The Boundaries of Justice: The Challenges of Environmental Justice Assessments for Transportation Projects

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Dedication

To my friends, colleagues, and mentors at New East.

Cheers, all.

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Abstract

Over recent decades, federal guidelines for transportation projects have required increasing attention to impacts on communities. Executive Order 12898 requires federal agencies to conduct environmental justice (EJ) assessments to determine if negative effects from projects will fall disproportionately on minority or low-income populations. Yet transportation agencies have not given specific guidance on the method for conducting such assessments. Therefore practitioners and researchers apply a variety of analytical techniques.

This paper uses a case study of a planned road widening project in Daytona Beach, Florida, to compare the various methods currently used in EJ assessments. The choice of reference area and of method for determining the decision threshold for a finding of disproportionality are shown to have important implications for the outcome of an assessment. Because the spatial distribution of racial/ethnic and low-income groups will vary widely from place to place, practitioners and transportation agencies should not decide on the precise method, but carefully consider the characteristics and distribution of the data being used and select the method that most fairly represents the data distribution. Conducting genuine EJ assessments is not only required by federal regulations, but can head off conflicts, better reveal the true costs of projects, and allow for more equitable distribution of costs and benefits by better targeting mitigation efforts. Thus rather than shying away from EJ assessments, transportation agencies and practitioners should continue to explore methods and approaches.

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I. Introduction

Federal guidelines for transportation projects require increasing attention to impacts on communities. As a result, socio-cultural effects are being given greater attention in impact assessment studies, which previously focused mostly on the physical and natural environment. One area receiving increased scrutiny is the environmental justice (EJ) implications of transportation projects. An important development in this direction was the 1994 signing of Executive Order 12898 (the Order; EO 12898), which required federal agencies, including the US Department of Transportation (USDOT) and Federal Highway Administration (FHWA), to determine if negative effects from projects would fall disproportionately on minority or low-income populations. However, even in the face of such a finding, road projects need not be halted if the overall public interest points to a 'substantial need' or if the alternatives involve extraordinary costs or result in even more severe impacts that would be felt by any group.

In practice, the Order has proven to be frustratingly vague, as is the USDOT guidance on to how it is to be applied for road projects. Faced with this ambiguity, practitioners and researchers apply a variety of analytical techniques, which involve a considerable amount of judgment and making some important assumptions. Using a Florida road project as a case study, this paper will compare the results of assessing the potential for disproportionate effects on minority or low-income populations using current methods. The merits and weaknesses of each method, as well as considerations of the limits to the assessment as a result of data constraints, will be examined. It will be demonstrated that the choices of method can have substantial influence on the findings of the assessment.

The goal of this study is not to determine an absolute best method to be prescribed for EJ assessments. Rather, it demonstrates that considerable judgment and skill are needed in the early stages of an assessment, when the methodological framework is determined, so that the outcomes can meaningfully (1) meet the goals of the federal policy, (2) respond to the political and quality of life concerns of citizens, and (3) point up areas of concern that transportation agencies can address in mitigation measures and project decisions. A deeper understanding of the theoretical and policy foundations of the Order, as well as the potential effects of methodological decisions, will inform the methodological framework for EJ assessments and ultimately lead to improved outcomes of transportation decisionmaking.

Throughout this study, the racial and ethnic groups that are listed in the Order are alternatively referred to as 'minorities'. This terminology is used to reflect the regulatory guidance documents and is not intended to imply any lesser value or status of these groups. Further, the term 'Black' is used to stand for the Census term 'Black or African American', which refers to persons with 'origins in any of the Black racial groups of Africa'; this should not be taken as a minimization of the geographic or ethnic identity of these persons. The term 'protected population(s)' is used in this study and in the EJ literature to refer to all the groups that are included in the Order collectively. This should not be construed to mean that members of any of the racial/ethnic groups are assumed also to be in the low-income group, or vice versa.

II. Theories of Justice and Equity in Public Policy

Philosopher John Rawls (1971) set forth conceptions and ideas of justice that combined equity of procedure and outcome. He argues that justice requires an equitable distribution of rights and

duties but also that gains for more advantaged groups cannot justly come from uncompensated losses by the less advantaged: 'It may be expedient but it is not just that some should have less in order that others may prosper' (p 15). Further, Rawls held that individuals' rights could not be overridden by improvements to the general welfare, in opposition to utilitarianism which argues that maximizing the general welfare is the only intrinsic value for society (ibid; Ellis, 1998). Rawls also wrote that there are certain basic things, 'social primary goods', that are the right of all people and justice requires that those primary goods be provided to all. Flowing from this, Rawlsian justice also entails offering the greatest number of opportunities and options to the least advantaged of society. According to Rawls, providing equality in basic liberties and opportunities is an important component of social sustainability as it engenders social cooperation.

This is in contrast to the utilitarian approach, traditional in transportation planning, which places a value (usually expressed in monetary terms) on the costs and benefits that will be experienced by all groups who will be affected by the project. The summed values of these are compared and if the benefits exceed the costs, the project is considered worthwhile. The total benefits are the increase in the general, aggregate welfare without taking into account variation in ability to pay or initial positions of dis/advantage. This method has great appeal; it has at least the veneer of objectivity, offering a defensible, 'right' answer to complex and contentious problems. In practice cost-benefit analysis often becomes highly political.

One of the criticisms of such analyses is that they equate wants and needs, as either can bring about higher levels of utility. Thus a project can deliver more of what one individual (or group of individuals) *wants* by taking away some amount of what another individual (or group of individuals) *needs* (Ellis, 1998). The method does not distinguish between wants and needs, it is only concerned with the overall positive gains measured across the population, space, and time. Further, costs and benefits must be given some value, usually monetary, even if they are highly subjective and difficult to quantify, such as viewshed quality or roadway noise. Perhaps the most relevant criticism of cost benefit analysis in the EJ context is that it fails to consider how benefits and costs are distributed, as there will always be groups for whom the costs exceed the benefits, even if the project is a positive one overall (Wachs, 2004).

Policy analysts have long wrestled with the often morally unsatisfactory results of this type of analysis which can lead to situations of exploitation and disenfranchisement which can threaten social sustainability. Miller (1985) proposed that the traditional cost-benefit matrix be weighted by the percentage of the affected population in each income group and a 'fairness' value for the project based on the relative social importance given the preferences of that group. In practice, such a weighting scheme would be very difficult to apply.

Defining Equity

Yet discussions of equity must at some point tackle the question of what constitutes a fair or equitable distribution. Policy analysts describe two general types of equity (see, eg. Littman, 2005; Miller, 1985). Vertical equity means that different groups of people share equally in costs and benefits. Achieving this may require transfers among groups. Horizontal equity means that members within a group share equally in costs and benefits, which might require transfers among members of a group. Both types of equity can be, to some extent, pursued simultaneously. However, determining the degree to which a project attains some level of equity is highly dependent on how the groups are defined.

There are a number of dimensions in which either horizontal or vertical equity can be present (or lacking). Procedural equity, in which all stakeholders are provided with the same information and opportunity to participate in the decisionmaking process, is highly institutionalized in transportation agencies, and also an explicit requirement of EO 12898. The institutional focus on procedural equity reflects the idea that an equitable process will lead to higher degrees of other types of equity, although in practice groups that are socially marginalized are also likely to be marginalized in the decisionmaking process. Simply arranging for public information and participation does not necessarily mean that all segments of the public actually have the ability and opportunity to access that information or participate in the process. Procedural equity defines 'groups' functionally, by geography (e.g. neighborhood), demographics (e.g. Black), special interest (e.g. watershed protection), or some other characteristic (e.g. mobility-impaired). Social equity is realized when all social groups share equally in the costs and benefits stemming from a project (Bullard and Johnson, 1997). This class of equity is concerned chiefly with outcomes, not processes. An assessment of social equity requires consideration of how different social groups, defined by socio-economic characteristics (chiefly race and income in the US), have realized the benefits and cost of a project. Finally, the equity of a project can be assessed geographically, considering whether it distributes costs and benefits equally across a city, region, state, etc. Geographic equity can look at equity in procedure or in outcome.

Equity in Transportation Planning

The worth of a proposed transportation project is typically evaluated by three basic criteria: effectiveness (how well it meets the transportation objective or need), efficiency (its costs will be balanced, or even exceeded, by the benefits it brings), and equity (the degree to which the costs and benefits are fairly distributed) (Wachs, 2004).

Achieving equity in connection with transportation projects can often involve choices that trade away some amount of efficiency or effectiveness. For example, the most efficient and effective option for improving traffic flow for auto users, could involve reducing the number of intersections by stubbing out side streets, thus eliminating turning traffic. Drivers would benefit from faster travel times along the corridor, and operating costs for the local government would be lower as there would be no traffic signals to install and maintain. The roadway would be highly efficient for moving large volumes of vehicles. Yet this alternative would be highly inequitable if there were a population nearby who do not use autos, especially if it separated people from important destinations (e.g. schools, health care providers). For this group, the road would constitute a substantial barrier. This project would trade pedestrians' accessibility for auto users' mobility. Although this is an oversimplified example, it illustrates the tension between efficiency and equity often at work in transportation planning.

In the transportation decisionmaking process, choices between alternatives (e.g. selection of routes, number and configuration of lanes) involve evaluating the tradeoffs that will stem from each choice. The common approach is a cost-benefit analysis. This method fits well with transportation planning, perhaps the most 'rational' type of planning. The 'rational', utilitarian approach in transportation planning is largely an outgrowth of traffic engineering. It relies heavily on quantitative data, mathematical models, computer simulations, and monetary valuation of plan objectives (Deka, 2004). Political pressure and regulatory requirements, including EO 12898, have given social considerations greater prominence. These considerations are generally

considered subjective based on moral judgments and positions, and can change dramatically from place to place. Thus many transportation practitioners and agencies are rethinking the way they consider tradeoffs in order to recalibrate the balance between efficiency, effectiveness, and equity.

Yet the consideration of social impacts is not a new policy. In 1969, NEPA hinted at the need to consider the interaction between infrastructure projects and communities by encouraging 'a productive and enjoyable harmony between man and his environment'. In the 1970s, 23 USC 109(h) assured that possible adverse economic, social, and environmental effects relating to any proposed project on any Federal-aid system were to be fully considered in developing such projects, and that the final decisions were to take into consideration 'aesthetic values, community cohesion . . . availability of public facilities and services, injurious displacement . . . disruption of desirable community and regional growth'. More specific guidance was published in 1996 when the FHWA published 'Community Impact Assessment: A Quick Reference for Transportation' better known in the transportation industry as the 'small purple book'. Community impact assessment (CIA) is part of the planning process of the FHWA and, consequently, any state transportation agency utilizing federal funds for transportation projects, including state departments of transportation (DOTs), metropolitan planning organizations (MPOs), rural planning organizations (RPOs), turnpike authorities, transportation management authority, and local transportation agencies. These same agencies are similarly charged with ensuring compliance with EO 12898.

That change in this area has been slow reflects several factors unique to the US context. Wachs (2004) describes the institutional arrangement of transportation planning as a 'marble cake' in which multiple levels of government are 'all mixed together through multiple programs in which different governments cooperate, compete, regulate, and represent their unique interests and concerns' (p 145). Further complexity comes from the involvement of advocacy groups (e.g. historic preservation, environmental protection) and neighborhood organizations. Overlapping yet noncontiguous jurisdictions, goals, and political constituencies lead to such a high level of institutional complexity that inertia sets in, making only gradual change possible (ibid).

Yet another obstacle to change within transportation agencies is that the US system of government places discretion with judiciary, not regulatory, bodies. Regulatory bodies and agencies, including transportation agencies, are highly constrained to making decisions based on well-defined, objective paramenters. Court decisions importantly shape the policy documents and everyday decisionmaking practice within regulatory agencies (Rydin, 2003); without legal precedent, agencies are reluctant to adopt new practices. As a result, the culture in regulatory agencies has valued decisions that adhere closely to institutionally defined, rigid processes rather than allowing for discretion and flexibility. At least with respect to specifics of roadway design, this is changing somewhat, but institutional norms stand in the way of agencies shifting practice to give greater emphasis to social considerations, that by their very nature are highly contextual, nearly unique to each project, thus demanding a flexible approach.

IV. Environmental Justice

The development of the EJ movement has often been described as an outgrowth of the Civil Rights movement of the 1960s. In 1978, the Urban League and the Sierra Club organized a conference that focused on making connections between civil rights and the environmental advocacy, and on expanding the perception of environmental issues to include quality of life

considerations, particularly for urban residents (Torres, 1994). In 1982, toxic waste hauling and dumping in Warren County, North Carolina, triggered vehement protests by the nearby poor, Black residents. As a result, researchers, advocates, and politicians began to focus attention on the apparent spatial co-distribution of polluting or hazardous facilities and low-income and/or minority communities. In 1987, the United Church of Christ published a report documenting the strong association between toxic waste facilities and Black and Latino communities. In 1975, the US Commission on Civil Rights criticized the Environmental Protection Agency (EPA) for failing to consider the impacts of EPA policies on minority and low-income groups, evidence that the movement was gaining traction with federal agencies.

EJ advocates gained credibility when researchers applied scientific methods to environmental impacts and indeed found evidence of troubling patterns. Perhaps most prominent among these was Robert Bullard, a sociologist who published his influential study of toxic waste facilities, *Dumping on Dixie: Race, Class and Environmental Quality*, in 1990. In 1997, Bullard turned his attention to transportation with the publication of *Just Transportation*. Although Bullard is criticized for slipping a bit too easily between the roles of 'objective' researcher and passionate advocate (Foreman, 1998), his work has been successful in bringing national attention to the issue.

Pressure mounted for a federal policy initiative in response to more and more community groups coalescing advocacy efforts around EJ issues, scholars applying rigorous analysis to the emerging patterns, and the interest and support of Vice-President Al Gore. This came in 1994 when President Clinton signed EO 12898. The Order aims to reinforce the provisions of Title VI of the Civil Rights Act of 1964, that prohibits discriminatory practices by federal agencies (or agencies that receive federal funds). The Order requires agencies to place achieving EJ as a central part of their mission. Further it requires agencies to develop a strategy to identify and address 'disproportionately high and adverse effects' of its programs, policies and processes, including the public participation process (Executive Order 12898, 1994). This served to bolster the requirements of Title VI, mandating practical steps to include EJ considerations in each phase of transportation decision making. The specifics of how that would be done, however, was left to each agency. This is an interesting political maneuver, given that the political establishment is very reluctant to pursue EJ through federal statutes. Rather, the movement has been limited to using administrative discretion, including an Executive Order, rather than legislation (Foreman, 1998).

The vagueness of the language of the Order is explained by Gerald Torres, advisor to Attorney General Janet Reno under the Clinton administration, and one of the authors of the Order. Torres (1996) holds that resolving EJ issues will not result from finding an at-fault party or of proving discriminatory intent. Rather, the Order will initiate a 'kind of administrative genetic engineering' of the decision making process of all federal agencies, similar to the way that NEPA brought consideration of the natural environment into all decisions. Torres describes the underlying logic of the Order:

> Agencies are organized and designed to fulfill the mission that Congress has assigned to them. In the course of fulfilling their missions, the agencies develop their own regulatory responses to the issues that come before them. The pattern of response and solution develops into the regulatory culture of the agency. That culture provides the framework for assessing and resolving the concerns

> generated by their statutory missions. In order to change the way agencies come to their conclusions and their proposals for action, their central mandate has to be altered sufficiently to affect their decision making structure and their conception of their mission (1996).

The Order is concerned not with immediate remedy, however desirable that might be, but rather with long-term, incremental institutional change. That transportation agencies and practitioners are slow to develop and carry out specific methods for EJ assessment can be seen as the outworking of fundamental, 'genetic' change. Thus it is important to think critically about the various methods of EJ assessment currently used as a part of the evolution of institutional change within transportation agencies, in order to identify those methods that work well and those that do not. Sorting through the methods in order to steer this evolution will help bring about positive institutional change that will have real implications for communities across the country.

It should be noted that none of these policy documents indicate that road projects ought to be halted when they will generate disproportionate impacts on protected populations if the overall public interest points to a 'substantial need' or if the alternatives involve extraordinary costs or result in even more severe social, environmental, economic, or human health impacts. Thus, although EO 12898 may represent a victory for protected populations, in practice it will likely remain as difficult to halt problematic projects as was previously the case.

EJ assessments are centered on determining whether a project will cause inequities for a specific list of social groups, defined by race/ethnicity and income. They are an institutional process that will formalize the requirement for a higher degree of vertical equity in the social dimension. They also open up procedural equity by bringing traditionally disenfranchised groups into the process, even if only indirectly by using secondary data, to consider the interests of these groups. An EJ assessment can also address geographic equity, as it is concerned with determining the presence of certain groups in proximity to a project, and with the potential for negative effects that will be felt across some spatial dimension. There is considerable attention to procedural equity, thus creating opportunity for advocacy groups to shape project outcomes. Still, EJ is less concerned with procedural equity, that is, whether or not all cases are treated alike, than it is with equity of outcomes.

One criticism of EO 12898 has been with its focus on proportions rather than in actual numbers of people who will bear the effects. In practice, this has important implications. For a road project, it may mean choosing an alternative that avoids a sparsely populated area with a high proportion of minority residents in favor of an alternative that negatively affects an area with a lower percentage of minority residents, but a larger actual number of minority individuals. The wisdom of choosing to harm a greater number of people to avoid a smaller but more concentrated minority population is perhaps unclear.

The EJ movement in general has also been severely criticized for some of its more basic positions. One criticism is that the movement has failed to set priorities for improving environmental quality for protected populations (Foreman, 1998). The message has been that hazards should simply not exist. Critics take issue with the idea that policy and business decisions have crucial importance to health outcomes, rather than emphasizing 'personal behavior' as the primary determinant of health (Foreman, 2002). Further, EJ advocates are criticized for not addressing different magnitudes of risk, so that events/effects that have a low probability of

causing illness receive the same importance as events/effects that are very likely to bring about illness (ibid). This may lead to limited resources being diverted from the 'most serious' threats, although it seems that the degree of seriousness is defined according to utilitarian ideas, focusing on the numbers of people who are affected, rather than the level of harm posed by the threat.

Effects to be Considered Under the Order

EO 12898 defines adverse effects as 'the totality of significant individual or cumulative, human health, or environmental effects, including interrelated social and economic effects'. The language is broad as the order is intended for all federal projects, from waterworks to housing. According to USDOT guidance, EJ assessments for transportation projects should include, but not be limited to:

- Bodily impairment, infirmity, illness, or death
- Air, noise, and water pollution and soil contamination
- Destruction or disruption of man-made or natural resources
- Destruction or disruption of community cohesion or a community's economic vitality
- Destruction or disruption of the availability of public and private facilities and services
- Vibration
- Adverse employment effects
- Displacement of persons, businesses, farms, or nonprofit organizations
- Increased traffic congestion, isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community
- The denial of, reduction in, or significant delay in the receipt of, benefits of DOT programs, policies, or activities (USDOT, 1997)

Since the release of this guidance, transportation researchers have worked to develop and refine impact assessment guidelines to achieve environmental justice. The Transportation Research Board (TRB) has published a number of documents for use in the industry, most with sections that specifically discuss EO 12898 compliance. These efforts can be seen as a part of a rising interest in the socio-cultural effects of transportation projects (Townsend et al, 2005).

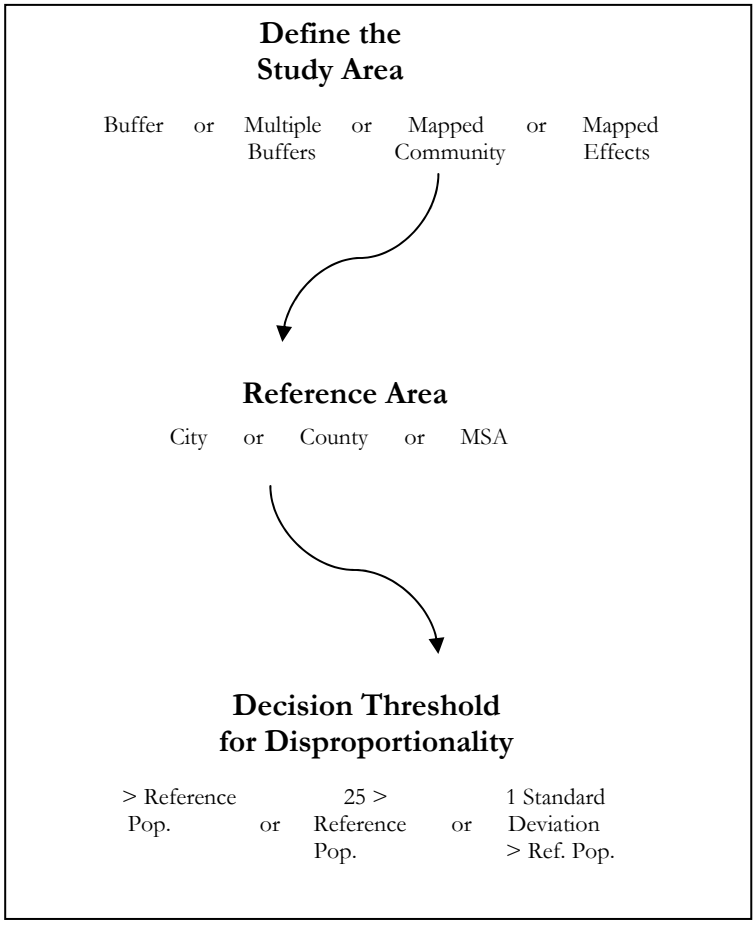
Federal transportation agencies have directed that in addition to assessing the environmental justice implications of projects, a community impact assessment (CIA) be included in the environmental impact statement. The CIA should consider not just the direct impacts of projects, but also the 'indirect and cumulative effects'. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time. Indirect impacts are those that result from a change that was triggered by the transportation project. The TRB publication NCHRP 466 provides transportation decisionmakers with a framework for assessing direct, indirect, and cumulative effects (Louis Berger, 2002).

V. Methodological Challenges

There are a number of choices that must be made by the analyst in conducting an EJ assessment. Each involves a particular set of assumptions and constraints, and each can influence the findings. A schematic of these various decisions is presented in Figure 1. Each of these decisions and their implications for an EJ assessment are discussed below as well as a consideration of the

structure and meaning of the data that the Order and USDOT guidance prescribe for EJ assessments.

Figure 1: Methodological Decisions for EJ Assessments



Defining the Study Area

One of the first decisions that in an EJ assessment involves the delineation of the study area. Generally, the most appropriate method is to identify the likely negative effects, determine the spatial extent of those effects, and then ascertain the minority and low-income groups that reside within reach of those effects. Most of the literature reports a straightforward identification of the population of interest as the census tracts or census blocks immediately adjacent or bisected by the project corridor. It is common to consider the populations at varying distances from the project to capture the variation in distances over which different types of effects are felt. These distances are then used to determine a study area buffer. Most DOTs simply apply a buffer or series of buffers around a project corridor to delineate the study area. Using a series of buffers rather than a single buffer allows for some differentiation across space of the magnitude of effects; clearly those residents closest to the corridor will feel more types of effects and greater magnitude of many types of effects compared to residents some distance away.

This approach is relatively straightforward for measurable physical phenomena, such as air pollution or noise. Such effects can be modeled and mapped based on wind and weather data and

the characteristics of the source (see e.g. Chakraborty and Armstrong, 1997 (vehicle emissions); Chakraborty and Armstrong, 2001 (airborne toxic releases); Most et al, 2004 (airport noise); Miller, 2005 (noise and vibration)). These physical phenomena have a standardized measurement system and broadly accepted protocol for data collection and analysis. For road projects, the extent of some effects is relatively well-known. Air pollution is most serious near road, and reduces to background level between 16 to 3200 feet from the corridor (Liu, 2001). Road noise depends on volume, speed, roadway surface, and composition of traffic, but it declines to background levels about 1000 feet from the corridor (ibid).

Defining the extent of social effects is more problematic for a number of reasons. First, there is no consensus on what sort of measures should be taken to assess things such as community cohesion and quality of life, let alone the felt extent of changes to them resulting from a project. Understanding social aspects of a community will require the use of at of proxy measure, a number of which are currently employed in other fields of planning. Yet these are uncalibrated measurements, that as of yet lack broad acceptance as reliable and valid measures for transportation decisions. A number of researchers and practitioners are working toward the development of community indicators and no doubt the transportation industry will be able to draw from such work for EJ and other impact assessments (see, e.g. Oliver et al, 2002; Delaware Valley Regional Planning Commission, 2005; Galster et al, 2005; Morrison Institute for Public Policy, 2005). Social impact assessment (SIA) practice offers another source for transportation assessments and can perhaps offer a multidisciplinary approach that could lead to cross-cutting measures.

Second, measuring the current and projected state of a community implies that the geographic limits of that community be defined in some way. This allows for consideration of potential damage to social networks or functions that could result from the project, e.g. by constituting a physical or psychological barrier to movement and interaction. This poses some serious difficulties, as the members of a community seldom see the boundaries of their community as contiguous with other boundaries, e.g. a watershed or neighborhood conservation district. In any case, Census geography is unlikely to be contiguous with the boundaries of a lived community and manipulation of those boundaries/data could result in significant aggregation errors or ecological fallacies. Galster (1986) suggests a mapping method based on residents' perceptions of changed property values attributable to specific changes, thus holding the community boundary as the *dependent* variable, defined by its social and economic function and response when faced with external factors. Brown (1978) suggests that a community should be defined by social interaction, spatial orientation, and common ties. An intriguing older study of suburban housewives in Cardiff, UK, links their activity and friendship patterns to transportation corridors (Raine, 1979). All of these approaches and methods, however, require considerable local outreach and data collection and analysis. Finally there is the issue of the uniqueness of each community, which makes generalization about the impacts that will be felt as a result of a project suspect.

Defining the Reference Population

The method of determining the reference population for the purposes of an EJ assessment is not clearly set forth in either EO 12898 or in the USDOT guidance. In practice, populations of interest are defined by proximity to the project or project alternatives. Defining the reference population offers yet another challenge to EJ assessment practice. A number of authors have identified this as one of the most influential factors in determining the outcome of an EJ

assessment (see e.g. Most et al, 2004; McMaster et al, 1997). It is the reference population that establishes the baseline, the denominator of the equation by which dis/proportionality will be calculated. Thus the choice of reference population can have important implications for the outcome of an assessment.

In practice, reference populations have been chosen in a number of ways. In his EJ assessment of a light rail line expansion in Seattle, Miller (2005) defines the reference population as the tax and service district of the transit agency as this population would include the urbanized portions of the county and is equivalent to the area used in the agency's data report on EJ compliance to the Federal Transit Administration. OKI (a COG and an MPO) takes the population of the MPO's area of jurisdiction as reference population for the purposes of EJ assessments. Most et al (2004) generate a reference population by aggregating the larger Census units (two counties and one MSA) that contained the Census block groups that would be negatively impacted by an airport project (noise). Forkenbrock and Schweitzer (1999) used the MSA for an experimental assessment of a road project. As no guidance is offered by the Order or by USDOT, the selection of the reference population is left to the judgment of the agency or the analyst conducting the assessment.

Defining Dis/Proportionality

In order for an EJ assessment to comply with EO 12898, it must be concerned with disproportionate, negative effects. The idea of disproportionality recognizes that transportation projects do indeed generate negative effects, which are generally felt at or near the project site while the benefits are realized much more diffusely. Although the USDOT guidance is clear in defining the income threshold that will define low-income persons, it is remarkably silent on the issue of defining the threshold for what constitutes 'disproportionate' as is the Order. Thus the calculation of disproportionality is left to those conducting the assessment.

Agencies and researchers have used a variety of standards to determine the threshold of disproportionality. A common approach uses a formula that echoes the location quotient approach used in economic analysis to compare a local economy with a reference economy in order to determine if the local economy is specializing in some industry (O'Sullivan, 2000). For EJ assessments, the equation is typically constructed as:

$$\frac{\text{(Protected population in the study area/Total population in the study area)}}{\text{(Protected population in the reference area/Total population in the reference area)}}$$

If this equation results in a number greater than 1, there is a greater proportion of a protected population inside the study area than in the reference population. Examples of this include a study by Chakraborty and Armstrong (1997) that project air pollution impacts from a road project. This method has the appeal of being simple to calculate and explain to decisionmakers. It has the disadvantage of being highly sensitive to accuracy of the data used as small differences in the numbers could shift the decision threshold. The choice of the reference area is also an important consideration, as will be addressed in a later section.

In this analysis, the method using the percentage of protected groups in the reference area population as the decision threshold is called the Absolute method. A ratio is not calculated so

that this method can be more easily compared with the other methods, but the underlying logic is the same as that described above.

NEPA guidance suggests a decision threshold when there is a 'meaningful greater percentage' of protected groups in the study area when compared to the reference population (Council on Environmental Quality, 1998). Miller (2005) cited this guidance as grounds for his decision to designate low-income or minority areas within a study area as those areas with percentages of those populations greater than one standard deviation from the mean of the reference areas. This approach would certainly avoid the political difficulty of justifying special measures for an area only marginally less advantaged than the reference area. Depending on the distribution of minority and low-income populations within the reference area and the unit of analysis used to calculate the mean and standard deviation, this method could fail to capture small concentrations of protected populations within the study area, although conducted at the block group level this is unlikely. This approach also has the disadvantage of being more difficult to explain to persons without a background in basic statistics. Like the previous method, however, it is easy to calculate. In this analysis, this method is referred to as Standard Deviation.

The Ohio-Kentucky-Indiana Regional Council of Governments (OKI), centered in Cincinnati, has predefined 'target areas' (as opposed to waiting until the need for a transportation project arises) with disproportionately higher numbers of minority and low-income populations.[1] OKI defines a 'target area' as any Census block in which the percentage of any protected group is 25 per cent greater than the percentage for that group for the OKI jurisdiction (OKI, no date). Similar to the standard deviation method, this approach might mask the presence of small but highly concentrated groups. The method is less rigorous methodologically and the 25 per cent figure is clearly arbitrarily set, unlike the standard deviation, which is derived from the data. The OKI approach has the advantage, however, of being a simple calculation that could be easily grasped by nontechnical audiences. In this analysis, this method is referred to as the Plus 25% method.

These three approaches represent a range of accuracy and transparency to determining the presence and location of minority and low income populations in a project area. There are likely other methods being applied by agencies across the country as transportation professionals and researchers seek a method that satisfies the legal and political requirements, yet is practical in terms of data requirements. Whatever approach is chosen, the method of calculating disproportionality could have important implications for the outcome of an assessment and thus on both the project and the community.

Data Issues: Income

The FHWA defines low-income persons for the purposes of environmental justice assessment as persons whose household income is at or below the poverty guidelines set by the Department of Health and Human Services (HHS). The guidelines are calculated each year using the Consumer Price Index from the previous calendar year. The poverty guidelines are a simplified version of the poverty threshold released by the US Census; the guidelines are stated as household income according to number of persons in the household, while the threshold differs depending on not

[1] OKI has moved beyond the USDOT definitions and has identified concentrations of disabled persons, zero-car households, and elderly persons.

only the number of persons in the household, but how many household members are related children. HHS states that poverty guidelines are appropriate for administrative purposes, e.g. determining qualification for federal assistance programs (US Department of Health and Human Services, 2005). The FHWA does permit the use of a higher income level to determine poverty level so long as that standard is inclusive of all persons who fall at or below the HHS poverty guidelines and the standard is not selectively implemented (FHWA).

Substituting the threshold for the guideline has been done by a number of researchers and practitioners. For example, in an EJ assessment of a light rail project in Seattle, Miller (2005) cited data availability as well as CEQ and EPA recommendations that the poverty threshold be used. This seems a sound and practical option given the HHS statement:

> The Census Bureau's poverty statistics represent the number of people below the Census Bureau poverty thresholds. Neither the Census Bureau nor the U.S. Department of Health and Human Services prepare tabulations of the number of people below the HHS poverty guidelines, which are a simplified version of the poverty thresholds used for program eligibility purposes. The best approximation for the number of people below the HHS poverty guidelines in a particular area would be the number of persons below the Census Bureau poverty thresholds in that area (US Department of Health and Human Services, 2006).

This analysis utilizes sample file data on the number of persons below the Census Bureau's poverty threshold. Income data are not available at the block group level in the 100-percent Census files for privacy protection. There may be local data sources that could offer more up-to-date income figures at a fine scale, such as local/county tax authorities, however, such data were not available for this project. This need not represent a substantial weakness in the analysis, however, as one of the aspects of environmental justice assessment that needs further description and testing is the potential effectiveness of easily accessible and (at least mostly) free secondary data sources. These types of sources will be most commonly used in practice, unless research and experience proves them to be poorly suited for environmental justice applications.

One of the limits of Census data is a result of privacy measures which mean that sensitive data, particularly income data, are not released at the finest scale. In 2000, the smallest geography for which data for race and poverty status were available was the block group level. This leaves room for error as there will be greater difference between study area boundaries and census geography the larger the census geographical unit used.

It must be noted that while the FHWA states that 'low-income' should be defined as a person whose household income is *at or below* the HHS poverty guidelines, Census reports the numbers of households *below* and *at or above* the poverty threshold. This means that using census data will result in a slight *undercount* of low-income persons as those persons who are *at* the poverty line will be not be included; persons *at* the poverty line are included in the non-low-income households. This lack of coordination between the available data and FHWA guidelines can only serve to frustrate practitioners and perhaps offer a loophole that could be exploited either to mask the true nature of the local population, or to initiate costly legal action.

The FHWA and USDOT definitions of low income vary slightly from the definition used by the EPA in its NEPA guidance. The EPA recommends that annual statistical poverty thresholds

from the Census be used to delineate low income populations for EJ assessments (Council on Environmental Quality, 1998). For transportation actions, the definition is at or below the HHS poverty guidelines. The USDOT does state that wherever their definitions vary from the CEQ and EPA definitions, they do so in order to reflect refinements necessary to fit within the context of the DOT program (USDOT Order on Environmental Justice, 1997).

Data Issues: Race

The US Census made important changes to the data collected on race for the 2000 Census. Prior to 2000, only four racial categories were included: American Indian or Alaskan Native, Asian or Pacific Islander, Black, and White. Two ethnic categories were also collected: Hispanic and Not Hispanic (US Census Bureau, 2000). In response to criticism that these categories failed to accurately capture the racial and ethnic composition of the nation, the Office of Management and Budget, which oversees the US Census Bureau, revised their standards for federal data on race and ethnicity to five categories of race and an expanded two categories of ethnicity (ibid). The two sets of standards are compared in Table 1 below.

Table 1: Comparison of Federal Race Data Standards

	Categories collected 1977 to 1997	**Categories collected Current Standard**
Race	American Indian or Alaskan Native	American Indian or Alaskan Native
	Asian or Pacific Islander	Asian
	Black	Black or African-American
	White	Native Hawaiian or Other Pacific Islander
	Other	White
		Other
		Multiple Race Categories (up to all 6 can be reported in any combination)
Ethnicity	Hispanic	Hispanic or Latino
	Not Hispanic	Not Hispanic or Latino

This change offers no serious impediment to conducting EJ assessments in keeping with the FHWA directive. The FHWA has defined the minorities to be considered in such assessments according to the current OMB standards. It will be important, however, that in the future, the FHWA updates their directives to reflect any future changes to the federal data standards so that Census data will closely coordinate with the FHWA directive.

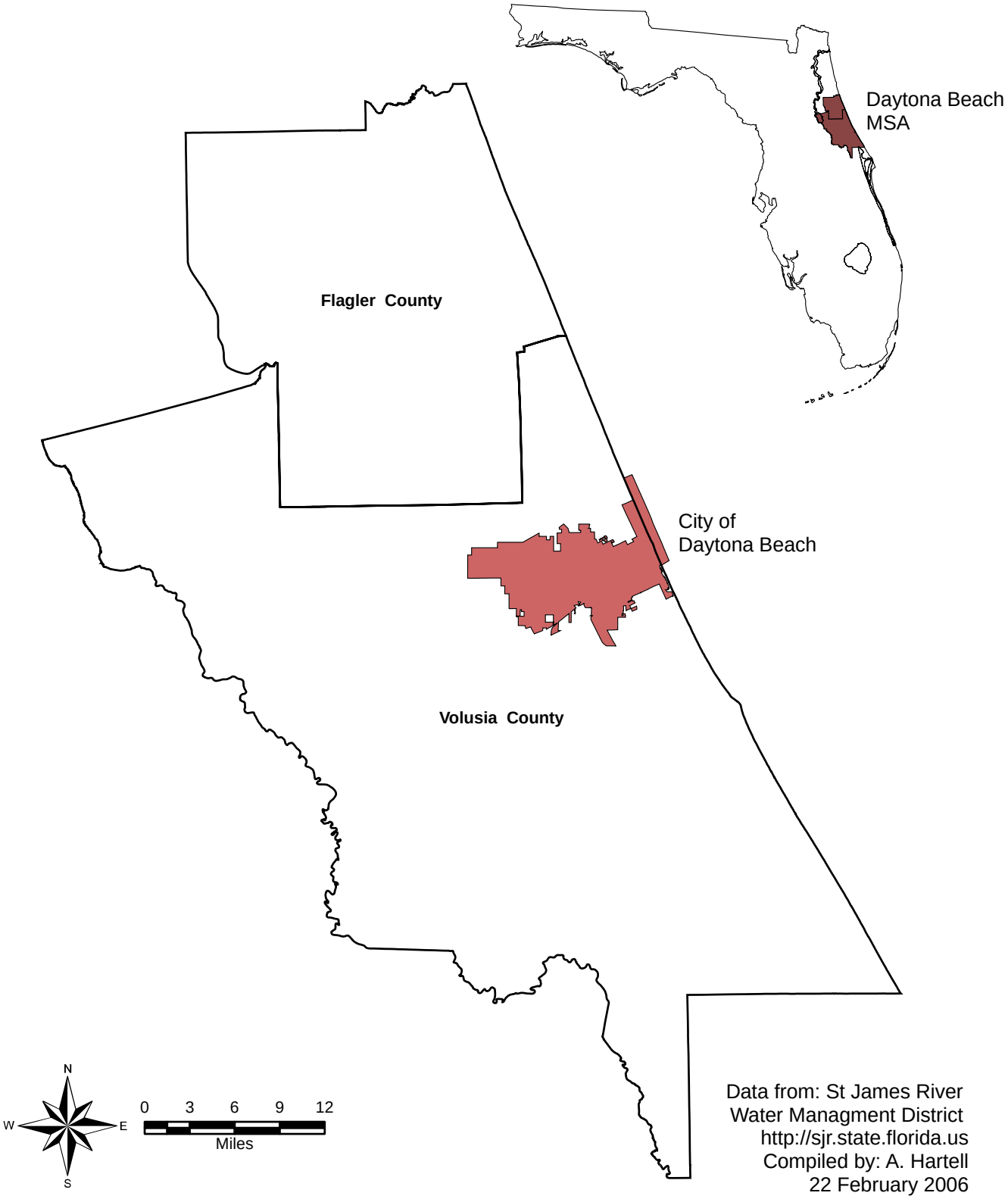
Of far greater concern as a complication to Census data users is that in 2000, respondents were able to report two or more races. As a result there are 63 possible responses to the race question posed on the 2000 Census form, 126 possible responses when the race question is combined with the Hispanic/Latino ethnicity question (US Census Bureau, 2000). The OMB has issued guidance on how multiple race responses are to be allocated for the purposes of civil rights issues. Responses that combine one minority race with 'White' are to be allocated to the minority group, and responses that include two or more minority races are to allocated to both categories and the assessment conducted looking at the patterns based on the resulting alternative allocations (OMB, 2002). In other words, if an area contains a population of Black/Hispanic persons, an assessment is likely needed for disproportionate effects on the Black population and on the Hispanic population, allocating the numbers for this subgroup to both larger groups. Despite the confusion, the consequences of adding two-race categories will likely be slight for transportation applications as only very small numbers of persons are expected to report multiple races/ethnicities for some time to come. The issue of changes in race categories will be more complex for analyses that consider time series data, e.g. public health studies (Sondik et al, 2000); EJ assessments are based on cross-sectional data to look at current conditions. This may change, however, if ex-post analyses of the effects of a transportation project were to be carried out. Such efforts would require 'bridging' to coordinate the data from two different Censuses for which the categories had changed. There are a number of methods available for doing this, and the choice of method should be largely driven by the purpose of using race data for a particular analysis (Lee, 2001).

An additional problem with using Census data for EJ assessments is that there is evidence of systematic undercounting. Although studies have found that net undercounting of all groups is declining, undercounting of Blacks is increasing and the amount by which groups are undercounted varies from place to place (Liu, 2001). Therefore, the potential for undercounting of protected populations should be kept in mind when relying on Census data for an EJ assessment, as the figures likely reflect some level of error.

IV. Case Study: US 92, Daytona Beach, Florida

Daytona Beach, Florida, is located on Florida's east coast and is the county seat of Volusia County (see Figure 2). The city of Daytona Beach has a long and close association with the automobile. The first car arrived there in 1898 (Cardwell, 2004). In 1903, the Florida East Coast Automobile Association was organized, the first group to promote auto racing on the hard-packed sands just outside the city. (Early members included the highly influential industrialists W.K. Vanderbilt, Henry Flagler, Howard Gould, and John Jacob Astor. Although the area's economy relied heavily on forest products (rosin, turpentine for military applications, timber), tourism was also important. The beach offered such an outstanding driving surface that Daytona Beach was the choice of daredevils, who came there to set and challenge world ground speed records up through the 1920s (ibid). In 1947 NASCAR was formed in Daytona Beach, and in 1956 the Daytona International Speedway opened (NASCAR, 2006). Daytona Beach was also the site of an important event in the history of the Civil Rights movement. On March 17, 1946, Jackie Robinson broke the 'color barrier' in professional baseball when he played for the Montreal Royals in Daytona Beach. One year later he more famously played his first game for the Brooklyn Dodgers, a major league team (Cardwell, 2004). This study lies at the junction of these two histories, where the automobile and civil rights intersect.

Figure 2:
Daytona Beach, Florida



Data from: St James River
Water Managment District
http://sjr.state.florida.us
Compiled by: A. Hartell
22 February 2006

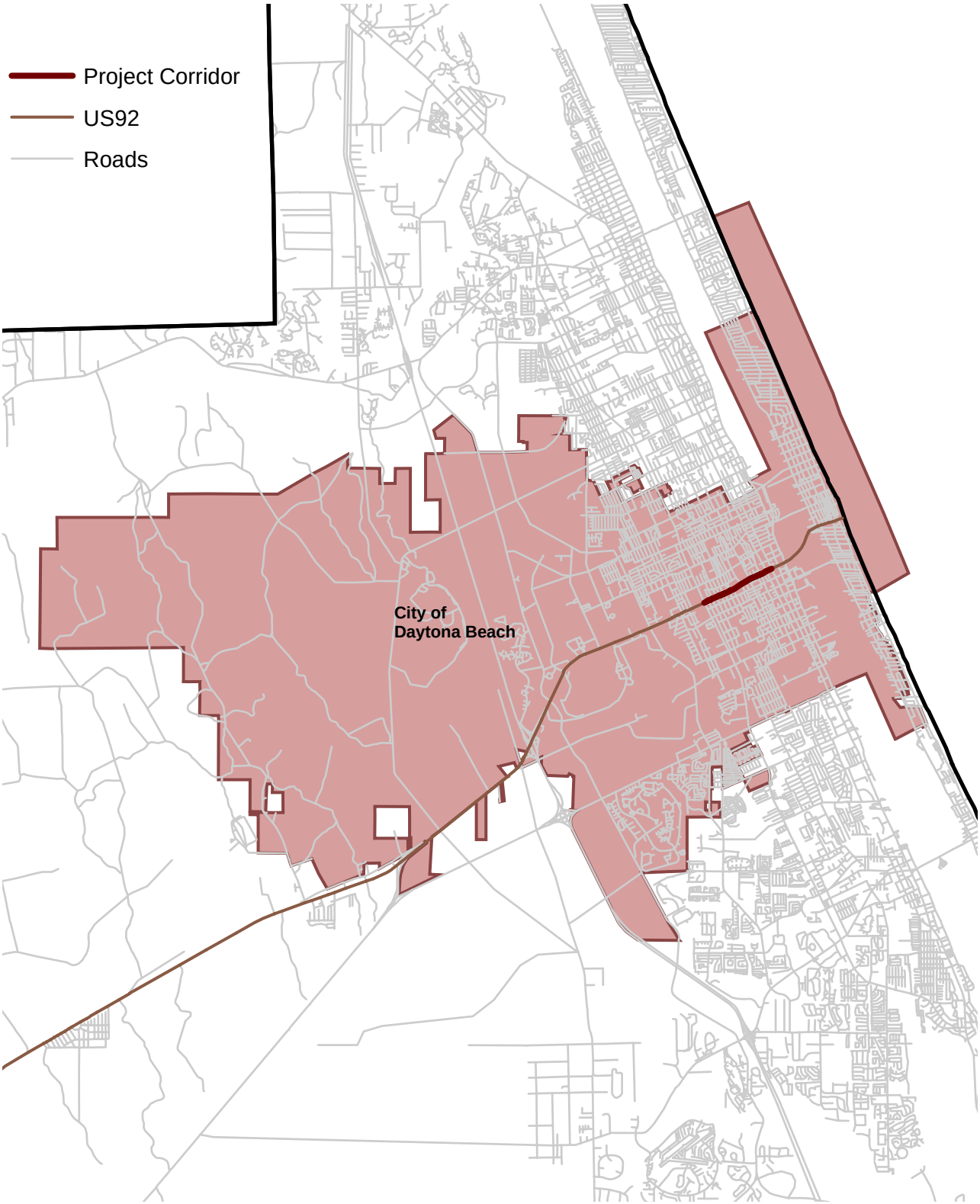
The proposed widening project for a 1.156 mile, urban segment of US Highway 92 (US 92) is chosen as a case study to examine the methodologies for conducting an assessment in keeping with EO 12898 (FDOT, 2005; see Figure 3). The project is described as a capacity project, widening a major route from four travel lanes with a center turn lane to six travel lanes with a raised median. The road cross section includes a sidewalk but not a buffer between the sidewalk and the traffic lanes.

There is room for some debate on whether projects such as the US 92 project will generate an overall negative effect on the surrounding community, or if its positive benefits for that same community will outweigh the negative. The project will likely help increase mobility (and perhaps access) for auto users immediately adjacent to the corridor. It may also trigger or enhance economic development along the corridor, thus offering additional or better-paying job opportunities to nearby residents. The capacity improvement may alleviate congestion and thereby improve air quality, at least in terms of some types of pollutants, although such improvements might be negated if total volume of traffic increases due to the release of latent demand for travel along the corridor. Improved safety is also cited in the purpose and need statement for the project, which will likely bring positive benefits, although the crash rate per million vehicles is only slightly above the expected rate for the roadways of the existing configuration (4.401 vs 3.968 crashes per million vehicles; FDOT, 2005).

Despite these potential improvements, however, the project description reveals that the corridor will require acquisition of property for the larger right of way and for stormwater detention (FDOT, 2005). These acquisitions will undoubtedly mean that some residents and businesses will be displaced. Displacement effects are perhaps the most strongly and painfully felt effects of transportation projects. The redistribution of costs and benefits brought about by displacement are perhaps the most dramatic demonstration of the tendency of transportation projects to generate highly focused costs yet highly diffuse benefits. It is not difficult to argue that residential and business displacement is a disproportionately negative burden that is borne by the surrounding community.

The US 92 project is currently moving through the Florida DOT Efficient Transportation Decision Making (ETDM) program. The ETDM program was developed to coordinate planning and project development processes across agencies and community groups and is often looked to as the national model for environmental streamlining and stewardship initiatives. It offers a centralized database of information on project alternatives, findings of assessments, and project maps for all stakeholders in the process. This coordination centers on the Environmental Technical Advisory Team (ETAT). The ETAT includes representatives from multiple environmental resource and transportation planning agencies. Using an environmental screening tool (EST), the team identifies potential effects on the human/cultural and natural environments, has cross-agency communication, and can effectively integrate and share data. By bringing agency interaction into the early stages of transportation, avoidance and minimization strategies can be identified much earlier in the transportation planning and programming process. Projects do not move into the project development phase until all 'red flag' issues are identified, discussed and assessed as part of the scoping process. A finding of a disproportionate population of protected groups would constitute a 'red flag' issue that would require particular attention to the distribution of negative effects.

Figure 3:
US 92 Project Corridor



Data from: St. James River
Water Managment District
http://sjr.state.florida.us
Compiled by: A. Hartell
2 March 2006

Florida's ETDM framework describes socio-cultural effects that should be investigated for all populations, as well as for protected populations. The list of these effects are provided in Appendix Table A. Virtually all of the listed categories of effects are inherently linked to the actual project site, and most would be anticipated to decline in severity with increasing distance from the project corridor. Thus, the population closest to the project corridor would likely experience the most severe and numerous negative effects.

Florida's ETDM framework delineates the study area with a series of buffers at 100', 200', 500', and 5280' (1 mile) distant from the centerline of the corridor. Florida uses the county as a reference population for impact assessments. This study compares the population in the four study area buffers with three different reference populations: the MSA, the county, and the city. The decision threshold for a determination of disproportionality within each buffer is set using all three calculation methods previously mentioned.

Geography

For this study, the proportion of the population that is low-income and minority under current federal definitions within each of the four buffer areas was determined using a process of areal interpolation in a GIS (ArcView 9.x). For this process, first the area of each block group was calculated. Next a new layer file was created from the intersect of the block groups and of each buffer. The area of each block group that was contained within the buffer was then calculated. From these two calculations, the percentage of the block groups that fell within each buffer could be calculated. This percentage was then used to apportion the population within each buffer. This method makes the assumption that the population is evenly spread across each of the block groups. Using very small geographic units (block groups as opposed to tracts), however, helps minimize the error that this assumption allows to enter into the analysis. More formally, the percentage area of each block group enclosed or intersected by the buffer area boundary is calculated:

$$\frac{\text{Area of the Block Group inside the Buffer (in sq. miles)}}{\text{Area of the Block Group (in sq. miles)}}$$

The interpolation process generated three empty Census block groups; areas that currently have a block group designation yet contained no population figures from the 2000 Census. An examination of more up-to-date aerial photos (Google Earth) revealed that these tracts had some very recent residential development that likely was not extant in 2000. These Census tracts were removed from the interpolation process for reasons of consistency with the data. This highlights a potential problem in relying wholly on secondary data sources. For the US 92 project, it would be useful to seek out more current data, perhaps from local sources, to verify the existence of and population figures for newer developed areas in order to generate more up-to-date calculations. However, even an analysis that relies on less precise or slightly dated data will be very useful as an initial exploration of potential EJ issues. Even if the results cannot be considered 100 percent precise, such an assessment is an effective screening device and could point up areas that need further investigation to the generation and distribution negative effects.

This method is perhaps the most common interpolation technique used in GIS analyses, yet it leaves room for error as it assumes that the population (total and of each protected group) is uniformly distributed within the block group. As one of the main goals of Census geography is to generate areas that are as homogenous as possible, this seems a reasonable assumption. Further, it would be expected that practitioners performing an impact or EJ assessment would verify results in the field. Finer, more recent, or higher detailed data might reveal some divergent patterns within the block groups. For this analysis, which considers the ramifications of current practice, the most commonly applied method, despite its potential for error, is used.

For this study, the interpolation process was carried out for each of the four buffers, as well as for the city of Daytona Beach reference area, as the city boundary intersected several Census block groups. Block group boundaries did not intersect MSA and county boundaries; for these two reference areas, no interpolation was necessary.

Demographics

Although the USDOT requirements do not specifically discuss how persons reporting more than one race are to be included in an EJ assessment, the OMB is quite clear that such persons are to be included in assessments of impacts or discriminatory patterns. This analysis follows the OMB guidance that assessments should use alternative allocations to each of the minority groups. Thus, persons who are Black and AIAN are counted in the totals for both Black and AIAN groups. This does not constitute 'double counting' as each group is considered separately; there is no overall 'minority' group in which both these categories would be included. Listed below are the Census categories that were summed for each protected group to be considered in an EJ assessment under USDOT Order 5610.2 using OMB guidance for aggregation:

- Black
  - Black or African-American alone
  - Black or African-American *and* White
  - Black or African-American *and* AIAN
- AIAN
  - AIAN alone
  - AIAN *and* White
  - AIAN *and* Black or African-American
- Asian
  - Asian alone
  - Asian *and* White
- Hispanic
  - Hispanic
- Low Income
  - Population below poverty threshold

All these Census categories are from the 2000 Census 100 Percent counts (SF-1), except for the population below the poverty threshold, which is from the Sample File (SF-3).

The OMB guidance states that NHOPI persons should be included in an EJ assessment, although USDOT guidance does not list this group as a 'minority' for this purpose. In the US 92

case, the numbers for this group are quite small, only reaching 0.05 percent for the 5280' buffer area, compared to slightly larger, but still small, percentages for the reference areas. In other locations, e.g. Hawaii, this group would be properly included in an EJ assessment for a transportation project (Li et al, 2005).

The OMB also states that any combination of races/ethnicities that constitutes more than 1.0 percent of the population in a jurisdiction can be apportioned as an independent group for consideration in an EJ assessment (e.g. Asian *and* Black, or Asian *and* NHOPI). Such decisions are left largely to the discretion of the agency. For the US 92 case, there are no other combinations that reach that 1.0 percent level, although there are persons who self-identify as Black along with two other races. These numbers, however, are too low to substantially affect the results.

Population percentages for each group within each reference area were calculated using the allocation method described above. The simple percentage of each group is referred to as the Absolute decision threshold for determining dis/proportionality. The second decision threshold, Plus 25%, is calculated by multiplying the Absolute percentage by 1.25. The third decision threshold, Standard Deviation, was determined by calculating the standard deviation of the percentages of each protected group by block group:

$$S = \sqrt{\frac{\sum \left(\mathrm{X}_i - \overline{\mathrm{X}}_i \right)^2}{N}}$$

This equation was altered slightly in calculating the standard deviation for the City:

$$S = \sqrt{\frac{\sum \left(\mathrm{X}_i - \overline{\mathrm{X}}_w \right)^2}{N}}$$

This equation uses a weighted mean to prevent a block group with very large (or very small) populations yet a small (or large) amount of area inside the city from skewing the overall mean:

$$\overline{X}_w = \frac{\sum \left(M_i * w_i \right)}{\sum \left(P_i * w_i \right)}$$

in which M_i is the population of a protected population in a block group, P_i is the total population of the block group, and w_i is the percentage of the area of the block group within the city boundary.

These decision thresholds are compared to the percentage values for each group inside the buffers. If a percentage for any group is higher inside the buffer compared to the reference population, the negative effects that will be borne by the population inside the buffer would constitute and environmental injustice. Table 2 presents the decision thresholds for each reference area and each calculation method, for the protected groups to be considered under USDOT guidance. (For full details of data and calculations, see Appendix Tables B and C.)

Table 2: Decision Thresholds: Reference Populations

Reference Area	Calculation Method	Low Income	Black	AIAN	Asian	Hisp
City						
	Absolute	23.61%	32.66%	0.75%	1.85%	3.49%
	Plus 25%	29.51%	40.83%	0.93%	2.32%	4.37%
	St Dev	37.45%	66.96%	1.34%	3.21%	4.96%
County						
	Absolute	11.62%	9.54%	0.70%	1.15%	6.57%
	Plus 25%	14.53%	11.93%	0.87%	1.44%	8.21%
	St Dev	22.72%	31.24%	1.21%	1.97%	14.21%
MSA						
	Absolute	11.32%	9.49%	0.35%	0.46%	6.42%
	Plus 25%	14.15%	11.87%	0.43%	0.58%	8.02%
	St Dev	11.45%	30.58%	0.83%	0.95%	13.85%

The same areal interpolation method and OMB allocation guidelines were used to calculate the percentages of protected populations inside each of the buffers. Again, the numbers of each protected group and of the total population were first multiplied by the percentage of the block group within the respective buffer, yielding a percentage weighted by area. The results of this calculation are presented in Table 3 below.

Table 3: Percentages of Protected Groups, by Buffer Size

Buffer	Population Group				
	Low Income	Black	AIAN	Asian	Hisp
100’	50.35%	86.72%	0.56%	0.44%	1.87%
200’	49.97%	86.20%	0.57%	0.45%	1.89%
500’	48.86%	84.68%	0.58%	0.47%	1.96%
5280’	35.42%	60.31%	0.38%	0.92%	2.64%

Comparing the two tables reveals some interesting results, particularly for the low-income and Black population groups. Other groups are not represented by substantial numbers within any of the buffers. First, looking at the percentages of low income and Black persons across buffer sizes, the values are highest in the smallest buffer (50.35 and 86.72 percent, respectively). This indicates that the project corridor runs through a concentrated population of these two categories of protected populations. For EJ considerations, this is particularly important, as all the negative effects of the project will likely be felt by these, the closest, residents.

Discussion

Table 4 presents a matrix of which protected groups are disproportionately represented in each of the buffers surrounding the US 92 project corridor, depending on reference area and decision threshold. Clearly, the selection of reference area and of decision threshold will affect the determination of disproportionality at different distances from the project corridor. Applying the Standard Deviation decision threshold means fewer findings of disproportionality at greater distances from the project corridor. Further, more groups are found to be disproportionately

represented inside the buffers when compared to the MSA than when compared to the city or county.

Table 4: Disproportionately High Populations, by Assessment Parameters*

Buffer	**Reference Area**	**Absolute**				
		Low Inc	**Black**	**AIAN**	**Asian**	**Hisp**
100'	City	**+26.74**	**+54.06**	-0.19	-1.41	-1.62
	County	**+38.73**	**+77.18**	-0.14	-0.71	-4.70
	MSA	**+39.03**	**+77.23**	**+0.21**	-0.02	-4.55
200'	City	**+26.26**	**+53.54**	-0.18	-1.40	-1.60
	County	**+38.35**	**+76.66**	-0.13	-0.70	-4.68
	MSA	**+38.65**	**+76.71**	**+0.22**	-0.01	-4.53
500'	City	**+25.25**	**+52.02**	-0.17	-1.38	-1.53
	County	**+37.24**	**+75.14**	-0.12	-0.68	-4.61
	MSA	**+37.54**	**+75.19**	**+0.23**	**+0.01**	-4.46
5280'	City	**+11.81**	**+27.65**	-0.37	-0.93	-0.87
	County	**+23.80**	**+50.77**	-0.32	-0.23	-3.93
	MSA	**+24.10**	**+50.82**	**+0.03**	**+0.46**	-3.78
Buffer	**Reference Area**	**Plus 25%**				
		Low Inc	**Black**	**AIAN**	**Asian**	**Hisp**
100'	City	**+20.84**	**+45.89%**	-0.37%	-1.88%	-2.50%
	County	**+35.82**	**+74.79%**	-0.31%	-1.00%	-6.34%
	MSA	**+36.20**	**+74.85%**	**+0.13%**	-0.14%	-6.15%
200'	City	**+20.46**	**+45.37%**	-0.36%	-1.87%	-2.48%
	County	**+35.44**	**+74.27%**	-0.30%	-0.99%	-6.32%
	MSA	**+35.82**	**+74.33%**	**+0.14%**	-0.13%	-6.13%
500'	City	**+19.35**	**+43.85%**	-0.35%	-1.85%	-2.41%
	County	**+34.33**	**+72.75%**	-0.29%	-0.97%	-6.25%
	MSA	**+34.71**	**+72.81%**	**+0.15%**	-0.11%	-6.06%
5280'	City	**+5.91**	**+19.48%**	-0.55%	-1.40%	-1.73%
	County	**+20.89**	**+48.38%**	-0.49%	-0.52%	-5.57%
	MSA	**+21.27**	**+48.44%**	-0.05%	**+0.34%**	-5.38%
Buffer	**Reference Area**	**Standard Deviation**				
		Low Inc	**Black**	**AIAN**	**Asian**	**Hisp**
100'	City	**+12.90%**	**+19.76%**	-0.78%	-2.77%	-3.09%
	County	**+27.63%**	**+55.48%**	-0.65%	-1.53%	-12.34%
	MSA	**+38.90%**	**+56.14%**	-0.27%	-0.51%	-11.98%
200'	City	**+12.52%**	**+19.24%**	-0.77%	-2.76%	-3.07%
	County	**+27.25%**	**+54.96%**	-0.64%	-1.52%	-12.32%
	MSA	**+38.52%**	**+55.62%**	-0.26%	-0.50%	-11.96%
500'	City	**+11.41%**	**+17.72%**	-0.76%	-2.74%	-3.00%
	County	**+26.14%**	**+53.44%**	-0.63%	-1.50%	-12.25%
	MSA	**+37.41%**	**+54.10%**	-0.25%	-0.48%	-11.89%
5280'	City	-2.03%	-6.65%	-0.96%	-2.29%	-2.32%
	County	**+12.70%**	**+29.07%**	-0.83%	-1.05%	-11.57%
	MSA	**+23.97%**	**+29.73%**	-0.45%	-0.03%	-11.21%

* Bold indicates percentage **above** the decision threshold for that reference area and buffer.

Low-income and Black persons are disproportionately represented inside all buffers, no matter what decision threshold is chosen, in comparison to the county and the MSA reference populations. In comparison to the city, however, the results vary. Although in the smaller buffers the percentages are unquestionably higher than any of the decision thresholds, the results change further away from the corridor. For low income persons, if the Standard Deviation decision threshold is used (36.79 percent), this group is not disproportionately found in the 5280' buffers. Applying this same criterion to the Black population indicates that this group is disproportionately represented in the 100', 200', and 500' buffers, but not the 5280' buffer (60.31 compared to 66.96 percent).

In considering the results for the AIAN and Asian groups, the picture is somewhat mixed. If the MSA is chosen as the reference group, the Absolute and Plus 25% decision thresholds indicate a disproportionate population of AIAN persons in the 100', 200', and 500' buffers and in the 5280' buffer using the absolute threshold. Applying the Absolute and Plus 25% thresholds, there is a disproportionately higher Asian population in the 5280' buffer, and in the 500' buffer using the Absolute threshold. If the Standard Deviation decision criterion is applied to compare these groups with any of the reference areas, none are disproportionately represented in any of the buffers.

That the percentages for Asian and AIAN populations are quite small, never reaching 1.0 percent in any buffer, does not affect the finding of the assessment, which is concerned only with proportionality. In practice, these numbers might not be considered high enough to require special consideration to the effects on these groups. Still, the OMB and USDOT guidance specifically lists these groups as needing study under the Order, although the guidance does note that multiple-race groups need to make up at least 1.0 percent of the overall population in the 'jurisdiction' of the agency proposing the project. Yet, it is unclear whether the 'jurisdiction' would be defined as the state of Florida, the nine-county FDOT District, or Volusia County. Practitioners should be aware that this is a point that could conceivably be contested in a civil rights complaint.

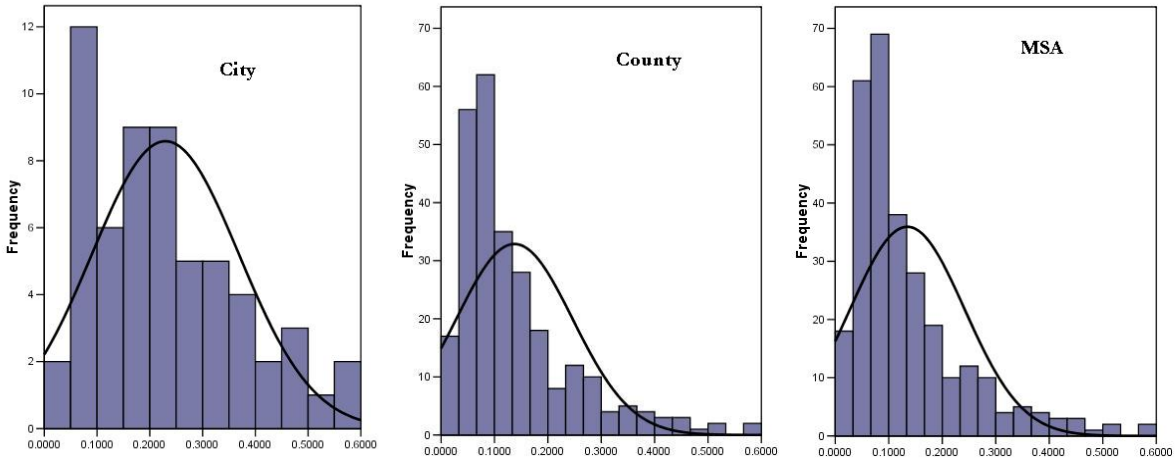
From the figures presented in Table 4, there is a good case for including AIAN persons in addressing EJ issues stemming from the project, if the MSA is used as the reference area. For Asian persons, however, the evidence is weaker; this group is not found to be disproportionately present in the smaller buffers where the most substantial and direct negative effects would be felt; an EJ assessment ought to note the distribution and proportions of this group, but could justifiably find that they are not disproportionately present in the study area. Nevertheless, including even these small groups is part of complying with federal regulations and constitutes good practice for EJ assessment.

Unfortunately, the focus on deciding on a defensible definition of 'disproportionality' seems to have led practitioners away from critically thinking about the ramifications of certain mathematical approaches. Further, to this author's knowledge, practitioners do not examine frequency distributions in EJ assessment, although this can reveal some highly relevant information both about the populations and the assessment method. This is illustrated by the frequency distributions of percentages of low-income and Black persons.

The distribution of the proportions of low-income persons, by block group, is generally consistent with a normal distribution for all three reference areas (see Figure 4). The data shows

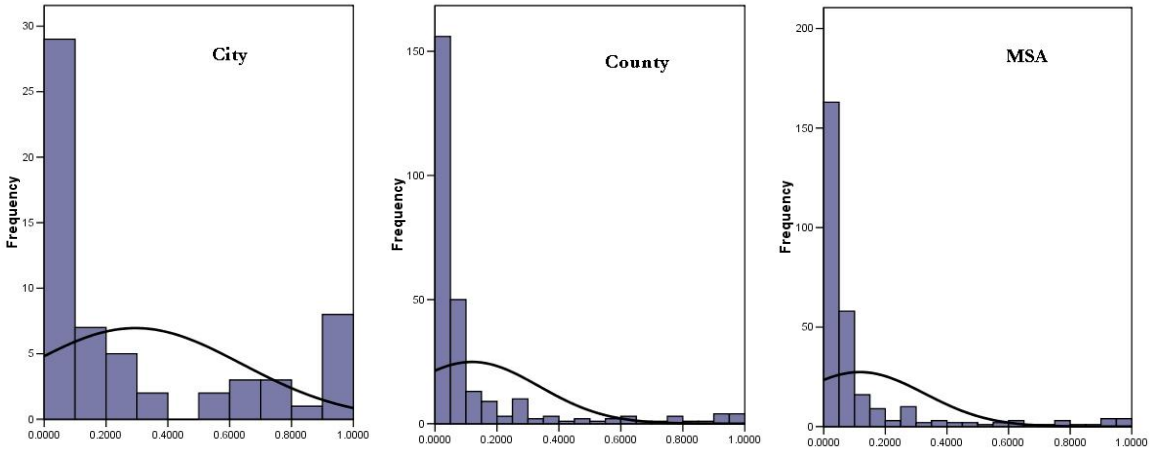
some skewness to the right, but generally conforms to a normal distribution. Thus a decision threshold based on the mean or the deviation from the mean, as are all three of the methods applied in this analysis, seems reasonable.

Figure 4: Frequencies for Percentage Low Income, by Block Group and by Reference Area



The histogram of proportions of Black persons, however, shows a distribution that is decidedly not normal (see Figure 5). In the city, the distribution clearly tends toward a bimodal distribution. In the MSA and the county, the distribution is strongly skewed to the right. This is certainly a function of the way in which Census geography is drawn up, where one of the goals is to generate internally homogenous areas. It also reflects the social reality of economic and racial segregation in many US cities. Although a mathematical mean can be generated from these data, the distributions indicate there is not really a 'central tendency'.

Figure 5: Frequencies for Percentage Black, by Block Group and by Reference Area



For the EJ assessment of the US 92 project, the implication of these patterns is that a method that sets the decision threshold based on the mean, or the distance from the mean (e.g. a standard

deviation) is an arbitrary method. As these data show substantial clustering at the very low percentages (most observations are below 5 percent), the calculated mean is greatly influenced by the small number of high-percentage block groups. This effect is compounded when that mean is used to calculate the Plus 25% and Standard Deviation decision thresholds. The histograms reveal that selecting the decision threshold that is closest to the largest number of observations would be least likely to exclude block groups with either of these two methods might result in a decision threshold that excludes a number of Census Block Groups from a finding of the presence of a protected population. These data indicate that the Absolute decision threshold as the best reflection of the actual data distribution, particularly when using the city as the reference area, where the Absolute threshold value is 32.66 percent, which is below the 'gap' in the data.

As for choice of reference area, this assessment should be based on the MSA. The purpose of the MSA designation is to provide a 'statistical representation of the social and economic linkages between urban cores and outlying integrated areas' (OMB, 2000, p 2). Thus the MSA represents some level of political and economic integration. This choice also seems reasonable in thinking about some of the social effects of the project. For example, households that are displaced by right-of-way acquisition would be expected to relocate within the MSA to preserve continuity in their economic/working lives.

VI. Conclusion

The US 92 case illustrates that the choices of reference area and study area, combined with the method for calculating the decision threshold for determining disproportionality, can alter the findings of an EJ assessment. None of these methods are inherently 'wrong', but can mask the presence and distribution of protected populations. Thus to determine the best approach, a variety of methods should be applied and the results from each considered in light of the particular characteristics of the data. Deciding on the method, *a priori*, may lead to conclusions that are difficult to defend, arbitrary, or even erroneous. Practitioners should examine all the data, calculation methods, and histograms, as well as the assumptions inherent to each, to ensure that the method applied has not obscured a pattern in the data. With experience, the industry may be able to settle on a standard approach. Yet until then there is a need for discretion and judgment. As the transportation industry continues the paradigm shift toward considering social factors, the need for practitioners who can handle data with care and insight will become increasingly important. Professional planners are in a unique position to fill this need, as they are trained in quantitative skills and in addressing social issues.

This is not in contrast to the Rawlsian definition of pure procedural justice, in which a theoretical, impartial observer, viewing the situation through a 'veil of ignorance' as to his or her own position in the situation so as to be truly impartial, is the only entity able to fairly set forth a set of principles that will guide the distributive process. This would seem to require that the precise method by which an equitable outcome would be reached must be agreed upon in advance. In fact, Rawls defined fair procedure as that which brings about fair outcomes. Thus, in an EJ assessment, given the combination of local conditions and the as-yet incomplete development of methods, fair outcomes will be reached by deciding on the basic principals of equity, not on a precisely defined set of rules for decisionmaking.

Despite the difficulties, it is in the long term interest of agencies not to shy away from conducting EJ assessments in fear that they may uncover additional obstacles to a project in which they have

invested substantial amounts of work and planning. Rather, an early, thoughtful EJ assessment will likely head off conflicts and costs later in the process. It will also offer a fuller picture of the true costs of a project by identifying the degree and type of mitigation that will be required. Conversely it is in the interest of advocates for protected populations not to design an assessment so that a finding of disproportionality is guaranteed. Any disingenuous practice would discredit the entire idea that there is environmental injustice. Although it may be tempting to begin with an *a priori* expectation of findings, especially in controversial projects, good practice requires that the assessment be conducted genuinely.

It is also important to keep in mind that an EJ assessment is not concerned with finding causality or identifying an at-fault party. Rather it is about locating and addressing inequities, or potential inequities, whatever their source or cause, examined apart from ideology or accusations of racism. There is no moral judgment passed on a finding of disproportionality of a protected population, only in the failure to recognize and (at least attempt to) remedy it. Further, should future empirical studies offer evidence of deeply embedded racial intent in the way transportation projects allocate costs, this is less important than that we seek to address the outcomes. EJ policy cannot hope to reverse the effects of past decisions that ignored or subsumed the needs and wants of these populations. As Torres states:

> Not every wrong has a remedy, but the fact that many feel that a wrong exists suggests that the policies and actions that have created that felt injury need to be subject to greater scrutiny (1996).

EO 12898 will play an increasingly important role in informing such scrutiny. Yet this scrutiny need not bring a defensive response. Rather it will open up opportunities to design projects and mitigation strategies that can bring lasting positive benefits to some of our most vulnerable citizens. And although our society seems able to tolerate great inequity in income, the principled application of EJ principles in transportation planning offers a mechanism to greatly improve equity in quality of life.

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Appendix

Table A: Community Effects Considerations

1. SOCIO-CULTURALCONSIDERATIONS	DATA SOURCES		KEY ANALYSES
Changes in Demographics			
1.1 Define demographics of the potentially affected population.	▪ Census Data - Race - Ethnicity - Language - Age - Income	▪ Community Contacts ▪ Community Outreach and Participation ▪ Social Services Agency	▪ Identify demographic characteristics in study area. ▪ Use results of analyses to: - Develop familiarity with the community; - Design Community Outreach and Participation approach; - Promote environmental justice[1] objectives, including inclusionary Community Outreach and Participation and avoidance of disproportionate effects to special populations.
1.2 What displacements of population, if any, would be expected as a result of the project?	▪ Aerial Maps ▪ Parcel Data (if available) ▪ Demographic Analysis Results from 1.1	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit ▪ Proposed Project Typical Section (if available)	▪ If sufficient project information is available, compare extent of existing right-of-way with that proposed to determine the number of residences in the project path. ▪ Use census data to estimate the number and demographic character of the population currently residing in the project path.
1.3 Would any increases or decreases in population be expected as a result of the project?	▪ Census Block Data ▪ Aerial Maps	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit ▪ Proposed Project Typical Section (if available) ▪ Trend Data	▪ Consider whether the project would decrease commute times to employment centers, making land outside the urban area more desirable for residential use. ▪ Consider whether the project will cause significant physical changes that would influence people's decision to relocate from or to the study area.
1.4 Would any displacement of minority populations be expected as a result of the project?[1]	▪ Demographic Analysis Results from 1.1 for: - Minority Populations - Low Income Population	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit ▪ Proposed Project Typical Section (if available)	▪ If sufficient project information is available, compare extent of existing right-of-way with that proposed to determine the number of residences in the project path. ▪ Use census data to estimate the number and demographic character of the population currently residing in the project path.

Table A Continued: Community Effects Considerations

1.5 Are there any disproportionate effects on special populations?[1]	▪ Aerial Maps ▪ Demographic Analysis Results from 1.1 for: - Minority Populations - Low Income Population	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit	▪ Consider potential project effects on aspects of community life as they relate to special populations in the study area: - Vehicular and non-vehicular accessibility within and outside the community - Community aesthetics (visual, noise) - Valued community focal points
1.6 Have minority populations previously been affected by other public projects in the area?	▪ Aerial Maps ▪ Demographic Analysis Results from 1.1 for Minority Populations ▪ Brownfields	▪ Community Contacts ▪ Local Government ▪ Community Outreach and Participation ▪ Site Visit - Impediments to walkability - Vacated Dwellings / Parcels - Blighted Conditions ▪ Special Studies/Plans ▪ Historic Aerial Maps ▪ Population Trends ▪ Previous Public Improvement Projects	▪ Identify prior project effects on a community by investigating: - Changes in historic development patterns - Changes in neighborhood boundaries - Population increases or decreases - Property value increases or decreases
Community Cohesion			
1.7 Would the project result in any barriers dividing an established neighborhood(s) or would it increase neighborhood interaction?	▪ Demographic Data ▪ Aerial Maps ▪ Existing Land Use ▪ Community Focal Points[2] ▪ Existing Road Network ▪ Physical Impediments - Water Bodies - Brownfields ▪ Trails ▪ Transit Routes[3]	▪ Sidewalk Inventory ▪ Worn path/trails inventory ▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit	▪ Examine conditions before and after the project to identify potential for barriers to be created or eliminated. Barriers affecting accessibility or interaction in the community may consist of: - Vertical impediments (e.g., walls, vertical medians, limited access roads) - Distance between places (e.g., wide roads, business relocations) - Traffic volume - Lack of sidewalks / crosswalks
1.8 What changes, if any, in traffic patterns through an established neighborhood(s) would be expected as a result of the project?	▪ Same as for 1.7	▪ Sidewalk Inventory ▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit - Traffic Patterns - Foot Paths ▪ Relevant Traffic Studies	▪ Examine conditions before and after the project to identify potential for changes in traffic patterns: Consider: - Nonvehicular traffic - Transit routing - Accessibility to major roads - Accessibility to businesses - Connectivity to local road network - Parallel facilities

Table A Continued: Community Effects Considerations

1.9 Would any changes to social relationships and patterns be expected as a result of the project?	▪ Same as for 1.7	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit	▪ Examine conditions before and after the project to identify potential for changes to the ways or places people engage in the community.
1.10 Would the project result in any loss, reduction or enhancement of connectivity to a community or neighborhood activity center(s)?	▪ Same as for 1.7	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit - Sidewalks - Crosswalks - Land Uses ▪ Sidewalk Inventory	▪ Assess continued or enhanced connectivity and accessibility between neighborhoods and between neighborhoods and neighborhood activity centers / community focal points.
1.11 Would the project affect community cohesion? *Community cohesion* - the degree of social networking in a community, including the degree to which residents cooperate and interact.	▪ Demographic Data ▪ Community Focal Points[2] ▪ Existing Land Use ▪ Trails	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit - Community Aesthetic - Walkability - Interaction Among Places ▪ Sidewalk Inventory	▪ Assess the continued quantity and quality of interaction between people in a community. ▪ Consider that an attractive public realm encourages interaction, as does walkability which brings people outside where they can interact. ▪ Consider accessibility and proximity to goods and services to promote interactivity.
1.12 Does the project affect safe access to community facilities?	▪ Existing Land Use ▪ Community Focal Points [2] ▪ Transit Routes[3]	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit ▪ Sidewalk Inventory	▪ Assess continued ability to safely access community facilities by considering: - Presence of sidewalks, crosswalks, and bus shelters in appropriate locations. - Infrastructure and natural features that would impede movement to and from facilities.
Compatibility with Community Goals and Issues			
1.13 Would any changes in social value be expected as a result of the project?	▪ Demographic Data ▪ Census Data - Race - Ethnicity - Language - Age - Income - Auto Ownership ▪ Existing Land Use ▪ Future Land Use	▪ Community Contacts ▪ Community Outreach and Participation ▪ Plans - Comprehensive - Community - Special Area ▪ Special Designations ▪ Business Districts	▪ Use data to assess potential project affects on community social values including: - Perception of public safety - Community aesthetic - Community character or unique identity that makes a place special and instills a sense of community pride. - Community cohesion (i.e., the degree of social interaction).
1.14 Would the project be perceived as having a positive or negative effect on quality of life?		▪ Community Contacts ▪ Community Outreach and Participation	▪ Use appropriate Community Outreach and Participation techniques to solicit feedback from the community on how the project would affect quality of life.

Table A Continued: Community Effects Considerations

1.15 Have community leaders/residents had opportunities to provide input to the project decision-making process in the present or past?		▪ Community Contacts ▪ Community Outreach and Participation	▪ Consider prior public comment to determine the magnitude of an issue or controversy and the level of specificity for SCE/E.
1.16 Have previous projects in this area been compatible with or conflicted with the plans, goals and objectives of the community?	▪ Aerial Maps	▪ Community Contacts ▪ Community Outreach and Participation ▪ Plans - Comprehensive - Community - Special Area / Topic ▪ Special Designations - Enterprise Zone - Urban Infill/ Redevelopment Area - Community Redevelopment Area - Other	▪ Investigate previous projects in proximity to the project and relevant public comment to assess effect on the community vision.
1.17 Is the proposed project consistent with the community vision		▪ Community Contacts ▪ Community Outreach and Participation ▪ Plans - Comprehensive - Community - Special Area / Topic ▪ Special Designations - Enterprise Zone - Urban Infill/ Redevelopment Area ▪ Community Redevelopment Area ▪ Other	▪ Interview key community contacts and review relevant plans to understand the community's vision. Assess the degree to which the project is consistent / inconsistent with the vision.
1.18 Are transportation investments equitably serving all populations?	▪ Demographic Data ▪ Trails ▪ Transit Routes[3] ▪ Aerial Maps	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit ▪ Sidewalk Inventory ▪ Historic Transportation Investments - Roads - Transit - Sidewalks - Trails ▪ Other	▪ Identify special population groups in the study area and assess the accessibility by these groups to past and present transportation improvements.

Table A Continued: Community Effects Considerations

Cultural/Historic Resources			
1.19 Are there any designated (Federal, State, Local, Tribal) cultural or historical features/districts that will be affected by the transportation action?		▪ Community Contacts ▪ Community Outreach and Participation ▪ Plans - Comprehensive - Community ▪ Special Designations	▪ Identify designated features, community focal points and districts.
1.20 Are there any notable people, places or events which have cultural or historic value to the community?	▪	-	▪
Spiritual/Religious Practices			
1.21 Are there any spiritual or religious practices that will be affected by the project?		-	▪

Table A Continued: Community Effects Considerations

2. Economic Considerations	Data Sources		Key Analyses
Effect on Business			
2.1 Would the loss of any businesses be expected as a result of the project?	▪ Aerial Maps ▪ Parcel Data	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit	▪ Assess the potential for the project to increase or decrease business visibility and accessibility
Traffic Levels			
2.2 Would any increases or decreases in traffic through traffic-based business areas be expected?	▪ Existing Land Use ▪ Aerial Maps - Median Openings - Driveways ▪ Transit Routes[3] ▪ Trails	▪ Business Community ▪ Site Visit ▪ Travel Demand Model ▪ Past Traffic Studies	▪ Assess the potential for the project to: - Decrease traffic on roads serving business centers or corridors. - Increase traffic on roads serving business centers or corridors.
Traffic Patterns			
2.3 Would any changes in travel patterns be expected that would result in a business/district being bypassed?	▪ Same as for 2.2	▪ Same as for 2.2	▪ Considering community development priorities, assess the potential for the project to: - Decrease traffic on roads serving business centers or corridors. - Increase traffic on roads serving business centers or corridors.
Special Needs Patrons			
2.4 Would access for special needs patrons increase or decrease as a result of the project?	▪ Census Data - Income - Disability - Age (Elderly) ▪ Transit Routes3 ▪ Station Amenities3	▪ Community Contacts ▪ Community Outreach and Participation ▪ Social Services Agency ▪ Transportation Disadvantaged Service Plan ▪ Sidewalk Inventory	▪ Assess data to identify: - Geographic distribution of special needs populations. - Transportation modes serving these populations. - Project Effects on the continued mobility of these populations.
Business Visibility			
2.5 Would any increase or decrease in business visibility for traffic-based businesses be expected as a result of the project?	▪ Existing Land Use ▪ Aerial Maps	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit	▪ Assess the potential for the project to increase or decrease business visibility (e.g., elevated roadway sections, alternative corridors, or roadway realignment)

Table A Continued: Community Effects Considerations

Regional Employment			
2.6 Would any increases or reductions in employment opportunities in the local economy be expected as a result of the project?	▪ Existing Land Use ▪ Employment Centers	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit ▪ Employment Data	▪ Considering community development priorities, assess the potential for the project to increase or decrease: - Employment center accessibility. - Traffic on roads serving employment centers. - Parking in employment centers. - Opportunities for business expansion.
2.7 Would regional employment opportunities be enhanced or diminished as a result of the project?	▪ Existing Land Use ▪ Aerial Maps	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit ▪ Employment Data	▪ Review data and interview key people to identify Effects on regional employment.
2.8 What is the effect of the project on military installations?	▪ Existing Land Use ▪ Aerial Maps	▪ Community Contacts - Federal Government - Local Government ▪ Site Visit ▪ Base Relocation / Redevelopment Plans	▪ Consider military installment plans, interview key government staff, and assess the project's consistency with existing and planned operations.
Tax Base/Property Values			
2.9 Would any real property be removed from the tax roles as a result of the project?	▪ Parcel Data - Existing Right-of-Way - Parcels ▪ Aerial Maps	▪ Project Typical Section ▪ Right-of-Way Needs	▪ Compare right-of-way needs to existing right-of-way and estimate the additional acreage that will need to be acquired for the project.
2.10 Is it likely that taxable property values would increase or decline as a result of the project?	▪ Existing Land Use ▪ Aerial Maps ▪ Future Land Use ▪ Parcel Data	▪ Community Contacts ▪ Community Outreach and Participation ▪ Property Values ▪ Site Visit ▪ Community Character	▪ Identify the land use character of the area and assess the project's compatibility with the viability of existing or future land uses. ▪ Consider continued site accessibility, preservation of community character, and desirability of land use changes (e.g., residential to office or commercial)
2.11 Would changes in business activities increase or decrease the tax base?	▪ Existing Land Use ▪ Aerial Maps ▪ Future Land Use	▪ Community Contacts ▪ Community Outreach and Participation ▪ Property Values ▪ Site Visit ▪ Existing Land Use	▪ Assess existing business conditions in the study area and potential project Impacts on business activity and, ultimately, the tax base.

Table A Continued: Community Effects Considerations

3. Land Use Considerations	Data Sources		Key Analyses
Land Use Patterns/Urban Form			
3.1 Would the project result in a change in the character or aesthetics of the existing landscape?	▪ Existing Land Use ▪ Land Use/Land Cover ▪ Aerial Maps ▪ Future Land Use	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit	▪ Assess potential for project to transform the aesthetic character of the study area.
3.2 Would the amount of recreation/open space be expected to increase or decrease as a result of the project?	▪ Existing Land Use ▪ Parks Data ▪ Aerial Maps ▪ Future Land Use	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit	▪ Assess potential for changes in recreation/open space acreage in conjunction with the project (e.g., decrease in recreation/open space acreage due to need for additional right-of-way or increase in recreation/open space acreage as a result of project mitigation areas or post-acquisition remnant parcels).
Compatible with Local Land Use Plans			
3.3 Is the project compatible with local growth management/development policies?	▪ Future Land Use	▪ Comprehensive Plans - Goals - Objectives - Policies - Future Conditions Map Series	▪ Assess project attributes to determine compatibility with adopted growth management plans.
3.4 Is the project compatible with adopted transportation, land use and area plans?	▪	▪	▪
Indirect and Cumulative Effects			
3.5 Will the project likely influence growth and future land use patterns?	▪ Existing Land Use ▪ Land Use/Land Cover ▪ Aerial Maps ▪ Future Land Use ▪ Water/Sewer Availability ▪ Soils		▪ Assess the potential for future development or decline. Identify effects that are an indirect or cumulative result of the project.

Table A Continued: Community Effects Considerations

4. Mobility/Access Considerations	Data Sources		Key Analyses
▪ **Bike/Pedestrian** ▪ **Transit** ▪ **Transportation- Disadvantaged Populations** ▪ **Parks** ▪ **Public Services**			
4.1 Would access to public transportation facilities be increased or reduced as a result of the project?	▪ Existing Land Use ▪ Transit Routes 3 ▪ Station Amenities 3	▪ Community Contacts ▪ Community Outreach and Participation ▪ Transit Disadvantaged Service Plan ▪ Site Visit ▪ Sidewalk Inventory	▪ Review transit data, interview community contacts and assess the effect of the project on public transportation facilities, transit connections, proximity to where people live and work.
4.2 Would pedestrian mobility be increased or decreased as a result of the project?	▪ Aerial Maps ▪ Existing Land Use ▪ Community Focal Points2 ▪ Physical Impediments - Water Bodies - Brownfields ▪ Trails	▪ Community Contacts ▪ Community Outreach and Participation ▪ Sidewalk Inventory ▪ Community Outreach and Participation ▪ Site Visit	▪ Examine conditions before and after the project to identify potential for enhanced or diminished pedestrian mobility. Conditions affecting pedestrian movement may include: - Vertical impediments (e.g., walls, vertical medians, limited access roads) - Distance between places (e.g., wide roads, business relocations) - Traffic volume - Lack of sidewalks / crosswalks - Psychological barriers (e.g., degree of natural surveillance)
Connectivity ▪ **Intermodal** ▪ **Land Uses**			
4.3 Would non-motorist access to business and service facilities be increased or reduced as a result of the project?	▪ Aerial Maps ▪ Existing Land Use ▪ Trails	▪ Sidewalk Inventory ▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit	▪ Evaluate existing connectivity, and then consider whether the project would create impediments or enhancements to connectivity in the community. ▪ Consider, before and after the project, the presence or absence of sidewalks, crosswalks, pedestrian safe havens, etc.

Table A Continued: Community Effects Considerations

4.4 How does the project affect intermodal connectivity?	▪ Community Focal Points2 ▪ Intermodal Facilities ▪ Transit Routes3 ▪ Trails	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit ▪ Sidewalk Inventory	▪ Assess potential project effect on the community's connectivity with intermodal facilities including those serving transit, pedestrian, bicycle, automobile, aircraft, watercraft, and spacecraft modes and major parking facilities.
4.5 Would any change in connectivity between residential and non-residential areas be expected as a result of the project?	▪ Aerial Maps ▪ Existing Land Use ▪ Population Density Trails	▪ Sidewalk Inventory ▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit ▪ Project Typical Section (if available)	▪ Evaluate existing connectivity, and then consider whether the project would create impediments or enhancements to connectivity in the community. ▪ Consider the presence or absence of sidewalks, crosswalks, pedestrian safe havens, commercial driveways, median openings, etc.
4.6 What are the expected changes to existing traffic patterns as a result of the project?	▪ Aerial Maps ▪ Existing Land Use ▪ Community Focal Points2 ▪ Trails	▪ Sidewalk Inventory ▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit - Traffic Patterns - Foot Paths ▪ Relevant Traffic Studies ▪ Roadway Level of Service Data	▪ Examine conditions before and after the project to identify potential for changes in traffic patterns: Consider: - Nonvehicular traffic - Transit routing - Accessibility to major roads - Accessibility to businesses - Connectivity of local road network
4.7 Would a change in any public parking areas be expected as a result of the project?	▪ Intermodal Facilities ▪ Existing Land Use ▪ Aerial Map	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit ▪ Comprehensive Plan ▪ Long Range Transportation Plan	▪ Assess potential Impacts to public parking areas as a result of the project. Consider the extent to which accessibility from the roadway network or other travel modes is enhanced or diminished.

Table A Continued: Community Effects Considerations

4.8 Would access for transportation disadvantaged populations be affected?	▪ Census Data - Disabled - Aged (Elderly) - Low Income	▪ Transportation Disadvantaged Service Plan ▪ Social Services Agency ▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit	▪ Review relevant data and plans to identify: - Concentrations of transportation disadvantaged populations - Special needs transportation services and service areas. ▪ Consider the project's potential to affect access to these services.
Vehicular Mobility			
4.9 Would vehicular mobility increase or decrease as a result of the project?	▪ Travel Demand Model Results/Travel Times	▪ Traffic Counts ▪ Community Outreach and Participation	▪ Examine conditions before and after the project to identify potential for enhanced or diminished vehicular mobility. Conditions affecting pedestrian movement may include: - Traffic volume/Level of Service - Lack of sidewalks / crosswalks - Horizontal/Vertical Alignment - Multiple Access points-Driveways ▪ Psychological barriers (e.g., degree of natural surveillance)
5. Sensory/Aesthetic Considerations	**Data Sources**		**Key Analyses**
Noise/Vibration			
5.1 Are there noise or vibration sensitive sites near the project?	▪ Existing Land Use ▪ Parcel Data ▪ Community Focal Points [2]	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit	▪ Identify noise and vibration sensitive sites proximate to the project.[4]
Physical Intrusions			
5.2 Will dust or odor increase as a result of the project?	▪		▪
Viewshed			
5.3 Is the project likely to affect a vista or viewshed?	▪ Land Use / Land Cover ▪ Water Bodies ▪ Public Land ▪ Conservation & Recreational Lands ▪ Recreational Points of Interest ▪ Landmarks	▪ Community Plans ▪ Community Contacts ▪ Community Outreach and Participation	▪ Consider project affects on valued viewsheds (e.g., water bodies, forests, agricultural lands, historic landmarks, etc.)
5.4 Does the project blend visually with the area?	▪ Existing Land Use ▪ Future Land Use	▪ Community Plans ▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit - Aesthetic Features	▪ Assess data relative to project characteristics, existing community character/aesthetic, development pattern, and any future plans for achieving the community's aesthetic vision.

Table A Continued: Community Effects Considerations

		- Development Pattern (Urban Form)	
Compatible with Aesthetics/Community Focal Points			
5.5 Is the project adjacent to any community focal point?	▪ Community Focal Points	▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit ▪ Community Plans	▪ Consider project's proximity to and potential direct and indirect affects on community focal points.
5.6 Is the project likely to be perceived as being compatible and in character with the community's aesthetic values?		▪ Community Plans ▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit ▪ Aesthetic Features	▪ Assess data relative to project characteristics, existing community character/aesthetic, and any future plans for achieving the community's aesthetic vision.
5.7 What feature(s), if any, of the project might be perceived by the community as inconsistent with the character of that community?		▪ Community Plans ▪ Community Contacts ▪ Community Outreach and Participation ▪ Site Visit ▪ Aesthetic Features	▪ Review relevant plans and interview key people to understand community values as they relate to community character.

Table A Continued: Community Effects Considerations

6. Safety Considerations	Data Sources		Key Analyses
Vehicular Safety			
6.1 Will vehicular traffic increase as a result of the project?	▪	▪	
Bike/Pedestrian Safety			
6.2 If vehicular traffic increases, will this create unsafe conditions for non-motorized transportation within the neighborhood?	▪	▪	▪
Emergency Response			
6.3 Would any increase or decrease in emergency services response time (fire, police and EMS) be expected as a result of the project?	▪ Law Enforcement Agencies ▪ Fire Departments ▪ Medical / Health Facilities ▪ Physical Features - Water Bodies - Road Network	▪ Community Contacts ▪ Community Outreach and Participation	▪ In assessing changes to emergency services response times as a result of the project, consider: - Presence of infrastructure and natural features that would impede movement to and from the area. - Project-related relocation of emergency service facility.
Crime			
6.4 Would "blind or isolated" areas be created that are difficult to monitor for criminal activity as a result of the project?	▪ Aerial Maps ▪ Existing Land Use ▪ Law Enforcement Agencies ▪ Fire Departments	▪ Community Contacts ▪ Law Enforcement ▪ Community Outreach and Participation ▪ Site Visit	▪ In assessing whether an area would become isolated as a result of the project, consider: - Presence of infrastructure and natural features that would impede movement to and from the area. - Changes in connectivity between neighborhoods, between neighborhoods and business areas.
6.5 Would the project result in an increase in unintended non-vehicular or vehicular access to residential or non-residential properties?	▪	▪	▪
Health			
6.6 Does the community anticipate negative health effects with the project? Or does the community have known epidemiologic or sensitive populations?	▪	▪	-

Table A Continued: Community Effects Considerations

7. Displacement Considerations	Data Sources		Key Analyses
Residential/Non-Residential			
7.1 Would any displacement of residences/dwellings be expected as a result of the project?	▪ Aerial Maps ▪ Parcel Data	▪ Site Visit ▪ Proposed Project Typical Section (if available)	▪ If sufficient project information is available, compare extent of existing right-of-way with that proposed to determine the number of dwellings in the project path. ▪ Quantify the estimated number of dwelling units that will be taken through eminent domain action for right-of-way acquisition.
7.2 Would any displacement of non-residential land uses be expected as a result of the project	▪ Aerial Maps ▪ Parcel Data	▪ Site Visit ▪ Proposed Project Typical Section (if available)	▪ If sufficient project information is available, compare extent of existing right-of-way with that proposed to determine the number of nonresidential structures in the project path. ▪ Quantify the estimated number of nonresidential structures that will be taken through right-of-way acquisition.
Business and Farms			
7.3 Are there existing businesses or farms that will displaced as a result of the project?	▪	▪	▪
Relocation Sites			
7.4 Are there available sites to accommodate those who will be displaced as a result of the project?	-	▪	-
Community Focal Points			
7.5 Do any potentially displaced non-residential uses have any unique or special characteristics that are not likely to be reestablished in the community?	▪ Community Focal Points[2]	▪ Community Contacts ▪ Site Visit ▪ Public Input ▪ Business Listings (Commercially Available Market Data)	▪ Interview key people and review business listings to determine which nonresidential uses are not replicated elsewhere in the community and are not likely to be reestablished.

Table B: City Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography (Tract.Block Group)	Total population: Total	Total population: Population of one race: White alone	Total population: Population of one race: Black or African American alone	Total population: Population of one race: American Indian and Alaska Native alone	Total population: Population of one race: Asian alone	Total population: Population of one race: Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race: Some other race	Total population: Population of two or more races: Population of two races	Total population: Population of two or more races: Population of two races: White; Black or African American
805.02	1654	1585	11	1	36	1	3	17	2
809.07	923	813	64	1	11	1	19	14	3
809.08	1023	927	53	5	12	0	6	19	4
810.04	982	885	59	2	18	1	9	8	1
811.01	1518	1428	30	3	15	0	13	29	1
811.02	1209	1168	14	7	7	2	1	10	3
811.03	1485	1426	6	9	23	0	3	18	3
811.04	707	675	3	1	20	0	2	6	2
812.01	1586	1484	41	7	21	1	13	18	2
812.02	1427	1295	66	11	13	0	15	23	4
812.03	584	540	11	4	12	0	2	15	3
812.04	992	888	32	11	18	6	19	18	6
813.02	1718	1568	67	4	39	0	5	33	5
813.03	855	818	5	0	22	0	6	4	1
815.02	598	477	83	8	7	0	1	22	2
815.03	438	351	65	1	7	0	3	11	3
815.04	465	366	77	2	7	0	9	4	0
815.05	490	391	77	3	10	0	0	9	0
816.01	1224	404	748	2	19	1	23	27	9
816.02	1104	448	611	4	2	0	21	15	7
817.01	1425	1042	334	2	11	1	10	24	8
817.02	1186	480	668	0	6	2	14	16	4
817.03	1304	241	1038	2	3	0	9	11	0
817.04	1678	968	624	2	40	4	12	27	10
817.05	1337	244	1052	4	4	0	16	14	5
818.01	875	318	531	2	4	2	12	6	0
818.02	1905	606	1226	7	8	0	20	37	26
818.03	814	198	586	2	2	2	10	12	1
819.01	1255	32	1212	6	0	0	2	2	1
819.02	1154	14	1125	1	4	0	2	8	1
820.01	1038	49	956	0	4	0	10	19	10
820.02	1752	301	1393	8	8	1	8	32	11
820.03	674	596	57	1	2	0	4	13	3
821.01	937	49	870	2	3	0	6	5	3
821.02	1362	26	1312	4	0	0	8	12	0
821.03	839	14	814	1	0	0	5	5	0
821.04	863	75	769	1	2	0	1	15	5
821.05	913	80	822	1	0	0	5	2	2
82201.01	1142	900	196	2	13	0	16	12	5

Table B: City Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography (Tract.Block Group)	Total population: Total	Total population: Population of one race: White alone	Total population: Population of one race: Black or African American alone	Total population: Population of one race: American Indian and Alaska Native alone	Total population: Population of one race: Asian alone	Total population: Population of one race: Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race: Some other race	Total population: Population of two or more races: Population of two races	Total population: Population of two or more races: Population of two races: White; Black or African American
82201.02	784	552	199	8	2	0	11	12	0
82201.03	2745	1918	619	16	54	3	45	82	14
82202.01	1735	1373	281	2	30	0	24	18	5
82301.01	2392	1954	320	3	68	1	15	31	3
82301.02	3226	1856	1035	4	113	1	107	106	12
82302.01	2186	1765	179	12	102	6	54	63	3
82303.01	1531	1363	59	7	56	2	22	21	6
82303.02	2240	1384	644	8	95	1	33	69	16
82404.02	1512	1412	42	1	22	0	9	22	7
82405.03	1315	1258	19	0	23	0	2	13	1
82408.01	2392	2168	161	7	12	0	20	23	1
82408.02	3079	2985	34	11	17	1	9	22	0
82409.01	4375	3719	310	13	175	6	53	94	15
82409.02	3782	3527	81	2	101	2	24	41	0
82410.01	3595	3426	66	8	31	0	32	31	3
82601.01	657	623	5	3	15	0	4	7	0
82601.02	811	760	2	3	21	0	1	24	0
82601.03	1030	975	5	5	31	5	1	8	0
82601.04	2709	2640	13	1	24	0	3	28	1
83204.01	5020	3543	1257	47	12	1	46	109	7
83204.03	7976	7624	103	16	126	6	35	65	5
Totals	**98527**	**70995**	**23142**	**311**	**1563**	**60**	**893**	**1481**	**255**
Std Dev									
Averages									

Table B: City Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002			
Geography (Tract.Block Group)	Total population: Population of two or more races: Population of two races: White; American Indian and Alaska Native	Total population: Population of two or more races: Population of two races: White; Asian	Total population: Population of two or more races: Population of two races: White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races: Population of two races: Black or African camerican; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN	Asian
805.02	5	5	0	0	50	1615	178	13	6	41
809.07	10	0	0	0	44	799	115	67	11	11
809.08	12	0	0	1	32	1015	184	58	18	12
810.04	5	1	0	1	30	1008	245	61	8	19
811.01	7	7	0	0	79	1464	281	31	10	22
811.02	2	0	0	0	33	1204	106	17	9	7
811.03	0	2	1	0	56	1449	89	9	9	25
811.04	0	0	1	0	24	802	62	5	1	20
812.01	14	0	0	0	38	1543	334	43	21	21
812.02	7	1	0	0	56	1432	349	70	18	14
812.03	2	0	0	0	6	552	158	14	6	12
812.04	7	0	0	0	67	907	276	38	18	18
813.02	15	2	1	2	42	1739	375	74	21	41
813.03	2	0	0	0	21	888	93	6	2	22
815.02	11	3	0	0	6	581	175	85	19	10
815.03	6	1	0	0	14	430	179	68	7	8
815.04	3	0	0	0	22	491	196	77	5	7
815.05	7	2	0	0	17	448	202	77	10	12
816.01	5	4	0	1	51	1125	300	758	8	23
816.02	2	1	0	3	43	1018	198	621	9	3
817.01	6	0	0	3	50	1415	338	345	11	11
817.02	0	0	0	1	40	1222	202	673	1	6
817.03	5	0	0	0	29	1177	280	1038	7	3
817.04	5	4	0	2	56	1441	398	636	9	44
817.05	4	0	0	1	29	1539	561	1058	9	4
818.01	0	0	0	3	21	802	215	534	5	4
818.02	5	0	0	1	53	1919	449	1253	13	8
818.03	1	0	0	3	25	595	98	590	6	2
819.01	0	0	0	0	10	1217	433	1213	6	0
819.02	0	0	0	4	16	1144	679	1130	5	4
820.01	1	0	0	3	17	906	454	969	4	4
820.02	2	1	0	6	37	591	351	1410	16	9
820.03	1	0	0	0	25	566	107	60	2	2
821.01	0	0	0	1	22	989	409	874	3	3
821.02	4	0	0	6	16	1377	652	1318	14	0
821.03	0	1	0	3	13	727	330	817	4	1
821.04	1	0	0	5	12	905	164	779	7	2
821.05	0	0	0	0	6	839	274	824	1	0
82201.01	1	2	0	2	43	1089	365	203	5	15

Table B: City Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002			
Geography (Tract.Block Group)	Total population: Population of two or more races: Population of two races: White; American Indian and Alaska Native	Total population: Population of two or more races: Population of two races: White; Asian	Total population: Population of two or more races: Population of two races: White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races: Population of two races: Black or African camerican; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN	Asian
82201.02	6	0	0	2	37	616	140	201	16	2
82201.03	13	9	0	9	135	2588	562	642	38	63
82202.01	2	1	0	0	67	1674	139	286	4	31
82301.01	2	5	0	0	87	2037	250	323	5	73
82301.02	3	13	0	10	213	3117	997	1057	17	126
82302.01	4	12	4	3	132	639	236	185	19	114
82303.01	2	2	1	0	81	1342	232	65	9	58
82303.02	7	7	1	2	104	2298	637	662	17	102
82404.02	6	6	0	1	30	1442	121	50	8	28
82405.03	0	3	0	1	18	1302	52	21	1	26
82408.01	6	1	4	1	83	2315	321	163	14	13
82408.02	8	6	0	0	48	3124	250	34	19	23
82409.01	3	19	5	1	190	4231	656	326	17	194
82409.02	8	10	3	3	132	3782	270	84	13	111
82410.01	8	8	1	0	118	3492	329	69	16	39
82601.01	0	2	0	0	18	686	58	5	3	17
82601.02	10	5	0	0	21	752	104	2	13	26
82601.03	3	0	0	0	14	1023	63	5	8	31
82601.04	11	5	1	0	38	2695	142	14	12	29
83204.01	25	11	2	3	251	2001	163	1267	75	23
83204.03	20	17	0	0	170	8030	298	108	36	143
Totals	**305**	**179**	**25**	**88**	**3238**	**90156**	**16874**	**23485**	**704**	**1742**
Std Dev										
Averages							**0.18716447**	**0.238361**	**0.007145**	**0.01768**

Table B: City Population Figures and Calculations

Census Column Code										
Geography (Tract.Block Group)	NHOPI	Hisp	Percent Block Group Inside City Boundary	Weighted total population for whom poverty status is determined (P*W)	Weighted population: Income in 1999 below poverty level (Q*W)	Percent Poverty: whole Block Group	X - X-bar (Z-0.2361)	Squared difference (AA*AA)	Weighted total population (B*W)	Weighted Black population (R*W)
805.02	1	50	0.04452799754	71.91271602710	7.92598356212	0.11	-0.13	0.02	73.65	0.58
809.07	1	44	0.06193001966	49.48208570834	7.12195226090	0.14	-0.09	0.01	57.16	4.15
809.08	0	32	0.00383778925	3.89535608875	0.70615322200	0.18	-0.05	0.00	3.93	0.22
810.04	1	30	0.00505149269	5.09190463152	1.23761570905	0.24	0.01	0.00	4.96	0.31
811.01	0	79	0.99918105203	1462.80106017192	280.76987562043	0.19	-0.04	0.00	1516.76	30.97
811.02	2	33	1.00000000077	1204.00000092708	106.00000008162	0.09	-0.15	0.02	1209.00	17.00
811.03	0	56	0.99999998831	1448.99998306119	88.99999895959	0.06	-0.17	0.03	1485.00	9.00
811.04	0	24	0.99831306695	800.64707969390	61.89541015090	0.08	-0.16	0.03	705.81	4.99
812.01	1	38	0.99999991281	1542.99986546583	333.99997087854	0.22	-0.02	0.00	1586.00	43.00
812.02	0	56	1.00000000869	1432.00001244408	349.00000303281	0.24	0.01	0.00	1427.00	70.00
812.03	0	6	0.99999999210	551.99999563920	157.99999875180	0.29	0.05	0.00	584.00	14.00
812.04	6	67	0.99999998756	906.99998871692	275.99999656656	0.30	0.07	0.00	992.00	38.00
813.02	0	42	0.99999987136	1738.99977629504	374.99995176000	0.22	-0.02	0.00	1718.00	74.00
813.03	0	21	0.99999996093	887.99996530584	92.99999636649	0.10	-0.13	0.02	855.00	6.00
815.02	0	6	0.99270318938	576.76055302978	173.72305814150	0.30	0.07	0.00	593.64	84.38
815.03	0	14	1.00000000450	430.00000193500	179.00000080550	0.42	0.18	0.03	438.00	68.00
815.04	0	22	0.99999998863	490.99999441733	195.99999777148	0.40	0.16	0.03	465.00	77.00
815.05	0	17	1.00000000270	448.00000120960	202.00000054540	0.45	0.21	0.05	490.00	77.00
816.01	1	51	0.98894750572	1112.56594393500	296.68425171600	0.27	0.03	0.00	1210.47	749.62
816.02	0	43	0.99997988562	1017.97952356116	197.99601735276	0.19	-0.04	0.00	1103.98	620.99
817.01	1	50	0.21986599163	311.11037815645	74.31470517094	0.24	0.00	0.00	313.31	75.85
817.02	2	40	0.57309316329	700.31984554038	115.76481898458	0.17	-0.07	0.01	679.69	385.69
817.03	0	29	0.99999999274	1176.99999145498	279.99999796720	0.24	0.00	0.00	1304.00	1038.00
817.04	4	56	0.99720253896	1436.96885864136	396.88661050608	0.28	0.04	0.00	1673.31	634.22
817.05	0	29	1.00000000232	1539.00000357048	561.00000130152	0.36	0.13	0.02	1337.00	1058.00
818.01	2	21	1.00000000179	802.00000143558	215.00000038485	0.27	0.03	0.00	875.00	534.00
818.02	0	53	1.00000000394	1919.00000756086	449.00000176906	0.23	0.00	0.00	1905.00	1253.00
818.03	2	25	0.99999998922	594.99999358590	97.99999894356	0.16	-0.07	0.01	814.00	590.00
819.01	0	10	0.99999999893	1216.99999869781	432.99999953669	0.36	0.12	0.01	1255.00	1213.00
819.02	0	16	1.00000000854	1144.00000976976	679.00000579866	0.59	0.36	0.13	1154.00	1130.00
820.01	0	17	1.00000000452	906.00000409512	454.00000205208	0.50	0.27	0.07	1038.00	969.00
820.02	1	37	0.99999999571	590.99999746461	350.99999849421	0.59	0.36	0.13	1752.00	1410.00
820.03	0	25	1.00000000558	566.00000315828	107.00000059706	0.19	-0.05	0.00	674.00	60.00
821.01	0	22	0.99999998974	988.99998985286	408.99999580366	0.41	0.18	0.03	937.00	874.00
821.02	0	16	0.99999998926	1376.99998521102	651.99999299752	0.47	0.24	0.06	1362.00	1318.00
821.03	0	13	0.99999998518	726.99998922586	329.99999510940	0.45	0.22	0.05	839.00	817.00
821.04	0	12	1.00000000619	905.00000560195	164.00000101516	0.18	-0.05	0.00	863.00	779.00
821.05	0	6	1.00000001348	839.00001130972	274.00000369352	0.33	0.09	0.01	913.00	824.00
82201.01	0	43	1.00000000729	1089.00000793881	365.00000266085	0.34	0.10	0.01	1142.00	203.00

Table B: City Population Figures and Calculations

Census Column Code										
Geography (Tract.Block Group)	NHOPI	Hisp	Percent Block Group Inside City Boundary	Weighted total population for whom poverty status is determined (P*W)	Weighted population: Income in 1999 below poverty level (Q*W)	Percent Poverty: whole Block Group	X - X-bar (Z-0.2361)	Squared difference (AA*AA)	Weighted total population (B*W)	Weighted Black population (R*W)
82201.02	0	37	0.99662391704	613.92033289664	139.52734838560	0.23	-0.01	0.00	781.35	200.32
82201.03	3	135	0.99858006594	2584.32521065272	561.20199705828	0.22	-0.02	0.00	2741.10	641.09
82202.01	0	67	0.99680924227	1668.65867155998	138.55648467553	0.08	-0.15	0.02	1729.46	285.09
82301.01	1	87	0.99975668436	2036.50436604132	249.93917109000	0.12	-0.11	0.01	2391.42	322.92
82301.02	1	213	0.99999999695	3116.99999049315	996.99999695915	0.32	0.08	0.01	3226.00	1057.00
82302.01	6	132	0.96353909404	615.70148109156	227.39522619344	0.37	0.13	0.02	2106.30	178.25
82303.01	2	81	1.00000000391	1342.00000524722	232.00000090712	0.17	-0.06	0.00	1531.00	65.00
82303.02	1	104	0.99999999948	2297.99999880504	636.99999966876	0.28	0.04	0.00	2240.00	662.00
82404.02	0	30	0.00202590147	2.92134991974	0.24513407787	0.08	-0.15	0.02	3.06	0.10
82405.03	0	18	0.00455034426	5.92454822652	0.23661790152	0.04	-0.20	0.04	5.98	0.10
82408.01	0	83	0.67920716462	1572.36458609530	218.02549984302	0.14	-0.10	0.01	1624.66	110.71
82408.02	1	48	0.07573484065	236.59564219060	18.93371016250	0.08	-0.16	0.02	233.19	2.57
82409.01	6	190	0.50365995813	2130.98528284803	330.40093253328	0.16	-0.08	0.01	2203.51	164.19
82409.02	2	132	0.80607771846	3048.58593121572	217.64098398420	0.07	-0.16	0.03	3048.59	67.71
82410.01	0	118	0.05255642379	183.52703187468	17.29106342691	0.09	-0.14	0.02	188.94	3.63
82601.01	0	18	0.81890887654	561.77148930644	47.49671483932	0.08	-0.15	0.02	538.02	4.09
82601.02	0	21	0.63274996061	475.82797037872	65.80599590344	0.14	-0.10	0.01	513.16	1.27
82601.03	5	14	0.60798266955	621.96627094965	38.30290818165	0.06	-0.17	0.03	626.22	3.04
82601.04	0	38	0.25524232964	687.87807837980	36.24441080888	0.05	-0.18	0.03	691.45	3.57
83204.01	1	251	0.25790330836	516.06452002836	42.03823926268	0.08	-0.15	0.02	1294.67	326.76
83204.03	6	170	0.00026042029	2.09117492870	0.07760524642	0.04	-0.20	0.04	2.08	0.03
Totals	**60**	**3238**		**59337.14882366620**	**14008.38640715160**				**65069.83**	**21254.43**
Std Dev								**0.14**		
Averages	**0.000609**	**0.032864**		**Weighted**	**0.23608121868**				**Weighted**	**0.3266**

Table B: City Population Figures and Calculations

Census Column Code												
Geography (Tract.Block Group)	Percent Black: whole Block Group	X - X-bar (Z-0.3295)	Squared difference (AF*AF)	Weighted AIAN population (S*W)	Percent AIAN: whole Block Group	X - X-bar (Z-0.0095)	Squared difference (AJ*AJ)	Weighted Asian population (T*W)	Percent Asian: whole Block Group	X - X-bar (Z-0.0208)	Squared difference (AN*AN)	Weighted NHOPI population (U*W)
805.02	0.01	-0.32	0.10	0.27	0.00	-0.01	0.00	1.83	0.02	0.00	0.00	0.04
809.07	0.07	-0.26	0.07	0.68	0.01	0.00	0.00	0.68	0.01	-0.01	0.00	0.06
809.08	0.06	-0.27	0.07	0.07	0.02	0.01	0.00	0.05	0.01	-0.01	0.00	0.00
810.04	0.06	-0.27	0.07	0.04	0.01	0.00	0.00	0.10	0.02	0.00	0.00	0.01
811.01	0.02	-0.31	0.10	9.99	0.01	0.00	0.00	21.98	0.01	-0.01	0.00	0.00
811.02	0.01	-0.32	0.10	9.00	0.01	0.00	0.00	7.00	0.01	-0.02	0.00	2.00
811.03	0.01	-0.32	0.10	9.00	0.01	0.00	0.00	25.00	0.02	0.00	0.00	0.00
811.04	0.01	-0.32	0.10	1.00	0.00	-0.01	0.00	19.97	0.03	0.01	0.00	0.00
812.01	0.03	-0.30	0.09	21.00	0.01	0.00	0.00	21.00	0.01	-0.01	0.00	1.00
812.02	0.05	-0.28	0.08	18.00	0.01	0.00	0.00	14.00	0.01	-0.01	0.00	0.00
812.03	0.02	-0.31	0.09	6.00	0.01	0.00	0.00	12.00	0.02	0.00	0.00	0.00
812.04	0.04	-0.29	0.08	18.00	0.02	0.01	0.00	18.00	0.02	0.00	0.00	6.00
813.02	0.04	-0.29	0.08	21.00	0.01	0.00	0.00	41.00	0.02	0.00	0.00	0.00
813.03	0.01	-0.32	0.10	2.00	0.00	-0.01	0.00	22.00	0.03	0.00	0.00	0.00
815.02	0.14	-0.19	0.04	18.86	0.03	0.02	0.00	9.93	0.02	0.00	0.00	0.00
815.03	0.16	-0.17	0.03	7.00	0.02	0.01	0.00	8.00	0.02	0.00	0.00	0.00
815.04	0.17	-0.16	0.03	5.00	0.01	0.00	0.00	7.00	0.02	-0.01	0.00	0.00
815.05	0.16	-0.17	0.03	10.00	0.02	0.01	0.00	12.00	0.02	0.00	0.00	0.00
816.01	0.62	0.29	0.08	7.91	0.01	0.00	0.00	22.75	0.02	0.00	0.00	0.99
816.02	0.56	0.23	0.05	9.00	0.01	0.00	0.00	3.00	0.00	-0.02	0.00	0.00
817.01	0.24	-0.09	0.01	2.42	0.01	0.00	0.00	2.42	0.01	-0.01	0.00	0.22
817.02	0.57	0.24	0.06	0.57	0.00	-0.01	0.00	3.44	0.01	-0.02	0.00	1.15
817.03	0.80	0.47	0.22	7.00	0.01	0.00	0.00	3.00	0.00	-0.02	0.00	0.00
817.04	0.38	0.05	0.00	8.97	0.01	0.00	0.00	43.88	0.03	0.01	0.00	3.99
817.05	0.79	0.46	0.21	9.00	0.01	0.00	0.00	4.00	0.00	-0.02	0.00	0.00
818.01	0.61	0.28	0.08	5.00	0.01	0.00	0.00	4.00	0.00	-0.02	0.00	2.00
818.02	0.66	0.33	0.11	13.00	0.01	0.00	0.00	8.00	0.00	-0.02	0.00	0.00
818.03	0.72	0.40	0.16	6.00	0.01	0.00	0.00	2.00	0.00	-0.02	0.00	2.00
819.01	0.97	0.64	0.41	6.00	0.00	0.00	0.00	0.00	0.00	-0.02	0.00	0.00
819.02	0.98	0.65	0.42	5.00	0.00	-0.01	0.00	4.00	0.00	-0.02	0.00	0.00
820.01	0.93	0.60	0.36	4.00	0.00	-0.01	0.00	4.00	0.00	-0.02	0.00	0.00
820.02	0.80	0.48	0.23	16.00	0.01	0.00	0.00	9.00	0.01	-0.02	0.00	1.00
820.03	0.09	-0.24	0.06	2.00	0.00	-0.01	0.00	2.00	0.00	-0.02	0.00	0.00
821.01	0.93	0.60	0.36	3.00	0.00	-0.01	0.00	3.00	0.00	-0.02	0.00	0.00
821.02	0.97	0.64	0.41	14.00	0.01	0.00	0.00	0.00	0.00	-0.02	0.00	0.00
821.03	0.97	0.64	0.42	4.00	0.00	0.00	0.00	1.00	0.00	-0.02	0.00	0.00
821.04	0.90	0.57	0.33	7.00	0.01	0.00	0.00	2.00	0.00	-0.02	0.00	0.00
821.05	0.90	0.57	0.33	1.00	0.00	-0.01	0.00	0.00	0.00	-0.02	0.00	0.00
82201.01	0.18	-0.15	0.02	5.00	0.00	-0.01	0.00	15.00	0.01	-0.01	0.00	0.00

Table B: City Population Figures and Calculations

Census Column Code												
Geography (Tract.Block Group)	Percent Black: whole Block Group	X - X-bar (Z-0.3295)	Squared difference (AF*AF)	Weighted AIAN population (S*W)	Percent AIAN: whole Block Group	X - X-bar (Z-0.0095)	Squared difference (AJ*AJ)	Weighted Asian population (T*W)	Percent Asian: whole Block Group	X - X-bar (Z-0.0208)	Squared difference (AN*AN)	Weighted NHOPI population (U*W)
82201.02	0.26	-0.07	0.01	15.95	0.02	0.01	0.00	1.99	0.00	-0.02	0.00	0.00
82201.03	0.23	-0.10	0.01	37.95	0.01	0.00	0.00	62.91	0.02	0.00	0.00	3.00
82202.01	0.16	-0.16	0.03	3.99	0.00	-0.01	0.00	30.90	0.02	0.00	0.00	0.00
82301.01	0.14	-0.19	0.04	5.00	0.00	-0.01	0.00	72.98	0.03	0.01	0.00	1.00
82301.02	0.33	0.00	0.00	17.00	0.01	0.00	0.00	126.00	0.04	0.02	0.00	1.00
82302.01	0.08	-0.24	0.06	18.31	0.01	0.00	0.00	109.84	0.05	0.03	0.00	5.78
82303.01	0.04	-0.29	0.08	9.00	0.01	0.00	0.00	58.00	0.04	0.02	0.00	2.00
82303.02	0.30	-0.03	0.00	17.00	0.01	0.00	0.00	102.00	0.05	0.02	0.00	1.00
82404.02	0.03	-0.30	0.09	0.02	0.01	0.00	0.00	0.06	0.02	0.00	0.00	0.00
82405.03	0.02	-0.31	0.10	0.00	0.00	-0.01	0.00	0.12	0.02	0.00	0.00	0.00
82408.01	0.07	-0.26	0.07	9.51	0.01	0.00	0.00	8.83	0.01	-0.02	0.00	0.00
82408.02	0.01	-0.32	0.10	1.44	0.01	0.00	0.00	1.74	0.01	-0.01	0.00	0.08
82409.01	0.07	-0.25	0.07	8.56	0.00	-0.01	0.00	97.71	0.04	0.02	0.00	3.02
82409.02	0.02	-0.31	0.09	10.48	0.00	-0.01	0.00	89.47	0.03	0.01	0.00	1.61
82410.01	0.02	-0.31	0.10	0.84	0.00	-0.01	0.00	2.05	0.01	-0.01	0.00	0.00
82601.01	0.01	-0.32	0.10	2.46	0.00	0.00	0.00	13.92	0.03	0.01	0.00	0.00
82601.02	0.00	-0.33	0.11	8.23	0.02	0.01	0.00	16.45	0.03	0.01	0.00	0.00
82601.03	0.00	-0.32	0.11	4.86	0.01	0.00	0.00	18.85	0.03	0.01	0.00	3.04
82601.04	0.01	-0.32	0.11	3.06	0.00	-0.01	0.00	7.40	0.01	-0.01	0.00	0.00
83204.01	0.25	-0.08	0.01	19.34	0.01	0.01	0.00	5.93	0.00	-0.02	0.00	0.26
83204.03	0.01	-0.32	0.10	0.01	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.00
Totals				**485.78**				**1205.21**				**42.24**
Std Dev			**0.34**				**0.01**				**0.01**	
Averages			**Weighted**	**0.0075**			**Weighted**	**0.0185**			**Weighted**	**0.0006**

Table B: City Population Figures and Calculations

Census Column Code							
Geography (Tract.Block Group)	Percent NHOPI: whole Block Group	X - X-bar (Z-0.0015)	Squared difference (AR*AR)	Weighted Hispanic population (V*W)	Percent Hispanic: whole Block Group	X - X-bar (Z-0.0349)	Squared difference (AV*AV)
805.02	0.00	0.00	0.00	2.23	0.03	0.00	0.00
809.07	0.00	0.00	0.00	2.72	0.05	0.01	0.00
809.08	0.00	0.00	0.00	0.12	0.03	0.00	0.00
810.04	0.00	0.00	0.00	0.15	0.03	0.00	0.00
811.01	0.00	0.00	0.00	78.94	0.05	0.02	0.00
811.02	0.00	0.00	0.00	33.00	0.03	-0.01	0.00
811.03	0.00	0.00	0.00	56.00	0.04	0.00	0.00
811.04	0.00	0.00	0.00	23.96	0.03	0.00	0.00
812.01	0.00	0.00	0.00	38.00	0.02	-0.01	0.00
812.02	0.00	0.00	0.00	56.00	0.04	0.00	0.00
812.03	0.00	0.00	0.00	6.00	0.01	-0.02	0.00
812.04	0.01	0.00	0.00	67.00	0.07	0.03	0.00
813.02	0.00	0.00	0.00	42.00	0.02	-0.01	0.00
813.03	0.00	0.00	0.00	21.00	0.02	-0.01	0.00
815.02	0.00	0.00	0.00	5.96	0.01	-0.02	0.00
815.03	0.00	0.00	0.00	14.00	0.03	0.00	0.00
815.04	0.00	0.00	0.00	22.00	0.05	0.01	0.00
815.05	0.00	0.00	0.00	17.00	0.03	0.00	0.00
816.01	0.00	0.00	0.00	50.44	0.04	0.01	0.00
816.02	0.00	0.00	0.00	43.00	0.04	0.00	0.00
817.01	0.00	0.00	0.00	10.99	0.04	0.00	0.00
817.02	0.00	0.00	0.00	22.92	0.03	0.00	0.00
817.03	0.00	0.00	0.00	29.00	0.02	-0.01	0.00
817.04	0.00	0.00	0.00	55.84	0.03	0.00	0.00
817.05	0.00	0.00	0.00	29.00	0.02	-0.01	0.00
818.01	0.00	0.00	0.00	21.00	0.02	-0.01	0.00
818.02	0.00	0.00	0.00	53.00	0.03	-0.01	0.00
818.03	0.00	0.00	0.00	25.00	0.03	0.00	0.00
819.01	0.00	0.00	0.00	10.00	0.01	-0.03	0.00
819.02	0.00	0.00	0.00	16.00	0.01	-0.02	0.00
820.01	0.00	0.00	0.00	17.00	0.02	-0.02	0.00
820.02	0.00	0.00	0.00	37.00	0.02	-0.01	0.00
820.03	0.00	0.00	0.00	25.00	0.04	0.00	0.00
821.01	0.00	0.00	0.00	22.00	0.02	-0.01	0.00
821.02	0.00	0.00	0.00	16.00	0.01	-0.02	0.00
821.03	0.00	0.00	0.00	13.00	0.02	-0.02	0.00
821.04	0.00	0.00	0.00	12.00	0.01	-0.02	0.00
821.05	0.00	0.00	0.00	6.00	0.01	-0.03	0.00
82201.01	0.00	0.00	0.00	43.00	0.04	0.00	0.00

Table B: City Population Figures and Calculations

Census Column Code							
Geography (Tract.Block Group)	Percent NHOPI: whole Block Group	X - X-bar (Z-0.0015)	Squared difference (AR*AR)	Weighted Hispanic population (V*W)	Percent Hispanic: whole Block Group	X - X-bar (Z-0.0349)	Squared difference (AV*AV)
82201.02	0.00	0.00	0.00	36.88	0.05	0.01	0.00
82201.03	0.00	0.00	0.00	134.81	0.05	0.01	0.00
82202.01	0.00	0.00	0.00	66.79	0.04	0.00	0.00
82301.01	0.00	0.00	0.00	86.98	0.04	0.00	0.00
82301.02	0.00	0.00	0.00	213.00	0.07	0.03	0.00
82302.01	0.00	0.00	0.00	127.19	0.06	0.03	0.00
82303.01	0.00	0.00	0.00	81.00	0.05	0.02	0.00
82303.02	0.00	0.00	0.00	104.00	0.05	0.01	0.00
82404.02	0.00	0.00	0.00	0.06	0.02	-0.02	0.00
82405.03	0.00	0.00	0.00	0.08	0.01	-0.02	0.00
82408.01	0.00	0.00	0.00	56.37	0.03	0.00	0.00
82408.02	0.00	0.00	0.00	3.64	0.02	-0.02	0.00
82409.01	0.00	0.00	0.00	95.70	0.04	0.01	0.00
82409.02	0.00	0.00	0.00	106.40	0.03	0.00	0.00
82410.01	0.00	0.00	0.00	6.20	0.03	0.00	0.00
82601.01	0.00	0.00	0.00	14.74	0.03	-0.01	0.00
82601.02	0.00	0.00	0.00	13.29	0.03	-0.01	0.00
82601.03	0.00	0.00	0.00	8.51	0.01	-0.02	0.00
82601.04	0.00	0.00	0.00	9.70	0.01	-0.02	0.00
83204.01	0.00	0.00	0.00	64.73	0.05	0.02	0.00
83204.03	0.00	0.00	0.00	0.04	0.02	-0.01	0.00
Totals				**2273.38**			
Std Dev		**0.00**					**0.01**
Averages			**Weighted**	**0.0349**			

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 1, Census Tract 801, Volusia County, Florida	3238	3176	27	2	10	0	1	20	2
Block Group 2, Census Tract 801, Volusia County, Florida	1584	1555	2	0	14	0	0	12	1
Block Group 1, Census Tract 802, Volusia County, Florida	1180	1133	2	1	16	0	5	22	1
Block Group 2, Census Tract 802, Volusia County, Florida	1379	1354	5	3	6	0	1	10	0
Block Group 3, Census Tract 802, Volusia County, Florida	1756	1720	7	6	6	7	1	7	0
Block Group 4, Census Tract 802, Volusia County, Florida	1515	1490	1	6	6	0	0	12	0
Block Group 1, Census Tract 803, Volusia County, Florida	1014	981	6	3	8	0	3	11	5
Block Group 2, Census Tract 803, Volusia County, Florida	1281	1249	3	5	7	0	2	10	2
Block Group 3, Census Tract 803, Volusia County, Florida	1467	1409	6	10	9	1	18	14	1
Block Group 1, Census Tract 804, Volusia County, Florida	1607	1559	3	2	12	0	19	9	2
Block Group 2, Census Tract 804, Volusia County, Florida	664	649	7	0	4	0	0	4	0
Block Group 3, Census Tract 804, Volusia County, Florida	797	773	2	3	11	0	0	8	0
Block Group 4, Census Tract 804, Volusia County, Florida	681	663	2	2	8	0	1	5	1
Block Group 1, Census Tract 805, Volusia County, Florida	1035	987	11	2	9	0	7	19	3
Block Group 2, Census Tract 805, Volusia County, Florida	1654	1585	11	1	36	1	3	17	2
Block Group 1, Census Tract 806, Volusia County, Florida	1134	1015	97	2	4	0	3	13	2
Block Group 2, Census Tract 806, Volusia County, Florida	495	231	241	2	2	0	3	15	4
Block Group 3, Census Tract 806, Volusia County, Florida	627	453	158	2	3	0	6	2	1
Block Group 4, Census Tract 806, Volusia County, Florida	800	718	68	2	5	0	0	7	2

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 5, Census Tract 806, Volusia County, Florida	701	690	3	0	2	0	1	5	3
Block Group 1, Census Tract 807, Volusia County, Florida	3581	3473	23	4	47	4	3	26	2
Block Group 2, Census Tract 807, Volusia County, Florida	1380	1312	6	8	30	0	12	11	1
Block Group 1, Census Tract 808.01, Volusia County, Florida	1557	1442	50	3	36	0	6	20	3
Block Group 2, Census Tract 808.01, Volusia County, Florida	3658	3497	23	6	78	0	5	49	1
Block Group 3, Census Tract 808.01, Volusia County, Florida	2257	2191	17	4	13	0	7	24	3
Block Group 1, Census Tract 808.03, Volusia County, Florida	2667	2470	113	4	41	1	7	31	3
Block Group 2, Census Tract 808.03, Volusia County, Florida	1733	1653	42	5	7	0	3	23	1
Block Group 3, Census Tract 808.03, Volusia County, Florida	821	795	10	1	3	1	2	9	0
Block Group 1, Census Tract 808.04, Volusia County, Florida	4848	4569	111	13	85	0	24	42	10
Block Group 1, Census Tract 808.05, Volusia County, Florida	1642	1593	25	2	6	1	5	8	1
Block Group 2, Census Tract 808.05, Volusia County, Florida	1814	1718	22	17	12	0	15	29	7
Block Group 3, Census Tract 808.05, Volusia County, Florida	2563	2324	125	13	34	0	26	39	5
Block Group 1, Census Tract 809, Volusia County, Florida	828	777	25	3	12	0	4	7	1

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 2, Census Tract 809, Volusia County, Florida	1213	829	320	7	16	0	8	29	5
Block Group 3, Census Tract 809, Volusia County, Florida	1325	1220	79	4	0	0	6	14	6
Block Group 4, Census Tract 809, Volusia County, Florida	524	360	147	2	1	0	7	7	1
Block Group 5, Census Tract 809, Volusia County, Florida	758	652	59	3	1	0	18	25	3
Block Group 6, Census Tract 809, Volusia County, Florida	1126	981	105	4	22	0	5	7	2
Block Group 7, Census Tract 809, Volusia County, Florida	923	813	64	1	11	1	19	14	3
Block Group 8, Census Tract 809, Volusia County, Florida	1023	927	53	5	12	0	6	19	4
Block Group 1, Census Tract 810, Volusia County, Florida	1378	1214	99	9	10	1	14	31	8
Block Group 2, Census Tract 810, Volusia County, Florida	794	754	13	2	3	0	3	19	3
Block Group 3, Census Tract 810, Volusia County, Florida	1042	946	59	2	14	0	11	10	2
Block Group 4, Census Tract 810, Volusia County, Florida	982	885	59	2	18	1	9	8	1
Block Group 1, Census Tract 811, Volusia County, Florida	1518	1428	30	3	15	0	13	29	1
Block Group 2, Census Tract 811, Volusia County, Florida	1209	1168	14	7	7	2	1	10	3
Block Group 3, Census Tract 811, Volusia County, Florida	1485	1426	6	9	23	0	3	18	3
Block Group 4, Census Tract 811, Volusia County, Florida	707	675	3	1	20	0	2	6	2
Block Group 1, Census Tract 812, Volusia County, Florida	1586	1484	41	7	21	1	13	18	2
Block Group 2, Census Tract 812, Volusia County, Florida	1427	1295	66	11	13	0	15	23	4
Block Group 3, Census Tract 812, Volusia County, Florida	584	540	11	4	12	0	2	15	3
Block Group 4, Census Tract 812, Volusia County, Florida	992	888	32	11	18	6	19	18	6

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 2, Census Tract 813, Volusia County, Florida	1718	1568	67	4	39	0	5	33	5
Block Group 3, Census Tract 813, Volusia County, Florida	855	818	5	0	22	0	6	4	1
Block Group 2, Census Tract 815, Volusia County, Florida	598	477	83	8	7	0	1	22	2
Block Group 3, Census Tract 815, Volusia County, Florida	438	351	65	1	7	0	3	11	3
Block Group 4, Census Tract 815, Volusia County, Florida	465	366	77	2	7	0	9	4	0
Block Group 5, Census Tract 815, Volusia County, Florida	490	391	77	3	10	0	0	9	0
Block Group 1, Census Tract 816, Volusia County, Florida	1224	404	748	2	19	1	23	27	9
Block Group 2, Census Tract 816, Volusia County, Florida	1104	448	611	4	2	0	21	15	7
Block Group 1, Census Tract 817, Volusia County, Florida	1425	1042	334	2	11	1	10	24	8
Block Group 2, Census Tract 817, Volusia County, Florida	1186	480	668	0	6	2	14	16	4
Block Group 3, Census Tract 817, Volusia County, Florida	1304	241	1038	2	3	0	9	11	0
Block Group 4, Census Tract 817, Volusia County, Florida	1678	968	624	2	40	4	12	27	10
Block Group 5, Census Tract 817, Volusia County, Florida	1337	244	1052	4	4	0	16	14	5
Block Group 1, Census Tract 818, Volusia County, Florida	875	318	531	2	4	2	12	6	0
Block Group 2, Census Tract 818, Volusia County, Florida	1905	606	1226	7	8	0	20	37	26
Block Group 3, Census Tract 818, Volusia County, Florida	814	198	586	2	2	2	10	12	1
Block Group 1, Census Tract 819, Volusia County, Florida	1255	32	1212	6	0	0	2	2	1
Block Group 2, Census Tract 819, Volusia County, Florida	1154	14	1125	1	4	0	2	8	1
Block Group 1, Census Tract 820, Volusia County, Florida	1038	49	956	0	4	0	10	19	10

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 2, Census Tract 820, Volusia County, Florida	1752	301	1393	8	8	1	8	32	11
Block Group 3, Census Tract 820, Volusia County, Florida	674	596	57	1	2	0	4	13	3
Block Group 1, Census Tract 821, Volusia County, Florida	937	49	870	2	3	0	6	5	3
Block Group 2, Census Tract 821, Volusia County, Florida	1362	26	1312	4	0	0	8	12	0
Block Group 3, Census Tract 821, Volusia County, Florida	839	14	814	1	0	0	5	5	0
Block Group 4, Census Tract 821, Volusia County, Florida	863	75	769	1	2	0	1	15	5
Block Group 5, Census Tract 821, Volusia County, Florida	913	80	822	1	0	0	5	2	2
Block Group 1, Census Tract 822.01, Volusia County, Florida	1142	900	196	2	13	0	16	12	5
Block Group 2, Census Tract 822.01, Volusia County, Florida	784	552	199	8	2	0	11	12	0
Block Group 3, Census Tract 822.01, Volusia County, Florida	2745	1918	619	16	54	3	45	82	14
Block Group 1, Census Tract 822.02, Volusia County, Florida	1735	1373	281	2	30	0	24	18	5
Block Group 1, Census Tract 823.01, Volusia County, Florida	2392	1954	320	3	68	1	15	31	3
Block Group 2, Census Tract 823.01, Volusia County, Florida	3226	1856	1035	4	113	1	107	106	12
Block Group 1, Census Tract 823.02, Volusia County, Florida	2186	1765	179	12	102	6	54	63	3
Block Group 1, Census Tract 823.03, Volusia County, Florida	1531	1363	59	7	56	2	22	21	6

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 2, Census Tract 823.03, Volusia County, Florida	2240	1384	644	8	95	1	33	69	16
Block Group 1, Census Tract 824.01, Volusia County, Florida	1600	1210	279	5	53	2	18	31	7
Block Group 2, Census Tract 824.01, Volusia County, Florida	490	387	80	1	5	0	1	13	1
Block Group 3, Census Tract 824.01, Volusia County, Florida	803	605	165	0	5	3	3	21	5
Block Group 4, Census Tract 824.01, Volusia County, Florida	939	739	165	0	4	0	6	25	12
Block Group 1, Census Tract 824.04, Volusia County, Florida	1454	1203	185	6	24	0	10	25	9
Block Group 2, Census Tract 824.04, Volusia County, Florida	1512	1412	42	1	22	0	9	22	7
Block Group 1, Census Tract 824.05, Volusia County, Florida	1385	1317	40	0	2	0	8	16	2
Block Group 2, Census Tract 824.05, Volusia County, Florida	808	788	8	2	2	0	1	7	0
Block Group 3, Census Tract 824.05, Volusia County, Florida	1315	1258	19	0	23	0	2	13	1
Block Group 4, Census Tract 824.05, Volusia County, Florida	828	790	25	0	2	0	0	11	2
Block Group 1, Census Tract 824.06, Volusia County, Florida	2410	2334	30	1	18	2	12	12	4

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
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Block Group 1, Census Tract 824.08, Volusia County, Florida	2392	2168	161	7	12	0	20	23	1
Block Group 2, Census Tract 824.08, Volusia County, Florida	3079	2985	34	11	17	1	9	22	0
Block Group 1, Census Tract 824.09, Volusia County, Florida	4375	3719	310	13	175	6	53	94	15
Block Group 2, Census Tract 824.09, Volusia County, Florida	3782	3527	81	2	101	2	24	41	0
Block Group 1, Census Tract 824.10, Volusia County, Florida	3595	3426	66	8	31	0	32	31	3
Block Group 2, Census Tract 824.10, Volusia County, Florida	1367	1350	5	1	7	1	0	3	0
Block Group 1, Census Tract 825.01, Volusia County, Florida	569	543	17	2	0	0	0	6	0
Block Group 2, Census Tract 825.01, Volusia County, Florida	832	779	17	5	4	0	9	16	3
Block Group 3, Census Tract 825.01, Volusia County, Florida	1177	1134	9	7	9	0	7	10	3
Block Group 4, Census Tract 825.01, Volusia County, Florida	913	894	3	0	8	0	3	5	0
Block Group 5, Census Tract 825.01, Volusia County, Florida	2372	2323	7	2	23	0	7	9	2
Block Group 6, Census Tract 825.01, Volusia County, Florida	665	645	2	6	4	0	7	1	1

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
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Block Group 1, Census Tract 825.03, Volusia County, Florida	1946	1850	39	6	19	0	5	24	1
Block Group 2, Census Tract 825.03, Volusia County, Florida	1081	1020	19	4	23	2	5	8	0
Block Group 3, Census Tract 825.03, Volusia County, Florida	899	883	6	1	0	0	0	9	0
Block Group 4, Census Tract 825.03, Volusia County, Florida	1822	1748	21	3	22	0	6	20	3
Block Group 1, Census Tract 825.05, Volusia County, Florida	2092	1970	48	1	32	0	11	29	3
Block Group 2, Census Tract 825.05, Volusia County, Florida	3803	3654	45	8	46	0	23	27	3
Block Group 3, Census Tract 825.05, Volusia County, Florida	2723	2667	14	5	16	1	13	5	1
Block Group 4, Census Tract 825.05, Volusia County, Florida	687	664	15	0	0	0	4	2	0
Block Group 1, Census Tract 825.06, Volusia County, Florida	3153	3051	32	9	18	1	14	27	4
Block Group 2, Census Tract 825.06, Volusia County, Florida	1729	1624	40	3	17	0	20	25	10
Block Group 1, Census Tract 825.07, Volusia County, Florida	2051	1943	39	6	35	0	13	13	1
Block Group 2, Census Tract 825.07, Volusia County, Florida	2987	2881	43	13	24	2	14	10	1

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
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Block Group 3, Census Tract 825.07, Volusia County, Florida	1760	1713	15	8	4	0	3	15	5
Block Group 1, Census Tract 826.01, Volusia County, Florida	657	623	5	3	15	0	4	7	0
Block Group 2, Census Tract 826.01, Volusia County, Florida	811	760	2	3	21	0	1	24	0
Block Group 3, Census Tract 826.01, Volusia County, Florida	1030	975	5	5	31	5	1	8	0
Block Group 4, Census Tract 826.01, Volusia County, Florida	2709	2640	13	1	24	0	3	28	1
Block Group 5, Census Tract 826.01, Volusia County, Florida	1028	974	17	7	17	0	2	10	0
Block Group 1, Census Tract 826.02, Volusia County, Florida	863	847	2	3	6	0	1	3	0
Block Group 2, Census Tract 826.02, Volusia County, Florida	1352	1334	4	5	4	1	3	1	0
Block Group 3, Census Tract 826.02, Volusia County, Florida	2606	2549	15	6	18	1	4	12	0
Block Group 1, Census Tract 827.01, Volusia County, Florida	884	859	4	3	4	0	12	2	1
Block Group 2, Census Tract 827.01, Volusia County, Florida	930	909	2	8	1	0	2	8	0
Block Group 1, Census Tract 827.02, Volusia County, Florida	876	862	0	3	0	1	1	9	0

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
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Block Group 2, Census Tract 827.02, Volusia County, Florida	1238	1219	2	1	6	0	5	5	1
Block Group 3, Census Tract 827.02, Volusia County, Florida	1041	1014	5	2	10	1	4	5	1
Block Group 4, Census Tract 827.02, Volusia County, Florida	4693	4558	45	17	18	1	7	44	8
Block Group 1, Census Tract 828, Volusia County, Florida	2358	2291	20	13	7	5	7	15	2
Block Group 2, Census Tract 828, Volusia County, Florida	886	870	0	2	1	0	6	7	3
Block Group 3, Census Tract 828, Volusia County, Florida	988	967	3	1	8	0	2	6	0
Block Group 4, Census Tract 828, Volusia County, Florida	1084	1052	6	11	3	0	2	8	0
Block Group 5, Census Tract 828, Volusia County, Florida	1019	989	7	0	5	0	5	13	7
Block Group 1, Census Tract 829.01, Volusia County, Florida	1911	1857	19	14	5	0	4	12	1
Block Group 2, Census Tract 829.01, Volusia County, Florida	2614	2575	16	4	5	0	5	8	1
Block Group 3, Census Tract 829.01, Volusia County, Florida	1209	407	747	4	6	0	10	35	19
Block Group 4, Census Tract 829.01, Volusia County, Florida	885	503	362	1	1	0	0	17	6
Block Group 5, Census Tract 829.01, Volusia County, Florida	842	523	281	7	9	0	15	7	2
Block Group 6, Census Tract 829.01, Volusia County, Florida	769	748	5	0	7	0	8	1	1

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
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Block Group 1, Census Tract 829.02, Volusia County, Florida	845	679	110	10	16	0	4	23	10
Block Group 2, Census Tract 829.02, Volusia County, Florida	1766	1702	20	5	25	0	0	14	1
Block Group 3, Census Tract 829.02, Volusia County, Florida	1565	1546	9	1	1	1	0	7	2
Block Group 1, Census Tract 830.01, Volusia County, Florida	1449	1373	42	2	8	0	6	17	6
Block Group 2, Census Tract 830.01, Volusia County, Florida	1158	1131	4	1	3	0	2	16	1
Block Group 3, Census Tract 830.01, Volusia County, Florida	1221	1189	5	1	4	0	3	19	4
Block Group 4, Census Tract 830.01, Volusia County, Florida	2122	2033	34	6	10	0	1	33	2
Block Group 5, Census Tract 830.01, Volusia County, Florida	1018	997	9	2	2	0	3	5	1
Block Group 1, Census Tract 830.03, Volusia County, Florida	3380	3330	11	16	5	0	3	15	3
Block Group 2, Census Tract 830.03, Volusia County, Florida	1128	1086	25	2	1	0	1	13	2
Block Group 3, Census Tract 830.03, Volusia County, Florida	837	564	238	3	7	2	7	15	2
Block Group 1, Census Tract 830.04, Volusia County, Florida	1918	1823	45	1	21	1	10	17	5

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
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Block Group 2, Census Tract 830.04, Volusia County, Florida	2257	2167	38	10	18	0	2	21	4
Block Group 3, Census Tract 830.04, Volusia County, Florida	2683	2585	47	8	7	1	12	19	1
Block Group 4, Census Tract 830.04, Volusia County, Florida	2713	2614	36	7	12	0	10	34	10
Block Group 1, Census Tract 830.05, Volusia County, Florida	3169	3089	13	10	16	0	9	25	3
Block Group 1, Census Tract 832.03, Volusia County, Florida	4866	4640	72	10	96	0	10	38	2
Block Group 1, Census Tract 832.04, Volusia County, Florida	5020	3543	1257	47	12	1	46	109	7
Block Group 2, Census Tract 832.04, Volusia County, Florida	1960	1891	10	3	25	0	9	22	0
Block Group 3, Census Tract 832.04, Volusia County, Florida	7976	7624	103	16	126	6	35	65	5
Block Group 4, Census Tract 832.04, Volusia County, Florida	1871	1791	19	16	14	1	8	22	1
Block Group 1, Census Tract 901.01, Volusia County, Florida	487	256	176	0	1	0	53	1	0
Block Group 2, Census Tract 901.01, Volusia County, Florida	2494	2293	48	10	11	0	120	12	0
Block Group 3, Census Tract 901.01, Volusia County, Florida	2000	1851	21	5	17	1	81	24	0

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 1, Census Tract 901.02, Volusia County, Florida	3607	2730	120	35	8	2	649	63	0
Block Group 1, Census Tract 902.01, Volusia County, Florida	1960	1854	41	4	9	1	33	18	0
Block Group 2, Census Tract 902.01, Volusia County, Florida	934	678	19	1	5	0	198	30	0
Block Group 3, Census Tract 902.01, Volusia County, Florida	1447	906	150	5	2	0	354	24	3
Block Group 4, Census Tract 902.01, Volusia County, Florida	2445	2376	22	9	9	0	5	23	9
Block Group 5, Census Tract 902.01, Volusia County, Florida	2322	2163	45	7	26	1	42	34	3
Block Group 1, Census Tract 902.02, Volusia County, Florida	2261	2117	8	4	19	1	48	63	4
Block Group 2, Census Tract 902.02, Volusia County, Florida	1529	1434	33	3	18	0	16	21	3
Block Group 3, Census Tract 902.02, Volusia County, Florida	1059	1006	14	5	11	0	16	7	0
Block Group 4, Census Tract 902.02, Volusia County, Florida	498	415	46	1	12	0	16	8	2
Block Group 1, Census Tract 903.01, Volusia County, Florida	1247	1182	18	6	4	0	25	12	2
Block Group 2, Census Tract 903.01, Volusia County, Florida	2697	2576	51	7	11	1	35	16	1

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 3, Census Tract 903.01, Volusia County, Florida	1146	1088	26	8	11	2	1	10	1
Block Group 4, Census Tract 903.01, Volusia County, Florida	1337	1249	34	7	18	0	9	20	0
Block Group 6, Census Tract 903.01, Volusia County, Florida	1538	1454	11	13	20	0	12	27	0
Block Group 7, Census Tract 903.01, Volusia County, Florida	1072	952	43	2	19	0	41	14	3
Block Group 1, Census Tract 903.02, Volusia County, Florida	1805	1548	115	5	14	0	104	19	9
Block Group 2, Census Tract 903.02, Volusia County, Florida	2059	1699	229	2	29	0	58	42	8
Block Group 3, Census Tract 903.02, Volusia County, Florida	2312	2183	56	3	47	0	11	12	0
Block Group 1, Census Tract 904, Volusia County, Florida	1122	1068	23	0	2	0	8	17	3
Block Group 2, Census Tract 904, Volusia County, Florida	870	808	10	0	19	0	7	22	0
Block Group 3, Census Tract 904, Volusia County, Florida	2012	1898	69	3	7	1	16	18	2
Block Group 4, Census Tract 904, Volusia County, Florida	926	811	60	6	16	1	20	12	0
Block Group 5, Census Tract 904, Volusia County, Florida	841	751	42	0	6	0	31	11	0
Block Group 1, Census Tract 905, Volusia County, Florida	967	852	99	0	9	0	0	7	0
Block Group 2, Census Tract 905, Volusia County, Florida	579	293	165	0	2	1	113	5	0
Block Group 3, Census Tract 905, Volusia County, Florida	1003	846	89	7	5	0	19	30	2

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 1, Census Tract 906, Volusia County, Florida	1510	994	430	4	7	0	46	29	8
Block Group 2, Census Tract 906, Volusia County, Florida	1391	586	691	5	2	0	74	33	12
Block Group 3, Census Tract 906, Volusia County, Florida	879	523	253	3	2	0	83	15	3
Block Group 4, Census Tract 906, Volusia County, Florida	1166	173	914	3	0	0	44	27	9
Block Group 5, Census Tract 906, Volusia County, Florida	816	428	360	5	0	0	6	17	5
Block Group 1, Census Tract 907.01, Volusia County, Florida	808	781	16	1	1	0	5	4	1
Block Group 2, Census Tract 907.01, Volusia County, Florida	1288	1215	41	2	2	0	19	8	2
Block Group 3, Census Tract 907.01, Volusia County, Florida	1427	1397	2	4	4	2	5	13	3
Block Group 4, Census Tract 907.01, Volusia County, Florida	1319	1168	56	4	12	0	55	22	1
Block Group 1, Census Tract 907.02, Volusia County, Florida	714	527	138	1	10	0	21	10	2
Block Group 2, Census Tract 907.02, Volusia County, Florida	1392	798	517	4	0	0	49	24	6
Block Group 3, Census Tract 907.02, Volusia County, Florida	1033	860	135	3	7	0	15	13	2
Block Group 4, Census Tract 907.02, Volusia County, Florida	810	75	707	1	5	0	8	11	0
Block Group 1, Census Tract 908.01, Volusia County, Florida	891	864	5	1	3	0	11	7	2

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 2, Census Tract 908.01, Volusia County, Florida	3498	3262	93	2	10	2	88	41	7
Block Group 3, Census Tract 908.01, Volusia County, Florida	2130	2011	24	3	24	0	33	35	3
Block Group 4, Census Tract 908.01, Volusia County, Florida	1621	1543	18	8	12	0	22	18	3
Block Group 5, Census Tract 908.01, Volusia County, Florida	1198	1134	15	7	4	0	21	17	2
Block Group 1, Census Tract 908.02, Volusia County, Florida	1259	1238	4	7	3	0	4	3	0
Block Group 2, Census Tract 908.02, Volusia County, Florida	848	823	13	0	1	1	5	5	0
Block Group 3, Census Tract 908.02, Volusia County, Florida	1753	1621	40	1	25	0	37	21	2
Block Group 4, Census Tract 908.02, Volusia County, Florida	1303	1162	109	6	6	2	10	8	2
Block Group 6, Census Tract 908.02, Volusia County, Florida	2398	2284	56	9	9	0	18	22	2
Block Group 1, Census Tract 909.01, Volusia County, Florida	3456	3334	54	6	39	0	7	14	1
Block Group 2, Census Tract 909.01, Volusia County, Florida	1095	1059	18	1	3	1	8	5	0
Block Group 3, Census Tract 909.01, Volusia County, Florida	1152	1095	19	1	21	0	5	10	0

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 4, Census Tract 909.01, Volusia County, Florida	1645	1584	15	4	16	0	16	10	1
Block Group 1, Census Tract 909.02, Volusia County, Florida	2462	2189	118	11	57	0	40	44	6
Block Group 2, Census Tract 909.02, Volusia County, Florida	972	944	7	2	6	0	7	6	0
Block Group 3, Census Tract 909.02, Volusia County, Florida	1117	1078	19	2	5	0	0	8	0
Block Group 4, Census Tract 909.02, Volusia County, Florida	1230	1153	29	7	15	0	11	15	3
Block Group 5, Census Tract 909.02, Volusia County, Florida	1972	1878	22	4	12	0	40	15	1
Block Group 1, Census Tract 910.01, Volusia County, Florida	823	817	4	0	0	0	0	2	1
Block Group 2, Census Tract 910.01, Volusia County, Florida	1618	1390	190	7	8	0	12	10	1
Block Group 3, Census Tract 910.01, Volusia County, Florida	2196	1820	230	6	22	0	66	50	9
Block Group 1, Census Tract 910.05, Volusia County, Florida	447	386	40	2	1	0	3	15	0
Block Group 2, Census Tract 910.05, Volusia County, Florida	1301	1212	70	3	1	0	5	10	0
Block Group 1, Census Tract 910.06, Volusia County, Florida	2531	2131	167	14	46	8	104	59	8

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 2, Census Tract 910.06, Volusia County, Florida	2087	1727	100	2	19	0	169	69	5
Block Group 3, Census Tract 910.06, Volusia County, Florida	1876	1574	111	9	26	0	112	40	5
Block Group 4, Census Tract 910.06, Volusia County, Florida	954	823	67	4	12	0	28	20	3
Block Group 5, Census Tract 910.06, Volusia County, Florida	1445	1251	86	5	13	0	60	24	1
Block Group 1, Census Tract 910.07, Volusia County, Florida	1507	1300	102	7	7	0	66	25	12
Block Group 2, Census Tract 910.07, Volusia County, Florida	1264	1128	42	2	18	0	61	13	1
Block Group 3, Census Tract 910.07, Volusia County, Florida	2022	1686	128	4	34	2	116	43	6
Block Group 4, Census Tract 910.07, Volusia County, Florida	1612	1301	146	6	17	0	94	47	3
Block Group 5, Census Tract 910.07, Volusia County, Florida	1287	1083	81	2	15	0	47	58	14
Block Group 6, Census Tract 910.07, Volusia County, Florida	926	733	49	0	11	0	94	38	3
Block Group 1, Census Tract 910.09, Volusia County, Florida	2271	1827	228	2	12	0	121	66	9
Block Group 2, Census Tract 910.09, Volusia County, Florida	2970	2467	261	9	27	1	128	74	11

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 3, Census Tract 910.09, Volusia County, Florida	2361	1886	228	15	26	0	144	62	15
Block Group 4, Census Tract 910.09, Volusia County, Florida	1635	1417	96	7	14	0	69	29	1
Block Group 1, Census Tract 910.10, Volusia County, Florida	1867	1650	92	6	6	1	71	39	4
Block Group 2, Census Tract 910.10, Volusia County, Florida	3060	2732	170	9	28	1	65	50	14
Block Group 3, Census Tract 910.10, Volusia County, Florida	3330	3018	141	9	16	5	110	28	5
Block Group 4, Census Tract 910.10, Volusia County, Florida	2111	1782	103	10	49	7	126	34	6
Block Group 1, Census Tract 910.11, Volusia County, Florida	3229	2647	272	3	31	6	176	91	6
Block Group 2, Census Tract 910.11, Volusia County, Florida	1805	1512	136	3	12	0	117	25	1
Block Group 3, Census Tract 910.11, Volusia County, Florida	2365	1968	183	7	14	0	138	55	5
Block Group 4, Census Tract 910.11, Volusia County, Florida	1462	1158	147	10	1	0	111	27	4
Block Group 1, Census Tract 910.12, Volusia County, Florida	2535	2151	172	12	23	0	116	59	7
Block Group 2, Census Tract 910.12, Volusia County, Florida	3309	2875	236	7	31	2	89	65	7

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
Block Group 3, Census Tract 910.12, Volusia County, Florida	2590	2209	196	6	18	0	110	48	6
Block Group 4, Census Tract 910.12, Volusia County, Florida	2927	2478	247	6	16	1	136	39	1
Block Group 1, Census Tract 910.13, Volusia County, Florida	1588	1349	92	9	5	1	74	58	9
Block Group 2, Census Tract 910.13, Volusia County, Florida	4055	3451	267	35	39	1	189	69	14
Block Group 3, Census Tract 910.13, Volusia County, Florida	828	727	31	6	2	0	35	24	6
Block Group 1, Census Tract 910.14, Volusia County, Florida	1388	1075	121	4	15	1	112	57	10
Block Group 2, Census Tract 910.14, Volusia County, Florida	2444	1920	198	14	25	1	190	89	11
Block Group 3, Census Tract 910.14, Volusia County, Florida	2745	2493	107	18	17	0	68	38	6
Block Group 4, Census Tract 910.14, Volusia County, Florida	1105	1072	12	2	9	0	2	8	0
Volusia County Subtotal	**443343**	**381760**	**41198**	**1373**	**4430**	**164**	**8071**	**5983**	**923**
Flagler County	2079		157	5	26	0			9
	1954		159	11	30	0			1
	1626		132	6	11	0			0
	2128		28	12	6	0			0
	2765		77	10	44	0			8
	1955		90	0	24	0			5
	9832		1118	29	125	4			26
	671		45	2	17	0			0

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003001	P003003	P003004	P003005	P003006	P003007	P003008	P003010	P003011
Geography	Total population: Total	Total population: Population of one race; White alone	Total population: Population of one race; Black or African American alone	Total population: Population of one race; American Indian and Alaska Native alone	Total population: Population of one race; Asian alone	Total population: Population of one race; Native Hawaiian and Other Pacific Islander alone	Total population: Population of one race; Some other race alone	Total population: Population of two or more races; Population of two races	Total population: Population of two or more races; Population of two races; White; Black or African American
	6849		939	11	125	4			26
	3332		374	11	64	0			11
	3209		259	9	41	3			4
	1676		685	2	7	0			4
	2384		119	4	8	0			1
	1881		18	4	2	0			0
	2281		183	5	24	0			8
	908		1	5	15	0			1
	1603		5	4	1	0			2
	2699		12	3	13	1			2
MSA Totals	**493175**		**45599**	**1506**	**5013**	**176**			**1031**

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 1, Census Tract 801, Volusia County, Florida	12	0	0	0	60	3241	179	29	14
Block Group 2, Census Tract 801, Volusia County, Florida	2	2	0	0	19	1581	102	3	2
Block Group 1, Census Tract 802, Volusia County, Florida	8	0	0	0	27	1186	31	3	9
Block Group 2, Census Tract 802, Volusia County, Florida	4	3	0	0	29	1395	120	5	7
Block Group 3, Census Tract 802, Volusia County, Florida	5	1	0	0	30	1773	157	7	11
Block Group 4, Census Tract 802, Volusia County, Florida	2	0	0	0	37	1465	199	1	8
Block Group 1, Census Tract 803, Volusia County, Florida	4	0	0	0	37	994	78	11	7
Block Group 2, Census Tract 803, Volusia County, Florida	1	3	0	0	24	1257	119	5	6
Block Group 3, Census Tract 803, Volusia County, Florida	9	1	0	0	37	1495	141	7	19
Block Group 1, Census Tract 804, Volusia County, Florida	1	3	0	0	43	1572	42	5	3
Block Group 2, Census Tract 804, Volusia County, Florida	0	1	2	0	9	654	35	7	0
Block Group 3, Census Tract 804, Volusia County, Florida	1	2	0	0	13	821	30	2	4
Block Group 4, Census Tract 804, Volusia County, Florida	3	0	0	0	23	675	48	3	5
Block Group 1, Census Tract 805, Volusia County, Florida	0	5	0	0	50	1079	203	14	2
Block Group 2, Census Tract 805, Volusia County, Florida	5	5	0	0	50	1615	178	13	6
Block Group 1, Census Tract 806, Volusia County, Florida	2	0	0	6	20	1197	121	105	10
Block Group 2, Census Tract 806, Volusia County, Florida	4	7	0	0	19	467	111	245	6
Block Group 3, Census Tract 806, Volusia County, Florida	0	1	0	0	7	631	170	159	2
Block Group 4, Census Tract 806, Volusia County, Florida	3	2	0	0	6	672	79	70	5

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 5, Census Tract 806, Volusia County, Florida	2	0	0	0	15	655	64	6	2
Block Group 1, Census Tract 807, Volusia County, Florida	7	3	1	0	48	3458	49	25	11
Block Group 2, Census Tract 807, Volusia County, Florida	6	3	0	0	27	1445	38	7	14
Block Group 1, Census Tract 808.01, Volusia County, Florida	8	2	0	1	66	1245	124	54	12
Block Group 2, Census Tract 808.01, Volusia County, Florida	7	11	0	0	110	3712	101	24	13
Block Group 3, Census Tract 808.01, Volusia County, Florida	7	1	0	0	45	2185	96	20	11
Block Group 1, Census Tract 808.03, Volusia County, Florida	4	11	2	0	68	2631	230	116	8
Block Group 2, Census Tract 808.03, Volusia County, Florida	14	0	0	0	31	1761	155	43	19
Block Group 3, Census Tract 808.03, Volusia County, Florida	7	1	0	0	12	805	18	10	8
Block Group 1, Census Tract 808.04, Volusia County, Florida	16	3	0	2	116	4715	428	123	31
Block Group 1, Census Tract 808.05, Volusia County, Florida	5	1	0	0	44	1724	165	26	7
Block Group 2, Census Tract 808.05, Volusia County, Florida	14	3	0	0	64	1766	332	29	31
Block Group 3, Census Tract 808.05, Volusia County, Florida	12	0	0	1	118	2485	540	131	26
Block Group 1, Census Tract 809, Volusia County, Florida	0	2	0	1	36	876	69	27	4

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 2, Census Tract 809, Volusia County, Florida	14	2	0	0	40	1232	302	325	21
Block Group 3, Census Tract 809, Volusia County, Florida	4	1	0	0	17	1296	146	85	8
Block Group 4, Census Tract 809, Volusia County, Florida	4	0	0	0	14	527	128	148	6
Block Group 5, Census Tract 809, Volusia County, Florida	12	2	0	2	52	718	134	64	17
Block Group 6, Census Tract 809, Volusia County, Florida	1	0	0	0	24	1162	33	107	5
Block Group 7, Census Tract 809, Volusia County, Florida	10	0	0	0	44	799	115	67	11
Block Group 8, Census Tract 809, Volusia County, Florida	12	0	0	1	32	1015	184	58	18
Block Group 1, Census Tract 810, Volusia County, Florida	10	0	0	4	90	1298	282	111	23
Block Group 2, Census Tract 810, Volusia County, Florida	10	1	0	0	36	817	99	16	12
Block Group 3, Census Tract 810, Volusia County, Florida	6	1	0	0	32	1007	172	61	8
Block Group 4, Census Tract 810, Volusia County, Florida	5	1	0	1	30	1008	245	61	8
Block Group 1, Census Tract 811, Volusia County, Florida	7	7	0	0	79	1464	281	31	10
Block Group 2, Census Tract 811, Volusia County, Florida	2	0	0	0	33	1204	106	17	9
Block Group 3, Census Tract 811, Volusia County, Florida	0	2	1	0	56	1449	89	9	9
Block Group 4, Census Tract 811, Volusia County, Florida	0	0	1	0	24	802	62	5	1
Block Group 1, Census Tract 812, Volusia County, Florida	14	0	0	0	38	1543	334	43	21
Block Group 2, Census Tract 812, Volusia County, Florida	7	1	0	0	56	1432	349	70	18
Block Group 3, Census Tract 812, Volusia County, Florida	2	0	0	0	6	552	158	14	6
Block Group 4, Census Tract 812, Volusia County, Florida	7	0	0	0	67	907	276	38	18

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 2, Census Tract 813, Volusia County, Florida	15	2	1	2	42	1739	375	74	21
Block Group 3, Census Tract 813, Volusia County, Florida	2	0	0	0	21	888	93	6	2
Block Group 2, Census Tract 815, Volusia County, Florida	11	3	0	0	6	581	175	85	19
Block Group 3, Census Tract 815, Volusia County, Florida	6	1	0	0	14	430	179	68	7
Block Group 4, Census Tract 815, Volusia County, Florida	3	0	0	0	22	491	196	77	5
Block Group 5, Census Tract 815, Volusia County, Florida	7	2	0	0	17	448	202	77	10
Block Group 1, Census Tract 816, Volusia County, Florida	5	4	0	1	51	1125	300	758	8
Block Group 2, Census Tract 816, Volusia County, Florida	2	1	0	3	43	1018	198	621	9
Block Group 1, Census Tract 817, Volusia County, Florida	6	0	0	3	50	1415	338	345	11
Block Group 2, Census Tract 817, Volusia County, Florida	0	0	0	1	40	1222	202	673	1
Block Group 3, Census Tract 817, Volusia County, Florida	5	0	0	0	29	1177	280	1038	7
Block Group 4, Census Tract 817, Volusia County, Florida	5	4	0	2	56	1441	398	636	9
Block Group 5, Census Tract 817, Volusia County, Florida	4	0	0	1	29	1539	561	1058	9
Block Group 1, Census Tract 818, Volusia County, Florida	0	0	0	3	21	802	215	534	5
Block Group 2, Census Tract 818, Volusia County, Florida	5	0	0	1	53	1919	449	1253	13
Block Group 3, Census Tract 818, Volusia County, Florida	1	0	0	3	25	595	98	590	6
Block Group 1, Census Tract 819, Volusia County, Florida	0	0	0	0	10	1217	433	1213	6
Block Group 2, Census Tract 819, Volusia County, Florida	0	0	0	4	16	1144	679	1130	5
Block Group 1, Census Tract 820, Volusia County, Florida	1	0	0	3	17	906	454	969	4

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 2, Census Tract 820, Volusia County, Florida	2	1	0	6	37	591	351	1410	16
Block Group 3, Census Tract 820, Volusia County, Florida	1	0	0	0	25	566	107	60	2
Block Group 1, Census Tract 821, Volusia County, Florida	0	0	0	1	22	989	409	874	3
Block Group 2, Census Tract 821, Volusia County, Florida	4	0	0	6	16	1377	652	1318	14
Block Group 3, Census Tract 821, Volusia County, Florida	0	1	0	3	13	727	330	817	4
Block Group 4, Census Tract 821, Volusia County, Florida	1	0	0	5	12	905	164	779	7
Block Group 5, Census Tract 821, Volusia County, Florida	0	0	0	0	6	839	274	824	1
Block Group 1, Census Tract 822.01, Volusia County, Florida	1	2	0	2	43	1089	365	203	5
Block Group 2, Census Tract 822.01, Volusia County, Florida	6	0	0	2	37	616	140	201	16
Block Group 3, Census Tract 822.01, Volusia County, Florida	13	9	0	9	135	2588	562	642	38
Block Group 1, Census Tract 822.02, Volusia County, Florida	2	1	0	0	67	1674	139	286	4
Block Group 1, Census Tract 823.01, Volusia County, Florida	2	5	0	0	87	2037	250	323	5
Block Group 2, Census Tract 823.01, Volusia County, Florida	3	13	0	10	213	3117	997	1057	17
Block Group 1, Census Tract 823.02, Volusia County, Florida	4	12	4	3	132	639	236	185	19
Block Group 1, Census Tract 823.03, Volusia County, Florida	2	2	1	0	81	1342	232	65	9

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 2, Census Tract 823.03, Volusia County, Florida	7	7	1	2	104	2298	637	662	17
Block Group 1, Census Tract 824.01, Volusia County, Florida	5	7	1	0	73	1574	209	286	10
Block Group 2, Census Tract 824.01, Volusia County, Florida	9	0	3	0	23	514	192	81	10
Block Group 3, Census Tract 824.01, Volusia County, Florida	1	3	4	1	39	793	202	171	2
Block Group 4, Census Tract 824.01, Volusia County, Florida	1	4	0	0	31	927	44	177	1
Block Group 1, Census Tract 824.04, Volusia County, Florida	6	8	0	0	41	1520	270	194	12
Block Group 2, Census Tract 824.04, Volusia County, Florida	6	6	0	1	30	1442	121	50	8
Block Group 1, Census Tract 824.05, Volusia County, Florida	11	2	0	0	36	1330	95	42	11
Block Group 2, Census Tract 824.05, Volusia County, Florida	3	0	0	0	27	801	89	8	5
Block Group 3, Census Tract 824.05, Volusia County, Florida	0	3	0	1	18	1302	52	21	1
Block Group 4, Census Tract 824.05, Volusia County, Florida	2	3	2	0	19	818	27	27	2
Block Group 1, Census Tract 824.06, Volusia County, Florida	0	5	0	0	55	2408	90	34	1

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 1, Census Tract 824.08, Volusia County, Florida	6	1	4	1	83	2315	321	163	14
Block Group 2, Census Tract 824.08, Volusia County, Florida	8	6	0	0	48	3124	250	34	19
Block Group 1, Census Tract 824.09, Volusia County, Florida	3	19	5	1	190	4231	656	326	17
Block Group 2, Census Tract 824.09, Volusia County, Florida	8	10	3	3	132	3782	270	84	13
Block Group 1, Census Tract 824.10, Volusia County, Florida	8	8	1	0	118	3492	329	69	16
Block Group 2, Census Tract 824.10, Volusia County, Florida	1	2	0	0	10	1418	77	5	2
Block Group 1, Census Tract 825.01, Volusia County, Florida	0	2	0	0	8	564	45	17	2
Block Group 2, Census Tract 825.01, Volusia County, Florida	7	5	1	0	26	800	219	20	12
Block Group 3, Census Tract 825.01, Volusia County, Florida	6	0	0	0	25	1158	137	12	13
Block Group 4, Census Tract 825.01, Volusia County, Florida	2	0	0	0	24	928	66	3	2
Block Group 5, Census Tract 825.01, Volusia County, Florida	5	2	0	0	39	2412	361	9	7
Block Group 6, Census Tract 825.01, Volusia County, Florida	0	0	0	0	19	647	26	3	6

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 1, Census Tract 825.03, Volusia County, Florida	10	7	0	1	37	1991	233	41	17
Block Group 2, Census Tract 825.03, Volusia County, Florida	6	1	0	0	38	1057	111	19	10
Block Group 3, Census Tract 825.03, Volusia County, Florida	6	0	0	0	19	876	121	6	7
Block Group 4, Census Tract 825.03, Volusia County, Florida	4	3	0	0	74	1785	126	24	7
Block Group 1, Census Tract 825.05, Volusia County, Florida	10	10	1	0	67	2073	81	51	11
Block Group 2, Census Tract 825.05, Volusia County, Florida	8	7	0	0	76	3775	57	48	16
Block Group 3, Census Tract 825.05, Volusia County, Florida	1	3	0	0	38	2726	107	15	6
Block Group 4, Census Tract 825.05, Volusia County, Florida	0	0	0	1	17	664	65	16	1
Block Group 1, Census Tract 825.06, Volusia County, Florida	15	3	1	0	44	3158	323	36	24
Block Group 2, Census Tract 825.06, Volusia County, Florida	3	2	0	1	65	1673	132	51	7
Block Group 1, Census Tract 825.07, Volusia County, Florida	0	5	0	0	55	1918	125	40	6
Block Group 2, Census Tract 825.07, Volusia County, Florida	4	2	0	0	61	2774	97	44	17

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 3, Census Tract 825.07, Volusia County, Florida	3	3	2	0	56	1774	238	20	11
Block Group 1, Census Tract 826.01, Volusia County, Florida	0	2	0	0	18	686	58	5	3
Block Group 2, Census Tract 826.01, Volusia County, Florida	10	5	0	0	21	752	104	2	13
Block Group 3, Census Tract 826.01, Volusia County, Florida	3	0	0	0	14	1023	63	5	8
Block Group 4, Census Tract 826.01, Volusia County, Florida	11	5	1	0	38	2695	142	14	12
Block Group 5, Census Tract 826.01, Volusia County, Florida	4	2	0	0	16	1079	73	17	11
Block Group 1, Census Tract 826.02, Volusia County, Florida	3	0	0	0	3	821	86	2	6
Block Group 2, Census Tract 826.02, Volusia County, Florida	1	0	0	0	38	1393	78	4	6
Block Group 3, Census Tract 826.02, Volusia County, Florida	6	5	0	0	40	2607	132	15	12
Block Group 1, Census Tract 827.01, Volusia County, Florida	0	0	0	0	23	854	14	5	3
Block Group 2, Census Tract 827.01, Volusia County, Florida	7	0	0	0	20	926	85	2	15
Block Group 1, Census Tract 827.02, Volusia County, Florida	7	1	0	0	13	882	103	0	10

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 2, Census Tract 827.02, Volusia County, Florida	1	1	0	0	11	1212	78	3	2
Block Group 3, Census Tract 827.02, Volusia County, Florida	2	2	0	0	24	977	40	6	4
Block Group 4, Census Tract 827.02, Volusia County, Florida	15	7	1	0	63	4580	332	53	32
Block Group 1, Census Tract 828, Volusia County, Florida	4	2	0	0	43	2305	214	22	17
Block Group 2, Census Tract 828, Volusia County, Florida	2	1	0	0	14	871	48	3	4
Block Group 3, Census Tract 828, Volusia County, Florida	5	0	0	0	19	1041	109	3	6
Block Group 4, Census Tract 828, Volusia County, Florida	3	4	0	0	12	1103	216	6	14
Block Group 5, Census Tract 828, Volusia County, Florida	4	1	0	0	21	1007	133	14	4
Block Group 1, Census Tract 829.01, Volusia County, Florida	7	1	0	0	25	1856	68	20	21
Block Group 2, Census Tract 829.01, Volusia County, Florida	2	2	0	0	21	2643	123	17	6
Block Group 3, Census Tract 829.01, Volusia County, Florida	5	0	1	10	19	1178	398	776	19
Block Group 4, Census Tract 829.01, Volusia County, Florida	4	0	0	0	10	948	254	368	5
Block Group 5, Census Tract 829.01, Volusia County, Florida	1	0	0	0	27	803	117	283	8
Block Group 6, Census Tract 829.01, Volusia County, Florida	0	0	0	0	8	688	99	6	0

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Block Group 1, Census Tract 829.02, Volusia County, Florida	11	0	1	0	20	808	229	120	21
Block Group 2, Census Tract 829.02, Volusia County, Florida	7	3	1	0	22	1726	125	21	12
Block Group 3, Census Tract 829.02, Volusia County, Florida	4	1	0	0	10	1636	102	11	5
Block Group 1, Census Tract 830.01, Volusia County, Florida	3	3	0	0	26	1531	221	48	5
Block Group 2, Census Tract 830.01, Volusia County, Florida	8	1	0	0	11	1087	159	5	9
Block Group 3, Census Tract 830.01, Volusia County, Florida	8	2	0	0	31	1148	140	9	9
Block Group 4, Census Tract 830.01, Volusia County, Florida	18	9	0	0	66	2134	182	36	24
Block Group 5, Census Tract 830.01, Volusia County, Florida	2	0	0	0	14	991	121	10	4
Block Group 1, Census Tract 830.03, Volusia County, Florida	8	0	1	0	19	3358	337	14	24
Block Group 2, Census Tract 830.03, Volusia County, Florida	8	0	2	1	12	1161	161	28	11
Block Group 3, Census Tract 830.03, Volusia County, Florida	9	0	2	1	13	804	115	241	13
Block Group 1, Census Tract 830.04, Volusia County, Florida	7	1	0	0	46	1866	170	50	8

Table C: MSA and County Population Figures and Calculations

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Block Group 2, Census Tract 830.04, Volusia County, Florida	5	3	0	1	33	2169	226	43	16
Block Group 3, Census Tract 830.04, Volusia County, Florida	7	3	0	0	60	2668	200	48	15
Block Group 4, Census Tract 830.04, Volusia County, Florida	8	7	2	0	33	2825	199	46	15
Block Group 1, Census Tract 830.05, Volusia County, Florida	2	2	0	0	70	3109	243	16	12
Block Group 1, Census Tract 832.03, Volusia County, Florida	17	3	0	1	68	4866	275	75	28
Block Group 1, Census Tract 832.04, Volusia County, Florida	25	11	2	3	251	2001	163	1267	75
Block Group 2, Census Tract 832.04, Volusia County, Florida	19	2	0	0	27	1905	139	10	22
Block Group 3, Census Tract 832.04, Volusia County, Florida	20	17	0	0	170	8030	298	108	36
Block Group 4, Census Tract 832.04, Volusia County, Florida	8	1	2	0	42	1830	100	20	24
Block Group 1, Census Tract 901.01, Volusia County, Florida	0	0	0	0	86	560	90	176	0
Block Group 2, Census Tract 901.01, Volusia County, Florida	4	1	0	0	1271	2461	629	48	14
Block Group 3, Census Tract 901.01, Volusia County, Florida	6	2	0	1	228	1897	153	22	12

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Block Group 1, Census Tract 901.02, Volusia County, Florida	12	0	0	0	1393	3597	708	120	47
Block Group 1, Census Tract 902.01, Volusia County, Florida	10	0	0	0	122	1911	146	41	14
Block Group 2, Census Tract 902.01, Volusia County, Florida	3	3	3	0	369	897	176	19	4
Block Group 3, Census Tract 902.01, Volusia County, Florida	2	0	0	1	543	1514	237	154	8
Block Group 4, Census Tract 902.01, Volusia County, Florida	11	1	0	0	167	2214	162	31	20
Block Group 5, Census Tract 902.01, Volusia County, Florida	9	1	0	0	100	2322	127	48	16
Block Group 1, Census Tract 902.02, Volusia County, Florida	16	2	0	0	199	2273	373	12	20
Block Group 2, Census Tract 902.02, Volusia County, Florida	9	2	0	0	56	1588	225	36	12
Block Group 3, Census Tract 902.02, Volusia County, Florida	2	2	0	0	48	841	35	14	7
Block Group 4, Census Tract 902.02, Volusia County, Florida	0	1	0	0	33	421	38	48	1
Block Group 1, Census Tract 903.01, Volusia County, Florida	0	0	0	0	67	1157	52	20	6
Block Group 2, Census Tract 903.01, Volusia County, Florida	8	3	0	0	95	2741	185	52	15

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 3, Census Tract 903.01, Volusia County, Florida	3	1	0	0	29	1163	87	27	11
Block Group 4, Census Tract 903.01, Volusia County, Florida	16	2	0	0	64	1250	20	34	23
Block Group 6, Census Tract 903.01, Volusia County, Florida	16	6	0	0	55	1529	101	11	29
Block Group 7, Census Tract 903.01, Volusia County, Florida	6	0	0	0	100	1151	167	46	8
Block Group 1, Census Tract 903.02, Volusia County, Florida	4	0	0	0	228	1731	219	124	9
Block Group 2, Census Tract 903.02, Volusia County, Florida	3	9	0	0	148	2065	219	237	5
Block Group 3, Census Tract 903.02, Volusia County, Florida	5	2	0	0	79	2367	75	56	8
Block Group 1, Census Tract 904, Volusia County, Florida	6	2	1	0	36	1107	84	26	6
Block Group 2, Census Tract 904, Volusia County, Florida	1	6	0	0	22	756	51	10	1
Block Group 3, Census Tract 904, Volusia County, Florida	5	5	0	0	55	632	54	71	8
Block Group 4, Census Tract 904, Volusia County, Florida	2	3	0	0	51	931	136	60	8
Block Group 5, Census Tract 904, Volusia County, Florida	3	1	0	2	46	932	53	44	5
Block Group 1, Census Tract 905, Volusia County, Florida	5	1	0	1	20	883	169	100	6
Block Group 2, Census Tract 905, Volusia County, Florida	0	0	0	0	223	608	309	165	0
Block Group 3, Census Tract 905, Volusia County, Florida	10	2	0	1	89	1002	259	92	18

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 1, Census Tract 906, Volusia County, Florida	5	0	0	0	165	1431	266	438	9
Block Group 2, Census Tract 906, Volusia County, Florida	4	3	0	4	331	1331	589	707	13
Block Group 3, Census Tract 906, Volusia County, Florida	2	0	0	0	172	762	297	256	5
Block Group 4, Census Tract 906, Volusia County, Florida	0	0	0	1	118	1248	330	924	4
Block Group 5, Census Tract 906, Volusia County, Florida	2	0	0	3	37	791	181	368	10
Block Group 1, Census Tract 907.01, Volusia County, Florida	2	0	0	0	29	808	48	17	3
Block Group 2, Census Tract 907.01, Volusia County, Florida	2	1	1	0	43	1249	72	43	4
Block Group 3, Census Tract 907.01, Volusia County, Florida	9	1	0	0	30	1350	86	5	13
Block Group 4, Census Tract 907.01, Volusia County, Florida	10	5	0	1	130	1367	127	58	15
Block Group 1, Census Tract 907.02, Volusia County, Florida	1	4	0	0	43	701	102	140	2
Block Group 2, Census Tract 907.02, Volusia County, Florida	4	0	0	0	157	1298	441	523	8
Block Group 3, Census Tract 907.02, Volusia County, Florida	4	0	0	1	31	1022	143	138	8
Block Group 4, Census Tract 907.02, Volusia County, Florida	1	0	0	1	46	774	334	708	3
Block Group 1, Census Tract 908.01, Volusia County, Florida	2	0	1	0	17	915	59	7	3

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 2, Census Tract 908.01, Volusia County, Florida	23	3	1	0	230	3464	373	100	25
Block Group 3, Census Tract 908.01, Volusia County, Florida	8	6	0	1	153	2104	106	28	12
Block Group 4, Census Tract 908.01, Volusia County, Florida	5	1	0	1	91	1503	157	22	14
Block Group 5, Census Tract 908.01, Volusia County, Florida	3	3	0	0	82	1262	202	17	10
Block Group 1, Census Tract 908.02, Volusia County, Florida	0	1	0	0	53	1241	114	4	7
Block Group 2, Census Tract 908.02, Volusia County, Florida	4	0	0	0	11	705	26	13	4
Block Group 3, Census Tract 908.02, Volusia County, Florida	3	3	0	0	149	1779	208	42	4
Block Group 4, Census Tract 908.02, Volusia County, Florida	3	0	0	0	44	1254	68	111	9
Block Group 6, Census Tract 908.02, Volusia County, Florida	11	2	0	0	91	2402	148	58	20
Block Group 1, Census Tract 909.01, Volusia County, Florida	1	2	0	0	118	3363	151	55	7
Block Group 2, Census Tract 909.01, Volusia County, Florida	3	0	0	1	30	1135	59	19	5
Block Group 3, Census Tract 909.01, Volusia County, Florida	3	1	0	0	47	1183	81	19	4

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 4, Census Tract 909.01, Volusia County, Florida	2	5	0	0	39	1574	148	16	6
Block Group 1, Census Tract 909.02, Volusia County, Florida	5	7	0	1	205	2306	70	125	17
Block Group 2, Census Tract 909.02, Volusia County, Florida	1	4	0	0	41	962	161	7	3
Block Group 3, Census Tract 909.02, Volusia County, Florida	2	1	0	0	39	1106	68	19	4
Block Group 4, Census Tract 909.02, Volusia County, Florida	9	0	0	0	56	1337	83	32	16
Block Group 5, Census Tract 909.02, Volusia County, Florida	7	1	0	0	92	1922	218	23	11
Block Group 1, Census Tract 910.01, Volusia County, Florida	0	0	0	0	4	830	44	5	0
Block Group 2, Census Tract 910.01, Volusia County, Florida	4	2	0	0	56	1598	164	191	11
Block Group 3, Census Tract 910.01, Volusia County, Florida	12	6	0	0	264	2126	319	239	18
Block Group 1, Census Tract 910.05, Volusia County, Florida	14	1	0	0	22	453	129	40	16
Block Group 2, Census Tract 910.05, Volusia County, Florida	1	3	0	0	52	1250	65	70	4
Block Group 1, Census Tract 910.06, Volusia County, Florida	13	2	0	3	411	2532	220	178	30

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 2, Census Tract 910.06, Volusia County, Florida	11	7	0	0	471	2092	156	105	13
Block Group 3, Census Tract 910.06, Volusia County, Florida	6	7	0	1	413	1854	159	117	16
Block Group 4, Census Tract 910.06, Volusia County, Florida	1	2	0	1	157	927	67	71	6
Block Group 5, Census Tract 910.06, Volusia County, Florida	10	1	0	0	284	1426	164	87	15
Block Group 1, Census Tract 910.07, Volusia County, Florida	2	0	0	0	341	1530	158	114	9
Block Group 2, Census Tract 910.07, Volusia County, Florida	2	1	0	0	191	1259	55	43	4
Block Group 3, Census Tract 910.07, Volusia County, Florida	5	10	1	1	391	1984	196	135	10
Block Group 4, Census Tract 910.07, Volusia County, Florida	9	7	0	0	340	1502	158	149	15
Block Group 5, Census Tract 910.07, Volusia County, Florida	8	8	0	1	313	1335	27	96	11
Block Group 6, Census Tract 910.07, Volusia County, Florida	7	0	0	0	217	949	164	52	7
Block Group 1, Census Tract 910.09, Volusia County, Florida	10	7	2	4	383	2309	279	241	16
Block Group 2, Census Tract 910.09, Volusia County, Florida	5	1	3	0	527	2901	132	272	14

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 3, Census Tract 910.09, Volusia County, Florida	12	5	0	0	481	2419	372	243	27
Block Group 4, Census Tract 910.09, Volusia County, Florida	6	4	0	0	303	1538	212	97	13
Block Group 1, Census Tract 910.10, Volusia County, Florida	7	5	1	0	227	1706	179	96	13
Block Group 2, Census Tract 910.10, Volusia County, Florida	13	1	0	6	356	3142	219	190	28
Block Group 3, Census Tract 910.10, Volusia County, Florida	7	0	1	0	419	3463	110	146	16
Block Group 4, Census Tract 910.10, Volusia County, Florida	0	2	0	0	433	1973	136	109	10
Block Group 1, Census Tract 910.11, Volusia County, Florida	16	10	0	3	550	3170	222	281	22
Block Group 2, Census Tract 910.11, Volusia County, Florida	4	2	2	0	347	1847	58	137	7
Block Group 3, Census Tract 910.11, Volusia County, Florida	9	2	1	0	437	2380	222	188	16
Block Group 4, Census Tract 910.11, Volusia County, Florida	8	0	0	0	353	1411	329	151	18
Block Group 1, Census Tract 910.12, Volusia County, Florida	6	9	1	0	486	2585	116	179	18
Block Group 2, Census Tract 910.12, Volusia County, Florida	19	5	1	4	450	3324	180	247	30

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
Block Group 3, Census Tract 910.12, Volusia County, Florida	0	7	0	1	382	2611	129	203	7
Block Group 4, Census Tract 910.12, Volusia County, Florida	8	5	0	0	547	2721	168	248	14
Block Group 1, Census Tract 910.13, Volusia County, Florida	16	2	0	5	278	1576	187	106	30
Block Group 2, Census Tract 910.13, Volusia County, Florida	26	5	0	1	637	4098	300	282	62
Block Group 3, Census Tract 910.13, Volusia County, Florida	3	1	0	2	166	797	100	39	11
Block Group 1, Census Tract 910.14, Volusia County, Florida	3	1	0	0	424	1396	40	131	7
Block Group 2, Census Tract 910.14, Volusia County, Florida	8	4	0	0	681	2500	156	209	22
Block Group 3, Census Tract 910.14, Volusia County, Florida	15	1	2	0	288	2718	157	113	33
Block Group 4, Census Tract 910.14, Volusia County, Florida	3	1	0	0	19	994	51	12	5
Volusia County Subtotal	**1534**	**666**	**80**	**177**	**29111**	**429459**	**49907**	**42298**	**3084**
					6.57%				
Flagler County	4	3		4		2,163	28	170	13
	5	2		1		1860	64	161	17
	4	10		0		1619	367	132	10
	9	3		0		2,143	178	28	21
	8	7		0		2780	96	85	18
	5	2		0		1754	144	95	5
	48	23		5		9806	975	1149	82
	3	2		1		657	84	46	6

Table C: MSA and County Population Figures and Calculations

Census Column Code	P003012	P003013	P003014	P003016	P004002	P087001	P087002		
Geography	Total population: Population of two or more races; Population of two races; White; American Indian and Alaska Native	Total population: Population of two or more races; Population of two races; White; Asian	Total population: Population of two or more races; Population of two races; White; Native Hawaiian and Other Pacific Islander	Total population: Population of two or more races; Population of two races; Black or African American; American Indian and Alaska Native	Total population: Hispanic or Latino	Population for whom poverty status is determined: Total	Population for whom poverty status is determined: Income in 1999 below poverty level	Black	AIAN
	18	12		5		6849	512	970	34
	5	5		1		3304	292	386	17
	9	2		0		3149	305	263	18
	5	2		0		1,517	277	689	7
	14	3		0		2323	109	120	18
	12	1		0		1826	111	18	16
	6	15		2		2328	151	193	13
	5	1		0		834	169	2	10
	10	1		0		1610	172	7	14
	4	3		0		2766	253	14	7
MSA Totals	**1708**	**763**		**196**		**478747**	**54194**	**46826**	**3410**

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 1, Census Tract 801, Volusia County, Florida	10	0	60	0.05523	0.008956	0.004324	0.004324	0	0.01853
Block Group 2, Census Tract 801, Volusia County, Florida	16	0	19	0.064516	0.001894	0.001263	0.001263	0	0.011995
Block Group 1, Census Tract 802, Volusia County, Florida	16	0	27	0.026138	0.002542	0.007627	0.007627	0	0.022881
Block Group 2, Census Tract 802, Volusia County, Florida	9	0	29	0.086022	0.003626	0.005076	0.005076	0	0.02103
Block Group 3, Census Tract 802, Volusia County, Florida	7	7	30	0.08855	0.003986	0.006264	0.006264	0.003986	0.017084
Block Group 4, Census Tract 802, Volusia County, Florida	6	0	37	0.135836	0.00066	0.005281	0.005281	0	0.024422
Block Group 1, Census Tract 803, Volusia County, Florida	8	0	37	0.078471	0.010848	0.006903	0.006903	0	0.036489
Block Group 2, Census Tract 803, Volusia County, Florida	10	0	24	0.09467	0.003903	0.004684	0.004684	0	0.018735
Block Group 3, Census Tract 803, Volusia County, Florida	10	1	37	0.094314	0.004772	0.012952	0.012952	0.000682	0.025222
Block Group 1, Census Tract 804, Volusia County, Florida	15	0	43	0.026718	0.003111	0.001867	0.001867	0	0.026758
Block Group 2, Census Tract 804, Volusia County, Florida	5	0	9	0.053517	0.010542	0	0	0	0.013554
Block Group 3, Census Tract 804, Volusia County, Florida	13	0	13	0.036541	0.002509	0.005019	0.005019	0	0.016311
Block Group 4, Census Tract 804, Volusia County, Florida	8	0	23	0.071111	0.004405	0.007342	0.007342	0	0.033774
Block Group 1, Census Tract 805, Volusia County, Florida	14	0	50	0.188137	0.013527	0.001932	0.001932	0	0.048309
Block Group 2, Census Tract 805, Volusia County, Florida	41	1	50	0.110217	0.00786	0.003628	0.003628	0.000605	0.03023
Block Group 1, Census Tract 806, Volusia County, Florida	4	0	20	0.101086	0.092593	0.008818	0.008818	0	0.017637
Block Group 2, Census Tract 806, Volusia County, Florida	9	0	19	0.237687	0.494949	0.012121	0.012121	0	0.038384
Block Group 3, Census Tract 806, Volusia County, Florida	4	0	7	0.269414	0.253589	0.00319	0.00319	0	0.011164
Block Group 4, Census Tract 806, Volusia County, Florida	7	0	6	0.11756	0.0875	0.00625	0.00625	0	0.0075

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 5, Census Tract 806, Volusia County, Florida	2	0	15	0.09771	0.008559	0.002853	0.002853	0	0.021398
Block Group 1, Census Tract 807, Volusia County, Florida	50	4	48	0.01417	0.006981	0.003072	0.003072	0.001117	0.013404
Block Group 2, Census Tract 807, Volusia County, Florida	33	0	27	0.026298	0.005072	0.010145	0.010145	0	0.019565
Block Group 1, Census Tract 808.01, Volusia County, Florida	38	0	66	0.099598	0.034682	0.007707	0.007707	0	0.042389
Block Group 2, Census Tract 808.01, Volusia County, Florida	89	0	110	0.027209	0.006561	0.003554	0.003554	0	0.030071
Block Group 3, Census Tract 808.01, Volusia County, Florida	14	0	45	0.043936	0.008861	0.004874	0.004874	0	0.019938
Block Group 1, Census Tract 808.03, Volusia County, Florida	52	1	68	0.087419	0.043495	0.003	0.003	0.000375	0.025497
Block Group 2, Census Tract 808.03, Volusia County, Florida	7	0	31	0.088018	0.024812	0.010964	0.010964	0	0.017888
Block Group 3, Census Tract 808.03, Volusia County, Florida	4	1	12	0.02236	0.01218	0.009744	0.009744	0.001218	0.014616
Block Group 1, Census Tract 808.04, Volusia County, Florida	88	0	116	0.090774	0.025371	0.006394	0.006394	0	0.023927
Block Group 1, Census Tract 808.05, Volusia County, Florida	7	1	44	0.095708	0.015834	0.004263	0.004263	0.000609	0.026797
Block Group 2, Census Tract 808.05, Volusia County, Florida	15	0	64	0.187995	0.015987	0.017089	0.017089	0	0.035281
Block Group 3, Census Tract 808.05, Volusia County, Florida	34	0	118	0.217304	0.051112	0.010144	0.010144	0	0.04604
Block Group 1, Census Tract 809, Volusia County, Florida	14	0	36	0.078767	0.032609	0.004831	0.004831	0	0.043478

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 2, Census Tract 809, Volusia County, Florida	18	0	40	0.24513	0.267931	0.017312	0.017312	0	0.032976
Block Group 3, Census Tract 809, Volusia County, Florida	1	0	17	0.112654	0.064151	0.006038	0.006038	0	0.01283
Block Group 4, Census Tract 809, Volusia County, Florida	1	0	14	0.242884	0.282443	0.01145	0.01145	0	0.026718
Block Group 5, Census Tract 809, Volusia County, Florida	3	0	52	0.18663	0.084433	0.022427	0.022427	0	0.068602
Block Group 6, Census Tract 809, Volusia County, Florida	22	0	24	0.028399	0.095027	0.00444	0.00444	0	0.021314
Block Group 7, Census Tract 809, Volusia County, Florida	11	1	44	0.14393	0.072589	0.011918	0.011918	0.001083	0.047671
Block Group 8, Census Tract 809, Volusia County, Florida	12	0	32	0.181281	0.056696	0.017595	0.017595	0	0.031281
Block Group 1, Census Tract 810, Volusia County, Florida	10	1	90	0.217257	0.080552	0.016691	0.016691	0.000726	0.065312
Block Group 2, Census Tract 810, Volusia County, Florida	4	0	36	0.121175	0.020151	0.015113	0.015113	0	0.04534
Block Group 3, Census Tract 810, Volusia County, Florida	15	0	32	0.170804	0.058541	0.007678	0.007678	0	0.03071
Block Group 4, Census Tract 810, Volusia County, Florida	19	1	30	0.243056	0.062118	0.008147	0.008147	0.001018	0.03055
Block Group 1, Census Tract 811, Volusia County, Florida	22	0	79	0.19194	0.020422	0.006588	0.006588	0	0.052042
Block Group 2, Census Tract 811, Volusia County, Florida	7	2	33	0.08804	0.014061	0.007444	0.007444	0.001654	0.027295
Block Group 3, Census Tract 811, Volusia County, Florida	25	0	56	0.061422	0.006061	0.006061	0.006061	0	0.03771
Block Group 4, Census Tract 811, Volusia County, Florida	20	0	24	0.077307	0.007072	0.001414	0.001414	0	0.033946
Block Group 1, Census Tract 812, Volusia County, Florida	21	1	38	0.216461	0.027112	0.013241	0.013241	0.000631	0.02396
Block Group 2, Census Tract 812, Volusia County, Florida	14	0	56	0.243715	0.049054	0.012614	0.012614	0	0.039243
Block Group 3, Census Tract 812, Volusia County, Florida	12	0	6	0.286232	0.023973	0.010274	0.010274	0	0.010274
Block Group 4, Census Tract 812, Volusia County, Florida	18	6	67	0.3043	0.038306	0.018145	0.018145	0.006048	0.06754

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 2, Census Tract 813, Volusia County, Florida	41	0	42	0.215641	0.043073	0.012224	0.012224	0	0.024447
Block Group 3, Census Tract 813, Volusia County, Florida	22	0	21	0.10473	0.007018	0.002339	0.002339	0	0.024561
Block Group 2, Census Tract 815, Volusia County, Florida	10	0	6	0.301205	0.14214	0.031773	0.031773	0	0.010033
Block Group 3, Census Tract 815, Volusia County, Florida	8	0	14	0.416279	0.155251	0.015982	0.015982	0	0.031963
Block Group 4, Census Tract 815, Volusia County, Florida	7	0	22	0.399185	0.165591	0.010753	0.010753	0	0.047312
Block Group 5, Census Tract 815, Volusia County, Florida	12	0	17	0.450893	0.157143	0.020408	0.020408	0	0.034694
Block Group 1, Census Tract 816, Volusia County, Florida	23	1	51	0.266667	0.619281	0.006536	0.006536	0.000817	0.041667
Block Group 2, Census Tract 816, Volusia County, Florida	3	0	43	0.194499	0.5625	0.008152	0.008152	0	0.038949
Block Group 1, Census Tract 817, Volusia County, Florida	11	1	50	0.238869	0.242105	0.007719	0.007719	0.000702	0.035088
Block Group 2, Census Tract 817, Volusia County, Florida	6	2	40	0.165303	0.567454	0.000843	0.000843	0.001686	0.033727
Block Group 3, Census Tract 817, Volusia County, Florida	3	0	29	0.237893	0.796012	0.005368	0.005368	0	0.022239
Block Group 4, Census Tract 817, Volusia County, Florida	44	4	56	0.276197	0.379023	0.005364	0.005364	0.002384	0.033373
Block Group 5, Census Tract 817, Volusia County, Florida	4	0	29	0.364522	0.791324	0.006731	0.006731	0	0.02169
Block Group 1, Census Tract 818, Volusia County, Florida	4	2	21	0.26808	0.610286	0.005714	0.005714	0.002286	0.024
Block Group 2, Census Tract 818, Volusia County, Florida	8	0	53	0.233976	0.657743	0.006824	0.006824	0	0.027822
Block Group 3, Census Tract 818, Volusia County, Florida	2	2	25	0.164706	0.724816	0.007371	0.007371	0.002457	0.030713
Block Group 1, Census Tract 819, Volusia County, Florida	0	0	10	0.355793	0.966534	0.004781	0.004781	0	0.007968
Block Group 2, Census Tract 819, Volusia County, Florida	4	0	16	0.593531	0.979203	0.004333	0.004333	0	0.013865
Block Group 1, Census Tract 820, Volusia County, Florida	4	0	17	0.501104	0.933526	0.003854	0.003854	0	0.016378

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 2, Census Tract 820, Volusia County, Florida	9	1	37	0.593909	0.804795	0.009132	0.009132	0.000571	0.021119
Block Group 3, Census Tract 820, Volusia County, Florida	2	0	25	0.189046	0.089021	0.002967	0.002967	0	0.037092
Block Group 1, Census Tract 821, Volusia County, Florida	3	0	22	0.413549	0.932764	0.003202	0.003202	0	0.023479
Block Group 2, Census Tract 821, Volusia County, Florida	0	0	16	0.473493	0.967695	0.010279	0.010279	0	0.011747
Block Group 3, Census Tract 821, Volusia County, Florida	1	0	13	0.45392	0.973778	0.004768	0.004768	0	0.015495
Block Group 4, Census Tract 821, Volusia County, Florida	2	0	12	0.181215	0.902665	0.008111	0.008111	0	0.013905
Block Group 5, Census Tract 821, Volusia County, Florida	0	0	6	0.326579	0.902519	0.001095	0.001095	0	0.006572
Block Group 1, Census Tract 822.01, Volusia County, Florida	15	0	43	0.33517	0.177758	0.004378	0.004378	0	0.037653
Block Group 2, Census Tract 822.01, Volusia County, Florida	2	0	37	0.227273	0.256378	0.020408	0.020408	0	0.047194
Block Group 3, Census Tract 822.01, Volusia County, Florida	63	3	135	0.217156	0.23388	0.013843	0.013843	0.001093	0.04918
Block Group 1, Census Tract 822.02, Volusia County, Florida	31	0	67	0.083035	0.164841	0.002305	0.002305	0	0.038617
Block Group 1, Census Tract 823.01, Volusia County, Florida	73	1	87	0.12273	0.135033	0.00209	0.00209	0.000418	0.036371
Block Group 2, Census Tract 823.01, Volusia County, Florida	126	1	213	0.319859	0.32765	0.00527	0.00527	0.00031	0.066026
Block Group 1, Census Tract 823.02, Volusia County, Florida	114	6	132	0.369327	0.084629	0.008692	0.008692	0.002745	0.060384
Block Group 1, Census Tract 823.03, Volusia County, Florida	58	2	81	0.172876	0.042456	0.005879	0.005879	0.001306	0.052907

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 2, Census Tract 823.03, Volusia County, Florida	102	1	104	0.277198	0.295536	0.007589	0.007589	0.000446	0.046429
Block Group 1, Census Tract 824.01, Volusia County, Florida	60	2	73	0.132783	0.17875	0.00625	0.00625	0.00125	0.045625
Block Group 2, Census Tract 824.01, Volusia County, Florida	5	0	23	0.373541	0.165306	0.020408	0.020408	0	0.046939
Block Group 3, Census Tract 824.01, Volusia County, Florida	8	3	39	0.254729	0.212951	0.002491	0.002491	0.003736	0.048568
Block Group 4, Census Tract 824.01, Volusia County, Florida	8	0	31	0.047465	0.188498	0.001065	0.001065	0	0.033014
Block Group 1, Census Tract 824.04, Volusia County, Florida	32	0	41	0.177632	0.133425	0.008253	0.008253	0	0.028198
Block Group 2, Census Tract 824.04, Volusia County, Florida	28	0	30	0.083911	0.033069	0.005291	0.005291	0	0.019841
Block Group 1, Census Tract 824.05, Volusia County, Florida	4	0	36	0.071429	0.030325	0.007942	0.007942	0	0.025993
Block Group 2, Census Tract 824.05, Volusia County, Florida	2	0	27	0.111111	0.009901	0.006188	0.006188	0	0.033416
Block Group 3, Census Tract 824.05, Volusia County, Florida	26	0	18	0.039939	0.01597	0.00076	0.00076	0	0.013688
Block Group 4, Census Tract 824.05, Volusia County, Florida	5	0	19	0.033007	0.032609	0.002415	0.002415	0	0.022947
Block Group 1, Census Tract 824.06, Volusia County, Florida	23	2	55	0.037375	0.014108	0.000415	0.000415	0.00083	0.022822

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 1, Census Tract 824.08, Volusia County, Florida	13	0	83	0.138661	0.068144	0.005853	0.005853	0	0.034699
Block Group 2, Census Tract 824.08, Volusia County, Florida	23	1	48	0.080026	0.011043	0.006171	0.006171	0.000325	0.015589
Block Group 1, Census Tract 824.09, Volusia County, Florida	194	6	190	0.155046	0.074514	0.003886	0.003886	0.001371	0.043429
Block Group 2, Census Tract 824.09, Volusia County, Florida	111	2	132	0.071391	0.02221	0.003437	0.003437	0.000529	0.034902
Block Group 1, Census Tract 824.10, Volusia County, Florida	39	0	118	0.094215	0.019193	0.004451	0.004451	0	0.032823
Block Group 2, Census Tract 824.10, Volusia County, Florida	9	1	10	0.054302	0.003658	0.001463	0.001463	0.000732	0.007315
Block Group 1, Census Tract 825.01, Volusia County, Florida	2	0	8	0.079787	0.029877	0.003515	0.003515	0	0.01406
Block Group 2, Census Tract 825.01, Volusia County, Florida	9	0	26	0.27375	0.024038	0.014423	0.014423	0	0.03125
Block Group 3, Census Tract 825.01, Volusia County, Florida	9	0	25	0.118307	0.010195	0.011045	0.011045	0	0.02124
Block Group 4, Census Tract 825.01, Volusia County, Florida	8	0	24	0.071121	0.003286	0.002191	0.002191	0	0.026287
Block Group 5, Census Tract 825.01, Volusia County, Florida	25	0	39	0.149668	0.003794	0.002951	0.002951	0	0.016442
Block Group 6, Census Tract 825.01, Volusia County, Florida	4	0	19	0.040185	0.004511	0.009023	0.009023	0	0.028571

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 1, Census Tract 825.03, Volusia County, Florida	26	0	37	0.117027	0.021069	0.008736	0.008736	0	0.019013
Block Group 2, Census Tract 825.03, Volusia County, Florida	24	2	38	0.105014	0.017576	0.009251	0.009251	0.00185	0.035153
Block Group 3, Census Tract 825.03, Volusia County, Florida	0	0	19	0.138128	0.006674	0.007786	0.007786	0	0.021135
Block Group 4, Census Tract 825.03, Volusia County, Florida	25	0	74	0.070588	0.013172	0.003842	0.003842	0	0.040615
Block Group 1, Census Tract 825.05, Volusia County, Florida	42	0	67	0.039074	0.024379	0.005258	0.005258	0	0.032027
Block Group 2, Census Tract 825.05, Volusia County, Florida	53	0	76	0.015099	0.012622	0.004207	0.004207	0	0.019984
Block Group 3, Census Tract 825.05, Volusia County, Florida	19	1	38	0.039252	0.005509	0.002203	0.002203	0.000367	0.013955
Block Group 4, Census Tract 825.05, Volusia County, Florida	0	0	17	0.097892	0.02329	0.001456	0.001456	0	0.024745
Block Group 1, Census Tract 825.06, Volusia County, Florida	21	1	44	0.10228	0.011418	0.007612	0.007612	0.000317	0.013955
Block Group 2, Census Tract 825.06, Volusia County, Florida	19	0	65	0.0789	0.029497	0.004049	0.004049	0	0.037594
Block Group 1, Census Tract 825.07, Volusia County, Florida	40	0	55	0.065172	0.019503	0.002925	0.002925	0	0.026816
Block Group 2, Census Tract 825.07, Volusia County, Florida	26	2	61	0.034968	0.01473	0.005691	0.005691	0.00067	0.020422

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 3, Census Tract 825.07, Volusia County, Florida	7	0	56	0.13416	0.011364	0.00625	0.00625	0	0.031818
Block Group 1, Census Tract 826.01, Volusia County, Florida	17	0	18	0.084548	0.00761	0.004566	0.004566	0	0.027397
Block Group 2, Census Tract 826.01, Volusia County, Florida	26	0	21	0.138298	0.002466	0.01603	0.01603	0	0.025894
Block Group 3, Census Tract 826.01, Volusia County, Florida	31	5	14	0.061584	0.004854	0.007767	0.007767	0.004854	0.013592
Block Group 4, Census Tract 826.01, Volusia County, Florida	29	0	38	0.05269	0.005168	0.00443	0.00443	0	0.014027
Block Group 5, Census Tract 826.01, Volusia County, Florida	19	0	16	0.067655	0.016537	0.0107	0.0107	0	0.015564
Block Group 1, Census Tract 826.02, Volusia County, Florida	6	0	3	0.10475	0.002317	0.006952	0.006952	0	0.003476
Block Group 2, Census Tract 826.02, Volusia County, Florida	4	1	38	0.055994	0.002959	0.004438	0.004438	0.00074	0.028107
Block Group 3, Census Tract 826.02, Volusia County, Florida	23	1	40	0.050633	0.005756	0.004605	0.004605	0.000384	0.015349
Block Group 1, Census Tract 827.01, Volusia County, Florida	4	0	23	0.016393	0.005656	0.003394	0.003394	0	0.026018
Block Group 2, Census Tract 827.01, Volusia County, Florida	1	0	20	0.091793	0.002151	0.016129	0.016129	0	0.021505
Block Group 1, Census Tract 827.02, Volusia County, Florida	1	1	13	0.11678	0	0.011416	0.011416	0.001142	0.01484

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 2, Census Tract 827.02, Volusia County, Florida	7	0	11	0.064356	0.002423	0.001616	0.001616	0	0.008885
Block Group 3, Census Tract 827.02, Volusia County, Florida	12	1	24	0.040942	0.005764	0.003842	0.003842	0.000961	0.023055
Block Group 4, Census Tract 827.02, Volusia County, Florida	25	1	63	0.072489	0.011293	0.006819	0.006819	0.000213	0.013424
Block Group 1, Census Tract 828, Volusia County, Florida	9	5	43	0.092842	0.00933	0.007209	0.007209	0.00212	0.018236
Block Group 2, Census Tract 828, Volusia County, Florida	2	0	14	0.055109	0.003386	0.004515	0.004515	0	0.015801
Block Group 3, Census Tract 828, Volusia County, Florida	8	0	19	0.104707	0.003036	0.006073	0.006073	0	0.019231
Block Group 4, Census Tract 828, Volusia County, Florida	7	0	12	0.19583	0.005535	0.012915	0.012915	0	0.01107
Block Group 5, Census Tract 828, Volusia County, Florida	6	0	21	0.132075	0.013739	0.003925	0.003925	0	0.020608
Block Group 1, Census Tract 829.01, Volusia County, Florida	6	0	25	0.036638	0.010466	0.010989	0.010989	0	0.013082
Block Group 2, Census Tract 829.01, Volusia County, Florida	7	0	21	0.046538	0.006503	0.002295	0.002295	0	0.008034
Block Group 3, Census Tract 829.01, Volusia County, Florida	6	0	19	0.337861	0.641853	0.015715	0.015715	0	0.015715
Block Group 4, Census Tract 829.01, Volusia County, Florida	1	0	10	0.267932	0.415819	0.00565	0.00565	0	0.011299
Block Group 5, Census Tract 829.01, Volusia County, Florida	9	0	27	0.145704	0.336105	0.009501	0.009501	0	0.032067
Block Group 6, Census Tract 829.01, Volusia County, Florida	7	0	8	0.143895	0.007802	0	0	0	0.010403

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 1, Census Tract 829.02, Volusia County, Florida	16	0	20	0.283416	0.142012	0.024852	0.024852	0	0.023669
Block Group 2, Census Tract 829.02, Volusia County, Florida	28	0	22	0.072422	0.011891	0.006795	0.006795	0	0.012458
Block Group 3, Census Tract 829.02, Volusia County, Florida	2	1	10	0.062347	0.007029	0.003195	0.003195	0.000639	0.00639
Block Group 1, Census Tract 830.01, Volusia County, Florida	11	0	26	0.14435	0.033126	0.003451	0.003451	0	0.017943
Block Group 2, Census Tract 830.01, Volusia County, Florida	4	0	11	0.146274	0.004318	0.007772	0.007772	0	0.009499
Block Group 3, Census Tract 830.01, Volusia County, Florida	6	0	31	0.121951	0.007371	0.007371	0.007371	0	0.025389
Block Group 4, Census Tract 830.01, Volusia County, Florida	19	0	66	0.085286	0.016965	0.01131	0.01131	0	0.031103
Block Group 5, Census Tract 830.01, Volusia County, Florida	2	0	14	0.122099	0.009823	0.003929	0.003929	0	0.013752
Block Group 1, Census Tract 830.03, Volusia County, Florida	5	0	19	0.100357	0.004142	0.007101	0.007101	0	0.005621
Block Group 2, Census Tract 830.03, Volusia County, Florida	1	0	12	0.138674	0.024823	0.009752	0.009752	0	0.010638
Block Group 3, Census Tract 830.03, Volusia County, Florida	7	2	13	0.143035	0.287933	0.015532	0.015532	0.002389	0.015532
Block Group 1, Census Tract 830.04, Volusia County, Florida	22	1	46	0.091104	0.026069	0.004171	0.004171	0.000521	0.023983

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 2, Census Tract 830.04, Volusia County, Florida	21	0	33	0.104195	0.019052	0.007089	0.007089	0	0.014621
Block Group 3, Census Tract 830.04, Volusia County, Florida	10	1	60	0.074963	0.01789	0.005591	0.005591	0.000373	0.022363
Block Group 4, Census Tract 830.04, Volusia County, Florida	19	0	33	0.070442	0.016955	0.005529	0.005529	0	0.012164
Block Group 1, Census Tract 830.05, Volusia County, Florida	18	0	70	0.07816	0.005049	0.003787	0.003787	0	0.022089
Block Group 1, Census Tract 832.03, Volusia County, Florida	99	0	68	0.056515	0.015413	0.005754	0.005754	0	0.013975
Block Group 1, Census Tract 832.04, Volusia County, Florida	23	1	251	0.081459	0.25239	0.01494	0.01494	0.000199	0.05
Block Group 2, Census Tract 832.04, Volusia County, Florida	27	0	27	0.072966	0.005102	0.011224	0.011224	0	0.013776
Block Group 3, Census Tract 832.04, Volusia County, Florida	143	6	170	0.037111	0.013541	0.004514	0.004514	0.000752	0.021314
Block Group 4, Census Tract 832.04, Volusia County, Florida	15	1	42	0.054645	0.010689	0.012827	0.012827	0.000534	0.022448
Block Group 1, Census Tract 901.01, Volusia County, Florida	1	0	86	0.160714	0.361396	0	0	0	0.176591
Block Group 2, Census Tract 901.01, Volusia County, Florida	12	0	1271	0.255587	0.019246	0.005613	0.005613	0	0.509623
Block Group 3, Census Tract 901.01, Volusia County, Florida	19	1	228	0.080654	0.011	0.006	0.006	0.0005	0.114

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 1, Census Tract 901.02, Volusia County, Florida	8	2	1393	0.196831	0.033269	0.01303	0.01303	0.000554	0.386194
Block Group 1, Census Tract 902.01, Volusia County, Florida	9	1	122	0.0764	0.020918	0.007143	0.007143	0.00051	0.062245
Block Group 2, Census Tract 902.01, Volusia County, Florida	8	0	369	0.19621	0.020343	0.004283	0.004283	0	0.395075
Block Group 3, Census Tract 902.01, Volusia County, Florida	2	0	543	0.156539	0.106427	0.005529	0.005529	0	0.375259
Block Group 4, Census Tract 902.01, Volusia County, Florida	10	0	167	0.073171	0.012679	0.00818	0.00818	0	0.068303
Block Group 5, Census Tract 902.01, Volusia County, Florida	27	1	100	0.054694	0.020672	0.006891	0.006891	0.000431	0.043066
Block Group 1, Census Tract 902.02, Volusia County, Florida	21	1	199	0.1641	0.005307	0.008846	0.008846	0.000442	0.088014
Block Group 2, Census Tract 902.02, Volusia County, Florida	20	0	56	0.141688	0.023545	0.007848	0.007848	0	0.036625
Block Group 3, Census Tract 902.02, Volusia County, Florida	13	0	48	0.041617	0.01322	0.00661	0.00661	0	0.045326
Block Group 4, Census Tract 902.02, Volusia County, Florida	13	0	33	0.090261	0.096386	0.002008	0.002008	0	0.066265
Block Group 1, Census Tract 903.01, Volusia County, Florida	4	0	67	0.044944	0.016038	0.004812	0.004812	0	0.053729
Block Group 2, Census Tract 903.01, Volusia County, Florida	14	1	95	0.067494	0.019281	0.005562	0.005562	0.000371	0.035224

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 3, Census Tract 903.01, Volusia County, Florida	12	2	29	0.074807	0.02356	0.009599	0.009599	0.001745	0.025305
Block Group 4, Census Tract 903.01, Volusia County, Florida	20	0	64	0.016	0.02543	0.017203	0.017203	0	0.047868
Block Group 6, Census Tract 903.01, Volusia County, Florida	26	0	55	0.066056	0.007152	0.018856	0.018856	0	0.035761
Block Group 7, Census Tract 903.01, Volusia County, Florida	19	0	100	0.145091	0.04291	0.007463	0.007463	0	0.093284
Block Group 1, Census Tract 903.02, Volusia County, Florida	14	0	228	0.126516	0.068698	0.004986	0.004986	0	0.126316
Block Group 2, Census Tract 903.02, Volusia County, Florida	38	0	148	0.106053	0.115104	0.002428	0.002428	0	0.07188
Block Group 3, Census Tract 903.02, Volusia County, Florida	49	0	79	0.031686	0.024221	0.00346	0.00346	0	0.03417
Block Group 1, Census Tract 904, Volusia County, Florida	4	0	36	0.075881	0.023173	0.005348	0.005348	0	0.032086
Block Group 2, Census Tract 904, Volusia County, Florida	25	0	22	0.06746	0.011494	0.001149	0.001149	0	0.025287
Block Group 3, Census Tract 904, Volusia County, Florida	12	1	55	0.085443	0.035288	0.003976	0.003976	0.000497	0.027336
Block Group 4, Census Tract 904, Volusia County, Florida	19	1	51	0.146079	0.064795	0.008639	0.008639	0.00108	0.055076
Block Group 5, Census Tract 904, Volusia County, Florida	7	0	46	0.056867	0.052319	0.005945	0.005945	0	0.054697
Block Group 1, Census Tract 905, Volusia County, Florida	10	0	20	0.191393	0.103413	0.006205	0.006205	0	0.020683
Block Group 2, Census Tract 905, Volusia County, Florida	2	1	223	0.508224	0.284974	0	0	0.001727	0.385147
Block Group 3, Census Tract 905, Volusia County, Florida	7	0	89	0.258483	0.091725	0.017946	0.017946	0	0.088734

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 1, Census Tract 906, Volusia County, Florida	7	0	165	0.185884	0.290066	0.00596	0.00596	0	0.109272
Block Group 2, Census Tract 906, Volusia County, Florida	5	0	331	0.442524	0.508267	0.009346	0.009346	0	0.237958
Block Group 3, Census Tract 906, Volusia County, Florida	2	0	172	0.389764	0.29124	0.005688	0.005688	0	0.195677
Block Group 4, Census Tract 906, Volusia County, Florida	0	0	118	0.264423	0.792453	0.003431	0.003431	0	0.101201
Block Group 5, Census Tract 906, Volusia County, Florida	0	0	37	0.228824	0.45098	0.012255	0.012255	0	0.045343
Block Group 1, Census Tract 907.01, Volusia County, Florida	1	0	29	0.059406	0.02104	0.003713	0.003713	0	0.035891
Block Group 2, Census Tract 907.01, Volusia County, Florida	3	0	43	0.057646	0.033385	0.003106	0.003106	0	0.033385
Block Group 3, Census Tract 907.01, Volusia County, Florida	5	2	30	0.063704	0.003504	0.00911	0.00911	0.001402	0.021023
Block Group 4, Census Tract 907.01, Volusia County, Florida	17	0	130	0.092904	0.043973	0.011372	0.011372	0	0.09856
Block Group 1, Census Tract 907.02, Volusia County, Florida	14	0	43	0.145506	0.196078	0.002801	0.002801	0	0.060224
Block Group 2, Census Tract 907.02, Volusia County, Florida	0	0	157	0.339753	0.375718	0.005747	0.005747	0	0.112787
Block Group 3, Census Tract 907.02, Volusia County, Florida	7	0	31	0.139922	0.133591	0.007744	0.007744	0	0.03001
Block Group 4, Census Tract 907.02, Volusia County, Florida	5	0	46	0.431525	0.874074	0.003704	0.003704	0	0.05679
Block Group 1, Census Tract 908.01, Volusia County, Florida	3	0	17	0.064481	0.007856	0.003367	0.003367	0	0.01908

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 2, Census Tract 908.01, Volusia County, Florida	13	2	230	0.107679	0.028588	0.007147	0.007147	0.000572	0.065752
Block Group 3, Census Tract 908.01, Volusia County, Florida	30	0	153	0.05038	0.013146	0.005634	0.005634	0	0.071831
Block Group 4, Census Tract 908.01, Volusia County, Florida	13	0	91	0.104458	0.013572	0.008637	0.008637	0	0.056138
Block Group 5, Census Tract 908.01, Volusia County, Florida	7	0	82	0.160063	0.01419	0.008347	0.008347	0	0.068447
Block Group 1, Census Tract 908.02, Volusia County, Florida	4	0	53	0.091861	0.003177	0.00556	0.00556	0	0.042097
Block Group 2, Census Tract 908.02, Volusia County, Florida	1	1	11	0.036879	0.01533	0.004717	0.004717	0.001179	0.012972
Block Group 3, Census Tract 908.02, Volusia County, Florida	28	0	149	0.11692	0.023959	0.002282	0.002282	0	0.084997
Block Group 4, Census Tract 908.02, Volusia County, Florida	6	2	44	0.054226	0.085188	0.006907	0.006907	0.001535	0.033768
Block Group 6, Census Tract 908.02, Volusia County, Florida	11	0	91	0.061615	0.024187	0.00834	0.00834	0	0.037948
Block Group 1, Census Tract 909.01, Volusia County, Florida	41	0	118	0.0449	0.015914	0.002025	0.002025	0	0.034144
Block Group 2, Census Tract 909.01, Volusia County, Florida	3	1	30	0.051982	0.017352	0.004566	0.004566	0.000913	0.027397
Block Group 3, Census Tract 909.01, Volusia County, Florida	22	0	47	0.06847	0.016493	0.003472	0.003472	0	0.040799

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 4, Census Tract 909.01, Volusia County, Florida	21	0	39	0.094028	0.009726	0.003647	0.003647	0	0.023708
Block Group 1, Census Tract 909.02, Volusia County, Florida	64	0	205	0.030356	0.050772	0.006905	0.006905	0	0.083266
Block Group 2, Census Tract 909.02, Volusia County, Florida	10	0	41	0.16736	0.007202	0.003086	0.003086	0	0.042181
Block Group 3, Census Tract 909.02, Volusia County, Florida	6	0	39	0.061483	0.01701	0.003581	0.003581	0	0.034915
Block Group 4, Census Tract 909.02, Volusia County, Florida	15	0	56	0.062079	0.026016	0.013008	0.013008	0	0.045528
Block Group 5, Census Tract 909.02, Volusia County, Florida	13	0	92	0.113424	0.011663	0.005578	0.005578	0	0.046653
Block Group 1, Census Tract 910.01, Volusia County, Florida	0	0	4	0.053012	0.006075	0	0	0	0.00486
Block Group 2, Census Tract 910.01, Volusia County, Florida	10	0	56	0.102628	0.118047	0.006799	0.006799	0	0.034611
Block Group 3, Census Tract 910.01, Volusia County, Florida	28	0	264	0.150047	0.108834	0.008197	0.008197	0	0.120219
Block Group 1, Census Tract 910.05, Volusia County, Florida	2	0	22	0.284768	0.089485	0.035794	0.035794	0	0.049217
Block Group 2, Census Tract 910.05, Volusia County, Florida	4	0	52	0.052	0.053805	0.003075	0.003075	0	0.039969
Block Group 1, Census Tract 910.06, Volusia County, Florida	48	8	411	0.086888	0.070328	0.011853	0.011853	0.003161	0.162386

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 2, Census Tract 910.06, Volusia County, Florida	26	0	471	0.07457	0.050311	0.006229	0.006229	0	0.225683
Block Group 3, Census Tract 910.06, Volusia County, Florida	33	0	413	0.085761	0.062367	0.008529	0.008529	0	0.220149
Block Group 4, Census Tract 910.06, Volusia County, Florida	14	0	157	0.072276	0.074423	0.006289	0.006289	0	0.16457
Block Group 5, Census Tract 910.06, Volusia County, Florida	14	0	284	0.115007	0.060208	0.010381	0.010381	0	0.19654
Block Group 1, Census Tract 910.07, Volusia County, Florida	7	0	341	0.103268	0.075647	0.005972	0.005972	0	0.226277
Block Group 2, Census Tract 910.07, Volusia County, Florida	19	0	191	0.043685	0.034019	0.003165	0.003165	0	0.151108
Block Group 3, Census Tract 910.07, Volusia County, Florida	44	2	391	0.09879	0.066766	0.004946	0.004946	0.000989	0.193373
Block Group 4, Census Tract 910.07, Volusia County, Florida	24	0	340	0.105193	0.092432	0.009305	0.009305	0	0.210918
Block Group 5, Census Tract 910.07, Volusia County, Florida	23	0	313	0.020225	0.074592	0.008547	0.008547	0	0.243201
Block Group 6, Census Tract 910.07, Volusia County, Florida	11	0	217	0.172813	0.056156	0.007559	0.007559	0	0.234341
Block Group 1, Census Tract 910.09, Volusia County, Florida	19	0	383	0.120832	0.106121	0.007045	0.007045	0	0.168648
Block Group 2, Census Tract 910.09, Volusia County, Florida	28	1	527	0.045502	0.091582	0.004714	0.004714	0.000337	0.177441

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 3, Census Tract 910.09, Volusia County, Florida	31	0	481	0.153783	0.102922	0.011436	0.011436	0	0.203727
Block Group 4, Census Tract 910.09, Volusia County, Florida	18	0	303	0.137841	0.059327	0.007951	0.007951	0	0.185321
Block Group 1, Census Tract 910.10, Volusia County, Florida	11	1	227	0.104924	0.051419	0.006963	0.006963	0.000536	0.121585
Block Group 2, Census Tract 910.10, Volusia County, Florida	29	1	356	0.069701	0.062092	0.00915	0.00915	0.000327	0.11634
Block Group 3, Census Tract 910.10, Volusia County, Florida	16	5	419	0.031764	0.043844	0.004805	0.004805	0.001502	0.125826
Block Group 4, Census Tract 910.10, Volusia County, Florida	51	7	433	0.068931	0.051634	0.004737	0.004737	0.003316	0.205116
Block Group 1, Census Tract 910.11, Volusia County, Florida	41	6	550	0.070032	0.087024	0.006813	0.006813	0.001858	0.170331
Block Group 2, Census Tract 910.11, Volusia County, Florida	14	0	347	0.031402	0.0759	0.003878	0.003878	0	0.192244
Block Group 3, Census Tract 910.11, Volusia County, Florida	16	0	437	0.093277	0.079493	0.006765	0.006765	0	0.184778
Block Group 4, Census Tract 910.11, Volusia County, Florida	1	0	353	0.233168	0.103283	0.012312	0.012312	0	0.24145
Block Group 1, Census Tract 910.12, Volusia County, Florida	32	0	486	0.044874	0.070611	0.007101	0.007101	0	0.191716
Block Group 2, Census Tract 910.12, Volusia County, Florida	36	2	450	0.054152	0.074645	0.009066	0.009066	0.000604	0.135993

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
Block Group 3, Census Tract 910.12, Volusia County, Florida	25	0	382	0.049406	0.078378	0.002703	0.002703	0	0.14749
Block Group 4, Census Tract 910.12, Volusia County, Florida	21	1	547	0.061742	0.084728	0.004783	0.004783	0.000342	0.186881
Block Group 1, Census Tract 910.13, Volusia County, Florida	7	1	278	0.118655	0.066751	0.018892	0.018892	0.00063	0.175063
Block Group 2, Census Tract 910.13, Volusia County, Florida	44	1	637	0.073206	0.069544	0.01529	0.01529	0.000247	0.15709
Block Group 3, Census Tract 910.13, Volusia County, Florida	3	0	166	0.125471	0.047101	0.013285	0.013285	0	0.200483
Block Group 1, Census Tract 910.14, Volusia County, Florida	16	1	424	0.028653	0.09438	0.005043	0.005043	0.00072	0.305476
Block Group 2, Census Tract 910.14, Volusia County, Florida	29	1	681	0.0624	0.085516	0.009002	0.009002	0.000409	0.278642
Block Group 3, Census Tract 910.14, Volusia County, Florida	18	0	288	0.057763	0.041166	0.012022	0.012022	0	0.104918
Block Group 4, Census Tract 910.14, Volusia County, Florida	10	0	19	0.051308	0.01086	0.004525	0.004525	0	0.017195
Volusia County Subtotal	**5096**	**164**	**29111**	**0.116209**	**0.095407**	**0.006956**	**0.006956**	**0.00037**	**0.065662**
Flagler County	29	0	82	0.012945	0.08177	0.006253	0.006253	0	0.039442
	32	0	168	0.034409	0.082395	0.0087	0.0087	0	0.085977
	21	0	173	0.226683	0.081181	0.00615	0.00615	0	0.106396
	9	0	29	0.083061	0.013158	0.009868	0.009868	0	0.013628
	51	0	83	0.034532	0.030741	0.00651	0.00651	0	0.030018
	26	0	102	0.082098	0.048593	0.002558	0.002558	0	0.052174
	148	4	593	0.099429	0.116863	0.00834	0.00834	0.000407	0.060313
	19	0	16	0.127854	0.068554	0.008942	0.008942	0	0.023845

Table C: MSA and County Population Figures and Calculations

Census Column Code									
Geography	Asian	NHOPI	Hisp	Percent Low Income	Percent Black	Percent AIAN	Percent Asian	Percent NHOPI	Percent Hispanic
	137	4	499	0.074755	0.141627	0.004964	0.004964	0.000584	0.072857
	69	0	272	0.088378	0.115846	0.005102	0.005102	0	0.081633
	43	3	163	0.096856	0.081957	0.005609	0.005609	0.000935	0.050795
	9	0	49	0.182597	0.411098	0.004177	0.004177	0	0.029236
	11	0	47	0.046922	0.050336	0.00755	0.00755	0	0.019715
	3	0	12	0.060789	0.009569	0.008506	0.008506	0	0.00638
	39	0	155	0.064863	0.084612	0.005699	0.005699	0	0.067953
	16	0	17	0.202638	0.002203	0.011013	0.011013	0	0.018722
	2	0	31	0.106832	0.004367	0.008734	0.008734	0	0.019339
	16	1	46	0.091468	0.005187	0.002594	0.002594	0.000371	0.017043
MSA Totals	**5776**	**176**	**31648**	**0.1132**	**0.094948**	**0.003451**	**0.004601**	**0.000357**	**0.064172**