A Discussion and Analysis of Counting International Visitors: 
Country of Residence Versus Nationality

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INTRODUCTION
Based on recommendations of international organizations, the United States Department of Commerce, National Travel and Tourism Office counts international visitors based on a traveler’s country of residence and other criteria. Due to technological advances in options for processing travelers, and technical statistical issues caused by changes in methodology at the data source level, this methodology used for decades has been strained over the past several years. This paper discusses the issues for the United States in counting visitors, and the recent experience exploring defining visitors using other criteria, namely, country of nationality (citizenship).

BACKGROUND
The International Monetary Fund recommends countries use country of residence (country of origin) when calculating trade accounts.\(^1\) The United Nations, based on guidance from their travel and tourism industry affiliate, the United Nations World Tourism Organization (UNWTO), similarly recommends counting a country’s visitors based on the traveler’s country of residence, among other criteria.\(^2\)

The options and UNWTO recommendation framework for a destination in defining and counting an international visitor for each key issue are as follows:

1) **Geography.**
UNWTO recommends using country of residence versus nationality or other options, and further recommends using International Monetary Fund’s recommendation of definition visitors based on (usual) residence. For example, a traveler may have a residence in more than one country.

2) **Stay purpose.**
UNWTO recommends counting travelers who are traveling within the destination country for reasons—or trip purpose—that we would easily think of, such as leisure, business, and visiting friends or relatives, although there are several other countable trip

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purposes. Think of this set as the most ‘marketable’ subset of travelers, with leisure being the core of this subset for most destination countries.

3) **Stay length.**
UNWTO recommends counting as visitors only those travelers who stayed one or more nights. But I would add, UNWTO is more interested in how stay length is classified and reported than in mandating an approach on this issue.

In the end the UNWTO, like everyone, wants both perfectly precise (accurate) and reliable counts, which they can’t have across each and every country due to technical or cost reasons. So then it comes down to tradeoffs on validity and reliability. UNWTO wants BOTH by offering their recommended definitions, but when it comes down to a tradeoff, they favor reliability by focusing much of their attention on volume change metrics and less on volumes per se. They want countries to measure visitor volume this period the same as last period, and to let them know if and when a country changes it’s counting approach.

Based on my three decades of working in the travel and tourism industry for destinations directly, or indirectly through travel data vendors, I would agree; the destinations and their travel sector components of hotels, restaurants, and attractions care more about reliability...in terms of describing meaningful changes in volume and behavior. Each knows it’s own count, however measured, and they want to know if the relevant pie is getting bigger, smaller, or staying the same size. If I polled my office colleagues right now, or even some of my respected industry friends and consultants, nearly all would get an “A” grade for accurately saying global travel volume was “…up about seven percent in 2017.” But few could accurately state the global traveler volume of 1.24 billion arrivals, the sum across all destination countries. And some guesses would be laughably wrong because they care less about where volume IS than where it’s GOING.

By my analysis of UNWTO data, more than one-half of countries, including the U.S., use country of residence as a filtering criteria, and these countries account for approximately two-thirds of the global visitor count. However, the world is changing in ways that challenge the ability of counting visitors by their residence. Border entry points are being eliminated, meaning collecting a traveler’s information is being reduced or eliminated. Increasing numbers of both immigrants and persons retiring and living in other countries mean that a traveler’s country of resident and country of citizenship increasingly are not the same. Moreover, changes in privacy issues and traveler processing technology such as retina scanning and methods throughout the traveler’s journey and at border entry points means that traveler data is increasingly limited to their passport, which includes nationality, but not country of residence. Again, these factors currently strain the ability to easily collect residence data, and they are all increasing in their influence on the process.

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3 United Nations World Tourism Organization. *World Tourism Barometer.* Volume 16. Issue 3. (June 2018). For a detailed analysis, the reader is directed to Appendix Table A.
This paper will provide a starting point for the discussion of what these changes may mean for how a country, and how the world, counts visitors and measures travel and tourism.

**HOW THE USA COUNTS VISITORS**

For decades the U.S. has counted international visitors from overseas countries using a rigorous ten-step processing procedure. Most changes in methodology over the years were minor in scale and were either necessary or an improvement due to changes in the source data. The U.S. is of course not unique in sharing a land border with one or more other countries, but we may be unique in relying on those border countries for traveler volumes to and from the U.S. For traveler and visitor volumes to and from Canada, the U.S. relies on the statistical agency of Canada, Statistics Canada. This is necessary because Canadian citizens (for most travel situations) are exempt from traveler declaration reporting when entering the U.S. Moreover, they are also (for most travel situations) exempt from requiring a visa to enter the USA. Fortunately for NTTO’s purposes, Statistics Canada counts visitors to the U.S. using country of residence. For traveler and visitor volumes to and from Mexico, the United States relies on the central bank, Banco de Mexico. This is necessary because Mexico citizens crossing the border by land are exempt from traveler declaration reporting if their travel stays are within the U.S.’s 40 kilometer (25 mile) “border zone.” This applies to the bulk of land mode travelers. Moreover, they are also (for most travel situations) exempt from requiring a ‘regular’ visa to enter the USA, and instead are required to have a ‘border-crossing card, for which counts are not included in U.S. Department of State visa issuance counts. Again, fortunately Banco de Mexico counts visitors to the U.S. using country of residence. As we’ll see below, these situations for Canada and Mexico require being addressed in the visitor count process. Thus, the U.S. counts international visitors based on country of residency regardless of the data source.

Below is a summary of how NTTO counts visitors to the U.S. A table showing actual numbers for the travel month of April 2018 is included in Appendix B. First we start with the source database of travelers to the United States collected and provided by the U.S. Department of Homeland Security; Bureau of Customs and Border Protection (CBP). For April 2018, the initial count was nearly seven million travelers. Here is the ten-step process:

1. Step 1: remove duplicate records;
2. Step 2: remove zero-night stays;
3. Step 3: remove Mexico land mode travelers
4. Step 4: remove ‘non-visitors’ based on DHS class of admission type (basically DOS visa type) Only 19 of hundreds of admission types are counted. The bulk of these are ‘typical’ leisure/business travelers.
5. Step 5: remove duplicate entries by land mode.

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4 Reporting of Mexico traveler and visitor volumes is changing from Banco de Mexico (BANXICO) to Instituto Nacional de Estadistical y Geografia (INEGI), the government of Mexico’s equivalent of the U.S. Census Bureau.)
Step 6: remove Mexico air/sea/not reported mode travelers

Step 7: of remaining traveler records, substitute country of citizenship for any records missing a valid entry in the country of residence field. We’ll see later in this paper how this was one of the technical issues encountered by NTTO regarding monthly volume processing.

Step 8: remove Canada residents.

The result of processing steps one through eight produces overseas visitor volume for the month. For April 2018, this was 3.26 million.

Step 9: Add in total VISITOR volume of one-plus nights from Mexico to USA reported by BANXICO.

Step 10: Add in total VISITOR volume of one-plus nights from Canada to USA reported by Statistics Canada.

The resulting 6.91 million is the total international visitor volume to the USA for April 2018 reported by NTTO.5

DATA AUTOMATION

The source of overseas visitor records, the U.S. Department of Homeland Security; Bureau of Customs and Border Protection (CBP) phased in changes to their traveler information collection and processing system in response to mandates from the U.S. Congress following the tragic events of September 11, 2001. Many of these changes pertain to making the system more automated in terms of moving from a paper-based data collection system to a more real-time electronic system. For the purpose of this paper, I’ll call all these changes “automation process,” which began soon after September 2001 and continue to this day. As CPB proceeded with their automation process, they attempted to balance the need for heightened security and the needs of travelers as defined by the travel industry’s various sectors such as destinations, attractions, hotels, and restaurants, and by travelers themselves. During the automation process, issues arose that challenged the visitor counts.

DATA CHALLENGES, ANALYSIS, AND FIXES

As the U.S. Department of Homeland Security; Customs and Border Protection phased in various components in their move to automate the border entry process, the rigor of the

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5 Technical note: The near identical 6.91 million international visitor volume for April 2018 versus the 6.90 million original traveler count received by NTTO is purely coincidental. Moreover, I emphasize that the number of travelers removed at any step two through eight reflects the number removed at that step, and thus the proportion of total removed at that step. For example, at step 8, 1,009,255 records were removed because residence equaled Canada, and representing 38 percent of all records removed, and 15 percent of total original travelers. It is not valid to say “38 percent of removed April arrivals were Canada residents.” It is valid to say “38 percent of records tested at step 8 for Canada residency were removed.” That is, the order of data cleaning or processing matters regarding proportional incidence of that factor, but not in the overall results from all data cleaning or processing.
monthly data processing enabled NTTO to begin noticing anomalies in the arrivals data. These were anomalies from NTTO’s perspective but not CBP’s perspective because of the differences in mission, and the resulting differences in the needs of CBP’s own data. It is beyond the scope of this paper to elaborate on each issue that emerged over the past several years. Rather, the point here is to focus on the most significant of these anomalies...and these were directly related to issues with country of residence field.

In early 2015, CBP phased in the use of Automated Passport Control (APC) kiosks at U.S. airports. Travelers use self-service kiosks to respond to CBP inspection-related questions and submit biographic information. These kiosks used information contained in the traveler’s passport, which does not contain country of residence information. Use of these kiosks served the needs of CBP, but also served the needs of the traveler, which included faster passport control processing. According to CBP, travelers using APC experience shorter wait times, less congestion, and faster processing. The initial phase of the APC was limited to a few U.S. airports and a few of the countries participating in the U.S. Visa Waiver Program. That program eliminates the need for visas for most citizens of the participating countries who want to travel to the U.S.

When the March 2015 data became available, the rigor of NTTO’s monthly data processing showed an unusually high number of traveler records missing data in the country of residence field. The incidence of missing COR increased as the APC program was phased in to more airports and extended to more origin countries. The largest impacts of the top arrival markets were arrivals from Australia, Switzerland, the United Kingdom, France, and the Netherlands. Visitors from these countries were the first to use the APC kiosks, which—at that time—did not collect the traveler’s country of residence.

This was the start of NTTO’s increasing attention to the issue of country of residence and country of citizenship, and the first thought of possibly converting from a COR-based visitor count to a COC-based count. Prior to this event, NTTO’s use and interest in citizenship-based data was limited to the Advanced Passenger Information System (APIS), a DHS/CBP database containing information on all air travelers to and from the U.S. NTTO uses this citizenship-based data as the census count of outbound travelers from the U.S., and NTTO and the U.S. travel industry use it as an advance read on visitor volume and other purposes.
Over the subsequent weeks and months, NTTO staff spent considerable time and effort analyzing standard monthly data output and producing additional custom analyses, including a cross-tabulation of COR by COC for every country. Thus, for any one country of origin based on residence, we could see what proportion were also citizens of that country...and vice-versa. Eventually, the APC kiosks were reprogrammed to collect COR data, the automation process included other changes that kept COR data in records intact, and the issue was effectively resolved.

Earlier in this paper, we used April 2018 data as an example of NTTO’s data cleaning process for counting international visitors. Now let’s see the results of the automation fixes. For April 2018, 4,193 records, or 0.06 percent of the entire traveler database of 6.90 million records were missing a valid country code in the country of residence field and were “in-filled” using the available COC data. However, all but 741 of the April 2018 records would have been removed anyhow because of the other 1+ night and valid visa type criteria. Thus, for the most recent year of data available as of this writing, the use of using COC as a proxy for missing COR has a tiny impact on the overall data. Moreover, by the end of data processing, 36 records of the original 6.90 were removed because there was no COR nor COC. In summary, the missing COR issue became insignificant.

A new COR issue emerged a year later. In October 2016 (based on May 2016 traveler month data), NTTO began to notice an increasing divergence in change metrics between the Advance Passenger Information System (APIS) database’s citizenship-based traveler data and the monthly visitor volume. Both databases originate from the U.S. Bureau of Customs and Border Protection. Appendix C shows a side-by-side definitional comparison of the two programs. The overlap between the two programs is limited to air travelers to the USA who stayed one or more nights in the USA, whose class of admission (visa type) was one of the 19 used by NTTO. This is the bulk of travelers, and thus the two databases historically tended to move in a similar direction and magnitude. Figure 1 below show a trend comparison in monthly volume change.

The relationship wasn’t perfect, but was strong enough to be useful in anticipating volume release change metrics several months in advance. However, the change metrics increasingly became divergent including opposite directions in monthly change—APIS often reported an increase in air travelers, while I94 reported a steep decrease, even when removing the small proportion of I94 visitors who enter the U.S. via a land port. NTTO compared total I94 volume because that’s what was published each month...it’s what the industry saw.

After extensive review of the data, NTTO discovered there was a jump and continuous increase in the number of monthly data records for which the field for country of residence contained the code for ‘USA’. In theory this shouldn’t have happened and thus be an issue, because the CPB database shouldn’t contain U.S. residents—citizens or legal permanent residents. We weren’t looking for this in the data cleaning process, so this issue wasn’t noticed at first.

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6 This compares to the initial period when such records reached a level of one-third for some countries.
7 Moreover, by the end of data processing, 36 records of the original 6.90 were removed because there was no COR nor COC.
The solution to this issue and its timing was not apparent, and thus this is when NTTO decided in April 2018 to suspend the release of monthly data. Moreover, it is when NTTO became very serious about the potential of completely replacing residence-based visitor volume with citizenship-based visitor volume. The analyses of the differences in COR versus COC counting became more thorough and more refined.

**FINDINGS**

The primary statistical tool used to compare COR versus COC was a cross-tabulation table of residence volume versus citizenship volume for each overseas country from the same I94 monthly visitor volume database. This analysis is based on overseas data that has gone through the first eight steps of data processing described earlier. Thus all records for this analysis included only overseas travelers, one-plus night stays, and one of 19 visa types. Figure 2 below shows an example of the output of this analysis for combined monthly data for January through April 2018 (most recent available at this writing, and for just the first few countries in alphabetical order). Thus for each column of data showing country of residence for a country, each row shows the number of persons who were citizens of that country of origin. Cells highlighted in yellow show the intersection...the number of persons who were BOTH residents AND citizens of the same country. Conveniently, the crosstabulation showed the opposite proportions--for each row of data showing country of citizenship for a country, each column shows the number of persons who were residents of that country of origin.
The first question we wanted to answer was “just what is the percent of a country’s visitors who are also citizens...especially among our top origin markets?” This was more of ‘nice-to-know’ analysis. Figure 3 below shows the results for this question for 2012. Top origin markets in 2012 are shaded in orange. Data are sorted in descending order by column G. Clearly, this proportion ranges from a virtual 100 percent to a virtual zero percent. No clear patterns emerge from countries having high percentages, while countries having the lowest percentages
tend to be small population island countries. Interesting findings to be sure, but not all that important.

The second question we wanted to answer was “which countries are the biggest gainers, and which are the biggest losers by switching from COR-based volume to COC-based volume?” Figure 4 below shows the results for this question for 2012. Data are sorted in descending order by column G. Top origin markets in 2012 are shaded in orange, and now we see they account for a greater share of the country gainers and losers. This is more interesting, but...

The third and most important question we wanted to answer was “which countries are the biggest gainers, and which are the biggest losers by switching from COR-based volume to COC-based volume—AMONG OUR TOP VISITOR ORIGIN COUNTRIES”? Figure 5 below shows the results for this question for 2012 for the top overseas countries. Data are first sorted in descending order by column C to produce the top 21 visitor origin countries, then among these, sorted by column E to produce the biggest gainers and the biggest losers by switching from residence to citizenship. Countries at the top of the list are those for which the country attracts a relatively large number of non-citizen residents, and/or, for which the country has a large number of citizens who reside outside the country. Figure 6 below shows this same analysis as in Figure 5, but applied to 2018 data for the months January through April (most recent available). Results are very different from those in Figure 5, and may reflect seasonality effects of using only the first four months, or perhaps structural changes over the six years. We will be revisiting this analysis for 2018 at year’s end.
Figure 3: Crosstabulation Analysis: I94 Country of Residence versus I94 Country of Citizenship—2012
(Sort column G: Percent of a country’s residents who were also a citizen of that country)

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<th>C</th>
<th>D</th>
<th>E</th>
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### Figure 4: Crosstabulation Analysis: I94 Country of Residence versus I94 Country of Citizenship—2012

(Sort column E: Change in volume using COC versus COR top 20/bottom 20.)

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<th>Percent Change If Use COC Percent: Residents who are ALSO Citizens</th>
<th>Percent: Citizens who are ALSO Residents</th>
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Figure 5: Crosstabulation Analysis: I94 Country of Residence versus I94 Country of Citizenship—2012
(Sort column E: Change in volume using COC versus COR among top ORIGIN COUNTRIES)

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Figure 6: Crosstabulation Analysis: I94 Country of Residence versus I94 Country of Citizenship—2018 YTD
(Sort column E: Change in volume using COC versus COR among top 21 ORIGIN COUNTRIES)

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CONCLUSIONS AND IMPLICATIONS

The results from the crosstab analyses shown here reveal that—for the US—switching from a COR-basis to a COC basis for counting visitors produces some, but not game-changing results. While true, it’s a bit misleading to stop there in the conclusions. For sure, volume seems to stay the same, but that is because the COC analysis is based on data that has already been cleaned for use in a COR analysis using steps one through eight in the data cleaning process. But for many countries, the visitor volume is sizable. This means, for the year in which a conversion from COR to COC is made, the data would need to be run in parallel to isolate which changes are ‘real’, and which are simply manifestations of the methodology change. Ideally the comparison would be shown for more than one year.

Also, this analysis is only conducted on overseas data. Because the U.S. reports Canada and Mexico visitor volumes from those two countries, respectively, the findings here impact the 51 percent of visitors who are from overseas countries. So, if the U.S. began to use COC as a basis for counting overseas visitors, we would have a problem—NTTO would be using COC as a basis for reporting overseas country volumes, but would be using COR as a basis for reporting Canada and Mexico volumes. Moreover, as challenging as that sounds, we would probably be in a position to hope that Canada and Mexico DON’T switch from COR TO COC. I say “probably” because I’m not sure I can figure out the final income should that happen. For both countries, citizens of those countries living abroad would not get counted by anyone (NTTO, Statistics Canada, BANXICO). Conversely, I would want to wait and see how non-citizen residents of Canada and Mexico would be counted by U.S. Customs and Border Protection. In theory, these travelers who meet all criteria for the definition of an international visitors would be admitted under their country of citizenship. This means—overnight—the U.S. would have fewer visitors from Canada and more visitors from other countries who live in these countries. For Canada, this means a larger number of Asian visitors, who now account for the largest proportion of immigration. The numbers are not small; Canada admits 250,000 persons annually to their population, or about 0.7 percent of the base population. If these new immigrants have a high incidence of visiting the USA, perhaps more than once in a given year, the impact might be sizable. The U.S. might find itself in a position to find that a large proportion of Chinese visitors are from...Canada.

This analysis also suggests it is important to look at more than one ratio or percentage for a country to fully understand the full implications for that country. Using Italy as an example, this country has both the greatest proportion increase (14%) and the greatest volume increase (+116,208) in visitors under a COC-based volume count versus a COR-based volume count. The 97% of residents (who visited the U.S.) who are citizens, versus the 85% of citizens (who visited the U.S.) who are residents says that a relatively large number of Italians who visited the U.S. live outside Italy.

The analyses conducted by NTTO on COR versus COC has led us to begin reporting publicly on our website both sets of data on a monthly and annual basis. In doing so, we are not so much offering a “here, take your pick of the options...” as we are providing solace to the industry and
ourselves by reporting international volume based on COR, and having COC numbers already available and trended in our back pocket in case there are future COR-based issues.

And then there’s visitor spending issues. Should the U.S. begin to report international visitor volume by country of citizenship, it would only add to the discrepancy in definitions between visitor volume and visitor travel exports and imports. For the United States, the U.S. Department of Commerce, Bureau of Economic Analysis estimates traveler exports and imports at a country level using IMF residence-based recommendations. For travel exports, BEA counts all spending by all travelers. This compares to NTTO counting as international visitors the subset of persons who stay one or more nights in the U.S. and who meet one of 19 visa-types.

I would like to end this discussion by emphasizing how the visitor volume anomaly issues and solutions were made possible by the intense and long-duration collaboration among the U.S. Bureau of Customs and Border Protection, NTTO staff, NTTO data vendor, NTTO data clients, private-sector and public-sector advisory boards, industry associations, and many insightful industry analysts across numerous travel analytics vendors. The various insights and varying agendas all contributed to better analyses and better decision-making.
Appendices
Appendix A: Summary of How Countries Count International Visitors

This analysis summarizes how countries count international volume based on the two main factors 1) COR vs COC; and 2) TOURIST (1+ night) vs VISITOR (0+ nights). The UNWTO recommendation of using only certain VISA TYPES (trip purposes) (the 3rd variable or dimension) is not included in this analysis and is NOT available.

<table>
<thead>
<tr>
<th>Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counts</td>
</tr>
<tr>
<td>Volumes</td>
</tr>
<tr>
<td>Percentages</td>
</tr>
</tbody>
</table>

2016 volume available for top 50 destination countries (reporting units)

The UNWTO recommendation of using only certain VISA TYPES (trip purposes) (the 3rd variable or dimension) is not included in this analysis and is NOT available.

<table>
<thead>
<tr>
<th>12 UNWTO types of counting methods, representing combinations of VISITOR vs TRAVELER, count at BORDER vs other such as HOTELS, NATIONALITY vs RESIDENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,239 millions of 2016 arrivals as reported by all reporting units to UNWTO</td>
</tr>
<tr>
<td>1,073 2016 volume top 50 country destinations</td>
</tr>
<tr>
<td>87% of all global arrivals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>236 Countries as shown by UNWTO, including territories (reporting units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>212 Counting method available</td>
</tr>
<tr>
<td>These 212 countries use a total of 440 methods, i.e. often more than one.</td>
</tr>
<tr>
<td>90% of all reporting units</td>
</tr>
<tr>
<td>123 Count international volume using RESIDENCE with any other combination of methods</td>
</tr>
<tr>
<td>58% with counting methods available.</td>
</tr>
<tr>
<td>724 Volume in millions</td>
</tr>
<tr>
<td>58% of 2016 global arrivals</td>
</tr>
<tr>
<td>67% of 2016 volume among top 50 destination countries</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>79 Count international volume using both, TOURIST and RESIDENCE (code 211)</th>
</tr>
</thead>
<tbody>
<tr>
<td>37% of countries with counting method available, which is the most frequent</td>
</tr>
<tr>
<td>472 Volume in millions</td>
</tr>
<tr>
<td>44% of countries with counting method available AND in top 50 destination countries</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>44 Count international volume using RESIDENCE and some other definition other than visitor at the border</th>
</tr>
</thead>
<tbody>
<tr>
<td>21% of countries with counting method available</td>
</tr>
<tr>
<td>252 Volume in millions</td>
</tr>
<tr>
<td>23% of countries with counting method available AND in top 50 destination countries</td>
</tr>
</tbody>
</table>

| 68 122 |
| 10 712 |
| 174 1912 |
| 0 2112 |

Source: NTTO analysis of UNWTO Statistical Compendium publication data.

Conclusions:
1. (At least) 37% of countries (including USA) use the UNWTO-recommended combination of counting TOURIST based on RESIDENCE, accounting for (at least) 44% of global arrivals. Another 21% combine RESIDENCE with another factor other than TOURIST. Thus, this recommended method is also the most frequently used.

2. Thus, (at least) 58% of countries use RESIDENCE as a counting variable, accounting for (at least) 67% of global arrivals.
Appendix B: U.S. Department of Commerce, National Travel and Tourism Office’s Monthly Visitor Volume Data Cleaning Process

<table>
<thead>
<tr>
<th>STEP</th>
<th>Removed</th>
<th>Added</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6,902,285</td>
<td>- - -</td>
<td>total initial records received from U.S. Department of Homeland Security; Customs and Border Protection for April 2018; substitute country of citizenship for any records missing a valid entry in the country of residence field (missing country of residence was a major problem in 2015 and 2016, but now accounts for a tiny percentage ultimate total overseas visitors);</td>
</tr>
<tr>
<td>2</td>
<td>42,974</td>
<td>443,399</td>
<td>remove duplicate records; remove zero-night stays;</td>
</tr>
<tr>
<td>3</td>
<td>1,412,521</td>
<td>464,759</td>
<td>remove Mexico residents (land entry); remove &quot;non-visitors&quot; based on visa type (DHS's &quot;class of admission&quot;);</td>
</tr>
<tr>
<td>4</td>
<td>56,363</td>
<td>216,948</td>
<td>remove duplicate entries by land; remove Mexico residents (air, sea, not reported entry);</td>
</tr>
<tr>
<td>5</td>
<td>1,009,255</td>
<td>1,720,286</td>
<td>remove Canada residents; add Mexico visitors (Banco de Mexico)</td>
</tr>
<tr>
<td>6</td>
<td>3,256,066</td>
<td>1,931,290</td>
<td>SUBTOTAL: overseas visitors to the U.S. add Canada visitors (Statistics Canada)</td>
</tr>
</tbody>
</table>

6,907,642 Total International Visitors to the U.S.

Note: The near identical level of original records received as total international visitors is purely coincidental.
### Appendix C: Comparison of Two Traveler Databases:
I94 Volume (country of Residence-based) versus APIS (Advance Passenger Information System (country of citizenship-based))

<table>
<thead>
<tr>
<th>Issue</th>
<th>APIS &quot;alien&quot;</th>
<th>I94 &quot;visitor&quot;</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>basis</td>
<td>citizenship</td>
<td>residence</td>
<td></td>
</tr>
<tr>
<td>&quot;country&quot;</td>
<td>POD prior</td>
<td>residence</td>
<td>APIS is foreign port of departure to USA port of entry. A Brit transiting through Shannon airport to JFK is 'Irish.'</td>
</tr>
<tr>
<td>visa type</td>
<td>any</td>
<td>19 select</td>
<td>Among hundreds of visa types for USA</td>
</tr>
<tr>
<td>stay length</td>
<td>any</td>
<td>1+ nights</td>
<td></td>
</tr>
<tr>
<td>USA legal permanent residents (non US citizens)</td>
<td>yes</td>
<td>no</td>
<td>approximately 15 million LPRS in the USA; another 10M want-to-be(s)...some of whom are living in the USA.</td>
</tr>
<tr>
<td>U.S. foreign nationals living abroad</td>
<td>no*</td>
<td>no</td>
<td>* unless dual citizenship travelers use non-USA passport to enter the USA.</td>
</tr>
<tr>
<td>foreign students, any grade</td>
<td>yes</td>
<td>yes</td>
<td>1.1 million university students alone: who knows how many K-12; counted as a &quot;visitor&quot; EVERY time they return to the USA from seeing parents.</td>
</tr>
<tr>
<td>transit through USA</td>
<td>yes</td>
<td>if 1+ night</td>
<td>In 2017, 1.5M Canadian residents returned to Canada via USA airports. Another 1.5M overseas residents entered Canada via USA airports.</td>
</tr>
<tr>
<td>...transit through USA multiple counts</td>
<td>yes</td>
<td>no</td>
<td>Transits get counted...TWICE...</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LIM through MIA to NAS, NAS through MIA to LIM counts as Peru to USA...<strong>and</strong> Bahamas to USA;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Using the Canada example directly above, that's 3M EACH WAY..into and out of Canada via USA ...=6 million for Canada...alone. Note that these transit Canadians in APIS are counted as overseas when they enter the USA to go home, while overseas travelers are counted as CANADA on THEIR way home.</td>
</tr>
</tbody>
</table>