insufficient lines for some Asian languages.

#### Conclusion:

The National Coalition has worked to achieve an accurate count of Asian Pacific Islanders. We ask for congressional support to persuade the Census Bureau to increase the sampling of Asian Pacific Islanders in certain urban areas in the Post-Enumeration Survey. Absent this increased sampling of Asian Pacific Islanders, the National Coalition rejects any undercount or overcount adjustment, based on the results of the PES. As the PES is currently designed and conducted, the National Coalition questions whether the PES will yield statistically reliable information about the undercount or overcount of Asian Pacific Islanders.

Mr. Sawyer. Thank you very much, Mr. Der. As indicated earlier, I am sensitive to your concern about whether or not the sample size in the PES is sufficient to allow the Census Bureau to produce estimates of the Asian undercount with the level of precision that we all would like to see.

As you know, prior to my tenure with this subcommittee, some Members of Congress tried unsuccessfully to increase the sample size of the PES to 300,000, after it had been reduced to half that size in 1987. My personal fear is that it is simply too late in the process to add sample blocks to the PES at this time. As I hope you understand, it is an extraordinarily complex process, subject to high standards of technical accuracy. PES interviewing has concluded in nearly all census offices, and to attempt to select and sample, evaluate, interview, everything, even a limited number, could delay completion of coverage evaluation beyond the deadlines prescribed in the court order.

That is not to say we will not explore the feasibility of this question with the Bureau. We have asked about the feasibility of Asian Pacific Islander post strata and we will pursue this question.

The stipulation order in the New York case clearly requires the Department to carry out a PES that is of sufficient size to produce estimates of an undercount that can be used to improve the accuracy of the census count through that broad process that we include under the rubric of adjustment. I think it's clear that while an adjustment may not be perfect, neither is the census itself. That's what we're here to talk about today. The fundamental question that I think we need to continue to ask ourselves is whether or not an adjustment improves the accuracy of the raw counts, whether it moves it closer to an objective measure of truth. If it does that, it is my personal hope that all communities within this complex and diverse Nation would benefit more, despite any relative imperfections, than they would without an adjustment. So while we may disagree on that point, I hope you understand that we will continue to pursue the questions that you have raised here today.

Mr. Der. The National Coalition clearly appreciates the interest that you have shown in this area. We understand there are limitations. This is the 13th hour. Nonetheless, the National Coalition remains to be the eternal optimist. Two years ago, when we raised questions about the content of the race question, it appeared that the battle had been lost. But at the 13th hour, the Bureau saw the light and decided to list nine separate, detailed Asian Pacific Is-

lander groups in the race question.

I know that as the National Coalition comes before this subcommittee that we're asking for a monumental, if not highly improbable, task. But I think in the spirit of the dialog, we believe that increasing the sample size really by 1 or 2 percent is not maybe as onerous of a burden as what the Bureau has led us to believe.

The PES, from my understanding, is being conducted out of the regional offices and not necessarily out of the district offices that have been shut down as they wind up their April 1990 activities. I know in our discussion with members of the Census Bureau they have said they would share some of their preliminary data as to what it looks like, as to whether they can construct a separate post stratum out of the data that they're currently collecting. But we

are not optimistic that there will be enough data out of what they are currently gathering for all the reasons I have cited in my oral

and written testimony.

Mr. Sawyer. Thank you. I don't intend to pursue any questions further, except to suggest that I hope we can evaluate as many options as possible in trying to arrive at the most accurate data we can.

Mr. Der. Thank you. Mr. Sawyer. Mr. Ridge.

Mr. RIDGE. Thank you for your testimony.

I just wanted to read you part of a response that Dr. Bryant sent to my colleague, Congressman Sawyer. You probably haven't seen a copy of this yet and this is the first time I've seen it. The committee just got it yesterday. I imagine Congressman Sawyer sent a letter over concerning the coverage as related to the stratum. We'll

have to get you a copy.

It says, "We are now doing data capture and looking closely at the feasibility of adding API strata and geographic strata where they are concentrated." So perhaps your "eternal optimism", even in spite of what appears to be pretty difficult odds and a compressed timeframe, may see some positive fruition. I don't have any questions. I just thought you ought to know that. We'll get you a copy of this response to the Congressman. We recognize it is not precisely what you have asked for, but it is one of those options we would like to investigate.

Mr. Der. I appreciate again your interest. I think our observation is, while they're making an effort to look at that data again, we just believe there will not be sufficient API data for them to

construct that post stratum.

Mr. RIDGE. Thank you.

Mr. Sawyer. We certainly conducted enough business this morning and afternoon—I thank all those who have been patient enough to stay with us. If there is no further business, we stand adjourned.

[Whereupon, at 2:15 p.m., the subcommittee was adjourned.]

[The following statement was received for the record:]

# STATEMENT OF WILLIAM KRUSKAL, DEPARTMENT OF STATISTICS, UNIVERSITY OF CHICAGO

My views are affected by incoming evidence and by reflection. Those views, none-theless, seem to be converging toward a position of vigorous agnosticism. My recommendation, as a member of the Special Advisory Panel, is likely to be against modification of the 1990 Census enumeration by the so-called adjustment based on a capture-recapture approach. (I say so-called because the term "adjustment" misleadingly connotes that the process moves us closer to truth.)

Complexity. The so-called adjustment procedure is complex: complex managerially, complex intellectually, and complex procedurally. It is of course, one of a large number of possible procedures, and indeed it is not yet fully specified. In particular, a regression approach—euphemistically called "smoothing"—is not yet determined

in terms of choice of independent variables.

The Bureau of the Census is an admirable organization, and I believe that it can carry out the complex procedural and managerial aspects of the so-called adjustment procedure. Yet the complexity leads to at least two major problems. First, explanation of the method to the public in a clear and comprehensive way; second, analysis of the method's error structure. I know of no document that explains the method fully even for a broad technical audience. (There exists, however, a VCR

tape on which Kirk Wolter gives an excellent, lucid description.) Similarly, I know

of no comprehensive analysis of error structure.

The complexity that I mention includes two sample re-enumerations, elaborate matching procedures, caring for households that move, extensive post-stratification, and regression estimates of population by block across the nation. And so on. Each aspect of complexity provides fresh sources of error. Our fundamental question is whether errors removed by the so-called adjustment method are out-weighed by new

errors resulting from the method.

A major likely source of error to my mind is the important role in the method played by a capture-recapture design (Census capture and post-enumeration survey recapture) and the conventional assumptions of capture-recapture analysis, most especially the assumption of stochastic independence between the two parts of the design. There are problems enough with dependence when capturing and recapturing wildlife . . . I call it the problem of the wily trout who eludes all nets. Such problems are all the sharper for human populations, populations made up of thinking individuals who read newspapers, look at television, decide whether to vote and for whom, and often have sharp views on federal activities, including the Census. The wily human who wants to avoid being counted will often find ways of doing just

The Bureau has, of course, been working hard on possible ways to understand and surmount such problems. There are internalized professional standards widely shared among statisticians and certainly well understood in the Bureau. In addition there is the requirement under court stipulation that the Bureau try in good spirit and without preconception to work out a way of meeting the undercount problem. To date, however, I have not seen solutions to problems like that of the wily trout,

and I doubt that solutions will be forthcoming in timely fashion . . . solutions that can be solidly justified in theory and practice and that do not incur new and more

significant problems.

Error distributions. What evidence would we want in principle to make a careful decision between (1) the Census enumeration as it stands and (2) the Census enumeration plus modification by the proposed method? For the moment put on your wishing caps and appeal to Tinker Bell for help. I think we would want pairs of error distributions for the nation, for states, for Census tracts, yes, for blocks. What's more—c'mon Tinker Bell—we would want these by age, sex, ethnicity, and perhaps other variables. And with due account of measurement error structures for those very variables

Of course that is Peter Pan fantasy for two basic reasons. First, we never will be able to obtain error distributions in that detail and multiplicity. Second, even if we had the detail and multiplicity, I doubt that we could reach rapid agreement on how to go from such a realized Never-never land to the required operational decision.

In addition, there are epistemological questions about how to handle sources of bias, about the very distinction between bias and random error, about inconstancy over time, and so on. One might then well ask what practicable evidence in the real world one would need to settle agnostic uncertainty. That's a problem with which I

am struggling.

Don't blame the Bureau. The Bureau of the Census has studied its own error structures for years, in part to provide understanding for users and in part as a basis for improvement. It is not the Bureau's fault that my attempt to describe what might be wanted ideally had to resort to Peter Pan metaphor. Trying to get at what is usually called total error and its distributions is notoriously difficult, for it requires outside calibrating knowledge, something like the truth, or anyway some kind of estimate from a different source, the more different the better.

Occasionally such a source is present, for example in health studies of visits to physicians and hospital stays. There—although there are still many difficulties one might go to the physicians' records and to hospital records to get another approach to truth. In the Census case there is the so-called Demographic Method used for this purpose, and the Bureau has worked hard on that for years. It was heavily used, for example, in the fine 1988 study by Fay and others of the 1980 Census. I need hardly add for this audience that the Demographic Method has its own cluster of difficulties, for example, undocumented aliens; in any case the Demographic Method is properly usable only at the national level.

In contrast to total error, a great deal of statistical attention—in and out of the Bureau—goes to studying specific sources of error: question wording and order, recruitment and training of enumerators, coding mistakes, conceptual problems with household membership, ethnicity, etc., slips in mapping or geographical changes, and on and on. These are all important, but the list is never-ending. Indeed it is

hard to imagine how one could ever be sure one had every source of error.

(Putting together knowledge of separate error sources is difficult. I must mention recent work by Spencer and Mulray, who take a semi-demi-Bayesian approach. So far I have not been able to follow that approach.)

Thus the absence of ideal knowledge of error structure is a general problem. Don't blame the messenger for bad news; don't blame the Bureau of the Census for

across-the-board gaps in statistics and philosophy.

Lest you feel that I am a totally unqualifed admirer of the Bureau, I must add that, like any human organization, it has flaws. One that's relevant here is that for years and years the Bureau provided only tiny resources to basic social studies relevant to censuses and surveys. That has been somewhat remedied in recent years, and I hope that progress continues, especially toward understanding why people do not respond or respond wrongly.

Conclusion. There will be more views and perhaps more evidence coming in, partly as a result of sessions at these Anaheim meetings. My basic agnosticism, however, will probably continue and lead to a recommendation toward relying on the basic Census enumeration without the so-called adjustment modification. We know so little about the error structures of both procedures under discussion—we inevitably know so little—and Census results are so close to our national social contract, to our democratic goverance, that a major change of the kind contemplated would be wrong nationally and weak technically.

Time precludes mention of several important topics, in particular that of partisan politics and ideological name-calling. It is unhappy that to oppose so-called adjustment means being called illiberal. Insofar as people with problems should have governmental help, let it be direct—as it often is—rather than indirect via federal sta-

tistics in ways that subvert that statistical program.