

FINAL

AECOM



Demographic Analysis Report

Estimated Fort Huachuca-Attributable Population

May 27, 2022

Delivering a better world

Prepared for:
USAG Fort Huachuca

Prepared by:
AECOM
One California Plaza
300 South Grand Avenue
Los Angeles, CA 90071

T: +1 (213) 593 8100
F: +1 (213) 593 8178
aecom.com

Copyright © 2022 by AECOM
All rights reserved. No part of this copyrighted work may be reproduced, distributed, or transmitted in any form or by any means without the prior written permission of AECOM.

Table of Contents

Executive Summary	1
Introduction	4
Methodology.....	5
Demographic Survey	6
Data Limitations.....	6
2020 Fort Huachuca Census.....	6
2021 Demographic Survey.....	6
Other Sources	7
Demographic Analysis.....	7
Direct Population Estimates	7
Place of Residence.....	7
Military Population Estimates.....	8
Fort Student Population Estimates.....	8
Civilian & DOD Contractor Population Estimates.....	8
Retiree Population Estimates	9
Total Direct Population Estimates	9
Indirect Population Estimates	10
Military Household Estimates	10
Civilian & DOD Contractor Household Estimates.....	11
Retiree Household Estimates	11
Total Indirect Population Estimates	12
Induced Population Estimates	12
Direct, Indirect and Induced Population for 2021	13
Estimates by Zip Code for Groundwater Model	14
Recommendations	15
Survey Results Summary.....	16
Introduction	16
Survey Results	16
General Limiting Conditions	24

Figures

Figure 1: Area of Analysis.....	1
Figure 2: Area of Analysis.....	4

Tables

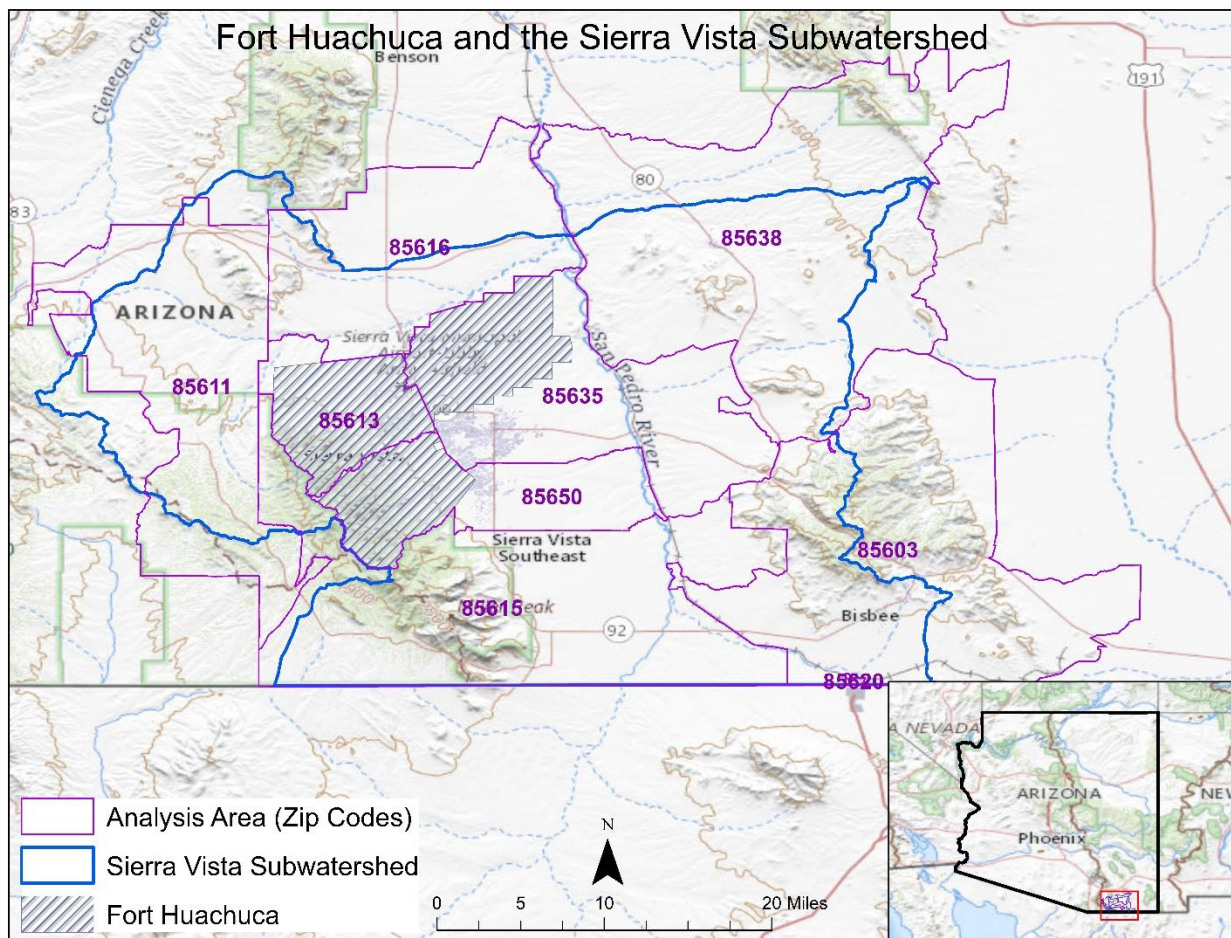
Table 1: Summary of Estimated Fort Huachuca Attributable Population Within the SVS, 2021	2
Table 2: Demographic Survey Respondents Living in the SVS – Percentages by Zip Code	3
Table 3: SVS Fort-Attributable Population Allocated by Zip Code	3
Table 4: 2021 Military Population Estimate.....	8
Table 5: 2021 Student Population Estimate.....	8
Table 6: 2021 DOD Civilian & Contractor Estimate	9
Table 7: 2021 Retiree Population Estimates	9
Table 8: 2021 Estimated Population Directly Attributable to Fort Huachuca Inside the SVS	10
Table 9: 2021 Adjusted Military Household Member Estimate	11
Table 10: 2021 Adjusted DOD Civilian & Contractor Household Member Estimate	11

Table 11: 2021 Adjusted Retiree Household Member Estimates	12
Table 12: 2021 Estimated Population Indirectly Attributable to Fort Huachuca	12
Table 13: 2021 Estimated Induced Jobs & Household Members	12
Table 14: 2021 Direct, Indirect, and Induced Population Estimates Within the SVS.....	13
Table 15: Alternate Method for Estimating Unadjusted Fort-Attributable Population	13
Table 16: Fort-Attributable Populations Estimate Compared to Total 2021 SVS Population	13
Table 17: Fort-Attributable Jobs Estimate Compared to Total 2021 SVS Jobs.....	14
Table 18: Demographic Survey Respondents Living in the SVS – Percentages by Zip Code	14
Table 19: Adjusted Civilian Employees by SVS Zip Code.....	15
Table 20: Estimated SVS Direct, Indirect, and Induced Population by Zip Code, SVS.....	15

Executive Summary

The purpose of the Demographic Analysis is to estimate the direct, indirect, and induced population attributable to Fort Huachuca, to inform both the groundwater model and the Economic Impact Analysis (EIA). The Demographic Analysis estimates the total population attributable to the Fort, including household members, including dependents, located within the zip codes located approximately within the Sierra Vista Subwatershed (SVS), to provide a more complete picture of household spending, and therefore economic impact, attributable to the Fort, as well as providing a baseline to estimate groundwater pumping attributable to the Fort.

Figure 1: Area of Analysis¹



Source: ESRI, AECOM, 2021

The yearly Fort Huachuca Census of military personnel, Department of Defense (DOD) civilian employees, and DOD contractors assigned to the Fort (conducted every September) provides the basis for the Demographic Analysis. Like the nationwide census, the Fort’s Census attempts to count the entire population attributable to the Fort; however, also like the nationwide Census, it is difficult to obtain a 100% response rate. Additionally, it is possible that Fort personnel who hold more than one job at the Fort may be double counted by the Fort Census. The Demographic Survey, as well as other population and

¹ The geography shown in the map is an aggregation of the zip codes that approximate the Sierra Vista Subwatershed. IMPLAN modelling relies on zip codes as the smallest geographies, and this aggregation represents the closest approximation to measure the economic impacts of the Fort. The physical geographical watershed differs slightly from the zip code map, particularly on the peripheries of the northeast and southwest. Nonetheless, these areas are either natural reserves or sparsely populated rural lands that do not encompass significant economic activities.

household data collected for the SVS from other sources, provides a cross-check of the Fort Census totals, and can help to fill in gaps in the data and generate assumptions for the Analysis, where no better data is available. However, it is important to note that no survey, census, or other method of estimating population size and characteristics is 100% accurate; therefore, all population numbers are estimates, generated using the best available data for the populations referenced.

Estimating the population and households attributable to the Fort provides the baseline for both estimating total economic impact attributable to Fort operations and estimating attributable groundwater pumping. For the purposes of both the groundwater model and the Economic Impact Analysis, the following terminology is used:

- **Direct** population attributable to the Fort – personnel working for the U.S. Military and tenant organizations on post, as well as students training at the Fort, and retirees receiving military pay who may be associated with the Fort. Both full-time-equivalent (FTE), meaning employees that work enough hours (typically 40 per week) for a single organization to be considered “full time” by the Fort, and part-time (PT) personnel are treated as FTEs, for the purposes of this analysis
- **Indirect** population attributable to the Fort – household members, including dependents, living in the same household of persons associated with the Fort
- **Induced** population attributable to the Fort – employees and their households that result from the provision of goods and services to the Direct and Indirect populations. This estimate comes from the IMPLAN economic impact model that calculates the FTE jobs based on the Fort and its attributable population in the SVS

Table 1 shows a summary of the estimated direct, indirect, and induced population in the SVS attributable to the Fort in 2021. The methodology and approach used to derive these population estimates is detailed in the following sections.

Table 1: Summary of Estimated Fort Huachuca Attributable Population Within the SVS, 2021

Category	Estimate	Source
Total Direct Population	10,808	Table 6
Total Indirect Population	7,690	Table 10
Total Induced Population	8,110	Table 11
Total Fort-Attributable Population	26,609	Calculated

Table Note - Numbers may not add due to rounding

AECOM, 2021

In addition to the 2020 Fort Huachuca Census, the Demographic Analysis also relied on information on Fort civilian employees by zip code from the Defense Personnel Assessment Center (DPAC); information on regional DOD retirees from the DOD Office of the Actuary; the analysis by IMPLAN of “induced” employees generated by Fort operations, and the 2021 Demographic Survey (distributed to Fort tenant organization employees) for estimating how many Fort employees, Fort-linked retirees, and Fort-attributable household members were attributable to the Fort within the SVS.

The Fort-attributable population was then estimated on a zip code level within the SVS by allocating direct, indirect, and induced persons using the responses from the Demographic Survey (Table 2), to estimate Fort-attributable groundwater pumping by zip code (Table 3). It is important to note that these are estimates, based on data collected in 2021 for 2020 and 2021 from multiple sources. A +/- factor of 10% from the baseline estimate was included to account for the uncertainty inherent in the estimates, in order to estimate a range of Fort-attributable groundwater withdrawal amounts by Fort personnel, their household members, and the induced population.

Table 2: Demographic Survey Respondents Living in the SVS – Percentages by Zip Code

Zip	Demographic Survey Respondents
85603	0.4%
85611	0.4%
85613	11.0%
85615	9.2%
85616	4.2%
85620	0.4%
85635	31.1%
85636	31.1%
85638	0.3%
85650	12.0%
Grand Total	100.0%

Table Note 1 - Numbers may not add due to rounding

Sources: 2021 Demographic Survey; AECOM

Table 3: SVS Fort-Attributable Population Allocated by Zip Code

Zip	Direct	Indirect	Induced	Preliminary Estimate	Minus 10%	Plus 10%
85603	47	35	31	112	101	124
85611	44	32	31	107	96	118
85613	1,062	726	890	2,678	2,410	2,945
85615	1,019	731	746	2,496	2,246	2,745
85616	475	342	342	1,159	1,043	1,275
85620	37	25	31	92	83	102
85635	3,674	2,689	2,519	8,882	7,994	9,770
85636	2,869	1,926	2,519	7,314	6,582	8,045
85638	34	24	25	83	75	92
85650	1,549	1,161	976	3,685	3,317	4,054
Grand Total	10,808	7,690	8,110	26,609	23,948	29,269

Table Note 1 - Numbers may not add due to rounding

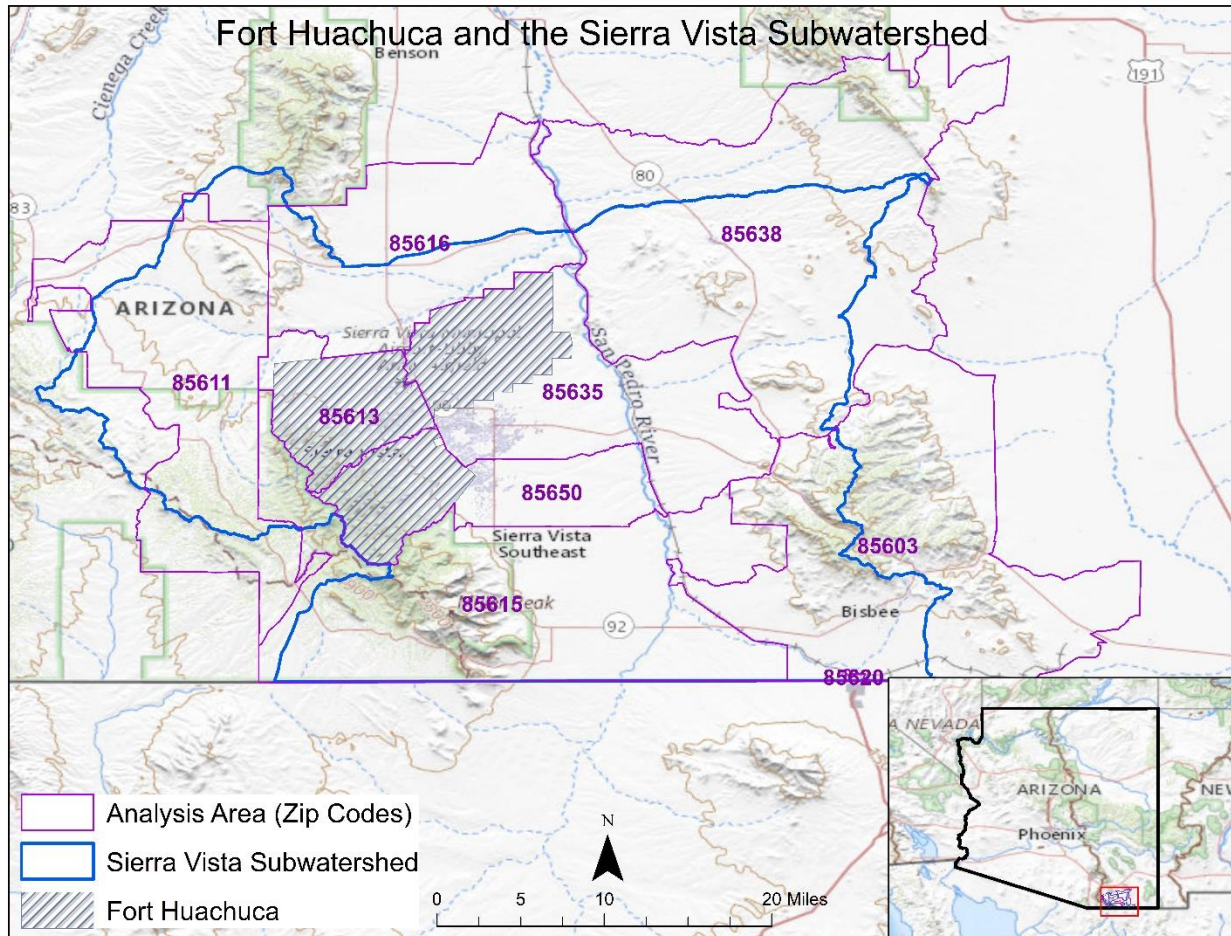
Table Note 2 - For the purposes of allocating the remaining Fort-attributable population, actual data on Fort-attributable civilian employees by zip code have been removed, then added back into the Direct, Indirect, and Induced Populations

Sources: U.S. Army, 2021; 2021 Demographic Survey; AECOM Estimate, 2022

Introduction

The purpose of the Demographic Analysis is to estimate the direct, indirect, and induced population attributable to Fort Huachuca, to inform both the groundwater model and the Economic Impact Analysis (EIA). The Demographic Analysis estimates the total population attributable to the Fort, including household members, including dependents, located within the zip codes located approximately within the Sierra Vista Subwatershed (SVS), to provide a more complete picture of household spending, and therefore economic impact, attributable to the Fort, as well as providing a baseline to estimate groundwater pumping attributable to the Fort.

Figure 2: Area of Analysis²



Source: ESRI, AECOM, 2021

The yearly Fort Huachuca Census of military personnel, Department of Defense (DOD) civilian employees, and DOD contractors assigned to the Fort (conducted every September) provides the basis for the Demographic Analysis. Like the nationwide census, the Fort’s Census attempts to count the entire population attributable to the Fort; however, also like the nationwide Census, it is difficult to obtain a 100% response rate. Additionally, it is possible that Fort personnel who hold more than one job at the Fort may be double counted by the Fort Census. The Demographic Survey, as well as other population and household data collected for the SVS from other sources, provides a cross-check of the Fort Census totals, and can help to fill in gaps in the data and generate assumptions for the Analysis, where no better data is available. However, it is important to note that no survey, census, or other method of estimating

² The geography shown in the map is an aggregation of the zip codes that approximate the Sierra Vista Subwatershed. IMPLAN modelling relies on zip codes as the smallest geographies, and this aggregation represents the closest approximation to measure the economic impacts of the Fort. The physical geographical watershed differs slightly from the zip code map, particularly on the peripheries of the northeast and southwest. Nonetheless, these areas are either natural reserves or sparsely populated rural lands that do not encompass significant economic activities.

population size and characteristics is 100% accurate; therefore, all population numbers are estimates, generated using the best available data for the populations referenced.

Estimating the population and households attributable to the Fort provides the baseline for both estimating total economic impact attributable to Fort operations and estimating attributable groundwater pumping. For the purposes of both the groundwater model and the Economic Impact Analysis, the following terminology is used:

- **Direct** population attributable to the Fort – personnel working for the U.S. Military and tenant organizations on post, as well as students training at the Fort, and retirees receiving military pay who may be associated with the Fort. Both full-time-equivalent (FTE), meaning employees that work enough hours (typically 40 per week) for a single organization to be considered “full time” by the Fort, and part-time (PT) personnel are treated as FTEs, for the purposes of this analysis
- **Indirect** population attributable to the Fort – household members, including dependents, living in the same household of persons associated with the Fort
- **Induced** population attributable to the Fort – employees and their households that result from the provision of goods and services to the Direct and Indirect populations. This estimate comes from the IMPLAN economic impact model that calculates the FTE jobs based on the Fort and its attributable population in the SVS

Methodology

As previously noted, because there is no single method that provides an entirely accurate population count, AECOM chose to cross-reference multiple sources for this report in an attempt to reduce uncertainty in the estimates and cross-check for error, including:

- The 2020 Fort Huachuca Census, provided by the Fort Huachuca Garrison
- The 2021 Demographic Survey, drafted by AECOM and distributed by the Fort Huachuca Garrison
- The Defense Personnel Assessment Center (DPAC) (<https://www.opadefense.org/>)
- DOD Office of the Actuary (<https://actuary.defense.gov/>)
- The U.S. Census (<https://www.census.gov/>)
- The U.S. American Community Survey (U.S. ACS) (<https://www.census.gov/programs-surveys/acs>)
- ESRI Estimates (<https://www.esri.com/en-us/arcgis/products/arcgis-business-analyst/overview>)
- IMPLAN Software (and associated packaged inputs and assumptions) (<https://www.implan.com/>)
- The Maguire Company, *Economic Impact of Arizona’s Military Operations*, 2017 (<http://aemaquire.com/militarystudy/>)

The Fort Census, data on Fort civilian employees from DPAC by zip code, and information on DOD retirees in the surrounding area from the Office of the Actuary provided the baseline for the direct and indirect population estimates. The Fort’s Census includes its 50+ separate DOD and non-DOD tenant organizations. Because personnel may be employed by more than one organization, each organization may count that person as an employee, therefore counting a single person multiple times. Similarly, any retirees associated with the Fort who live in the SVS and currently hold a position at the Fort could also be double counted as both retirees and employees of the Fort.

The 2021 Demographic Survey, which was drafted by the consultant as sent out by the Fort as a supplement to the Fort Census, was used to adjust the Fort Census population numbers in an attempt to reduce/eliminate double counting of personnel directly attributable to Fort Huachuca, as explained in the following section. Population and average household size estimates were compared across multiple sources, to provide a cross-check of assumptions; assumptions used to calculate the Fort-attributable population estimates are cited in each summary table.

The 2017 report by the Maguire Company, *Economic Impact of Arizona’s Military Operations*, was also used to cross-check assumptions, and provides the basis for estimating retirees “linked” to Fort Huachuca, in the absence of more definitive data (the report estimates 25% of DOD retirees in area are “linked” to the Fort, and this analysis carries that assumption forward, as it is considered to be the best available data on Fort-attributable retirees).

The IMPLAN software used for estimating Fort Huachuca’s total economic impact uses a combination of manual inputs and built-in assumptions and data that model local economic relationships. IMPLAN was

primarily used for the EIA, to help estimate how employment and spending (including on contracts for goods and services) attributable to the Fort impact the SVS, Cochise County, the State of Arizona, and the greater U.S. It was also used to estimate “induced” jobs/population associated with Fort operations, which are explained in more detail in the Demographic Analysis section.

Demographic Survey

The Demographic Survey provides additional information about household makeup, income, and geographic distribution of Fort-attributable households to inform the Demographic Analysis and EIA. The questions for the 2021 Demographic Survey were based on the survey distributed to support the 2013 Fort Huachuca PBA, but were adjusted slightly to request more specific information, including household income estimates, which were not included in the 2013 Survey. The 2021 Survey was distributed via email by the Fort Huachuca Garrison. It was sent to the Fort’s database of personnel emails, using the online survey platform SurveyMonkey, which automatically tabulates responses, and provides a spreadsheet-based report of the final results once the survey has been closed. The Survey ran from November 4, 2021 to November 19, 2021.

The Survey was sent out to 5,281 emails of individuals employed at Fort Huachuca previously collected by the Garrison. Of those emails, 1,475 persons answered at least one question on the Demographic Survey, a response rate of approximately 28%. However, not all respondents answered every applicable question, so the response rate varied by question. Of those who responded, 19% indicated that they were active-duty military, 63% said that they were a civilian government employee at the Fort, 11% said that they were a civilian employee working for a non-federal entity at FH, and 6% responded “other” (83 of the 90 respondents who said “other” stated that they were contractors).

Data Limitations

2020 Fort Huachuca Census

The annual Fort Census, as aforementioned, only tallies who reports working for each organization, and therefore does not account for double counting of personnel who work for multiple organizations. The Census does not ask personnel to provide additional details – the only question they are asked is whether they work for the Fort, and which classification (permanent party military, full-time contractor, part-time contractor, student, full-time civilian, or part-time civilian) they fall under. Recommendations for improving data collection going forward to better support efforts like the PBA are detailed in the Recommendations section of this report.

2021 Demographic Survey

As previously noted, the survey was sent out to a database of 5,281 emails, representing Fort Huachuca tenant organization employees and garrison personnel. However, the garrison was unable to provide a full email list for every single employee working at Fort Huachuca, and the majority of the emails were for tenant organization employees, so they are overrepresented in this survey. Also, as mentioned, only 28% of the employees who received the survey responded, so the survey should not be considered wholly representative of every employee working for the Fort. Rather, it is another source from which to estimate population, supplemented by data from other sources, such as that provided by the Fort Huachuca Census, the DoD Office of the Actuary, and the U.S. Census/U.S. ACS.

Additionally, not all respondents answered every applicable question, so the response rate varied by question, sometimes significantly. It is possible that respondents were confused by the questions, or for whatever reason chose to skip a particular question because they felt it did not pertain to them. Therefore, each table in the Survey Results section of this report includes the percentage of those who actually responded to that particular question, the number who responded, and the percentage of the total number of persons (1,475) who took the survey in three separate columns.

Surveys are almost always unreliable, unless the survey is distributed to the entire population in question, the response rate is very high, and there is some way of ensuring that respondents answer each question truthfully and completely. Unfortunately, given the limitations of this study, this was not achievable for this particular survey. Even the U.S. Census is not wholly “accurate,” as it relies on self-reported data, and

does not always reach every person living in the U.S. Again, this is why the consultant has chosen to reference multiple other data sources as a cross-check. Assumptions used to calculate each baseline estimate are noted in the tables in the Demographic Analysis Section; where estimates are aggregated from previous tables, they are referred to as “AECOM Estimates.”

Other Sources

Whenever possible, population estimates generated for this report relied on data sourced directly from the DOD. The non-DOD sources referenced for this report apply to broader population, outside the Fort’s fence line. This population includes both persons attributable to the Fort, and those who are not; for example, data from the U.S. Census and U.S. ACS is only available at certain geographies (e.g., Census tracts, zip codes, counties, metropolitan statistical areas, and so forth), and does not include persons living on-post at Fort Huachuca, although it does include DOD-linked persons/households living in the broader community. Although this data gives some insight into metrics like household size and population density, it is not specific to Fort or even to DOD personnel more broadly, and thus creates more room for error. The best data on Fort-attributable population is what is supplied by the Fort, its tenant organizations, and other Army/DOD sources, and, as previously noted, this information is incomplete. Therefore, there is significant room for error in the population estimates generated for this report, because they are built on incomplete data from multiple DOD and non-DOD sources across multiple time horizons. As detailed in the Recommendations section, in order to correct for this, the Fort will need to start collecting more of the information outlined in this report directly from its personnel/tenant organizations on a regular basis.

Demographic Analysis

Direct Population Estimates

For the purposes of the demographic analysis, the following categories of Fort Huachuca personnel are considered “direct” population attributable to the Fort:

- Permanent Party Military
- Fort Huachuca Students
- DOD Civilian Employees
- DOD Contractor Employees
- 25% of SVS Army Retirees receiving income from the DOD

These categories also provide the baseline for estimating indirect (household members) and induced population/employment attributable to Fort Huachuca. As previously noted, the figures from the 2020 Fort Huachuca Census are adjusted for double counting when possible, using the Demographic Survey and other resources, where appropriate. The Survey asked personnel to report if they have more than one job associated with the Fort; only 7% of respondents to the question said that they had more than one job at Fort Huachuca. The survey also asked respondents if they were considered a retiree, but currently held a position at the Fort; 3% of the total persons who responded to the survey said that they were. Those percentages are then applied to the Census counts and estimate of total retirees (provided by the DOD Office of the Actuary for the zip codes making up the SVS), to reduce the Census counts appropriately and account for double counting. The results of these adjustments give an estimate of the population directly attributable to the Fort.

Place of Residence

It is also important to determine where exactly Fort Huachuca attributable personnel and their families live, to understand which economic and groundwater impacts from Fort-attributable households fall within the SVS. Responses to the 2021 Demographic Survey were used to estimate the number of permanent party military, students, DOD civilians, and DOD contractors attributable to Fort Huachuca residing in the SVS. Of those who responded to the question “Is your primary residence located within the Sierra Vista Subwatershed (SVS)?” 80% of respondents said yes, and 20% said no. This percentage was then applied to the adjusted estimated totals for each direct population category described in the previous section, except for retirees, students, and Fort civilian personnel, as the Fort, DPAC, and Office of the Actuary were able to provide zip-code-based estimates for those populations.

Military Population Estimates

The 2020 Fort Huachuca Census estimates the Fort's permanent party military population at 2,250, which was used as the baseline for the Demographic Analysis. The Census breaks personnel into the following categories:

- Permanent party military
- Full-time contractor
- Part-time contractor
- Students
- Full-time civilians
- Part-time civilians

For the purposes of this analysis, both full- and part-time Fort employees are considered directly attributable to the Fort. There is not enough detailed information available to make assumptions about working hours for full- and part-time employees of the Fort, and assuming that both full- and part-time employees are directly attributable to the Fort also provides a more conservative (higher) population estimate for groundwater pumping that may be attributable to Fort-connected households. It should be noted that 93% percent of respondents did not hold a second job at the Fort, so the risk for double counting jobs is relatively low; however, population estimates have been adjusted accordingly, by removing 7% of the total from the 2020 Census estimate for the Military population. Table 4 shows the total estimated number of full-time military members attributable to Fort Huachuca in 2021, with a further breakdown of on- and off-post population.

Table 4: 2021 Military Population Estimate

Category	2021 Estimate	Sources	Assumptions
Military Personnel	2,250	2020 FH Census	
Military On-Post	1,013	Fort Huachuca, 2021	
Military Off-Post	1,080	Estimate	
Adjusted Full Time Military	2,093	2021 Dem. Survey	7% of personnel surveyed work for more than 1 FH Organization
Adjusted Full Time Military	1,674	2021 Dem. Survey	80% of Survey respondents reported living in the SVS

Table Note - Numbers may not add due to rounding

AECOM, 2021

Fort Student Population Estimates

The population of students training at the Fort was estimated based directly on the Fort Huachuca 2020 Census. The 2020 Census estimated that there were approximately 3,924 full-time students at the Fort, as Table 5 5 shows. Students typically stay less than a year at the Fort, and live on post. Because full-time students are separate from personnel employed by the Fort, no double counting was assumed for students; it is also assumed that there is no duplication between students and retirees.

Table 5: 2021 Student Population Estimate

Category	2021 Estimate	Sources	Assumptions
Students Training at the Fort	3,924	2020 FH Census	Assumed to be single heads-of-household & living in SVS

AECOM, 2021

Civilian & DOD Contractor Population Estimates

For the purposes of the Demographic Analysis, DOD Civilians and Contractors were estimated using similar methods. However, the Defense Personnel Assessment Center (DPAC) was able to provide estimates of civilian Fort personnel by zip code, therefore allowing the consultant to better estimate which civilian personnel reside in the SVS, and are therefore relevant for this study.

According to the 2020 Fort Huachuca Census, the total number of contractor personnel was 3,282, with 3,020 full-time and 262 part-time contractors working at the Fort. The number of civilian Fort personnel

residing in the SVS, provided by DPAC, were used as a baseline for estimating civilian employees for the purposes of this analysis, and then adjusted for double counting using the assumptions detailed in the table, based on the 2021 Demographic Survey results. The detailed breakdown of civilians from DPAC by zip code is shown in the Estimates by Zip Code for Groundwater Model section of this report. For the purposes of this Demographic Analysis, both full- and part-time employees of the Fort were treated as direct population/heads-of-household. Table 6 shows the total estimated DOD civilians and contractors attributable to the Fort in 2021.

Table 6: 2021 DOD Civilian & Contractor Estimate

Category	2021 Estimate	Sources	Assumptions
Total Contractors (FT & PT)	3,282	2020 FH Census	
Adjusted Contractors	3,052	2021 Dem. Survey	7% of personnel surveyed work for more than 1 FH Organization
Adjusted Contractors, SVS	2,442	2021 Dem. Survey	80% of Survey respondents reported living in the SVS
Total Civilians (FT & PT), SVS	1,779	DPAC 2021	Actuals in SVS provided by DPAC
Adjusted Civilians, SVS	1,654	2021 Dem. Survey	7% of personnel surveyed work for more than 1 FH Organization
Adjusted Civilians & Contractors, SVS	4,096	Calculated	Adjusted Contractors, SVS + Adjusted Civilians, SVS

Table Note - Numbers may not add due to rounding

AECOM, 2021

Retiree Population Estimates

The U.S. DOD Office of the Actuary provided an estimate of the number of the Army retirees living in the SVS zip codes in 2021 and receiving payments from the DOD at 4,571. Again, the results of the Demographic Survey were used to adjust this number to avoid double counting military retirees in the SVS that are also currently employed at Fort Huachuca. The assumption that 25% of area DOD retirees are "linked" to the Fort made by the 2017 Maguire Study, *Economic Impact of Arizona's Military Operations*. According to the Demographic Survey, only 3% of Fort personnel currently working at the Fort are also retirees. The number of retirees living within the SVS was adjusted for double counting of retirees who are also current Fort employees, using a factor of 0.97, as Table 7 shows.

Table 7: 2021 Retiree Population Estimates

Category	2021 Estimate	Sources	Assumptions
DOD Retirees living in SVS	4,571	DOD Office of the Actuary	Residing in SVS zip codes & receiving pay from the DOD
Fort Huachuca "Linked" DOD Retirees	1,143	2017 Maguire Study	25% of DOD Retirees Residing in SVS zip codes & receiving pay from the DOD
Adjusted DOD Retirees Living in the SVS	1,114	2021 Dem. Survey	3% of survey respondents were retirees and also employed at FH

Table Note - Numbers may not add due to rounding

AECOM, 2021

Total Direct Population Estimates

The assumptions and estimates outlined in the previous section were used to arrive at total estimates for direct population attributable to Fort Huachuca residing inside the SVS. The 2020 Fort Huachuca Census, which does not include retirees, estimated the number of full- and part-time Fort employees at 12,878. Table 8 shows the total estimated direct population, adjusted for double counting using the methodologies detailed above and below, attributable to Fort Huachuca inside the SVS.

Table 8: 2021 Estimated Population Directly Attributable to Fort Huachuca Inside the SVS

Category	2021 Estimate	Sources
Adjusted Military	1,674	Table 2 above
Students	3,924	Table 3 above
Adjusted Civilians & Contractors	4,096	Table 4 above
Adjusted Retirees in the SVS	1,114	Table 5 above
Total Direct Population, SVS	10,808	Calculated

Table Note - Numbers may not add due to rounding

AECOM, 2021

Indirect Population Estimates

The adjusted direct population estimate was then used to estimate the number of unique households attributable to the Fort. An average household size per employee was applied to those households, to determine the indirect (household) population attributable to Fort Huachuca. Average household sizes from multiple sources were cross-referenced for the purposes of the analysis, before selecting a household size assumption for calculating indirect population:

- Actual estimates for on-post households, based on information provided by Fort Huachuca on the number of dependents living in family housing on-post (calculated at 2.3 persons per household)
- The U.S. ACS Estimates (by zip code) – estimated average household size of 2.3 persons per household
- ESRI Estimates (by zip code) – estimated average household size of 2.37 persons per household

As previously noted, indirect population was calculated based on the direct population attributable to the Fort, listed below:

- Permanent Party Military
- Students
- DOD Civilian Employees
- DOD Contractor Employees
- Retirees

With the exception of students, the number of household members was estimated for each category. Students do not typically bring family members with them when they train, so no indirect household members were estimated for the student population attributable to the Fort.

As noted above, several different sources were compared to determine what average household should be applied to each “direct” head of household, in order to estimate the number of dependents indirectly attributable to the Fort. The Fort was able to provide the number of households (1,026) and family members (2,358) living on-post in family housing. For military personnel off-post, DOD civilian employees, DOD contractor employees, and retirees, an average household size of 2.3 was estimated. This was the average household size of the households in the SVS, according to the U.S. ACS. This was also the approximate average household size calculated for households living on-post, based on the actual data available. ESRI estimated an average household size of 2.37 for the SVS. When comparing data sources, two out of the three data sources supported a household size of 2.3 (including data on actual on-post households), so 2.3 was selected as an appropriate household size assumption for estimating the number of Fort-attributable household members, or “indirect” population.

According to the Demographic Survey, 27% of households surveyed had more than one household member working for the Fort. Therefore, to adjust for “double counting,” a factor of 0.73 was applied to each household. Indirect population was calculated based on the adjusted direct population, so double counting of personnel with multiple positions attributable to the Fort has already been accounted for.

Military Household Estimates

As noted above, military households were estimated in two different ways. Because the Fort was able to provide the number of personnel and dependents living in family housing on-post, the number of household members were incorporated into the indirect population estimates, then adjusted for the number of households with multiple Fort Huachuca-attributable employees, using a factor of 0.73. For off-

post military households, an average household size of 2.3 persons was applied to the number of off-post military personnel, and also adjusted by a factor of 0.73, to reduce the probability of double-counting of households where multiple household members may be employees of the Fort. Table 9 shows the estimated number of military household members/dependents attributable to Fort Huachuca.

Table 9: 2021 Adjusted Military Household Member Estimate

Category	2021 Estimate	Sources	Assumptions
Adjusted Military	1,674	Table 2 above	
Total HH Members On-Post	2,358	Fort Huachuca, 2021	# of Dependents living in family housing, per the Fort
Adjusted HH Members On-Post	1,721	Fort Huachuca, 2021	27% of Fort Personnel have more than one Fort employee living in their HH
Total HH Members Off-Post	1,403	2019 U.S. ACS	Assuming an average HH size of 2.3
Adjusted HH Members Off-Post	1,024	2021 Dem. Survey	27% of Fort Personnel have more than one Fort employee living in their HH
Total Adjusted Military HH Members, SVS	2,746	Calculated	

Table Note - Numbers may not add due to rounding

AECOM, 2021

Civilian & DOD Contractor Household Estimates

Because DOD civilians and contractors do not typically live on-post, it was assumed for the purposes of this analysis that all DOD civilian and contractor households live off-post. As with military households, an average household size of 2.3 persons (the average household size of the SVS zip codes) was applied, then adjusted for the number of households with multiple Fort Huachuca-attributable employees, using a factor of 0.73, to estimate indirect Fort-attributable population for these categories. Table 10 shows the estimated total adjusted DOD civilian and contractor household members.

Table 10: 2021 Adjusted DOD Civilian & Contractor Household Member Estimate

Category	2021 Estimate	Sources	Assumptions
Adjusted Civilians & Contractors, SVS	4,096	Table 4 above	
Total DOD Civilian & Contractor HH Members	5,325	2019 U.S. ACS	Assuming an average HH size of 2.3
Total Adjusted DOD Civilian & Contractor HH Members, SVS	3,887	2021 Dem. Survey	27% of Fort Personnel have more than one Fort employee living in their HH

Table Note - Numbers may not add due to rounding

AECOM, 2021

Retiree Household Estimates

The adjusted number of retirees estimated to be directly attributable to the Fort was used to estimate retiree household members living in the surrounding area. Like DOD civilians and contractors, retirees rarely live on post, so it was assumed that all retirees and their households attributable to the Fort lived off post – therefore, the SVS average household size of 2.3 was applied to the directly attributable retiree population to estimate total household members of retirees. As with the off-post military, DOD civilian, and DOD contractor households, those estimates were adjusted by a factor of 0.73 to reduce the probability of double-counting household members. Table 11 shows estimated adjusted retiree household members.

Table 11: 2021 Adjusted Retiree Household Member Estimates

Category	2021 Estimate	Sources	Assumptions
Adjusted DOD Retirees Living in the SVS	1,114	Table 5 above	
Total Retiree HH Members	1,448	2019 U.S. ACS	Assuming an average HH size of 2.3
Total Adjusted Retiree HH Members, SVS	1,057	2021 Dem. Survey	27% of Fort Personnel have more than one Fort employee living in their HH

Table Note - Numbers may not add due to rounding

AECOM, 2021

Total Indirect Population Estimates

Table 12 shows the total estimated population indirectly attributable to the Fort residing in the SVS.

Table 12: 2021 Estimated Population Indirectly Attributable to Fort Huachuca

Category	2021 Estimate	Sources
Total Adjusted Military HH Members Inside SVS	2,746	Table 7 above
Total Adjusted DOD Civilian & Contractor HH Members Inside SVS	3,887	Table 8 above
Total Adjusted Retiree HH Members Inside SVS	1,057	Table 9 above
Total Indirect Population, SVS	7,690	Calculated

Table Note - Numbers may not add due to rounding

AECOM, 2021

Induced Population Estimates

The results of the direct and indirect population estimates, along with spending and other economic activity associated with the Fort, were used in the IMPLAN analysis to estimate the induced population/employment attributable to the Fort, its personnel, and their households. It should be noted that, for the EIA, "direct, indirect, and induced" refer to dollars of economic impact/employment, not persons. However, for the purposes of the Demographic Analysis, the direct population consists of Fort personnel, the indirect population consists of the family members of direct employees, and induced population (in the form of jobs) is the sum of the IMPLAN indirect and induced outputs. Household members for the induced population are estimated using the same average household size derived from the 2019 ACS for the SVS zip codes of 2.3 used to estimate household members for direct population attributable to the Fort, adjusted for double counting by a factor of 0.73. Table 13 shows the total estimated induced population, based on IMPLAN assumptions and the other assumptions outlined previously.

Table 13: 2021 Estimated Induced Jobs & Household Members

Category	2021 Estimate	Sources	Assumptions
Induced Population/Jobs	4,161	2022 IMPLAN Analysis	Sum of Indirect + Induced jobs estimated by IMPLAN
Total Induced Population HH Members	5,409	2019 U.S. ACS	Assuming an average HH size of 2.3
Adjusted Induced Population HH Members	3,949	2021 Dem. Survey	27% of of households have more than one employee
Total Induced Population	8,110	Calculated	

Table Note - Numbers may not add due to rounding

AECOM, 2021

Direct, Indirect and Induced Population for 2021

The above estimates were then aggregated to produce a total estimate of the direct, indirect, and induced population attributable to Fort Huachuca. Again, as previously noted, the population estimates are estimates based on the sources detailed above, and should not be considered a true and accurate count of every person in every category listed. AECOM has endeavored to use the best available data sources and best practices in generating these estimates, but they are still estimates based on multiple assumptions, and should be treated as one source among many to guide decision-making, and not as the final determination on population totals for the categories shown. Table 14 shows the aggregated estimates.

Table 14: 2021 Direct, Indirect, and Induced Population Estimates Within the SVS

Category	Estimate	Source
Total Direct Population	10,808	Table 6
Total Indirect Population	7,690	Table 10
Total Induced Population	8,110	Table 11
Total Fort-Attributable Population	26,609	Calculated

Table Note - Numbers may not add due to rounding

AECOM, 2021

Table 15 shows a simple calculation of the total number of Fort personnel counted by the Fort Census, multiplied by the SVS average household size. This provides a rough alternative estimate of persons attributable to the Fort, unadjusted for double-counting and the other factors detailed in the previous sections.

Table 15: Alternate Method for Estimating Unadjusted Fort-Attributable Population

Category	Estimate	Source
2020 FH Census Total	12,878	2020 FH Census
SVS Average Household Size	2.3	2019 U.S. ACS
Total Unadjusted Fort Attributable Population*	29,619	Estimate

*Does not include Retirees

AECOM, 2021

For comparative purposes, Table 16 shows the estimated Fort-attributable population as a percentage of the total estimated population in the SVS.

Table 16: Fort-Attributable Populations Estimate Compared to Total 2021 SVS Population

Category	Estimate	Source
2021 SVS Population	85,159	ESRI, 2021
Total Fort-Attributable population	26,609	AECOM Estimate
SVS Fort-Attributable population as a % of Total SVS Pop.	31%	

Table Note - Numbers may not add due to rounding

AECOM, 2021

Table 17 shows the estimated Fort-attributable jobs as a percentage of total estimated SVS jobs, again as a comparative metric that helps underscore the Fort's presence as a major employer in the region.

Table 17: Fort-Attributable Jobs Estimate Compared to Total 2021 SVS Jobs

Category	Estimate	Source
2021 SVS Jobs	40,531	ESRI, 2021
Direct Fort-Attributable Jobs	4,161	AECOM Estimate
Induced Fort-Attributable Jobs	11,700	AECOM Estimate
Total Fort-Attributable Jobs	15,861	AECOM Estimate
Fort-Attributable Jobs as a % of Total SVS Jobs	39%	

Table Note - Numbers may not add due to rounding

AECOM, 2021

Estimates by Zip Code for Groundwater Model

In order to calculate Fort-attributable pumping within the SVS, population estimates were broken out by zip code, based on two primary sources: responses to the Demographic Survey on where respondents lived within the SVS, as shown in Table 18, and civilian employment by zip code within the SVS, provided by the DPAC, as shown in Table 19. These figures were adjusted using the same methodology that was applied to the Fort civilian estimates shown previously to account for double counting.

Table 18: Demographic Survey Respondents Living in the SVS – Percentages by Zip Code

Zip	Demographic Survey Respondents
85603	0.4%
85611	0.4%
85613	11.0%
85615	9.2%
85616	4.2%
85620	0.4%
85635	31.1%
85636	31.1%
85638	0.3%
85650	12.0%
Grand Total	100.0%

Table Note 1 - Numbers may not add due to rounding

Sources: 2021 Demographic Survey; AECOM

Table 19: Adjusted Civilian Employees by SVS Zip Code

Zip	Civilian Employees	Adjusted Civilian Employees*
85603	13	12
85611	10	9
85613	62	58
85615	190	177
85616	95	88
85620	2	2
85635	893	830
85636	28	26
85638	6	6
85650	480	446
Grand Total	1,779	1,654

*Adjusted for double counting using the assumption based on the 2021 Demographic Survey that 7% of Fort Employees work for more than one organization

Sources: DPAC 2021, AECOM 2021

The results of the 2021 Demographic Survey were used to allocate the remaining direct, indirect, and induced populations residing in the SVS across zip codes; civilians by zip code were then added back in, to provide a total estimated breakdown by zip code, as Table 20 shows.

Table 20: Estimated SVS Direct, Indirect, and Induced Population by Zip Code, SVS

Zip	Direct	Indirect	Induced	Preliminary Estimate	Minus 10%	Plus 10%
85603	47	35	31	112	101	124
85611	44	32	31	107	96	118
85613	1,062	726	890	2,678	2,410	2,945
85615	1,019	731	746	2,496	2,246	2,745
85616	475	342	342	1,159	1,043	1,275
85620	37	25	31	92	83	102
85635	3,674	2,689	2,519	8,882	7,994	9,770
85636	2,869	1,926	2,519	7,314	6,582	8,045
85638	34	24	25	83	75	92
85650	1,549	1,161	976	3,685	3,317	4,054
Grand Total	10,808	7,690	8,110	26,609	23,948	29,269

Table Note 1 - Numbers may not add due to rounding

Table Note 2 - For the purposes of allocating the remaining Fort-attributable population, actual data on Fort-attributable civilian employees by zip code have been removed, then added back into the Direct, Indirect, and Induced Populations

Sources: U.S. Army, 2021; 2021 Demographic Survey; AECOM Estimate, 2022

Recommendations

As explained in the Data Limitations section, the challenges to accurately estimating Fort-attributable population using current best available data are numerous. Therefore, it is recommended that the Fort add the additional questions to their annual Census detailed in the following section, in order to capture more accurate information.

The annual Fort Huachuca Census should make every effort to maximize its response rate through multiple means of communication, outreach, reminders, etc. It should also include, at a minimum, the following questions, in addition to the questions already included about employment status:

- Do you live on or off-post?
- Indicate which zip code you have your primary residence in
- Indicate how many organizations at Fort Huachuca employ you, and write in the name(s) of those additional organization(s) beyond your primary employment.
- How many people live in your household (primary residence)?

- Is anyone else in your household employed by the Fort? Indicate how many other people living with you are also employed by the Fort.
- How many dependents do you have living with you (all ages)?
- If you have dependents living with you, how many are under 18?
- If you have dependents under 18, how many attend school or are in childcare on post?
- Are you also a military retiree?
- What is your annual household income (select from a range)?

Adding questions like these would make estimating Fort-attributable population much more straightforward, and greatly reduce the margin of error. This additional information could then be used not only for efforts like this PBA, but for other decision-making processes around employment, providing adequate services for personnel and their dependents, emergency preparedness, outreach, and numerous other efforts.

Survey Results Summary

Introduction

The purpose of the Demographic survey, as aforementioned, is to provide another source of data about Fort Huachuca personnel and their households to serve as a cross-reference to the other data sources provided, including the 2020 Fort Huachuca Census. Some of the information provided in the survey, such as the estimated split between personnel who live on- and off-post, was not provided via another source, and therefore is considered the best available data.

As previously noted, the questions for the 2021 Demographic Survey were based on the survey distributed to support the 2013 Fort Huachuca PBA but were adjusted slightly to request more specific information. The 2021 Survey was distributed via email by the Fort Huachuca Garrison to the Fort's database of personnel emails, using the online survey platform SurveyMonkey, which automatically tabulates responses, and provides a spreadsheet-based report of the final results, once the survey has been closed. The Survey ran from November 4, 2021 to November 19, 2021. The Survey was sent out to approximately 5,281 email addresses of individuals employed at Fort Huachuca. Of those emails, 1,475 persons answered at least one question on the Demographic Survey, a response rate of approximately 28%.

Survey Results

Each question is listed, followed by a table indicating the responses received. Again, the three columns show the percentage of the total who responded to the question, the actual number of respondents, and the percentage out of the total who responded to the survey, but may have skipped that question.

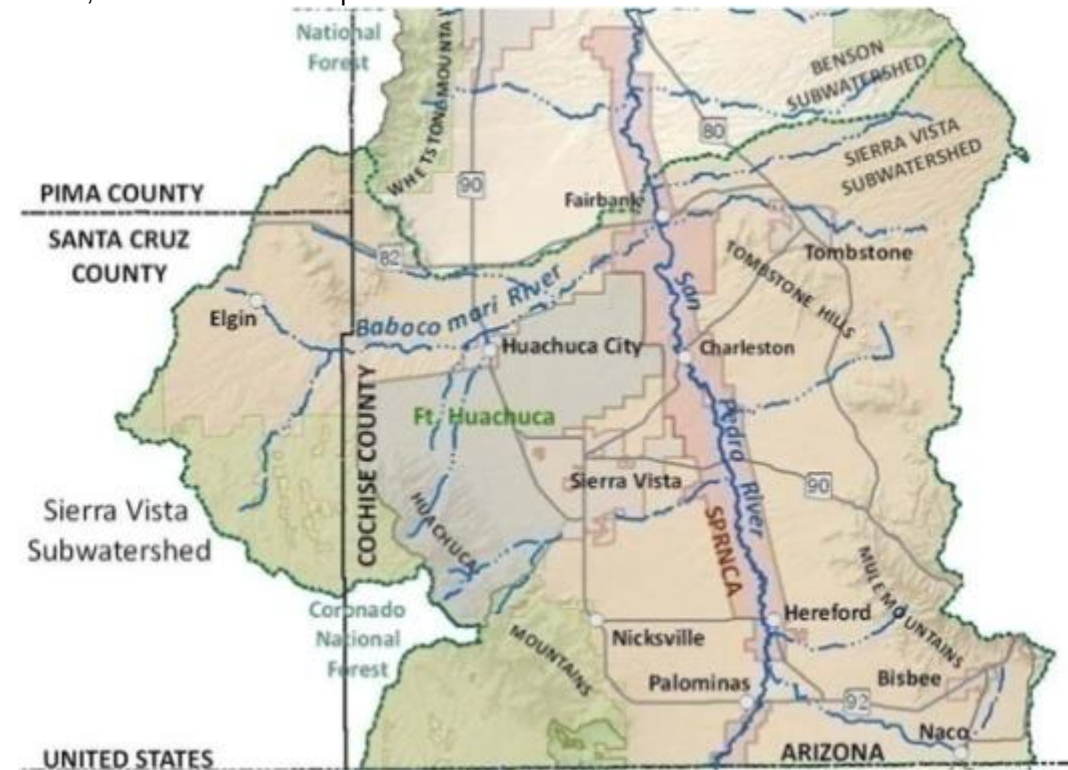
The introductory language for the survey was as follows:

Introduction

You have been selected to take this survey due to your status as an employee of an organization based at Fort Huachuca. Your responses to this survey are important for an accurate count of the total population attributed to Fort Huachuca (FH), and will remain anonymous, as no personal identifying information is associated with the survey results. The survey should take about 15 minutes or less to complete. Your timely completion of this survey is greatly appreciated.

This Demographic Survey is an integral component of the Programmatic Biological Assessment (PBA) that is currently being performed at Fort Huachuca, in compliance with the Endangered Species Act. The focus of the survey is on the personnel who work within the Sierra Vista Subwatershed (SVS) for Department of Defense (DoD) organizations at the Fort, including permanent party military, students, DoD civilian employees, and DoD contractors associated with the Fort, Military and DoD civilian retirees whose presence in the SVS is attributable to the presence of the Fort will also be counted in the survey. The Fort also needs to know the percentage of personnel that live outside the SVS – for example, if you live in Tucson and commute to work at Fort Huachuca, please include that information in your survey response.

The purpose of this survey is twofold: first, to accurately determine the number of people directly attributable to DoD organizations on the Fort, either as a contractor or as a family/household member; second, to determine the proportion of households associated with FH located within the SVS, which covers area from the US/Mexico border to just north of confluence of the Babocomari and San Pedro Rivers, as shown on the map below.



Sierra Vista Subwatershed (Bounded by Green line)

Directions

Please complete the following survey to the best of your ability. Make sure that you answer all relevant questions completely; if there is an option to write in an answer, please make sure you have typed out a response before you submit the survey. When you have answered all relevant questions, please click the “Submit” button to submit your responses. As previously noted, all answers will remain anonymous. The survey will close November 19th, 2021, so please submit your responses before that date.

- 1) Please indicate your primary paid employment at FH. Your primary employment is the job that you spend the most hours doing in any given week.

Answer Choices	% of Respondents	# of Respondents	% of Total
I am an Active-Duty military member who works or attends a training course at FH	19%	282	19%
I am a civilian government employee at FH	63%	926	63%
I am a civilian employee working for a non-federal entity at FH	11%	168	11%
Other (please describe)	6%	90	6%
	Answered	1,466	99%
	Skipped	9	1%

2) If you are military, what best describes your status?

Answer Choices	% of Respondents	# of Respondents	% of Total
I am full-time Active-Duty military at FH	51%	261	18%
I am an Active-Duty Reserves or National Guard member at FH	3%	14	1%
I am a full-time military student at FH	3%	15	1%
Other (please describe)	43%	221	15%
	Answered	511	35%
	Skipped	964	65%

3) If you are a full-time military student at a school on Fort Huachuca, please indicate your status.

Answer Choices	% of Respondents	# of Respondents	% of Total
I am on tour of duty (TDY) at FH (less than 180 days)	1%	5	0%
I am permanent party at FH	51%	207	14%
Other (please describe)	48%	192	13%
	Answered	404	27%
	Skipped	1,071	73%

4) If you are a civilian government employee, what best describes you?

Answer Choices	% of Respondents	# of Respondents	% of Total
I work for a DoD organization at FH (including NAF and DECA)	90%	941	64%
I work for another Federal organization (not a DoD service) at FH	4%	37	3%
I work for a non-Federal government organization at FH	6%	67	5%
	Answered	1,045	71%
	Skipped	430	29%

5) What best describes your employment with a non-federal entity on Fort Huachuca?

Answer Choices	% of Respondents	# of Respondents	% of Total
I am a Federal contractor working under contract to a DoD organization at FH	61%	170	12%
I am a Federal contractor working under contract to another Federal organization (not a DOD service) at FH	3%	7	0%
I am a civilian employee working for a non-federal entity at FH (for example, the Fort Huachuca Accommodation School District)	36%	100	7%
	Answered	277	19%
	Skipped	1,198	81%

6) This primary job is (select one):

Answer Choices	% of Respondents	# of Respondents	% of Total
Full time (40 hours or more per week)	99%	1,387	94%
Part time (less than 40 hours per week)	1%	18	1%
	Answered	1,405	95%
	Skipped	70	5%

- 7) Which best describes your situation with respect to paid employment at a second organization associated with FH? (select one)

Answer Choices	% of Respondents	# of Respondents	% of Total
My job with a second organization is as a member of the military (including Reserves and National Guard)	2%	28	2%
My job with a second organization is working as a civilian government employee (DoD, NAF, DECA, DFAS, other Federal, local)	3%	40	3%
My job with a second organization is working as an employee for a non-federal entity	1%	20	1%
I am self-employed	1%	8	1%
I do not work for a second organization	93%	1,255	85%
	Answered	1,351	92%
	Skipped	124	8%

- 8) If your second job is with the military, what best describes you?

Answer Choices	% of Respondents	# of Respondents	% of Total
Active-Duty military personnel	34%	24	2%
Active-Duty Reserves or National Guard member	6%	4	0%
Member of Reserve or National Guard with drill duty	20%	14	1%
Other (please describe)	40%	28	2%
	Answered	70	5%
	Skipped	1,405	95%

- 9) If your second job at FH is a civilian government job, what best describes you?

Answer Choices	% of Respondents	# of Respondents	% of Total
I work for a DoD organization at FH (including NAF and DECA)	0.7179	28	2%
I work for another Federal organization (not a DoD service) at FH	0.1026	4	0%
I work for a non-Federal government organization at FH	0.1795	7	0%
	Answered	39	3%
	Skipped	1,436	97%

- 10) If you work as a civilian employee for a non-federal entity for your second job, what best describes you?

Answer Choices	% of Respondents	# of Respondents	% of Total
I am a contractor employee working under contract for a DOD organization at FH	47%	14	1%
I am a contractor employee working under contract for another Federal organization (not a DoD service) at FH	0%	0	0%
I work as a civilian employee of a non-federal entity at FH	13%	4	0%
I work as a civilian employee of a non-federal entity in the community (not at FH)	20%	6	0%
I am self-employed	20%	6	0%
	Answered	30	2%
	Skipped	1,445	98%

- 11) This second job is: (select one):

Answer Choices	% of Respondents	# of Respondents	% of Total
Full time (40 hours or more per week)	52%	25	2%
Part time (less than 40 hours per week)	48%	23	2%
	Answered	48	3%
	Skipped	1,427	97%

12) Are you a member of the Reserves or National Guard?

Answer Choices	% of Respondents	# of Respondents	% of Total
I am a full time member of the Reserves or the National Guard	6%	6	0%
I am a part-time member of the Reserves or National Guard who drills at FH	10%	11	1%
I am an inactive member of the Reserves or National Guard	2%	2	0%
I am not a member of the Reserves or National Guard	83%	90	6%
	Answered	109	
	Skipped	1,366	

13) Are you a member of the Reserves or National Guard?

Answer Choices	% of Respondents	# of Respondents	% of Total
I am a full time member of the Reserves or the National Guard	6%	6	0%
I am a part-time member of the Reserves or National Guard who drills at FH	10%	11	1%
I am an inactive member of the Reserves or National Guard	2%	2	0%
I am not a member of the Reserves or National Guard	83%	90	6%
	Answered	109	
	Skipped	1,366	

14) Are you retired from a previous job associated with the DoD? Select the statement that best describes your situation.

Answer Choices	% of Respondents	# of Respondents	% of Total
I am retired from military Active-Duty	26%	37	3%
I am retired from Reserves or the National Guard	1%	2	0%
I am a DoD civilian retiree	0%	0	0%
I am retired from a non-DoD organization	0%	0	0%
I am not a retiree	72%	102	7%
	Answered	141	10%
	Skipped	1,334	90%

15) Which statement best describes your primary residence?

Answer Choices	% of Respondents	# of Respondents	% of Total
I live on FH in family housing	9%	126	9%
I live on FH in unaccompanied housing	1%	18	1%
I live off-post	89%	1,189	81%
	Answered	1,333	90%
	Skipped	142	10%

16) Select the statement that best describes your living situation.

Answer Choices	% of Respondents	# of Respondents	% of Total
I live alone	18%	237	16%
I live with my family	78%	1036	70%
I live at my parent's/guardian's home	1%	11	1%
I share a house/apartment with non-family members	3%	40	3%
	Answered	1,324	90%
	Skipped	151	10%

17) How many people (not counting yourself) live in your household?

Answer Choices	None	# of Respondents	% of Total	1	# of Respondents	% of Total	2	# of Respondents	% of Total	3	# of Respondents	% of Total
Immediate family members	19%	253	17%	30%	385	26%	22%	284	19%	16%	211	14%
Other family members (parents, grandparents, etc.)	91%	809	55%	6%	52	4%	2%	19	1%	0%	3	0%
Non-family members	94%	809	55%	5%	47	3%	1%	5	0%	0%	3	0%

Answer Choices	4	# of Respondents	% of Total	5	# of Respondents	% of Total	6	# of Respondents	% of Total	7+	# of Respondents	% of Total	Total	% of Total	
Immediate family members	7%	94	6%	4%	53	4%	1%	15	1%	0%	5	0%	1,300	88%	
Other family members (parents, grandparents, etc.)	0%	2	0%	0%	0	0%	0%	0	0%	0%	1	0%	886	60%	
Non-family members	0%	1	0%	0%	0	0%	0%	0	0%	0%	0	0%	865	59%	
													Answered	1,322	90%
													Skipped	153	10%

18) How many people in your household (not counting yourself) are employed on or off the Fort as:

Answer Choices	None	# of Respondents	% of Total	1	# of Respondents	% of Total	2	# of Respondents	% of Total	3
Military Personnel	94%	986	67%	6%	63	4%	0%	3	0%	0%
DoD Civilian Employees	84%	925	63%	15%	168	11%	1%	12	1%	0%
DoD Contractors/contractor employees	91%	955	65%	9%	94	6%	0%	2	0%	0%
Non-DoD organizations	94%	970	66%	6%	57	4%	0%	1	0%	0%
Private companies/ organizations at FH	98%	986	67%	2%	17	1%	0%	3	0%	0%
Private companies/ organizations off-post	80%	862	58%	17%	183	12%	3%	34	2%	0%

Answer Choices	4	# of Respondents	% of Total	5	# of Respondents	% of Total	6	# of Respondents	% of Total	7+	# of Respondents	% of Total	Total	
Military Personnel	0	0	0%	0	0	0%	0	0	0%	0	0	0%	1,054	
DoD Civilian Employees	0	0	0%	0	0	0%	0	0	0%	0	0	0%	1,105	
DoD Contractors/contractor employees	0	0	0%	0	0	0%	0	0	0%	0	0	0%	1,051	
Non-DoD organizations	0	0	0%	1	0%	0	0	0%	0	0	0%	1,030		
Private companies/ organizations at FH	0	1	0%	0	0%	0	0	0%	0	0	0%	1,007		
Private companies/ organizations off-post	0	1	0%	0	0%	0	0	0%	0	0	0%	1,083		
													Answered	1,297
													Skipped	178

19) Are other people in your household also taking this survey?

Answer Choices	% of Respondents	# of Respondents	% of Total
Yes	6%	84	6%
No	94%	1,239	84%
	Answered	1,323	90%
	Skipped	152	10%

20) How many people in your household (not counting yourself) are also taking this survey?

Answer Choices	None	# of Respondents	% of Total	1	# of Respondents	% of Total	2	# of Respondents	% of Total	3	# of Respondents	% of Total
Number of Other People in Household taking this survey	93%	1,216	82%	7%	86	6%	0	5	0%	0%	0	0%

Answer Choices	4	# of Respondents	% of Total	5	# of Respondents	% of Total	6	# of Respondents	% of Total	7+	# of Respondents	% of Total	Total	% of Total	
Number of Other People in Household taking this survey	0%	1	0%	0%	0	0%	0%	0	0%	0%	1	0%	1,309	89%	
													Answered	1,309	89%
													Skipped	166	11%

21) What income bracket does your total annual household income fall into?

Answer Choices	% of Respondents	# of Respondents	% of Total
Less than \$10,000	1%	13	1%
\$10,000 to \$14,999	0%	3	0%
\$15,000 to \$24,999	1%	17	1%
\$25,000 to \$34,999	2%	30	2%
\$35,000 to \$49,999	7%	80	5%
\$50,000 to \$74,999	16%	199	13%
\$75,000 to \$99,999	20%	248	17%
Greater than \$100,000	52%	636	43%
	Answered	1,226	83%
	Skipped	249	17%

22) Which best describes the location of your primary residence?

Answer Choices	% of Respondents	# of Respondents	% of Total
I live in Cochise County, AZ	90%	1,202	81%
I live in Santa Cruz County, AZ	1%	8	1%
I live in Arizona but not in Cochise or Santa Cruz county	8%	107	7%
I do not reside in Arizona	1%	12	1%
	Answered	1,329	90%
	Skipped	146	10%

23) Is your primary residence located within the Sierra Vista Subwatershed (SVS)? (Please see map on the first page)

Answer Choices	% of Respondents	# of Respondents	% of Total
My residence is located within the SVS	80%	1,026	70%
I do not live within the SVS	20%	264	18%
	Answered	1,290	87%
	Skipped	185	13%

24) The zip code and the cities/towns listed below are representative of the Sierra Vista Subwatershed. Please select the zip code, city or town in which you have your primary residence.

Answer Choices	% of Respondents	# of Respondents	% of Total
85603 – Bisbee	0%	5	0%
85611 – Elgin	0%	5	0%
85613, 85670 – Fort Huachuca	11%	143	10%
85615 – Hereford, Nicksville, Palominas	9%	120	8%
85616 – Huachuca City	4%	55	4%
85620 – Naco	0%	5	0%
85635, 85636, 85650, 85671 – Sierra Vista	62%	810	55%
85638 – Tombstone	0%	4	0%
Other (please describe)	12%	157	11%
	Answered	1,304	88%
	Skipped	171	12%

25) What was the primary reason that brought you or your household members to the Fort Huachuca Area?

Answer Choices	% of Respondents	# of Respondents	% of Total
Military reassignment for self or spouse	40%	521	35%
Other employment on Fort Huachuca	37%	488	33%
Employment associated with Fort Huachuca but not on the installation	1%	17	1%
Employment in the area not associated with Fort Huachuca	3%	38	3%
Proximity to a military installation	2%	32	2%
Retirement living in the area proximity to a military installation not a priority	2%	27	2%
Other (please describe)	15%	191	13%
	Answered	1,314	89%
	Skipped	161	11%

General Limiting Conditions

Deliverables and portions thereof shall be subject to the following General Limiting Conditions:

AECOM devoted the level of effort consistent with (i) the level of diligence ordinarily exercised by competent professionals practicing in the area under the same or similar circumstances, and (ii) consistent with the time and budget available for the Services to develop the Deliverables. The Deliverables are based on estimates, assumptions, information developed by AECOM from its independent research effort, general knowledge of the industry, and information provided by and consultations with Client and Client's representatives. No responsibility is assumed for inaccuracies in data provided by the Client, the Client's representatives, or any third-party data source used in preparing or presenting the Deliverables. AECOM assumes no duty to update the information contained in the Deliverables unless such additional services are separately retained pursuant to a written agreement signed by AECOM and Client.

AECOM's findings represent its professional judgment. Neither AECOM nor its parent corporations, nor their respective affiliates or subsidiaries ("AECOM Entities") make any warranty or guarantee, expressed or implied, with respect to any information or methods contained in or used to produce the Deliverables.

The Deliverables shall not to be used in conjunction with any public or private offering of securities, debt, equity, or other similar purpose where it may be relied upon to any degree by any person other than the Client. The Deliverables shall not be used for purposes other than those for which they were prepared or for which prior written consent has been obtained from AECOM.

Possession of the Deliverables does not carry with it any right of publication or the right to use the name of "AECOM" in any manner without the prior express written consent of AECOM. No party may reference AECOM with regard to any abstract, excerpt or summarization of the Deliverables without the prior written consent of AECOM. AECOM has served solely in the capacity of consultant and has not rendered any expert opinions in connection with the subject matter hereof. Any changes made to the Deliverables, or any use of the Deliverables not specifically identified in the Agreement between the Client and AECOM or otherwise expressly approved in writing by AECOM, shall be at the sole risk of the party making such changes or use.

The Deliverables were prepared solely for the use by the Client. No third party may rely on the Deliverables unless expressly authorized by AECOM in writing (including, without limitation, in the form of a formal reliance letter. Any third party expressly authorized by AECOM in writing to rely on the Deliverables may do so only on the Deliverable in its entirety and not on any abstract, excerpt or summary. Entitlement to rely upon the Deliverables is conditioned upon the entitled party accepting full responsibility for such use, strict compliance with this Agreement and not holding AECOM liable in any way for any impacts on the forecasts or the earnings resulting from changes in "external" factors such as changes in government policy, in the pricing of commodities and materials, changes in market conditions, price levels generally, competitive alternatives to the project, the behavior of consumers or competitors and changes in the Client's policies affecting the operation of their projects.

The Deliverables may include "forward-looking statements". These statements relate to AECOM's expectations, beliefs, intentions or strategies regarding the future. These statements may be identified by the use of words like "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "project," "will," "should," "seek," and similar expressions. The forward-looking statements reflect AECOM's views and assumptions with respect to future events as of the date of the Deliverables and are subject to future economic conditions, and other risks and uncertainties. Actual and future results and trends could differ materially from those set forth in such statements due to various factors, including, without limitation, those discussed in the Deliverables. These factors are beyond AECOM's ability to control or predict. Accordingly, AECOM makes no warranty or representation that any of the projected values or results contained in the Deliverables will actually occur or be achieved. The Deliverables are qualified in their entirety by, and should be considered in light of, these limitations, conditions and considerations.

