CAUSE NO. CC-23-00308-B

CARMEN ACOSTA, INDIVIDUALLY, AND AS HEIR TO THE ESTATE OF JOSE ACOSTA	§	**IN THE COUNTY COURT**
Plaintiff,	§	**AT LAW NO. 2**
vs.	§	
PORTILLO REYES CHAVEZ,	§	**DALLAS COUNTY, TEXAS**
Defendant.	§	

PLAINTIFF'S MOTION FOR DEFAULT JUDGMENT ON DAMAGES

COMES NOW CARMEN ACOSTA, Plaintiff in the above-numbered and styled cause, and ask the Court to sign a default judgment against Defendant Portillo Reyes Chavez.

I. INTRODUCTION

This is a negligence and wrongful death claim resulting from a multi-vehicle collision. The claim centers on the injuries suffered by Jose Acosta as a result of the negligence of Portillo Chavez. On or about April 05, 2022, the Defendant, Portillo Chavez, passed away.

II. BACKGROUND

On April 26, 2024, the Court signed an order granting the above entitled Plaintiff a default judgment on the issue of liability only. *See* Exhibit A, April 26, 2024, Order; Exhibit B, April 22, 2024 Mot. for Default Judgment. Following the April 26th order, the Court held a hearing on Plaintiff's Verified Motion for Reinstatement wherein the Court indicated that Plaintiff could prove her damages via affidavit and reinstated Plaintiff's case. *See* Exhibit C, Reinstatement Order.

Plaintiff now moves the Court for default judgment on the issue of damages and requests that after considering the evidence cited below, the Court award Plaintiff a Judgment granting her the following unliquidated damages:

- $400,000.00 for mental anguish associated with the loss of Plaintiff's husband
- $400,000.00 for loss of consortium associated with the loss of Plaintiff's husband.
- $1,585,100.00 for economic damages comprised of:
    - $50,000 (annual income) * 29 (years of remaining life expectancy) = $1,450,000.00 (total lost wages).
    - $325.00 (cost of property care) * 12 (months) * 29 (years of remaining life expectancy) = $113,100.00
    - $22,000.00 (funeral expenses).

III. ARGUMENTS AND AUTHORITIES

The damages alleged in Plaintiff's original petition are unliquidated. A court may award unliquidated damages on the basis of affidavits without holding an evidentiary hearing. *See Tex. Commerce Bank, Nat. Ass'n v. New*, 3 S.W.3d 515, 516 (Tex. 1999); *Chloe's Concepts, LLC v. Clear Rainbow, Inc.*, No. 05-20-00484-CV, 2021 WL 5998006, at *4 (Tex. App.—Dallas Dec. 20, 2021, no pet.) ("The requirement that the court "hear evidence" may be satisfied by affidavits submitted in support of a motion for default judgment.").

Attached hereto as Exhibits D and E respectively are the affidavits of Plaintiff Carmen Acosta, and her daughter Ruby Acosta. In her affidavit, Carmen Acosta addresses the elements of the above requested damages, and further sets forth that her damages are linked to the wrongful death as set forth in Plaintiff's Original petition. *See* Exhibit D, Carmen Acosta Affidavit. Ruby Acosta's affidavit supports Plaintiff's claims for mental anguish and loss of consortium. *See* Exhibit E, Ruby Acosta Affidavit. Additionally, Plaintiff requests that the Court take judicial notice of the life tabled attached as Exhibit A to Carmen Acosta's affidavit and used in support of her economic damages calculations. *See* Exhibit D, Carmen Acosta Affidavit (and Exhibit A thereto); *Aetna Cas. & Sur. Co. v. Hill*, No. 05-91-01290-CV, 1992 WL 172384 at *2 (Tex. App.—Dallas July 21,

1992, no writ) ("We conclude that the life table was a proper subject for judicial notice") (citations omitted).

PRAYER

Plaintiff prays that the Court consider the evidence attached hereto and sign a default judgment establishing damages including:

- $400,000.00 for mental anguish;
- $400,000.00 for loss of consortium; and
- $1,585,100.00 for economic damages.

Plaintiff further prays for whatever further relief to which Plaintiff is entitled.

Respectfully submitted,

TED B. LYON & ASSOCIATES, P.C.

By: /s/ *Aidan Moffatt*

TED B. LYON
tblyon@tedlyon.com
State Bar No. 12741500
RICHARD MANN
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State Bar No. 24079640
AIDAN MOFFATT
State Bar No. #24136001
amoffatt@tedlyon.com
Town East Tower, Suite 525
18601 LBJ Freeway
Mesquite, Texas 75150
Phone: (972) 279-6571
Fax: (972) 279-3021

ATTORNEYS FOR PLAINTIFF

CERTIFICATE OF SERVICE

I hereby certify that on March 20, 2025, a true and correct copy of the foregoing *Motion for Default Judgment* has been forwarded to all known counsel of record in accordance with Rule 21a of the Texas Rules of Civil Procedure as follows:

/s/ *Aidan Moffatt*
AIDAN MOFFATT

Exhibit “A”

COJ
ORDER – JUDGMENT
2659142

CAUSE NO. CC-23-00308-B

CARMEN ACOSTA, Individually, and as Heir to the Estate of JOSE ACOSTA Plaintiffs,	§	**IN THE COUNTY COURT**
vs.	§	**AT LAW NO. 2**
PORTILLO REYES CHAVEZ, Defendants.	§	**DALLAS COUNTY, TEXAS**

ORDER GRANTING PLAINTIFF'S MOTION FOR DEFAULT JUDGMENT

On this day, the Court considered PLAINTIFF'S MOTION FOR DEFAULT JUDGMENT. After consideration, the Court finds that the Plaintiff's motion should be **GRANTED**. as to liability only.

It is therefore ORDERED, ADJUDGED and DECREED that PLAINTIFF'S MOTION FOR DEFAULT JUDGMENT is **GRANTED**. as to liability only. ~~It is further ORDERED that the Court shall hold a final hearing on the _____ day of _____ 2024 to determine Plaintiff's damages.~~ Plaintiff is responsible for setting a final hearing on damages prior to dismissal or to have otherwise submitted the necessary evidence. this partial default does not cancel the april 24, 2024 dismissal setting. and no motion to retain was filed.

Signed this 26 day of April, 2024.

JUDGE PRESIDING

Automated Certificate of eService

This automated certificate of service was created by the efiling system. The filer served this document via email generated by the efiling system on the date and to the persons listed below. The rules governing certificates of service have not changed. Filers must still provide a certificate of service that complies with all applicable rules.

Jimmy Brashear on behalf of Aidan Moffatt
Bar No. 24136001
jimmy@tedlyon.com
Envelope ID: 87052998
Filing Code Description: Ody - Proposed Order-Odyssey
Filing Description: PROPOSED ORDER FOR DEFAULT JUDGMENT
Status as of 4/25/2024 12:18 PM CST

Associated Case Party: CARMEN ACOSTA, INDIVIDUALLY, AND AS HEIR TO THE ESTATE OF JOSE ACOSTA

Name	BarNumber	Email	TimestampSubmitted	Status
Aidan Moffatt		amoffatt@tedlyon.com	4/25/2024 10:43:58 AM	SENT
Jimmy Brashear		jimmy@tedlyon.com	4/25/2024 10:43:58 AM	SENT

Case Contacts

Name	BarNumber	Email	TimestampSubmitted	Status
Richard AMann		rmann@tedlyon.com	4/25/2024 10:43:58 AM	SENT
Melanie Barragan		melanie@tedlyon.com	4/25/2024 10:43:58 AM	SENT

Exhibit “B”

CAUSE NO. CC-23-00308-B

CARMEN ACOSTA, INDIVIDUALLY, AND AS HEIR TO THE ESTATE OF JOSE ACOSTA	§	**IN THE COUNTY COURT**
Plaintiff,	§	**AT LAW NO. 2**
vs.	§	
PORTILLO REYES CHAVEZ,	§	**DALLAS COUNTY, TEXAS**
Defendant.	§	

PLAINTIFF'S MOTION FOR DEFAULT JUDGMENT

COMES NOW CARMEN ACOSTA, Plaintiff in the above-numbered and styled cause, and ask the Court to sign a default judgment against Defendant Portillo Reyes Chavez.

I. INTRODUCTION

This is a negligence and wrongful death claim resulting from a multi-vehicle collision. The claim centers on the injuries suffered by Jose Acosta as a result of the negligence of Portillo Chavez. On or about April 05, 2022 the Defendant, Portillo Chavez, passed away.

II. BACKGROUND

On January 12, 2023, Plaintiff filed her original petition. A true and correct copy of the petition is attached as Exhibit A and is incorporated by reference herein.

Previously, the Court signed orders in this case directing the clerk of the Court to issue writs of scire facias which directed the heirs of Defendant Portillo Reyes Chavez to answer on behalf of Defendant. Plaintiff was unable to effectuate personal service on the two heirs, Nixon Gomez and Arcides Chavez, and the Court signed orders granting Plaintiff's motions for substituted service on both individuals.

Pursuant to the Court's orders, subsisted service was effectuated on Nixon Gomez on February 15th, 2024. Attached to this motion as Exhibit B is a true and correct copy of the affidavit of David D. Pace, filed with the Court on February 2022, 2024, attesting to this service. Substituted service was effectuated on Arcides Chavez on March 22, 2024. Attached to this motion as Exhibit C is a true and correct copy of the affidavit of David D. Pace, filed with the Court on March 26, 2024, attesting to this service. Neither Nixon Gomez nor Arcides Chaves has answered on behalf of Defendant.

III. ARGUMENTS AND AUTHORITIES

The Court should render a default judgment against Defendant because Defendant was properly served and did not file an answer or any other pleading constituting a proper answer within the prescribed time period. See Tex. R. Civ. P. 239.

The last known address of Nixon Gomez is 5802 Wayview Drive, San Antonio, TX 78220. Attached as Exhibit D is a certificate of Nixon Gomez's last known address. This is the address where he was served with the writ of scire facias and original petition via substituted service.

The last known address of Arcides Chavez is 8438 Quail Creed Drive, apt. 408, San Antonio, TX 78218. Attached as Exhibit E is a certificate of Arcides Chavez's last known address. This is the address where he was served with the writ of scire facias and original petition via substituted service.

Nixon Gomez is not in military service. Attached hereto as Exhibit F and incorporated herein is an affidavit about Nixon Gomez's military services. Arcides Chavez is also not in military service. Attached hereto as Exhibit G and incorporated by reference herein is an affidavit about Arcides Chavez's military service.

IV. DAMAGES

Plaintiff asks the Court to render a default judgment establishing Defendant's liability, and after a hearing, render a final judgment awarding Plaintiff damages in the amount to be determined by the Court as outlined in Plaintiff's Original Petition, along with costs, attorney fees, and prejudgment interest. Plaintiff requests a court reporter to record the proceedings.

V. LEAVE OF THE COURT

Plaintiff seeks leave of the Court to file this Motion for default judgment five days before this case's dismissal hearing, set for April 26, 2024. Plaintiff would show that good cause exists for the delay due to administrative error not conscious indifference, and that no party is prejudiced by this request.

VI. PRAYER

WHEREFORE, PREMISES CONSIDERED, Plaintiff asks the Court to sign a default judgment on liability, and after hearing to establish the amount of damages, to sign a default judgment for an amount to include full medical expenses, costs of court, attorney fees, prejudgment interest, and any and further relief determined by the Court to which Plaintiff is justly entitled.

Respectfully submitted,

TED B. LYON & ASSOCIATES, P.C.

By: /s/ *Aidan Moffatt*

TED B. LYON
tblyon@tedlyon.com
State Bar No. 12741500
RICHARD MANN
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State Bar No. 24079640
AIDAN MOFFATT
State Bar No. #24136001
amoffatt@tedlyon.com
Town East Tower, Suite 525
18601 LBJ Freeway
Mesquite, Texas 75150
Phone: (972) 279-6571
Fax: (972) 279-3021

ATTORNEYS FOR PLAINTIFF

CERTIFICATE OF SERVICE

I hereby certify that on April 22, 2024, a true and correct copy of the foregoing *Motion for Default Judgment* has been forwarded to all known counsel of record in accordance with Rule 21a of the Texas Rules of Civil Procedure as follows:

/s/ *Aidan Moffatt*
AIDAN MOFFATT

Exhibit “A”

FILED
1/12/2023 1:25 PM
JOHN F. WARREN
COUNTY CLERK
DALLAS COUNTY

CC-23-00308-B

CAUSE NO. _____

CARMEN ACOSTA, Individually, and as Heir to the Estate of JOSE ACOSTA Plaintiffs, vs. PORTILLO REYES CHAVEZ, Defendants.	§ § § § § § § § § § §	IN COUNTY COURT AT LAW NO. _____ DALLAS COUNTY, TEXAS

PLAINTIFFS' ORIGINAL PETITION

TO THE HONORABLE JUDGE OF SAID COURT:

COMES NOW, CARMEN ACOSTA, Individually, as Heir to the Estate of JOSE ACOSTA, ("Plaintiff"), Plaintiffs in the above entitled and numbered cause, complaining of and against PORTILLO REYES CHAVES, and for cause of action would respectfully show unto the Court the following:

I.
RULE 47 STATEMENT OF MONETARY RELIEF SOUGHT

Plaintiffs prefer to have the jury determine the fair amount of compensation for Plaintiff's damages.

Pursuant to Rule 47 of the Texas Rules of Civil Procedure, Plaintiffs seek monetary relief over $1,000,000.00.

II.
DISCOVERY CONTROL PLAN

Pursuant to Texas Rules of Civil Procedure 190.4, discovery in this case is being conducted under Level 3 of Rule 190 of the Texas Rules of Civil Procedure.

III.
PARTIES

Plaintiff Carmen Leticia Acosta, Individually, and as an Heir to the Estate of Jose Acosta, resident of Emory, Texas. Plaintiff may be contacted only through the undersigned counsel of record.

Defendant **Portillo Chavez Reyes** is a resident of the State of Texas; Defendant Reyes can be served at **913 Westbrook Dr. Garland, TX 75043**, or wherever found.

IV.
JURISDICTION AND VENUE

This Court has jurisdiction over the lawsuit because the amount in controversy exceeds this Court's minimum jurisdictional requirements.

Venue is proper and maintainable in Dallas County, Texas pursuant to § 15.002(a)(1) of the TEXAS CIVIL PRACTICE & REMEDIES CODE because Dallas is the County in which all or a substantial part of the events or omissions giving rise to this claim occurred.

V.
BACKGROUND FACTS

On or about April 05, 2022, Jose Acosta had been traveling northbound on State Highway 34 in Kaufman County when defendant Reyes's who was driving, dangerously stopped on the shoulder of the road and then backed his vehicle into the northbound lane into oncoming traffic, and opened his door. Mr. Reyes negligence caused a chain reaction involving multiple vehicles that lead to the death of Jose Acosta . Defendant Reyes did not conduct himself as an ordinary prudent person would have done in the same or similar circumstances.

VI.
NEGLIGENCE

Defendant Reyes did not conduct himself as an ordinary prudent person would have done in the same or similar circumstances. The occurrence made the basis of this suit, and the resulting injuries and damages were proximately caused by the negligent conduct of Defendant Reyes in one or more of the following respects:

a. Driving dangerously and in an unsafe manner;

b. Blocking a highway;

c. Operating the vehicle without due regard for the rights of others.

d. Failing to operate the vehicle in a safe manner.

Each of these acts and omissions, singularly or in combination with others, constitute negligence, which was the proximate cause of this incident and the death of Jose Acosta and damages to the Plaintiffs.

One or more of the previously mentioned allegations of negligence by the Defendants are in violation of the Texas Transportation Code. Each of these acts and omissions of Defendants, singularly or in combination with others were negligent and were each and all a proximate cause of death of Jose Acosta, and all of Plaintiff's damages made the basis of this lawsuit and of the injuries and damages suffered by Jose Acosta and the Plaintiff.

Plaintiffs would show that nothing that Jose Acosta did, or failed to do, in any way contributed to his death.

Said conduct was with heedless and reckless disregard of the safety of others, which disregard was the result of conscious indifference to the rights, welfare and safety of those persons affected by it in violation of the laws of the State of Texas, including TEX. TRANS. CODE ANN. §545.007.

VIII.
WRONGFUL DEATH DAMAGES

Defendant's negligence proximately caused Decedent Jose Acosta's death. Plaintiff Carmen Acosta; suffered the following wrongful death damages:

a. Actual damages;

b. Pecuniary loss, both past and future;

c. Loss of services;

d. Loss of companionship and society, both past and future;

e. Pain and mental anguish, both past and future;

f. Medical bills and expenses;

g. Funeral expenses;

h. All other damages allowed by law.

X.
CLAIM FOR PREJUDGMENT AND POST-JUDGMENT INTEREST

Plaintiffs claim all lawful prejudgment and post-judgment interest on the damages suffered by them in any capacity. Plaintiffs will show that all of these damages exceed the minimum jurisdictional limits of this Court.

XII.
DAMAGES CONSIDERED SEPARATELY

Plaintiffs respectfully assert that they be allowed to have the elements of damages considered separately and individually for the purpose of determining the sum of money that will fairly and reasonably compensate Plaintiff for the injuries, losses and damages incurred, and to be incurred, and that each of Plaintiff's damages be considered separately and individually, segregating the past and future losses, so that pre-judgment interest due Plaintiffs may be computed.

XIII.
U.S. LIFE TABLES

Notice is hereby given that Plaintiffs intends to use the U.S. Life Tables as prepared by the United States Department of Health and Human Services.

XIV.
USE OF DOCUMENTS

Pursuant to Rule 193.7 of the Texas Rules of Civil Procedure, Plaintiffs hereby give notice to Defendants of their intent to use all documents exchanged and produced between the parties (including, but not limited to, correspondence, pleadings, records, documents attached to discovery responses and documents any party obtained through authorization or deposition upon written questions, or attached to an oral deposition) during the trial of this matter.

XV.
JURY DEMAND

Plaintiffs hereby demand a trial by jury to resolve all fact issues in this case.

XVII.
PRAYER

WHEREFORE, PREMISES CONSIDERED, Plaintiff prays that the Defendant be cited to appear and answer herein, and that upon final trial hereof, Plaintiff recovers from said Defendant, jointly and severally, a sum within the jurisdictional limits of the Court, costs of Court, pre-judgment interest and post-judgment interest at the legal rate, and for any and all further relief, both general and special, legal and equitable to which Plaintiffs may be justly entitled.

Respectfully submitted,

TED B. LYON & ASSOCIATES, PC

/s/ Richard Mann

TED B. LYON
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tbylon@tedlyon.com
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State Bar No. 2407640
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Mesquite, Texas 75150
Phone: (972) 279-6571
Fax: (972) 279-3021

ATTORNEYS FOR PLAINTIFFS

Automated Certificate of eService

This automated certificate of service was created by the efiling system. The filer served this document via email generated by the efiling system on the date and to the persons listed below. The rules governing certificates of service have not changed. Filers must still provide a certificate of service that complies with all applicable rules.

Jimmy Brashear on behalf of Richard Mann
Bar No. 24079640
jimmy@tedlyon.com
Envelope ID: 71843331
Status as of 1/17/2023 2:29 PM CST

Case Contacts

Name	BarNumber	Email	TimestampSubmitted	Status
Richard AMann		rmann@tedlyon.com	1/17/2023 10:42:57 AM	SENT
Jimmy Brashear		jimmy@tedlyon.com	1/17/2023 10:42:57 AM	SENT

Exhibit “B”

AFFIDAVIT OF SERVICE

State of Texas **County of Dallas** **County At Law No. 2 Court**

Case Number: CC-23-00308-B

Plaintiff:
Carmen Acosta, Individually, and as Heir to the Estate of Jose Acosta

vs.

Defendant:
Portillo Reyes Chavez

Received by David D. Pace on the 15th day of February, 2024 at 6:26 am to be served on **Nixon Gomez, 5802 Wayview Drive, San Antonio, TX 78220**.

I, David D. Pace, being duly sworn, depose and say that on the **15th day of February, 2024** at **10:51 am, I:**

POSTED by securely affixing a true copy of the **Scire Facias-Suggestion of Death, (Cover Letter), Plaintiffs' Original Petition, Order on Plaintiff's Substituted Service on Nixon Gomez** with the date and hour of service endorsed thereon by me and signed order attached, to the front door of the within named person's **RESIDENCE** at the address of: **5802 Wayview Drive, San Antonio, TX 78220** per signed order for substitute service.

I am of sound mind. I declare that the foregoing is true and correct. I certify that I am over the age of 18. I have no interest in the above action. I am a Process Server in good standing with the state of Texas.

Sworn to before me on the 16th day of February 2024

Blanche Jones
NOTARY PUBLIC

BLANCHE JONES
My Notary ID # 126818336
Expires February 24, 2026

David D. Pace
PSC-1820 EXP 12/31/2024

Certified Corporate & Process Services Llc
Po Box 496448
Garland, TX 75049
(972) 279-6100

Our Job Serial Number: PLL-2024000209

Form 331 - SCIRE FACIAS TO MAKE PARTIES -SUGGESTION OF DEATH
C/F $8.00 ATTORNEY

CAUSE NO. CC-23-00308-B

THE STATE OF TEXAS

TO NIXON GOMEZ, THE SON AND THE HEIR OF THE ESTATE OF PORTILLO REYES CHAVEZ, Defendant

WHEREAS, in the County Court of Dallas County, **County Court at Law No. 2** Dallas County, Texas, it was suggested in open court, that **PORTILLO REYES CHAVEZ** Defendant in a certain suit pending, wherein **CARMEN ACOSTA, INDIVIDUALLY, AND AS HEIR TO THE ESTATE OF JOSE ACOSTA** was Plaintiff, and the said **PORTILLO REYES CHAVEZ** was Defendant, File No. **CC-23-00308-B**, has departed this life; and it was ordered by said Court that a Writ of **SCIRE FACIAS** do issue to the representatives of said a **PORTILLO REYES CHAVEZ**; and it appearing that citizen of Dallas County, **NIXON GOMEZ, THE SON AND THE HEIR OF THE ESTATE OF PORTILLO REYES CHAVEZ** is administrator and/or executor and representative of the said Estate of **PORTILLO REYES CHAVEZ** therefore you **NIXON GOMEZ, THE SON AND THE HEIR OF THE ESTATE OF PORTILLO REYES CHAVEZ** are hereby commanded to appear by filing a written answer to plaintiff's petition at or before 10:00 o'clock a.m. of the Monday next after the expiration of twenty (20) days after the date of service hereof before the Dallas County Court of Texas at the Courthouse in the City of Dallas, Dallas County, Texas then and there to defend the said suit as shown by plaintiff's petition a copy of which accompanies this Scire Facias.

If this Scire Facias is not served within ninety (90) days after date of its issue, it shall be returned unserved.

WITNESS, John F. Warren, County Clerk of the County Courts of Dallas County, Texas.

Given under my hand and the Seal of said Court at Office in Dallas, Texas on this the 12th day of February, 2024

ATTEST: JOHN F. WARREN
Clerk of County Courts of Dallas County, Texas

By: Guisla Hernandez Deputy
GUISLA HERNANDEZ

COUNTY COURT OF DALLAS COUNTY, TEXAS

RETURN

Came to hand on the _____ day of _____, 20___ at _____ o'clock __. M. Executed at within the County of _____ , at _____ o'clock ___. M., on the

day of _____, 20 _____, by delivering to the within named each, in person, a true copy of this Scire Facias together with the accompanying copy of this petition, having first indorsed on same the date of delivery.

The distance actually traveled by me in serving such process was _____ miles and my fees are as follows:

To certify which witness my hand.

For serving Scire Facias ..... $

For mileage ..... $ _____ _____ County

For Notary ..... $_____ State of

Total Fees ..... $_____ By _____ Deputy

(Must be verified if served outside the State of Texas.)

Signed and sworn to by the said before me this _____ day of _____, 20 _____, to certify which witness my hand and seal of office.

_____
Notary Public
County____

ATTORNEY	**AIDAN ANDREW MOFFATT** **TED B LYON & ASSOCIATES PC** **18601 LBJ FREEWAY** **SUITE 525** **MESQUITE TX 75150** **972-279-6571**
SCIRE FACIAS-SUGGESTION OF DEATH **CC-23-00308-B**	Attorney for Plaintiff
IN THE COUNTY COURT OF DALLAS COUNTY COURT AT LAW NO. 2 DALLAS COUNTY, TEXAS CARMEN ACOSTA, INDIVIDUALLY, AND AS HEIR TO THE ESTATE OF JOSE ACOSTA, ***Plaintiff(s)*** VS PORTILLO REYES CHAVEZ; Portillo Chavez, ***Defendant(s)***	JOHN F. WARREN, COUNTY CLERK BY: GUISLA HERNANDEZ,DEPUTY CLERK
SERVE: **NIXON GOMEZ, THE SON AND THE HEIR OF THE ESTATE OF PORTILLO REYES CHAVEZ** **5802 WAYVIEW DRIVER** **SAN ANTONIO, TEXAS 78220**	**ISSUED THIS** **2/12/2024**

NO OFFICER'S FEES HAVE BEEN COLLECTED BY DALLAS COUNTY CLERK

Exhibit “C”

AFFIDAVIT OF SERVICE

State of Texas **County of Dallas** **County at Law No. 2 Court**

Case Number: CC-23-00308-B

Plaintiff:
Carmen Acosta, Individually and as Heir to the Estate of Jose Acosta

vs.

Defendant:
Portillo Reyes Chavez

Received by David D. Pace on the 12th day of February, 2024 at 3:30 pm to be served on **Arcides Chavez, 8438 Quail Creek Drive, Apt. 408, San Antonio, Bexar County, TX 78218**

I, David D. Pace, being duly sworn, depose and say that on the **22nd day of March, 2024** at **2:17 pm, I:**

Delivered to: Arcides Chavez a true copy of the **Scire Facias; Plaintiff's Original Petition; Order Directing Clerk of Court to Issue Writ of Scire Facias; Cover Letter** with the date of service endorsed thereon by me, by securely attaching the **Scire Facias; Plaintiff's Original Petition; Order Directing Clerk of Court to Issue Writ of Scire Facias; Cover Letter, with a copy of the 106 Order to the front door,** at the address of: **8438 Quail Creek Drive, Apt. 408, San Antonio, Bexar County, TX 78218.**

I am over the age of 18; and I am not a party to nor interested in the outcome of the above styled and numbered suit; and I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Before me, a notary public , on this day personally appeared the above named person, known to me to be the person whose name is subscribed to the foregoing document and, being by me first duly sworn, declared that the statements therein contained are within his/her personal knowledge and experience to be true and correct. given under my hand and seal of office on the 25th day of March, 2024

NOTARY PUBLIC

MACKENZI WILEY
Notary Public, State of Texas
Comm. Expires 11-03-2025
Notary ID 131340547

David D. Pace
PSC 1820 Exp Date: 12/31/2024

Certified Corp. & Process Services LLC
P.O. Box 496448
Garland, TX 75049
(972) 279-6100

Our Job Serial Number: LGD-2024000530

Form 331 - SCIRE FACIAS TO MAKE PARTIES -SUGGESTION OF DEATH
C/F $8.00 ATTORNEY

CAUSE NO. CC-23-00308-B

THE STATE OF TEXAS

TO ARCIDES CHAVEZ, THE SON AND THE HEIR OF THE ESTATE OF PORTILLO REYES CHAVEZ Defendant

WHEREAS, in the County Court of Dallas County, **County Court at Law No. 2** Dallas County, Texas, it was suggested in open court, that **PORTILLO REYES CHAVEZ** Defendant in a certain suit pending, wherein **CARMEN ACOSTA, INDIVIDUALLY, AND AS HEIR TO THE ESTATE OF JOSE ACOSTA** was Plaintiff, and the said **PORTILLO REYES CHAVEZ** was Defendant, File No. **CC-23-00308-B**, has departed this life; and it was ordered by said Court that a Writ of **SCIRE FACIAS** do issue to the representatives of said a **PORTILLO REYES CHAVEZ**; and it appearing that citizen of Dallas County, **ARCIDES CHAVEZ, THE SON AND THE HEIR OF THE ESTATE OF PORTILLO REYES CHAVEZ** is administrator and/or executor and representative of the said Estate of **PORTILLO REYES CHAVEZ** therefore you **ARCIDES CHAVEZ, THE SON AND THE HEIR OF THE ESTATE OF PORTILLO REYES CHAVEZ** are hereby commanded to appear by filing a written answer to plaintiff's petition at or before 10:00 o'clock a.m. of the Monday next after the expiration of twenty (20) days after the date of service hereof before the Dallas County Court of Texas at the Courthouse in the City of Dallas, Dallas County, Texas then and there to defend the said suit as shown by plaintiff's petition a copy of which accompanies this Scire Facias.

If this Scire Facias is not served within ninety (90) days after date of its issue, it shall be returned unserved.

WITNESS, John F. Warren, County Clerk of the County Courts of Dallas County, Texas.

Given under my hand and the Seal of said Court at Office in Dallas, Texas on this the 9th day of February, 2024

COUNTY COURT OF DALLAS COUNTY, TEXAS

ATTEST: JOHN F. WARREN
Clerk of County Courts of Dallas County, Texas
By: Guisla Hernandez Deputy
GUISLA HERNANDEZ

RETURN

Came to hand on the _____ day of _____, 20___ at _____ o'clock __. M. Executed at within the County of _____ , at _____ o'clock ___. M., on the

day of _____, 20 _____, by delivering to the within named each, in person, a true copy of this Scire Facias together with the accompanying copy of this petition, having first indorsed on same the date of delivery.

The distance actually traveled by me in serving such process was _____ miles and my fees are as follows:

To certify which witness my hand.

For serving Scire Facias ..... $

For mileage ..... $ _____ _____ County

For Notary ..... $_____ State of

Total Fees ..... $_____ By _____ Deputy

(Must be verified if served outside the State of Texas.)

Signed and sworn to by the said before me this _____ day of _____, 20 _____, to certify which witness my hand and seal of office.

_____
Notary Public
County____

ATTORNEY	**SCIRE FACIAS-SUGGESTION OF DEATH** **CC-23-00308-B**
IN THE COUNTY COURT OF DALLAS COUNTY COURT AT LAW NO. 2 DALLAS COUNTY, TEXAS CARMEN ACOSTA, INDIVIDUALLY, AND AS HEIR TO THE ESTATE OF JOSE ACOSTA, ***Plaintiff(s)*** VS PORTILLO REYES CHAVEZ;, ***Defendant(s)***	**SERVE:** **ARCIDES CHAVEZ, THE SON AND THE HEIR OF THE ESTATE OF PORTILLO REYES CHAVEZ** **8438 QUAIL CREEK DR,** **APT 408** **SAN ANTONIO, TEXAS 78218** **ISSUED THIS** **2/9/2024** JOHN F. WARREN, COUNTY CLERK BY: GUISLA HERNANDEZ,DEPUTY CLERK Attorney for Plaintiff
AIDAN ANDREW MOFFATT **TED B LYON & ASSOCIATES PC** **18601 LBJ FREEWAY** **SUITE 525** **MESQUITE TX 75150** **972-279-6571**	

Exhibit “D”

CAUSE NO. CC-23-00308-B

CARMEN ACOSTA, INDIVIDUALLY, AND AS HEIR TO THE ESTATE OF JOSE ACOSTA	§	**IN THE COUNTY COURT**
Plaintiff,	§	**AT LAW NO. 2**
vs.	§	
PORTILLO REYES CHAVEZ,	§	**DALLAS COUNTY, TEXAS**
Defendant.	§	

CERTIFICATE OF LAST KNOWN ADDRESS- NIXON GOMEZ

Plaintiff Carmen Acosta certifies that the last known address of Nixon Gomez, heir to the estate of Portillo Reyes Chavez, is 5802 Wayview Drive, San Antonio, Bexar County, TX 78220.

Respectfully submitted,

TED B. LYON & ASSOCIATES, P.C.

By: /s/ *Aidan Moffatt*

TED B. LYON
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State Bar No. 12741500
RICHARD MANN
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State Bar No. 24079640
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Phone: (972) 279-6571
Fax: (972) 279-3021

ATTORNEYS FOR PLAINTIFF

Exhibit “E”

CAUSE NO. CC-23-00308-B

CARMEN ACOSTA, INDIVIDUALLY, AND AS HEIR TO THE ESTATE OF JOSE ACOSTA	§	**IN THE COUNTY COURT**
Plaintiff,	§	**AT LAW NO. 2**
vs.	§	
PORTILLO REYES CHAVEZ,	§	**DALLAS COUNTY, TEXAS**
Defendant.	§	

CERTIFICATE OF LAST KNOWN ADDRESS- ARCIDES CHAVEZ

Plaintiff Carmen Acosta certifies that the last known address of Arcides Chaves, heir to the estate of Portillo Reyes Chavez, is 8438 Quail Creed Drive, apt. 408, San Antonio, Bexar County, TX 78218.

Respectfully submitted,

TED B. LYON & ASSOCIATES, P.C.

By: /s/ *Aidan Moffatt*

TED B. LYON
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Fax: (972) 279-3021

ATTORNEYS FOR PLAINTIFF

Exhibit “F”

CAUSE NO. CC-23-00308-B

CARMEN ACOSTA, INDIVIDUALLY, AND AS HEIR TO THE ESTATE OF JOSE ACOSTA	§	**IN THE COUNTY COURT**
Plaintiff,	§	**AT LAW NO. 2**
vs.	§	
PORTILLO REYES CHAVEZ,	§	**DALLAS COUNTY, TEXAS**
Defendant.	§	

PLAINTIFF'S SERVICE MEMBERS AFFIDAVIT – NIXON GOMEZ

STATE OF TEXAS §

§

COUNTY OF DALLAS §

Before me, the undersigned notary, on this pay personally appeared Richard Mann, the affiant, whose identity is known to me. After I administered an oath, affiant testified as follows:

1. "My name is Aidan Moffatt. I am over 18 years of age, of sound mind, and capable of making this affidavit. The facts stated in this affidavit are within my personal knowledge and are true and correct.

2. "I am the attorney for Plaintiff Carmen Acosta."

3. "Nixon Gomez, heir to the estate of Defendant Portillo Reyes Chavez, is not in military service. Attached as Exhibit 1 is a copy of the Status Report Pursuant to the Servicemembers Civil Relief Act provided by the Department of Defense Manpower Data Center, stating that Nixon Gomez is not, has not in the past 367 days, nor is subject to future call-up to active duty for any branch of the Uniformed Services (Army, Navy, Marine Corps, Air Force, NOAA, Public Health, and Coast Guard)."

FURTHER, AFFIANT SAYETH NAUGHT

Moffatt

AIDAN MOFFATT

Sworn to and subscribed before me by Aidan Moffatt on April 22, 2021.

Melanie N. Barragan
NOTARY PUBLIC STATE OF TEXAS

My Commission Expires: 11/10/2027

MELANIE NICOLE BARRAGAN
Notary ID #134642458
My Commission Expires
November 10, 2027

Department of Defense Manpower Data Center

Results as of : Apr-22-2024 01:53:50 PM

SCRA 5.19

Status Report
Pursuant to Servicemembers Civil Relief Act

SSN: XXX-XX-5270
Birth Date:
Last Name: GOMEZ
First Name: NIXON
Middle Name:
Status As Of: Apr-22-2024
Certificate ID: BHBX6RS712QBF0X

On Active Duty On Active Duty Status Date			
Active Duty Start Date	Active Duty End Date	Status	Service Component
NA	NA	No	NA
This response reflects the individuals' active duty status based on the Active Duty Status Date			

Left Active Duty Within 367 Days of Active Duty Status Date			
Active Duty Start Date	Active Duty End Date	Status	Service Component
NA	NA	No	NA
This response reflects where the individual left active duty status within 367 days preceding the Active Duty Status Date			

The Member or His/Her Unit Was Notified of a Future Call-Up to Active Duty on Active Duty Status Date			
Order Notification Start Date	Order Notification End Date	Status	Service Component
NA	NA	No	NA
This response reflects whether the individual or his/her unit has received early notification to report for active duty			

Upon searching the data banks of the Department of Defense Manpower Data Center, based on the information that you provided, the above is the status of the individual on the active duty status date as to all branches of the Uniformed Services (Army, Navy, Marine Corps, Air Force, Space Force, NOAA, Public Health, and Coast Guard). This status includes information on a Servicemember or his/her unit receiving notification of future orders to report for Active Duty.

Sam Yousefzadeh

Sam Yousefzadeh, Director
Department of Defense - Manpower Data Center
4800 Mark Center Drive, Suite 04E25
Alexandria, VA 22350

The Defense Manpower Data Center (DMDC) is an organization of the Department of Defense (DoD) that maintains the Defense Enrollment and Eligibility Reporting System (DEERS) database which is the official source of data on eligibility for military medical care and other eligibility systems.

The DoD strongly supports the enforcement of the Servicemembers Civil Relief Act (50 USC App. § 3901 et seq, as amended) (SCRA) (formerly known as the Soldiers' and Sailors' Civil Relief Act of 1940). DMDC has issued hundreds of thousands of "does not possess any information indicating that the individual is currently on active duty" responses, and has experienced only a small error rate. In the event the individual referenced above, or any family member, friend, or representative asserts in any manner that the individual was on active duty for the active duty status date, or is otherwise entitled to the protections of the SCRA, you are strongly encouraged to obtain further verification of the person's status by contacting that person's Service. Service contact information can be found on the SCRA website's FAQ page (Q35) via this URL: https://scra.dmdc.osd.mil/scra/#/faqs. If you have evidence the person was on active duty for the active duty status date and you fail to obtain this additional Service verification, punitive provisions of the SCRA may be invoked against you. See 50 USC App. § 3921(c).

This response reflects the following information: (1) The individual's Active Duty status on the Active Duty Status Date (2) Whether the individual left Active Duty status within 367 days preceding the Active Duty Status Date (3) Whether the individual or his/her unit received early notification to report for active duty on the Active Duty Status Date.

More information on "Active Duty Status"

Active duty status as reported in this certificate is defined in accordance with 10 USC § 101(d) (1). Prior to 2010 only some of the active duty periods less than 30 consecutive days in length were available. In the case of a member of the National Guard, this includes service under a call to active service authorized by the President or the Secretary of Defense under 32 USC § 502(f) for purposes of responding to a national emergency declared by the President and supported by Federal funds. All Active Guard Reserve (AGR) members must be assigned against an authorized mobilization position in the unit they support. This includes Navy Training and Administration of the Reserves (TARs), Marine Corps Active Reserve (ARs) and Coast Guard Reserve Program Administrator (RPAs). Active Duty status also applies to a Uniformed Service member who is an active duty commissioned officer of the U.S. Public Health Service or the National Oceanic and Atmospheric Administration (NOAA Commissioned Corps).

Coverage Under the SCRA is Broader in Some Cases

Coverage under the SCRA is broader in some cases and includes some categories of persons on active duty for purposes of the SCRA who would not be reported as on Active Duty under this certificate. SCRA protections are for Title 10 and Title 14 active duty records for all the Uniformed Services periods. Title 32 periods of Active Duty are not covered by SCRA, as defined in accordance with 10 USC § 101(d)(1).

Many times orders are amended to extend the period of active duty, which would extend SCRA protections. Persons seeking to rely on this website certification should check to make sure the orders on which SCRA protections are based have not been amended to extend the inclusive dates of service. Furthermore, some protections of the SCRA may extend to persons who have received orders to report for active duty or to be inducted, but who have not actually begun active duty or actually reported for induction. The Last Date on Active Duty entry is important because a number of protections of the SCRA extend beyond the last dates of active duty.

Those who could rely on this certificate are urged to seek qualified legal counsel to ensure that all rights guaranteed to Service members under the SCRA are protected

WARNING: This certificate was provided based on a last name, SSN/date of birth, and active duty status date provided by the requester. Providing erroneous information will cause an erroneous certificate to be provided.

Exhibit “G”

CAUSE NO. CC-23-00308-B

CARMEN ACOSTA, INDIVIDUALLY, AND AS HEIR TO THE ESTATE OF JOSE ACOSTA	§	**IN THE COUNTY COURT**
Plaintiff,	§	**AT LAW NO. 2**
vs.	§	
PORTILLO REYES CHAVEZ,	§	**DALLAS COUNTY, TEXAS**
Defendant.	§	

PLAINTIFF'S SERVICE MEMBERS AFFIDAVIT – ARCIDES CHAVEZ

STATE OF TEXAS §

§

COUNTY OF DALLAS §

Before me, the undersigned notary, on this pay personally appeared Richard Mann, the affiant, whose identity is known to me. After I administered an oath, affiant testified as follows:

1. "My name is Aidan Moffatt. I am over 18 years of age, of sound mind, and capable of making this affidavit. The facts stated in this affidavit are within my personal knowledge and are true and correct.

2. "I am the attorney for Plaintiff Carmen Acosta."

3. "Arcides Chaves, heir to the estate of Defendant Portillo Reyes Chavez, is not in military service. Attached as Exhibit 1 is a copy of the Status Report Pursuant to the Servicemembers Civil Relief Act provided by the Department of Defense Manpower Data Center, stating that Arcides Chavez is not, has not in the past 367 days, nor is subject to future call-up to active duty for any branch of the Uniformed Services (Army, Navy, Marine Corps, Air Force, NOAA, Public Health, and Coast Guard)."

FURTHER, AFFIANT SAYETH NAUGHT

AMoffatt

AIDAN MOFFATT

Sworn to and subscribed before me by Aidan Moffatt on April 22, 2021.

Melanie N. Barragan
NOTARY PUBLIC STATE OF TEXAS

My Commission Expires: 11/10/2027

MELANIE NICOLE BARRAGAN
Notary ID #134642458
My Commission Expires
November 10, 2027

Department of Defense Manpower Data Center

Results as of : Apr-22-2024 01:42:38 PM

SCRA 5.19

Status Report
Pursuant to Servicemembers Civil Relief Act

SSN:
Birth Date: Aug-XX-1973
Last Name: CHAVEZ
First Name: ARCIDES
Middle Name:
Status As Of: Apr-22-2024
Certificate ID: YQ9MQ7FJB4VPCD1

On Active Duty On Active Duty Status Date			
Active Duty Start Date	Active Duty End Date	Status	Service Component
NA	NA	No	NA
This response reflects the individuals' active duty status based on the Active Duty Status Date			

Left Active Duty Within 367 Days of Active Duty Status Date			
Active Duty Start Date	Active Duty End Date	Status	Service Component
NA	NA	No	NA
This response reflects where the individual left active duty status within 367 days preceding the Active Duty Status Date			

The Member or His/Her Unit Was Notified of a Future Call-Up to Active Duty on Active Duty Status Date			
Order Notification Start Date	Order Notification End Date	Status	Service Component
NA	NA	No	NA
This response reflects whether the individual or his/her unit has received early notification to report for active duty			

Upon searching the data banks of the Department of Defense Manpower Data Center, based on the information that you provided, the above is the status of the individual on the active duty status date as to all branches of the Uniformed Services (Army, Navy, Marine Corps, Air Force, Space Force, NOAA, Public Health, and Coast Guard). This status includes information on a Servicemember or his/her unit receiving notification of future orders to report for Active Duty. HOWEVER, WITHOUT A SOCIAL SECURITY NUMBER, THE DEPARTMENT OF DEFENSE MANPOWER DATA CENTER CANNOT AUTHORITATIVELY ASSERT THAT THIS IS THE SAME INDIVIDUAL THAT YOUR QUERY REFERS TO. NAME AND DATE OF BIRTH ALONE DO NOT UNIQUELY IDENTIFY AN INDIVIDUAL.

Sam Yousefzadeh

Sam Yousefzadeh, Director
Department of Defense - Manpower Data Center
4800 Mark Center Drive, Suite 04E25
Alexandria, VA 22350

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Many times orders are amended to extend the period of active duty, which would extend SCRA protections. Persons seeking to rely on this website certification should check to make sure the orders on which SCRA protections are based have not been amended to extend the inclusive dates of service. Furthermore, some protections of the SCRA may extend to persons who have received orders to report for active duty or to be inducted, but who have not actually begun active duty or actually reported for induction. The Last Date on Active Duty entry is important because a number of protections of the SCRA extend beyond the last dates of active duty.

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Exhibit “C”

CAUSE NO. CC-23-00308-B

CARMEN ACOSTA, INDIVIDUALLY, AND AS HEIR TO THE ESTATE OF JOSE ACOSTA	§	**IN THE COUNTY COURT**
Plaintiff,	§	**AT LAW NO. 2**
vs.	§	
PORTILLO REYES CHAVEZ,	§	**DALLAS COUNTY, TEXAS**
Defendant.	§	

ORDER ON PLAINTIFF'S VERIFIED MOTION FOR REINSTATEMENT

On, June 24th, 2024, the Court considered Plaintiffs' Verified Motion for Reinstatement. Having considered the motion and arguments therein the Court finds that the motion should be **GRANTED**

IT IS THEREFORE ORDERED that the order dismissing this case is set aside and that the case is reinstated on the docket of this Court, to the same effect as if it had never been dismissed.

SIGNED 24 day of June, 2024.

Presiding Judge

Exhibit “D”

AFFIDAVIT OF FACTS

STATE OF TEXAS §
§
§
§

COUNTY OF Dallas §

BEFORE ME, the undersigned authority, personally appeared **Carmen Acosta** who being by me duly sworn, deposed as follows:

- My name is Carmen Acosta I am of sound mind and am capable of making this affidavit.

- I was the spouse of Jose Acosta. We got married on September 19, 1996 and had been married 26 years at the time that he passed.

- Jose Acosta passed away as a result of a collision which occurred on April 5th, 2022. At the time, he was fifty years old.

- My husband's death has had a significant impact on me and my family. I have experienced mental anguish and grief which has affected me greatly. The grief I have is something that I experience daily. It effects my ability to sleep through the night and dampens my general sense of well-being. Additionally, I no longer enjoy or want to do many activities that I used to do.

- My Husband and I used to go out together every weekend. We would have dinner and do activities together and spend time enjoying each-other's company. I no longer go out on weekends and I spend a lot more time at home. I experience grief on a daily basis and it effects my daily life and routine to a significant degree.

- In addition to the above, I have lost the relationship I had with my Husband and continue to suffer the loss of that relationship daily.

- My husband's death has also had a significant financial impact on me. Prior to his death, he was the main financial contributor and was making approximately $50,000 per year. I no longer receive that income and support.

- My husband also took care of the ground-work on our 25 acre farm. After his passing, I have had to hire someone to take care of the property which costs me $325 per month.

- The funeral expenses associated with Jose Acosta's death were $22,000.

- According to public-data U.S. Life Tables, Jose's life expectancy was 79 years.

- I am asking the Court to award me the following damages:
  - $400,000.00 for mental anguish
  - $400,000.00 for loss of consortium
  - $1,585,100.00 for economic damages
    - $50,000 (income)*29 (remaining life expectancy) = $1,450,000 (total lost wages)
    - 325 (property care) * 12 (months) * 29 (remaining life expectancy) = $113,100 (total loss of household services)
    - $22,000 (funeral expenses)
- Attached hereto as Exhibit A is a copy of the life table I used, which is available through the CDC National Center for Health Statistics.

CARMEN ACOSTA
AFFIANT

SWORN TO AND SUBSCRIBED before me on the 14th day of March, 2025

CHLOEE NICHOLE LEWIS
Notary Public, State of Texas
Comm. Expires 09-10-2028
Notary ID 135082880

Chloee Lewis
Notary Public, in and for the
State of Texas

My Commission Expires:
09/10/2028

EXHIBIT A

National Vital Statistics Reports

Volume 72, Number 12 November 7, 2023

United States Life Tables, 2021

by Elizabeth Arias, Ph.D., Jiaquan Xu, M.D., and Kenneth Kochanek, M.A.

Abstract

Objectives—This report presents complete period life tables for the United States by Hispanic origin and race and sex, based on age-specific death rates in 2021.

Methods—Data used to prepare the 2021 life tables are 2021 final mortality statistics; July 1, 2021, population estimates based on the Blended Base population estimates produced by the U.S. Census Bureau; and 2021 Medicare data for people ages 66–99. The methodology used to estimate life tables for the Hispanic population remains unchanged from that developed for the publication of life tables by Hispanic origin for data year 2006. The same methodology is used to estimate life tables for the American Indian and Alaska Native non-Hispanic and Asian non-Hispanic populations. The methodology used to estimate the 2021 life tables for all other groups was first implemented with data year 2008.

Results—In 2021, the overall expectation of life at birth was 76.4 years, decreasing 0.6 year from 77.0 in 2020. From 2020 to 2021, life expectancy at birth decreased by 0.7 year for males (from 74.2 to 73.5) and by 0.6 year for females (79.9 to 79.3). Between 2020 and 2021, life expectancy decreased by 1.5 years for the American Indian and Alaska Native non-Hispanic population (67.1 to 65.6), 0.7 year for the White non-Hispanic population (77.4 to 76.7), 0.3 year for the Black non-Hispanic population (71.5 to 71.2), 0.1 year for the Hispanic population (77.9 to 77.8), and 0.1 year for the Asian non-Hispanic population (83.6 to 83.5).

Keywords: life expectancy • survival • death rates • Hispanic origin • race • National Vital Statistics System

Introduction

Life tables are of two types: the cohort (or generation) life table and the period (or current) life table. The cohort life table presents the mortality experience of a particular birth cohort—all people born in the year 1900, for example—from the moment of birth through consecutive ages in successive calendar years. Based on age-specific death rates observed through consecutive calendar years, the cohort life table reflects the mortality experience of an actual cohort from birth until no lives remain in the group. To prepare just a single complete cohort life table requires data over many years. It is usually not feasible to construct cohort life tables entirely based on observed data for real cohorts due to data unavailability or incompleteness (1). For example, a life table representation of the mortality experience of a cohort of people born in 1970 would require the use of data projection techniques to estimate deaths into the future (2,3).

The period life table, by contrast, presents what would happen to a hypothetical cohort if it experienced throughout its entire life the mortality conditions of a particular period in time. For example, a period life table for 2021 assumes a hypothetical cohort that is subject throughout its lifetime to the age-specific death rates prevailing for the actual population in 2021. Consequently, the period life table may be characterized as rendering a "snapshot" of current mortality experience by showing the long-range implications of a set of age-specific death rates that prevailed in a given year. In this report, the term "life table" refers only to the period life table and not to the cohort life table.

Life tables can be classified in two ways according to the length of the age interval in which data are presented. A complete life table contains data for every single year of age. An abridged life table typically contains data by 5- or 10-year age intervals. A complete life table can easily be combined into 5- or 10-year age groups (see Technical Notes for instructions). Other than the decennial life tables, U.S. life tables based on data before 1997 are abridged life tables constructed by reference to a standard table (4).

Complete period life tables by Hispanic origin and race, based on the 1997 Office of Management and Budget revised standards for the reporting of race and ethnicity, are presented in this report (5). Race categories differ from the bridged-race categories shown in previous reports for 2000–2017. Comparisons between data years 2000–2017 and 2018–2021

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics
National Vital Statistics System

should be interpreted considering these differences. Life expectancy estimates for bridged-race categories are included in this report for 2006–2020 to document the effect of the change in race standards and to show trends. 2020 was the last year for which estimates for bridged-race categories were presented in this report. Hispanic origin is consistent with previous reports because the classification of Hispanic origin did not change between standards (5,6). In the remainder of this report, "race" refers to "single race" based on the 1997 standard (see Technical Notes and "Comparability of Race-specific Mortality Data Based on 1977 Versus 1997 Reporting Standards" for more information on differences between single- and bridged-race groups) (7).

Data and Methods

The data used to prepare the U.S. life tables for 2021 are final numbers of deaths for 2021; July 1, 2021, population estimates; and age-specific death and population counts for Medicare beneficiaries ages 66–99 for 2021 from the Centers for Medicare & Medicaid Services. Population estimates are based on the Blended Base produced by the U.S. Census Bureau in lieu of the April 1, 2020, decennial population count. The Blended Base consists of the blend of 2020 postcensal population estimates, based on the April 1, 2010, census; 2020 Demographic Analysis Estimates; and the 2020 Census PL 94-171 Redistricting File (see https://www2.census.gov/programs-surveys/popest/technical-documentation/methodology/2020-2021/methods-statement-v2021.pdf). Data from the Medicare program were used to supplement vital statistics and census data for ages 66 and older for the total, Black non-Hispanic, and White non-Hispanic populations. Because reliable Medicare data were not available for the Hispanic, American Indian and Alaska Native non-Hispanic, and Asian non-Hispanic populations, statistical modeling was used to produce reliable old-age mortality estimates. The U.S. life tables by Hispanic origin and race are based on death rates that have been adjusted for race and ethnicity misclassification on death certificates using classification ratios (or correction factors) generated from studies that evaluate Hispanic-origin and race misclassification on death certificates in the United States (8–10). (See Technical Notes for a detailed description of the data sets and methodology used to estimate the life tables and life table partitioning by cause of death.)

Expectation of life

The most frequently used life table statistic is life expectancy (e_x), which is the average number of years of life remaining for people who have attained a given age (x). Life expectancy and other life table values for each age in 2021 are shown for the total population and by Hispanic origin and race and sex in Tables 1–18. Life expectancy is summarized by age, Hispanic origin and race, and sex in Table A.

Life expectancy at birth (e_0) for 2021 for the total population was 76.4 years. This represents the average number of years that members of the hypothetical life table cohort can expect to live at the time of birth (Table A).

Survivors to specified ages

Another way of assessing the longevity of the period life table cohort is to determine the proportion that survives to specified ages. The l_x column of the life table provides the data for computing this proportion. Table B summarizes the number of survivors by age, Hispanic origin and race, and sex. To illustrate, 51,702 people out of the original 2021 hypothetical life table cohort of 100,000 (or 51.7 %) were alive at exact age 80. In other words, the probability that a person will survive from birth to age 80, given 2021 age-specific mortality, is 51.7%. Probabilities of survival can be calculated at any age by dividing the number of survivors at the terminal age by the number at the beginning age. For example, to calculate the probability of surviving from age 20 to age 85, one would divide the number of survivors at age 85 (36,667) by the number of survivors at age 20 (98,906), which results in a 37.1% probability of survival.

Explanation of the columns of the life table

Column 1. Age (between x and $x+1$)—Shows the age interval between the two exact ages indicated. For instance, "20–21" means the 1-year interval between the 20th and 21st birthdays.

Column 2. Probability of dying (q_x)—Shows the probability of dying between ages x and $x+1$. For example, for males in the age interval 20–21 years, the probability of dying is 0.001361 (Table 2). This column forms the basis of the life table; all subsequent columns are calculated from it.

Column 3. Number surviving (l_x)—Shows the number of people from the original hypothetical cohort of 100,000 live births who survive to the beginning of each age interval. The l_x values are computed from the q_x values, which are successively applied to the remainder of the original 100,000 people still alive at the beginning of each age interval. Consequently, out of 100,000 female babies born alive, 99,496 will complete the first year of life and enter the second; 99,352 will reach age 10; 99,109 will reach age 20; and 44,237 will live to age 85 (Table 3).

Column 4. Number dying (d_x)—Shows the number dying in each successive age interval out of the original 100,000 live births. For example, out of 100,000 males born alive, 583 will die in the first year of life; 134 between ages 20 and 21; and 657 after reaching age 100 (Table 2). Each figure in column 4 is the difference between two successive figures in column 3.

Column 5. Person-years lived (L_x)—Shows the number of person-years lived by the hypothetical life table cohort within an age interval x to $x+1$. Each figure in column 5 represents the total time (in years) lived between two indicated birthdays by all those reaching the earlier birthday. Consequently, the figure 98,644 for males in the age interval 20–21 is the total number of years lived between the 20th and 21st birthdays by the 98,711 males (column 3) who reached their 20th birthday out of 100,000 males born alive (Table 2).

Column 6. Total number of person-years lived (T_x)—Shows the total number of person-years that would be lived after the beginning of the age interval x to $x+1$ by the hypothetical life table cohort. For example, 5,370,868 is the total number of years lived after reaching age 20 by the 98,711 males who reached that age (Table 2).

Table A. Expectation of life, by age, Hispanic origin and race, and sex: United States, 2021

Age (years)	All origins			Hispanic			Non-Hispanic											
							American Indian and Alaska Native			Asian			Black			White		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
0	76.4	73.5	79.3	77.8	74.6	81.1	65.6	62.2	69.2	83.5	81.2	85.6	71.2	67.6	75.0	76.7	74.0	79.5
1	75.8	73.0	78.7	77.2	74.0	80.5	65.1	61.7	68.8	82.8	80.5	84.9	71.0	67.4	74.7	76.0	73.4	78.8
5	71.9	69.1	74.8	73.3	70.1	76.5	61.2	57.8	64.9	78.8	76.5	80.9	67.1	63.5	70.8	72.1	69.4	74.8
10	66.9	64.1	69.8	68.3	65.1	71.5	56.3	52.9	59.9	73.9	71.6	75.9	62.2	58.6	65.9	67.1	64.5	69.9
15	62.0	59.2	64.9	63.4	60.2	66.6	51.3	48.0	55.0	68.9	66.6	71.0	57.3	53.7	61.0	62.1	59.5	64.9
20	57.1	54.4	60.0	58.5	55.4	61.7	46.7	43.4	50.3	64.0	61.7	66.0	52.7	49.2	56.1	57.3	54.7	60.0
25	52.5	49.8	55.2	53.8	50.8	56.9	42.4	39.2	45.8	59.2	56.9	61.1	48.2	44.9	51.4	52.6	50.1	55.2
30	47.8	45.4	50.4	49.2	46.3	52.1	38.3	35.3	41.5	54.3	52.1	56.2	43.8	40.7	46.8	47.9	45.6	50.4
35	43.3	41.0	45.7	44.6	41.9	47.3	34.5	31.7	37.5	49.5	47.3	51.3	39.5	36.6	42.3	43.4	41.2	45.7
40	38.8	36.6	41.1	40.1	37.5	42.6	31.0	28.4	33.7	44.7	42.6	46.4	35.3	32.5	37.8	38.9	36.8	41.1
45	34.4	32.3	36.5	35.6	33.2	37.9	27.5	25.1	30.0	39.9	37.9	41.6	31.1	28.6	33.5	34.5	32.5	36.5
50	30.1	28.2	32.1	31.2	28.9	33.3	24.5	22.3	26.7	35.2	33.3	36.8	27.1	24.8	29.3	30.2	28.3	32.1
55	26.0	24.2	27.8	27.0	24.9	28.9	21.5	19.6	23.4	30.7	28.8	32.1	23.3	21.1	25.3	26.0	24.3	27.8
60	22.1	20.5	23.7	23.0	21.1	24.7	18.8	17.2	20.3	26.2	24.6	27.5	19.8	17.8	21.6	22.1	20.5	23.7
65	18.4	17.0	19.7	19.3	17.6	20.6	16.3	15.0	17.3	21.9	20.5	23.0	16.7	14.9	18.1	18.4	17.0	19.7
70	14.9	13.7	16.0	15.8	14.4	16.8	13.6	12.6	14.4	17.9	16.7	18.7	13.7	12.3	14.9	14.9	13.7	15.9
75	11.6	10.6	12.5	12.4	11.3	13.2	11.2	10.4	11.7	14.0	13.0	14.6	11.0	9.8	11.8	11.5	10.6	12.4
80	8.7	7.9	9.4	9.4	8.5	9.9	9.1	8.5	9.4	10.5	9.7	10.9	8.5	7.6	9.1	8.7	7.8	9.3
85	6.3	5.6	6.7	6.9	6.1	7.1	7.2	6.8	7.3	7.5	6.9	7.7	6.4	5.6	6.7	6.2	5.6	6.6
90	4.4	3.9	4.6	4.8	4.3	4.9	5.6	5.4	5.6	5.0	4.7	5.1	4.7	4.2	4.9	4.3	3.8	4.5
95	3.0	2.7	3.2	3.4	3.0	3.3	4.5	4.3	4.3	3.4	3.1	3.3	3.4	3.1	3.5	3.0	2.6	3.1
100	2.2	1.9	2.2	2.4	2.2	2.3	3.6	3.5	3.4	2.3	2.2	2.2	2.6	2.4	2.6	2.1	1.9	2.2

NOTE: Life tables by Hispanic origin and race are based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Column 7. Expectation of life (e_x)—The expectation of life at any given age is the average number of years remaining to be lived by those surviving to that age, based on a given set of age-specific rates of dying. It is calculated by dividing the total person-years that would be lived beyond age x by the number of people who survived to that age interval (T_x / l_x). Consequently, the average remaining lifetime for males who reach age 20 is 54.4 years (5,370,868 divided by 98,711) (Table 2).

Results

Life expectancy in the United States

Tables 1–18 show complete life tables for 2021 by Hispanic origin and race and sex. Table A summarizes life expectancy by age, Hispanic origin and race, and sex. Life expectancy at birth for 2021 represents the average number of years that a group of infants would live if they were to experience throughout life the age-specific death rates prevailing in 2021. In 2021, life expectancy at birth was 76.4 years, decreasing by 0.6 year from 77.0 in 2020 (Table 19).

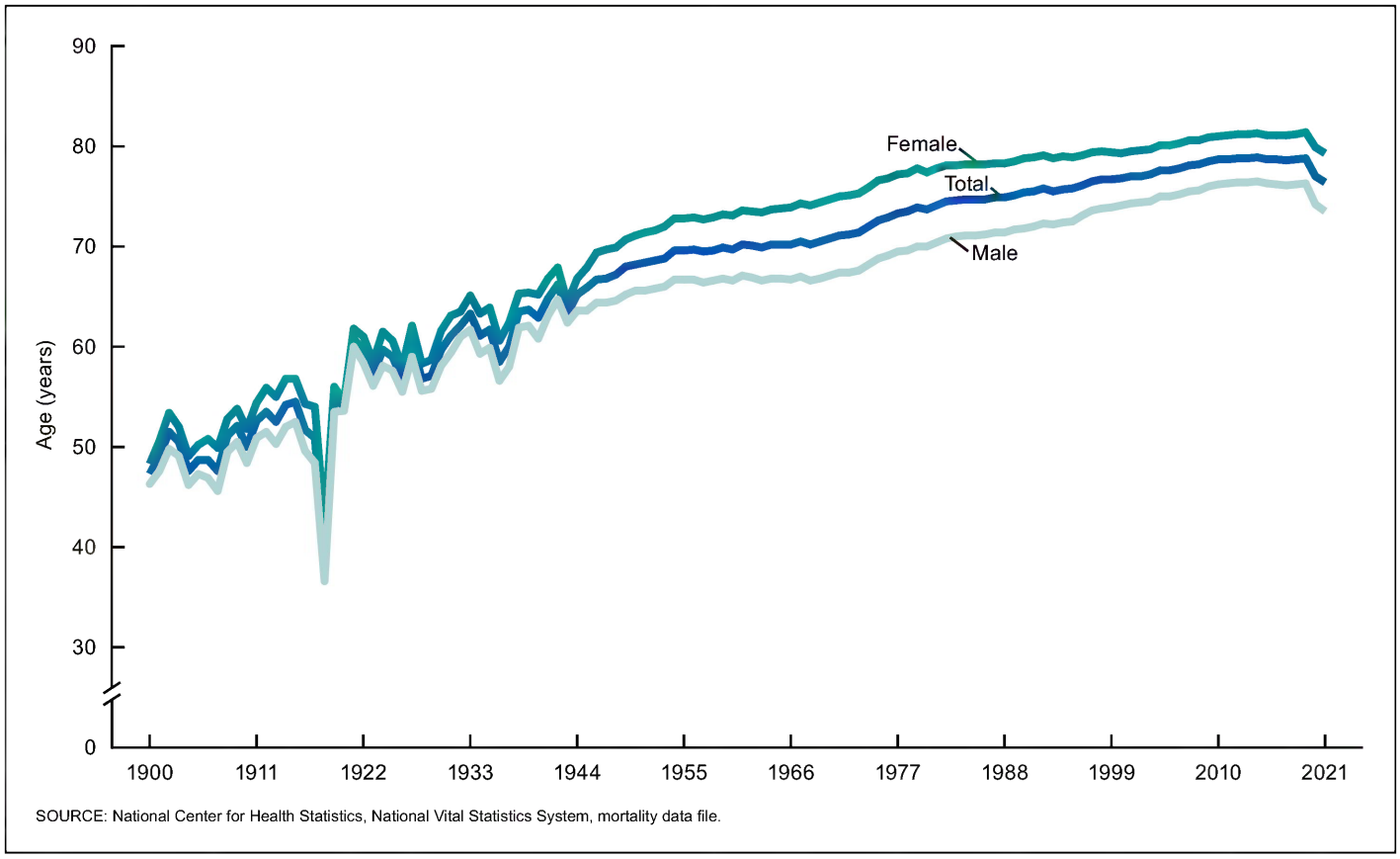
The difference in life expectancy between the sexes was 5.8 years in 2021, increasing 0.1 year from 2020. From 1900 to 1975, the difference in life expectancy between the sexes increased from 2.0 years to 7.8 years (Figure 1, Table 19). The increasing gap during these years is attributed to increases in male mortality due to ischemic heart disease and lung cancer, both of which increased largely as the result of men's early and widespread adoption of cigarette smoking (11,12). Between 1979 and 2010, the difference in life expectancy between the sexes narrowed from 7.8 years to 4.8 years, and then increased to 5.8 in 2021 (Figure 1, Table 19).

The 2021 life table may be used to compare life expectancy at any age from birth onward. Based on mortality experienced in 2021, a person age 65 could expect to live an average of 18.4 more years for a total of 83.4 years; a person age 85 could expect to live an additional 6.3 years for a total of 91.3 years; and a person age 100 could expect to live an additional 2.2 years, on average (Table A).

Life expectancy by Hispanic origin and race

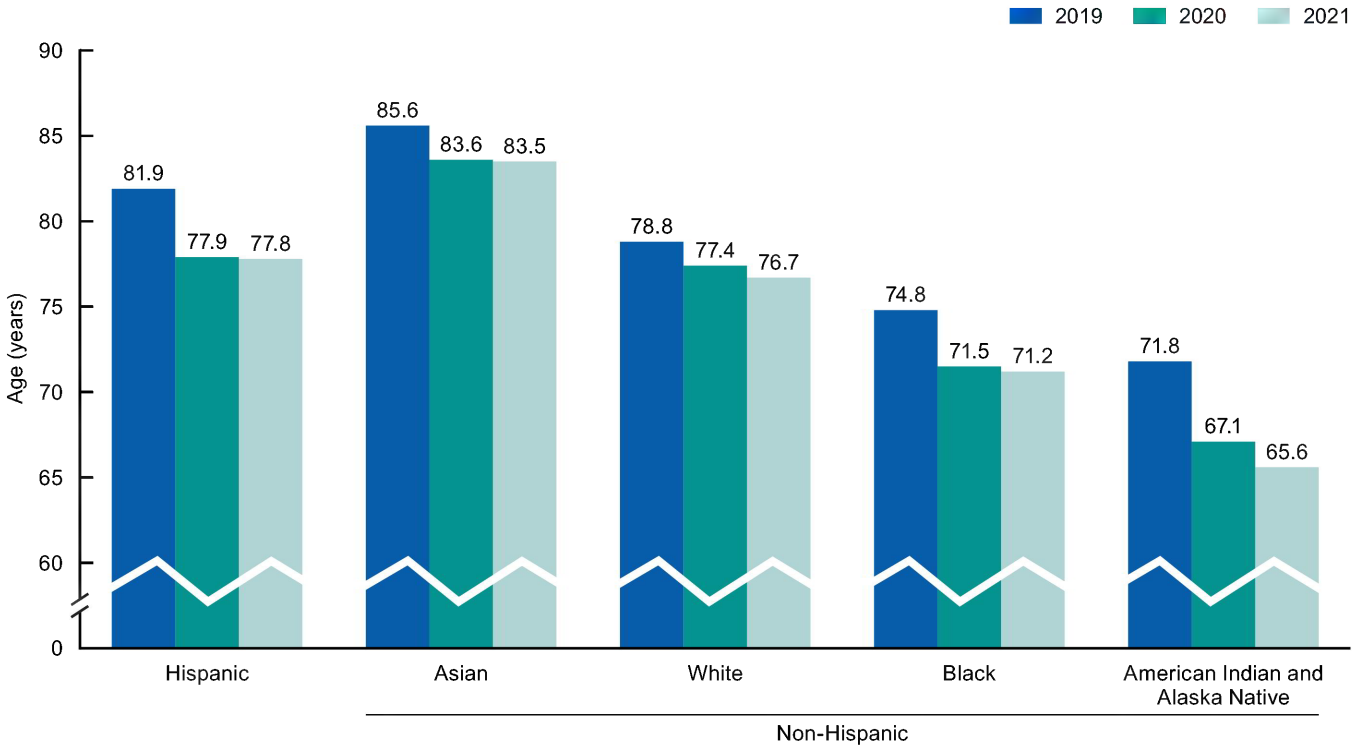
In 2021, the Hispanic population had a life expectancy of 77.8 years. Among the non-Hispanic population, the Asian population had the highest life expectancy at birth (83.5 years), followed by the White (76.7), Black (71.2), and American Indian and Alaska Native (65.6) populations (Table A, Figure 2). From 2020 to 2021, life expectancy at birth declined for all Hispanic-origin and race populations (Figure 2). Life expectancy declined by 0.1 year for the Hispanic population (from 77.9 to 77.8). Within the non-Hispanic population, life expectancy declined by 1.5 years for the American Indian and Alaska Native population (67.1 to 65.6), 0.7 year for the White population (77.4 to 76.7), 0.3 year for the Black population (71.5 to 71.2), and 0.1 year for the Asian population (83.6 to 83.5).

Figure 1. Life expectancy at birth, by sex: United States, 1900–2021



SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Figure 2. Life expectancy at birth, by Hispanic origin and race: United States, 2019–2021



SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Between 2020 and 2021, life expectancy did not change for Hispanic males (74.6) but declined 0.2 years for Hispanic females (from 81.3 to 81.1) (Figure 3). Within the non-Hispanic population, American Indian and Alaska Native males experienced the greatest decline, 1.6 years (63.8 to 62.2), followed by American Indian and Alaska Native females with a decline of 1.5 years (70.7 to 69.2), White males with a decline of 0.8 year (74.8 to 74.0), White females with a decline of 0.6 year (80.1 to 79.5), Black females with a decline of 0.4 year (75.4 to 75.0), Asian females with a decline of 0.3 year (85.9 to 85.6), and Black males with a decline of 0.2 year (67.8 to 67.6). Asian males experienced an increase in life expectancy of 0.1 year (from 81.1 to 81.2).

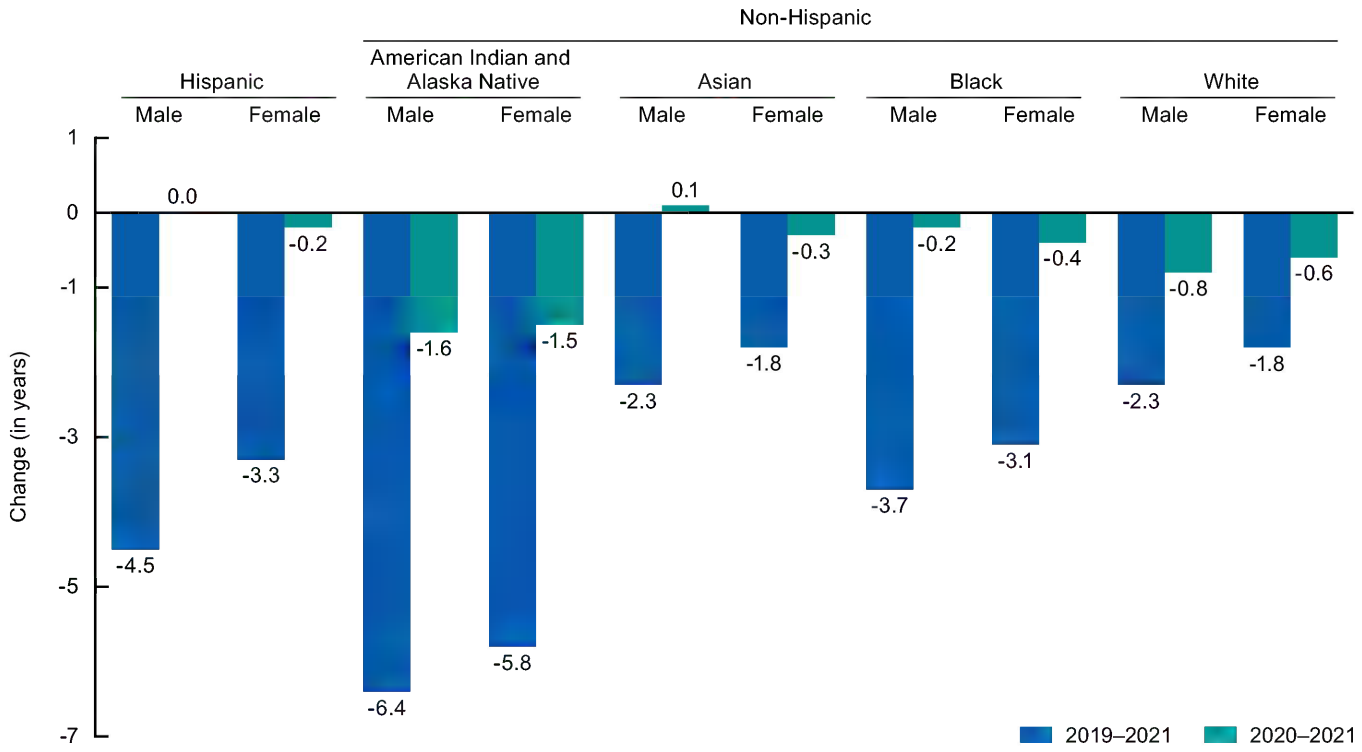
From 2019 to 2021, life expectancy declined by 4.5 years for Hispanic males (from 79.1 to 74.6) and by 3.3 years for Hispanic females (84.4 to 81.1) (Figure 3). Within the non-Hispanic population, life expectancy declined by 6.4 years for American Indian and Alaska Native males (68.6 to 62.2), 5.8 years for American Indian and Alaska Native females (75.0 to 69.2), 3.7 years for Black males (71.3 to 67.6), 3.1 years for Black females (78.1 to 75.0), 2.3 years for White males (76.3 to 74.0), 2.3 years for Asian males (83.5 to 81.2), and 1.8 years each for Asian (87.4 to 85.6) and White (81.3 to 79.5) females.

Effect on life expectancy of changes in cause-specific mortality

Changes in mortality by age and cause of death can have a major effect on life expectancy (Figures 4–6). Declines in cause-specific mortality contribute to increases in life expectancy, while increases in cause-specific mortality contribute to decreases in life expectancy. The decline of 0.6 year in life expectancy from 2020 to 2021 was primarily due to increases in mortality due to COVID-19 (59.7% of the negative contribution), unintentional injuries (19.7%), Chronic liver disease and cirrhosis (3.1%), suicide (2.0%), and homicide (1.7%). The decline in life expectancy would have been even greater were it not for the offsetting effects of decreases in mortality due to influenza and pneumonia (29.2%), Chronic lower respiratory diseases (24.7%), Alzheimer disease (18.3%), cancer (17.9%), and Parkinson disease (2.7%) (see Technical Notes for a description of the life table partitioning method) (13).

The American Indian and Alaska Native non-Hispanic population experienced the largest decline in life expectancy from 2020 to 2021 (1.5 years). This decrease was primarily due to increases in mortality due to unintentional injuries (24.3%), COVID-19 (21.1%), Chronic liver disease and cirrhosis (20.1%), suicide (5.5%), and heart disease (4.1%). The decline in life expectancy would have been even greater were it not for the offsetting effects of decreases in mortality due to influenza and pneumonia (24.8%), homicide (23.3%), congenital malformations (12.0%), Perinatal conditions (9.4%), and Alzheimer disease (4.3%).

Figure 3. Change in life expectancy at birth, by Hispanic origin and race and sex: United States, 2019–2021 and 2020–2021



NOTE: Life tables by Hispanic origin and race are based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.
SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

The second-greatest decline in life expectancy was experienced by the White non-Hispanic population (0.7 year). The decline was due primarily to increases in mortality due to COVID-19 (64.0%), unintentional injuries (14.5%), heart disease (3.3%), Chronic liver disease and cirrhosis (2.6%), and suicide (1.5%). The decrease in life expectancy was offset by decreases in mortality due to influenza and pneumonia (27.5%), Chronic lower respiratory diseases (24.4%), Alzheimer disease (19.3%), cancer (18.0%), and Parkinson disease (3.1%).

The third-largest decrease in life expectancy was experienced by the Black non-Hispanic population (0.3 year). The decline was primarily due to increases in mortality due to unintentional injuries (38.5%), COVID-19 (30.5%), homicide (8.7%), suicide (4.2%), and Chronic liver disease and cirrhosis (2.9%). The decline in life expectancy would have been greater were it not for the offsetting effects of decreases in mortality due to heart disease (22.7%), cancer (19.6%), influenza and pneumonia (14.7%), Chronic lower respiratory diseases (12.3%), and Perinatal conditions (7.4%).

The Asian non-Hispanic population experienced a decline in life expectancy of 0.1 year. The decline was primarily due to increases in mortality due to cancer (24.5%), unintentional injuries (17.3%), perinatal conditions (14.7%), stroke (7.6%) and hypertension (6.3%). The decrease in life expectancy was offset by decreases in mortality due to influenza and pneumonia (32.0%), Chronic lower respiratory diseases (16.3%), diabetes (15.4%), heart disease (8.4%), and Alzheimer disease (7.5%).

The Hispanic population also experienced a 0.1-year decline in life expectancy, primarily due to increases in mortality due to unintentional injuries (44.7%), COVID-19 (26.9%), homicide (6.3%), Chronic liver disease and cirrhosis (5.6%), and suicide (3.3%). The negative effects of these causes were offset by decreases in mortality due to heart disease (36.8%), influenza and pneumonia (20.0%), Alzheimer disease (12.4%), diabetes (12.1%), and Chronic lower respiratory diseases (9.0%).

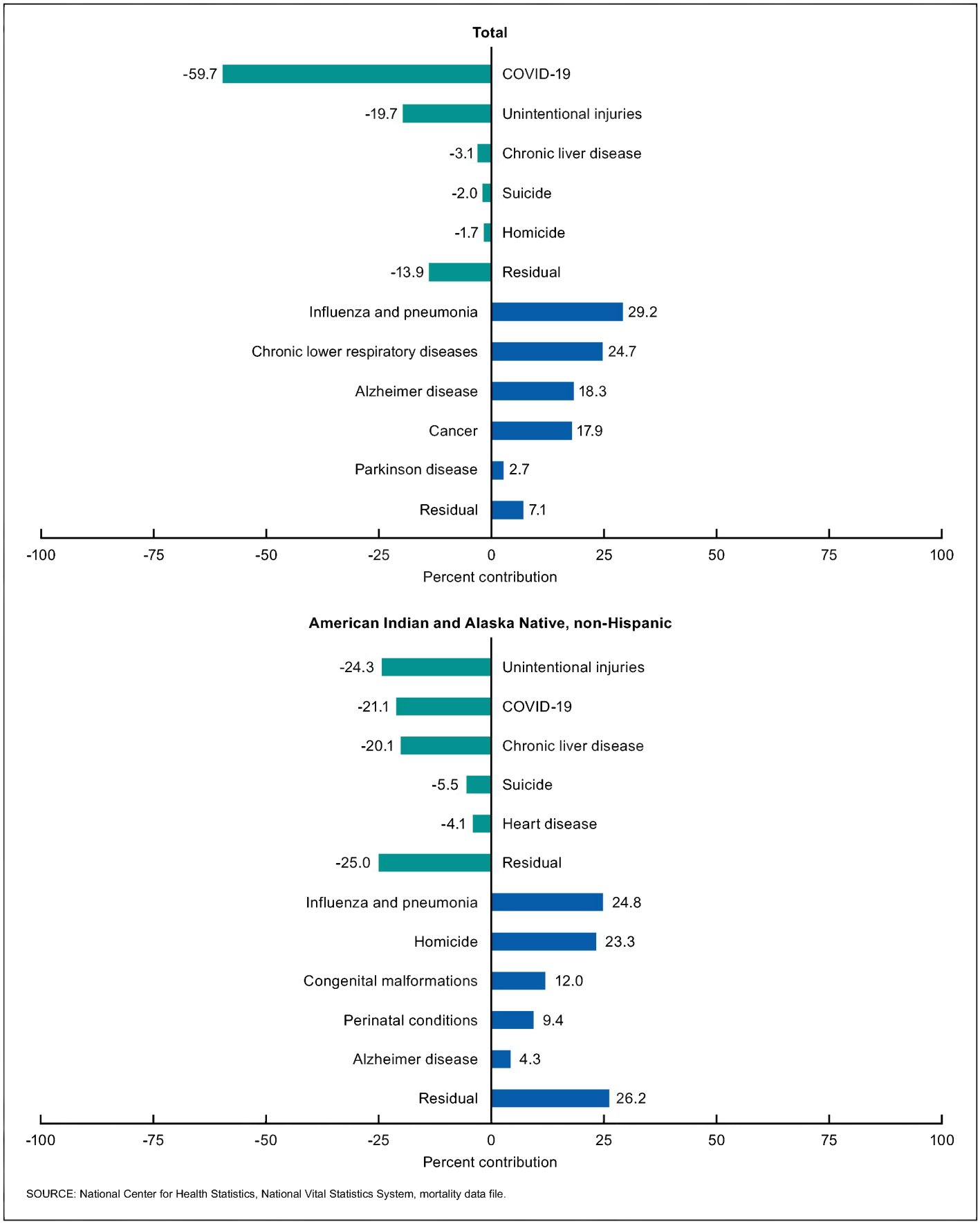
Survivorship in the United States

Table B summarizes the number of survivors out of 100,000 people born alive (l_x) by age, Hispanic origin and race, and sex for 2021. In 2021, 99.5% of all infants born in the United States survived the first year of life; 98.9% survived to age 20; 79.6% survived to age 65; 36.7% survived to age 85; and 1.4% survived to age 100.

Survivorship by Hispanic origin and race

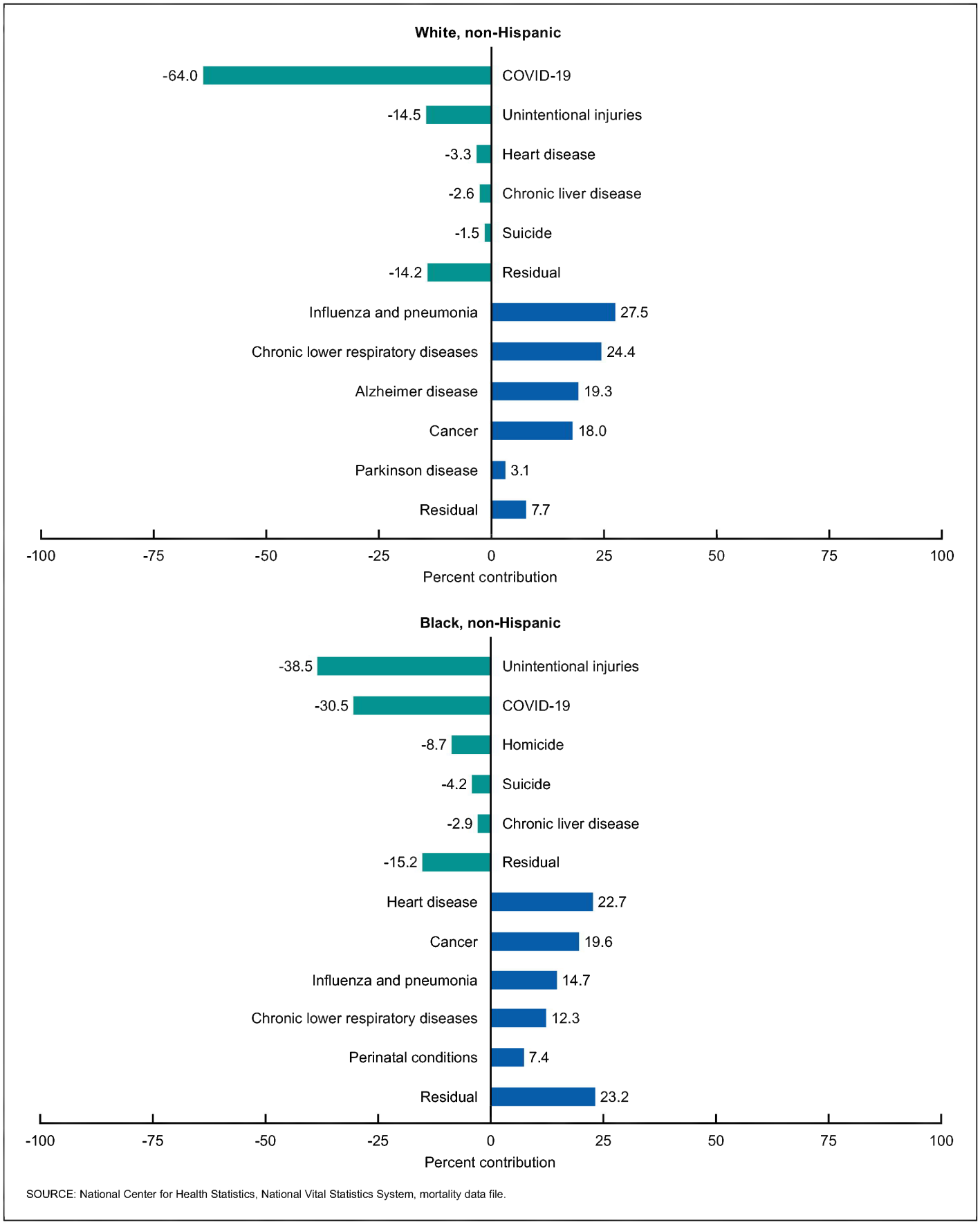
In 2021, 99.5% of Hispanic infants survived the first year of life. Among the non-Hispanic population, 99.6% of Asian and White infants survived the first year of life, followed by 99.3% of American Indian and Alaska Native infants and 98.9% of Black infants (Figure 7, Table B). The probability of survival by selected ages varied across Hispanic-origin and race groups. In 2021, 99.0% of the Hispanic population survived to age 20, 81.6% to

Figure 4. Percent contribution to the changes in life expectancy from 2020 to 2021, by cause of death and Hispanic origin and race: Total and American Indian and Alaska Native, non-Hispanic populations



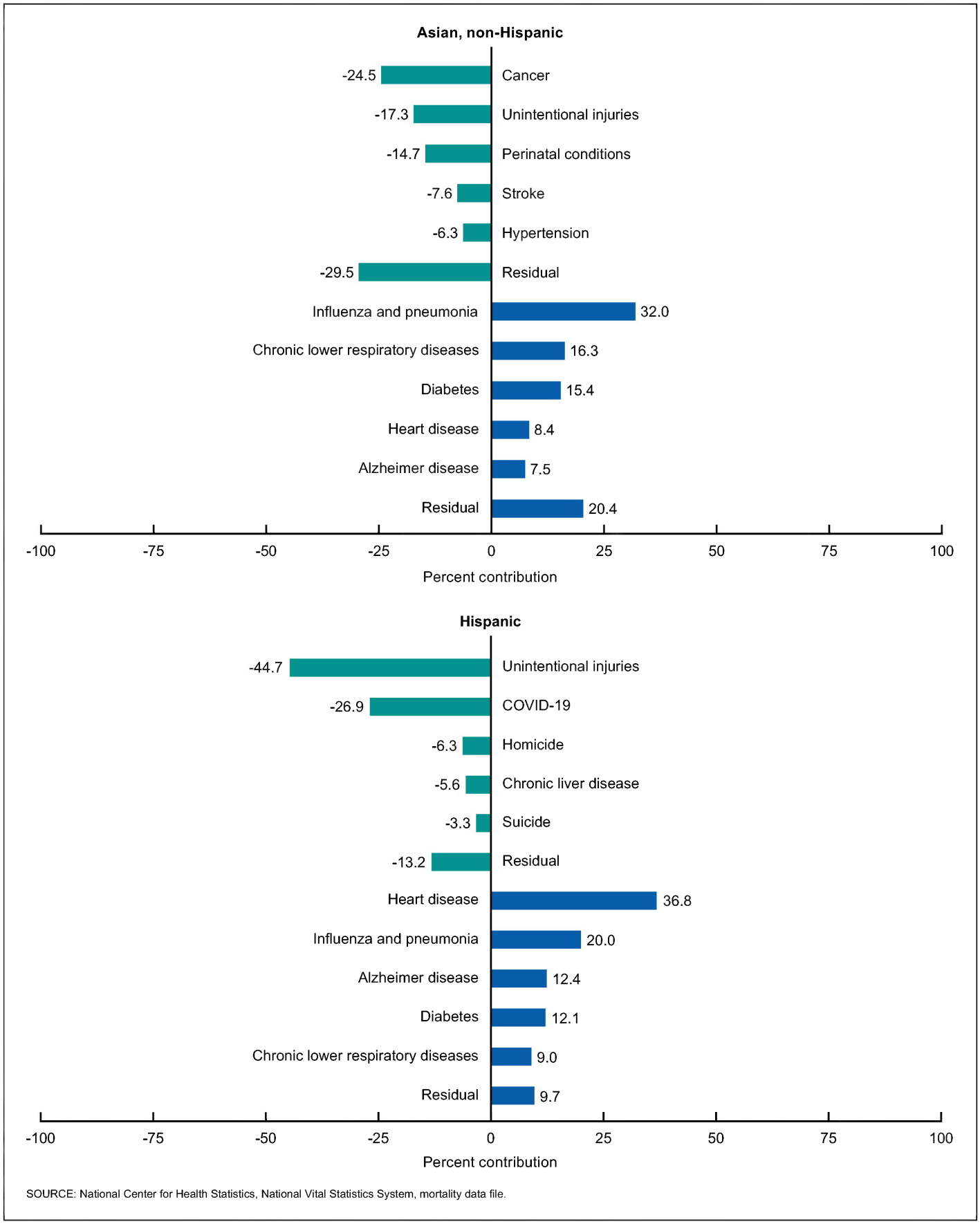
SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Figure 5. Percent contribution to the changes in life expectancy from 2020 to 2021, by cause of death and Hispanic origin and race: White, non-Hispanic and Black, non-Hispanic populations



SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Figure 6. Percent contribution to the changes in life expectancy from 2020 to 2021, by cause of death and Hispanic origin and race: Asian, non-Hispanic and Hispanic populations



SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

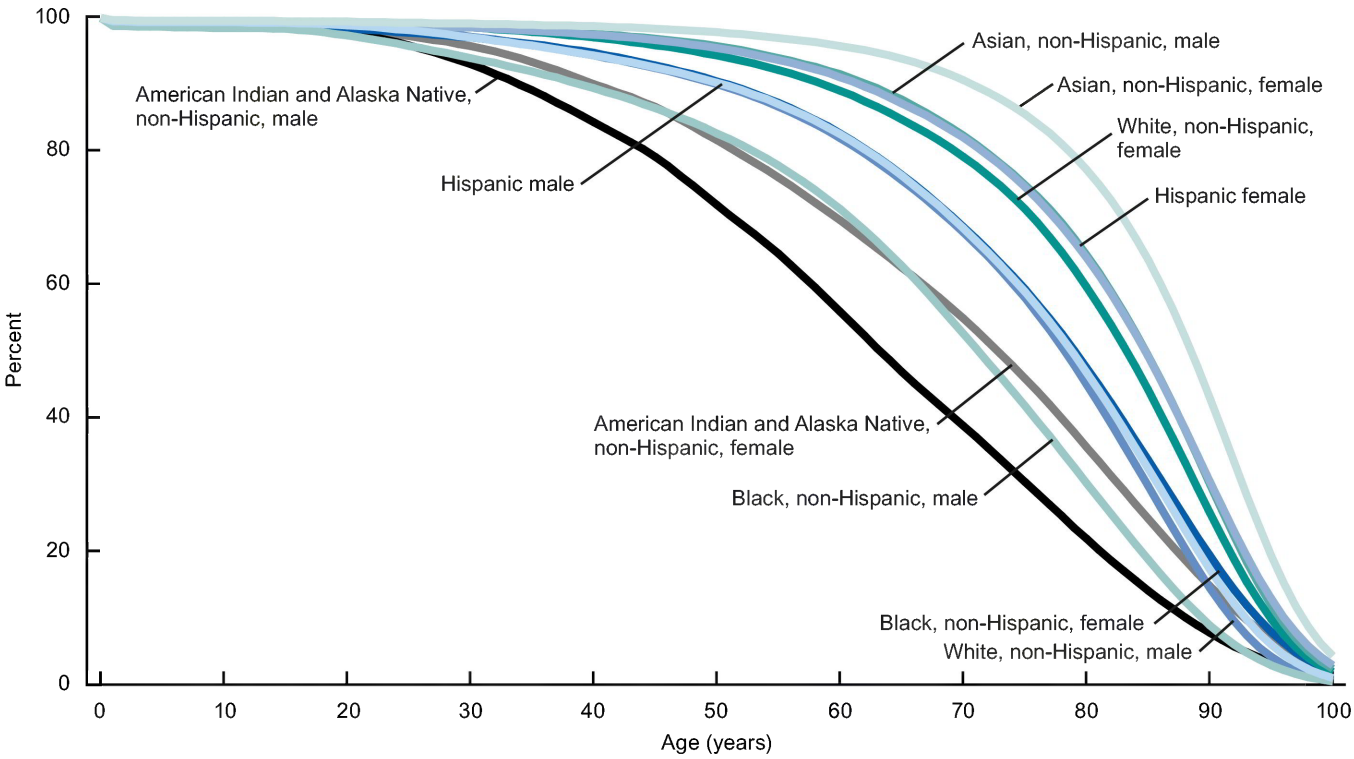
Table B. Number of survivors out of 100,000 born alive, by age, Hispanic origin and race, and sex: United States, 2021

							Non-Hispanic											
	All origins			Hispanic			American Indian and Alaska Native			Asian			Black			White		
Age (years)	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
1	99,455	99,417	99,496	99,520	99,488	99,552	99,257	99,247	99,259	99,632	99,599	99,668	98,949	98,849	99,051	99,562	99,532	99,594
5	99,355	99,308	99,404	99,439	99,408	99,472	99,042	98,979	99,099	99,576	99,539	99,615	98,744	98,652	98,864	99,475	99,426	99,526
10	99,296	99,242	99,352	99,390	99,357	99,427	98,937	98,876	98,992	99,537	99,494	99,582	98,625	98,527	98,765	99,423	99,363	99,487
15	99,214	99,147	99,283	99,317	99,278	99,360	98,777	98,715	98,835	99,491	99,444	99,542	98,478	98,360	98,658	99,349	99,270	99,433
20	98,906	98,711	99,109	99,047	98,907	99,197	98,057	97,826	98,279	99,339	99,285	99,453	97,836	97,379	98,365	99,092	98,921	99,273
25	98,335	97,896	98,795	98,523	98,163	98,907	96,607	95,946	97,258	99,030	98,930	99,306	96,769	95,813	97,815	98,606	98,239	98,992
30	97,566	96,811	98,357	97,817	97,108	98,569	94,408	93,064	95,777	98,744	98,551	99,155	95,498	94,028	97,081	97,889	97,246	98,566
35	96,577	95,472	97,733	96,945	95,870	98,103	91,275	89,191	93,442	98,428	98,125	98,990	93,979	91,989	96,090	96,914	95,942	97,933
40	95,363	93,895	96,897	95,905	94,418	97,520	87,185	84,388	90,109	98,059	97,614	98,751	92,065	89,489	94,752	95,697	94,385	97,074
45	93,824	91,958	95,776	94,573	92,601	96,720	82,828	79,181	86,662	97,538	96,888	98,412	89,657	86,488	92,916	94,167	92,492	95,929
50	91,803	89,467	94,245	92,779	90,306	95,481	76,675	71,977	81,660	96,737	95,788	97,873	86,602	82,746	90,522	92,158	90,060	94,371
55	89,000	86,044	92,099	90,281	87,132	93,745	70,188	64,669	76,110	95,456	94,024	97,018	82,552	77,867	87,290	89,388	86,725	92,213
60	85,017	81,235	88,984	86,669	82,602	91,146	62,572	56,019	69,683	93,672	91,552	95,829	77,026	71,389	82,721	85,464	82,013	89,127
65	79,571	74,780	84,604	81,570	76,387	87,249	54,466	47,020	62,648	90,892	87,756	93,912	69,672	62,902	76,517	80,137	75,722	84,833
70	72,671	66,772	78,857	75,031	68,505	82,059	46,513	38,920	54,950	86,649	82,352	90,673	60,702	52,730	68,729	73,392	67,896	79,235
75	63,810	57,001	70,967	66,603	58,966	74,730	37,780	30,541	46,011	80,516	75,035	85,558	50,597	41,890	59,355	64,531	58,093	71,381
80	51,702	44,313	59,493	55,311	46,928	64,080	28,343	21,952	35,734	71,187	64,510	77,321	38,950	30,316	47,649	52,197	45,115	59,748
85	36,667	29,498	44,237	40,842	32,479	49,262	19,186	14,220	24,994	56,955	49,432	63,756	26,312	18,890	33,750	36,832	29,850	44,270
90	20,222	14,623	26,100	24,301	17,447	30,641	11,142	7,868	14,889	37,174	30,193	43,111	14,248	9,043	19,484	20,105	14,643	25,909
95	7,260	4,407	10,201	9,981	6,053	12,958	5,181	3,467	6,962	16,428	11,992	19,438	5,528	2,984	8,014	7,035	4,252	9,919
100	1,390	657	2,127	2,383	1,134	3,011	1,826	1,162	2,372	3,873	2,462	4,372	1,355	601	2,027	1,283	587	1,985

NOTE: Life tables by Hispanic origin and race are based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Figure 7. Percentage surviving, by Hispanic origin and race, age, and sex: United States, 2021



SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

age 65, and 40.8% to age 85. Among the non-Hispanic population, the Asian population had the highest survival probability at age 20 (99.3%), followed by the White population (99.1%), the American Indian and Alaska Native population (98.1%), and the Black population (97.8%). By age 65, the Asian population had the highest survival probability at 90.9%, followed by the White (80.1%), Black (69.7%), and American Indian and Alaska Native (54.5%) populations. The survival advantage experienced by the Asian population increased with age so that by age 85, 57.0% had survived, compared with 36.8% of the White, 26.3% of the Black, and 19.2% of the American Indian and Alaska Native populations.

Summary

U.S. life expectancy at birth for 2021 was 76.4 years, the lowest it has been since 1996. Both male (73.5) and female (79.3) life expectancy declined to levels not seen since 1996. From 2020 to 2021, the decline in life expectancy at birth based on the final 2021 life tables was 0.3 year less than that based on provisional 2021 life tables for the total (provisional: 76.1) and male (73.2) populations, and 0.2 year less for the female population (79.1) (14). The differences are mostly due to differences in mortality estimates for ages 85 and older. Medicare data, which is used to supplement vital statistics mortality data in the construction of annual final U.S. life tables, was not available for the estimation of provisional life tables. In addition, the 2021 postcensal population estimates used to produce the two sets of tables differed. The final tables are based on the 2021 postcensal estimates that were constructed using the Blended Base developed by the U.S. Census Bureau, while those used for the provisional tables were based on the April 1, 2010, decennial census (see https://www2.census.gov/programs-surveys/popest/technical-documentation/methodology/2020-2021/methods-statement-v2021.pdf).

The American Indian and Alaska Native non-Hispanic population experienced the greatest decline in life expectancy between 2020 and 2021, from 67.1 to 65.6 years. The White non-Hispanic population experienced the second largest decline in life expectancy (from 77.4 to 76.7) and was the lowest it has been since 1995 for the White population (regardless of Hispanic origin). Life expectancy for the Black non-Hispanic population declined from 71.5 to 71.2, a level last seen in 1997 for the Black population (regardless of Hispanic origin). Life expectancy for the Hispanic population declined from 77.9 to 77.8, a level lower than in 2006 (80.3), the first year for which life expectancy estimates by Hispanic origin were produced (15,16). Life expectancy for the Asian non-Hispanic population declined from 83.6 to 83.5 and remained the highest life expectancy in the United States.

Disparities in life expectancy at birth by Hispanic origin and race decreased in some cases and increased in others in 2021 compared with 2020. The White non-Hispanic advantage relative to the Black non-Hispanic population decreased by 6.8% from 2020 (5.9) to 2021 (5.5). The life expectancy gap between the Black and White (regardless of Hispanic origin) populations

had been narrowing over the past several decades, declining from 7.1 years in 1993 to 4.0 years in 2019 (15). As a result of the pandemic, the gap increased to 5.9 years in 2020. The last time the gap in life expectancy between the White and Black (regardless of Hispanic origin) populations was this large was in 2000 (15). The White non-Hispanic advantage relative to the American Indian and Alaska Native non-Hispanic population increased 7.8% from 2020 (10.3) to 2021 (11.1).

The Hispanic advantage relative to the White non-Hispanic population increased by 120% from 2020 (0.5) to 2021 (1.1). The Hispanic population lost most of the mortality advantage it had experienced relative to the White non-Hispanic population through 2019 (3.1) as a result of the pandemic. The Asian non-Hispanic life expectancy advantage relative to the White non-Hispanic population increased by 9.7% from 2020 (6.2) to 2021 (6.8). In both cases, the changing gap was the result of larger increases in mortality in the White non-Hispanic population.

The decline in life expectancy at birth for the total population and all Hispanic-origin and race groups shown in this report was mainly due to increases in mortality due to COVID-19 and unintentional injuries, with the effect of the latter overtaking the former for several populations.

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List of Detailed Tables

Table 1. Life table for the total population: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table01.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.005446	100,000	545	99,522	7,637,023	76.4
1–2	0.000403	99,455	40	99,435	7,537,501	75.8
2–3	0.000254	99,415	25	99,403	7,438,065	74.8
3–4	0.000192	99,390	19	99,381	7,338,663	73.8
4–5	0.000161	99,371	16	99,363	7,239,282	72.9
5–6	0.000143	99,355	14	99,348	7,139,919	71.9
6–7	0.000130	99,341	13	99,334	7,040,571	70.9
7–8	0.000119	99,328	12	99,322	6,941,237	69.9
8–9	0.000107	99,316	11	99,311	6,841,915	68.9
9–10	0.000095	99,305	9	99,301	6,742,604	67.9
10–11	0.000090	99,296	9	99,292	6,643,303	66.9
11–12	0.000100	99,287	10	99,282	6,544,012	65.9
12–13	0.000136	99,277	13	99,270	6,444,730	64.9
13–14	0.000205	99,264	20	99,253	6,345,459	63.9
14–15	0.000299	99,243	30	99,228	6,246,206	62.9
15–16	0.000405	99,214	40	99,194	6,146,977	62.0
16–17	0.000513	99,173	51	99,148	6,047,784	61.0
17–18	0.000623	99,123	62	99,092	5,948,636	60.0
18–19	0.000731	99,061	72	99,025	5,849,544	59.1
19–20	0.000837	98,988	83	98,947	5,750,519	58.1
20–21	0.000949	98,906	94	98,859	5,651,572	57.1
21–22	0.001065	98,812	105	98,759	5,552,714	56.2
22–23	0.001170	98,706	115	98,649	5,453,955	55.3
23–24	0.001259	98,591	124	98,529	5,355,306	54.3
24–25	0.001335	98,467	131	98,401	5,256,777	53.4
25–26	0.001406	98,335	138	98,266	5,158,376	52.5
26–27	0.001480	98,197	145	98,125	5,060,110	51.5
27–28	0.001560	98,052	153	97,975	4,961,985	50.6
28–29	0.001651	97,899	162	97,818	4,864,010	49.7
29–30	0.001749	97,737	171	97,652	4,766,191	48.8
30–31	0.001849	97,566	180	97,476	4,668,539	47.8
31–32	0.001947	97,386	190	97,291	4,571,063	46.9
32–33	0.002040	97,196	198	97,097	4,473,772	46.0
33–34	0.002128	96,998	206	96,895	4,376,675	45.1
34–35	0.002216	96,792	214	96,685	4,279,780	44.2
35–36	0.002308	96,577	223	96,466	4,183,095	43.3
36–37	0.002409	96,354	232	96,238	4,086,629	42.4
37–38	0.002519	96,122	242	96,001	3,990,391	41.5
38–39	0.002638	95,880	253	95,754	3,894,389	40.6
39–40	0.002768	95,627	265	95,495	3,798,636	39.7
40–41	0.002916	95,363	278	95,223	3,703,141	38.8
41–42	0.003078	95,084	293	94,938	3,607,917	37.9
42–43	0.003244	94,792	307	94,638	3,512,979	37.1
43–44	0.003410	94,484	322	94,323	3,418,342	36.2
44–45	0.003587	94,162	338	93,993	3,324,018	35.3
45–46	0.003792	93,824	356	93,646	3,230,025	34.4
46–47	0.004036	93,468	377	93,280	3,136,379	33.6
47–48	0.004315	93,091	402	92,890	3,043,099	32.7
48–49	0.004625	92,690	429	92,475	2,950,209	31.8
49–50	0.004959	92,261	458	92,032	2,857,733	31.0
50–51	0.005308	91,803	487	91,560	2,765,701	30.1
51–52	0.005686	91,316	519	91,056	2,674,142	29.3
52–53	0.006118	90,797	555	90,519	2,583,085	28.4
53–54	0.006620	90,241	597	89,943	2,492,566	27.6
54–55	0.007184	89,644	644	89,322	2,402,623	26.8
55–56	0.007766	89,000	691	88,654	2,313,301	26.0
56–57	0.008369	88,309	739	87,939	2,224,647	25.2
57–58	0.009042	87,570	792	87,174	2,136,708	24.4
58–59	0.009795	86,778	850	86,353	2,049,534	23.6
59–60	0.010606	85,928	911	85,472	1,963,181	22.8

See footnote at end of table.

Table 1. Life table for the total population: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table01.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.011467	85,017	975	84,529	1,877,709	22.1
61–62	0.012333	84,042	1,037	83,523	1,793,180	21.3
62–63	0.013173	83,005	1,093	82,458	1,709,656	20.6
63–64	0.013981	81,912	1,145	81,339	1,627,198	19.9
64–65	0.014798	80,767	1,195	80,169	1,545,859	19.1
65–66	0.015666	79,571	1,247	78,948	1,465,690	18.4
66–67	0.016726	78,325	1,310	77,670	1,386,742	17.7
67–68	0.017853	77,015	1,375	76,327	1,309,072	17.0
68–69	0.019122	75,640	1,446	74,917	1,232,745	16.3
69–70	0.020526	74,193	1,523	73,432	1,157,828	15.6
70–71	0.021919	72,671	1,593	71,874	1,084,396	14.9
71–72	0.023536	71,078	1,673	70,241	1,012,522	14.2
72–73	0.025372	69,405	1,761	68,524	942,281	13.6
73–74	0.027616	67,644	1,868	66,710	873,756	12.9
74–75	0.029889	65,776	1,966	64,793	807,047	12.3
75–76	0.033726	63,810	2,152	62,734	742,254	11.6
76–77	0.036933	61,658	2,277	60,519	679,520	11.0
77–78	0.041016	59,380	2,436	58,163	619,001	10.4
78–79	0.044758	56,945	2,549	55,671	560,838	9.8
79–80	0.049530	54,396	2,694	53,049	505,168	9.3
80–81	0.054120	51,702	2,798	50,303	452,119	8.7
81–82	0.059483	48,904	2,909	47,449	401,816	8.2
82–83	0.065401	45,995	3,008	44,491	354,367	7.7
83–84	0.072224	42,987	3,105	41,434	309,876	7.2
84–85	0.080609	39,882	3,215	38,275	268,441	6.7
85–86	0.089139	36,667	3,268	35,033	230,167	6.3
86–87	0.099586	33,399	3,326	31,736	195,134	5.8
87–88	0.111021	30,073	3,339	28,403	163,398	5.4
88–89	0.123484	26,734	3,301	25,083	134,995	5.0
89–90	0.137001	23,433	3,210	21,828	109,911	4.7
90–91	0.151584	20,222	3,065	18,690	88,084	4.4
91–92	0.167229	17,157	2,869	15,722	69,394	4.0
92–93	0.183913	14,288	2,628	12,974	53,672	3.8
93–94	0.201590	11,660	2,351	10,485	40,697	3.5
94–95	0.220190	9,310	2,050	8,285	30,213	3.2
95–96	0.239623	7,260	1,740	6,390	21,928	3.0
96–97	0.259772	5,520	1,434	4,803	15,538	2.8
97–98	0.280504	4,086	1,146	3,513	10,735	2.6
98–99	0.301662	2,940	887	2,497	7,222	2.5
99–100	0.323082	2,053	663	1,721	4,725	2.3
100 and older	1.000000	1,390	1,390	3,004	3,004	2.2

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 2. Life table for males: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table02.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.005833	100,000	583	99,489	7,354,986	73.5
1–2	0.000416	99,417	41	99,396	7,255,497	73.0
2–3	0.000274	99,375	27	99,362	7,156,101	72.0
3–4	0.000224	99,348	22	99,337	7,056,739	71.0
4–5	0.000175	99,326	17	99,317	6,957,402	70.0
5–6	0.000161	99,308	16	99,300	6,858,085	69.1
6–7	0.000149	99,292	15	99,285	6,758,785	68.1
7–8	0.000137	99,278	14	99,271	6,659,500	67.1
8–9	0.000119	99,264	12	99,258	6,560,229	66.1
9–10	0.000098	99,252	10	99,247	6,460,971	65.1
10–11	0.000084	99,242	8	99,238	6,361,724	64.1
11–12	0.000093	99,234	9	99,230	6,262,485	63.1
12–13	0.000144	99,225	14	99,218	6,163,256	62.1
13–14	0.000248	99,211	25	99,198	6,064,038	61.1
14–15	0.000392	99,186	39	99,167	5,964,840	60.1
15–16	0.000556	99,147	55	99,120	5,865,673	59.2
16–17	0.000719	99,092	71	99,056	5,766,553	58.2
17–18	0.000885	99,021	88	98,977	5,667,497	57.2
18–19	0.001044	98,933	103	98,882	5,568,520	56.3
19–20	0.001199	98,830	118	98,771	5,469,638	55.3
20–21	0.001361	98,711	134	98,644	5,370,868	54.4
21–22	0.001527	98,577	151	98,502	5,272,223	53.5
22–23	0.001678	98,427	165	98,344	5,173,722	52.6
23–24	0.001805	98,261	177	98,173	5,075,378	51.7
24–25	0.001915	98,084	188	97,990	4,977,205	50.7
25–26	0.002015	97,896	197	97,798	4,879,215	49.8
26–27	0.002116	97,699	207	97,596	4,781,417	48.9
27–28	0.002221	97,492	217	97,384	4,683,821	48.0
28–29	0.002334	97,276	227	97,162	4,586,438	47.1
29–30	0.002451	97,049	238	96,930	4,489,275	46.3
30–31	0.002569	96,811	249	96,686	4,392,346	45.4
31–32	0.002682	96,562	259	96,433	4,295,659	44.5
32–33	0.002789	96,303	269	96,169	4,199,227	43.6
33–34	0.002887	96,035	277	95,896	4,103,058	42.7
34–35	0.002982	95,757	286	95,615	4,007,162	41.8
35–36	0.003081	95,472	294	95,325	3,911,547	41.0
36–37	0.003190	95,178	304	95,026	3,816,222	40.1
37–38	0.003310	94,874	314	94,717	3,721,196	39.2
38–39	0.003446	94,560	326	94,397	3,626,479	38.4
39–40	0.003597	94,234	339	94,065	3,532,082	37.5
40–41	0.003772	93,895	354	93,718	3,438,018	36.6
41–42	0.003964	93,541	371	93,356	3,344,299	35.8
42–43	0.004158	93,170	387	92,977	3,250,944	34.9
43–44	0.004353	92,783	404	92,581	3,157,967	34.0
44–45	0.004560	92,379	421	92,168	3,065,386	33.2
45–46	0.004799	91,958	441	91,737	2,973,218	32.3
46–47	0.005090	91,516	466	91,283	2,881,481	31.5
47–48	0.005431	91,051	494	90,803	2,790,198	30.6
48–49	0.005818	90,556	527	90,293	2,699,394	29.8
49–50	0.006241	90,029	562	89,748	2,609,102	29.0
50–51	0.006679	89,467	598	89,169	2,519,353	28.2
51–52	0.007151	88,870	636	88,552	2,430,185	27.3
52–53	0.007690	88,234	678	87,895	2,341,633	26.5
53–54	0.008316	87,556	728	87,192	2,253,738	25.7
54–55	0.009023	86,828	783	86,436	2,166,546	25.0
55–56	0.009754	86,044	839	85,624	2,080,111	24.2
56–57	0.010510	85,205	895	84,757	1,994,486	23.4
57–58	0.011350	84,309	957	83,831	1,909,729	22.7
58–59	0.012285	83,352	1,024	82,840	1,825,898	21.9
59–60	0.013286	82,328	1,094	81,782	1,743,058	21.2

See footnote at end of table.

Table 2. Life table for males: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table02.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.014341	81,235	1,165	80,652	1,661,276	20.5
61–62	0.015402	80,070	1,233	79,453	1,580,624	19.7
62–63	0.016437	78,836	1,296	78,189	1,501,171	19.0
63–64	0.017445	77,541	1,353	76,864	1,422,982	18.4
64–65	0.018475	76,188	1,408	75,484	1,346,118	17.7
65–66	0.019576	74,780	1,464	74,048	1,270,634	17.0
66–67	0.020927	73,316	1,534	72,549	1,196,586	16.3
67–68	0.022303	71,782	1,601	70,982	1,124,036	15.7
68–69	0.023804	70,181	1,671	69,346	1,053,055	15.0
69–70	0.025383	68,511	1,739	67,641	983,709	14.4
70–71	0.026908	66,772	1,797	65,873	916,068	13.7
71–72	0.028704	64,975	1,865	64,042	850,195	13.1
72–73	0.030788	63,110	1,943	62,138	786,152	12.5
73–74	0.033361	61,167	2,041	60,147	724,014	11.8
74–75	0.035944	59,126	2,125	58,064	663,867	11.2
75–76	0.040497	57,001	2,308	55,847	605,804	10.6
76–77	0.044053	54,693	2,409	53,488	549,957	10.1
77–78	0.048810	52,283	2,552	51,007	496,469	9.5
78–79	0.053173	49,731	2,644	48,409	445,461	9.0
79–80	0.058908	47,087	2,774	45,700	397,052	8.4
80–81	0.063954	44,313	2,834	42,896	351,352	7.9
81–82	0.070311	41,479	2,916	40,021	308,456	7.4
82–83	0.076958	38,563	2,968	37,079	268,435	7.0
83–84	0.084813	35,595	3,019	34,086	231,356	6.5
84–85	0.094500	32,576	3,078	31,037	197,271	6.1
85–86	0.104319	29,498	3,077	27,959	166,234	5.6
86–87	0.116428	26,421	3,076	24,882	138,275	5.2
87–88	0.129619	23,344	3,026	21,831	113,392	4.9
88–89	0.143914	20,319	2,924	18,856	91,561	4.5
89–90	0.159317	17,394	2,771	16,009	72,704	4.2
90–91	0.175814	14,623	2,571	13,338	56,695	3.9
91–92	0.193369	12,052	2,331	10,887	43,358	3.6
92–93	0.211919	9,722	2,060	8,692	32,471	3.3
93–94	0.231379	7,661	1,773	6,775	23,779	3.1
94–95	0.251638	5,889	1,482	5,148	17,004	2.9
95–96	0.272559	4,407	1,201	3,806	11,856	2.7
96–97	0.293988	3,206	942	2,735	8,050	2.5
97–98	0.315751	2,263	715	1,906	5,315	2.3
98–99	0.337666	1,549	523	1,287	3,409	2.2
99–100	0.359544	1,026	369	841	2,122	2.1
100 and older	1.000000	657	657	1,281	1,281	1.9

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 3. Life table for females: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table03.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.005040	100,000	504	99,557	7,932,807	79.3
1–2	0.000389	99,496	39	99,477	7,833,250	78.7
2–3	0.000234	99,457	23	99,446	7,733,774	77.8
3–4	0.000158	99,434	16	99,426	7,634,328	76.8
4–5	0.000147	99,418	15	99,411	7,534,902	75.8
5–6	0.000124	99,404	12	99,398	7,435,491	74.8
6–7	0.000109	99,391	11	99,386	7,336,093	73.8
7–8	0.000100	99,381	10	99,376	7,236,707	72.8
8–9	0.000094	99,371	9	99,366	7,137,332	71.8
9–10	0.000093	99,361	9	99,357	7,037,966	70.8
10–11	0.000096	99,352	10	99,347	6,938,609	69.8
11–12	0.000107	99,342	11	99,337	6,839,262	68.8
12–13	0.000128	99,332	13	99,325	6,739,925	67.9
13–14	0.000160	99,319	16	99,311	6,640,600	66.9
14–15	0.000201	99,303	20	99,293	6,541,289	65.9
15–16	0.000247	99,283	25	99,271	6,441,995	64.9
16–17	0.000297	99,259	29	99,244	6,342,724	63.9
17–18	0.000349	99,229	35	99,212	6,243,481	62.9
18–19	0.000403	99,195	40	99,175	6,144,269	61.9
19–20	0.000459	99,155	46	99,132	6,045,094	61.0
20–21	0.000520	99,109	52	99,083	5,945,962	60.0
21–22	0.000584	99,057	58	99,029	5,846,879	59.0
22–23	0.000641	99,000	64	98,968	5,747,851	58.1
23–24	0.000690	98,936	68	98,902	5,648,883	57.1
24–25	0.000733	98,868	72	98,832	5,549,981	56.1
25–26	0.000774	98,795	76	98,757	5,451,149	55.2
26–27	0.000820	98,719	81	98,678	5,352,392	54.2
27–28	0.000876	98,638	86	98,595	5,253,714	53.3
28–29	0.000946	98,552	93	98,505	5,155,119	52.3
29–30	0.001026	98,458	101	98,408	5,056,614	51.4
30–31	0.001111	98,357	109	98,303	4,958,206	50.4
31–32	0.001194	98,248	117	98,189	4,859,903	49.5
32–33	0.001275	98,131	125	98,068	4,761,714	48.5
33–34	0.001354	98,006	133	97,939	4,663,646	47.6
34–35	0.001433	97,873	140	97,803	4,565,707	46.6
35–36	0.001518	97,733	148	97,658	4,467,904	45.7
36–37	0.001611	97,584	157	97,506	4,370,245	44.8
37–38	0.001709	97,427	167	97,344	4,272,740	43.9
38–39	0.001814	97,261	176	97,172	4,175,396	42.9
39–40	0.001925	97,084	187	96,991	4,078,223	42.0
40–41	0.002048	96,897	198	96,798	3,981,232	41.1
41–42	0.002183	96,699	211	96,593	3,884,434	40.2
42–43	0.002321	96,488	224	96,376	3,787,841	39.3
43–44	0.002461	96,264	237	96,145	3,691,465	38.3
44–45	0.002611	96,027	251	95,902	3,595,320	37.4
45–46	0.002784	95,776	267	95,643	3,499,418	36.5
46–47	0.002984	95,510	285	95,367	3,403,775	35.6
47–48	0.003203	95,225	305	95,072	3,308,408	34.7
48–49	0.003436	94,919	326	94,756	3,213,336	33.9
49–50	0.003680	94,593	348	94,419	3,118,580	33.0
50–51	0.003935	94,245	371	94,060	3,024,160	32.1
51–52	0.004217	93,874	396	93,677	2,930,101	31.2
52–53	0.004544	93,479	425	93,266	2,836,424	30.3
53–54	0.004928	93,054	459	92,824	2,743,158	29.5
54–55	0.005361	92,595	496	92,347	2,650,333	28.6
55–56	0.005809	92,099	535	91,831	2,557,986	27.8
56–57	0.006274	91,564	574	91,277	2,466,155	26.9
57–58	0.006795	90,989	618	90,680	2,374,879	26.1
58–59	0.007383	90,371	667	90,037	2,284,199	25.3
59–60	0.008020	89,704	719	89,344	2,194,161	24.5

See footnote at end of table.

Table 3. Life table for females: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table03.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.008703	88,984	774	88,597	2,104,817	23.7
61–62	0.009396	88,210	829	87,796	2,016,220	22.9
62–63	0.010066	87,381	880	86,941	1,928,424	22.1
63–64	0.010706	86,502	926	86,039	1,841,482	21.3
64–65	0.011354	85,576	972	85,090	1,755,444	20.5
65–66	0.012041	84,604	1,019	84,095	1,670,354	19.7
66–67	0.012880	83,585	1,077	83,047	1,586,259	19.0
67–68	0.013821	82,509	1,140	81,938	1,503,212	18.2
68–69	0.014915	81,368	1,214	80,762	1,421,274	17.5
69–70	0.016188	80,155	1,298	79,506	1,340,512	16.7
70–71	0.017475	78,857	1,378	78,168	1,261,007	16.0
71–72	0.018964	77,479	1,469	76,744	1,182,838	15.3
72–73	0.020616	76,010	1,567	75,226	1,106,094	14.6
73–74	0.022603	74,443	1,683	73,602	1,030,868	13.8
74–75	0.024647	72,760	1,793	71,864	957,266	13.2
75–76	0.027933	70,967	1,982	69,976	885,402	12.5
76–77	0.030922	68,985	2,133	67,918	815,427	11.8
77–78	0.034536	66,851	2,309	65,697	747,509	11.2
78–79	0.037857	64,543	2,443	63,321	681,812	10.6
79–80	0.041967	62,099	2,606	60,796	618,491	10.0
80–81	0.046336	59,493	2,757	58,115	557,695	9.4
81–82	0.051084	56,736	2,898	55,287	499,580	8.8
82–83	0.056608	53,838	3,048	52,314	444,293	8.3
83–84	0.062881	50,790	3,194	49,194	391,978	7.7
84–85	0.070582	47,597	3,359	45,917	342,785	7.2
85–86	0.079149	44,237	3,501	42,487	296,868	6.7
86–87	0.087870	40,736	3,579	38,946	254,381	6.2
87–88	0.098712	37,156	3,668	35,323	215,435	5.8
88–89	0.110635	33,489	3,705	31,636	180,113	5.4
89–90	0.123686	29,784	3,684	27,942	148,477	5.0
90–91	0.137893	26,100	3,599	24,300	120,535	4.6
91–92	0.153272	22,501	3,449	20,776	96,235	4.3
92–93	0.169816	19,052	3,235	17,434	75,458	4.0
93–94	0.187493	15,817	2,966	14,334	58,024	3.7
94–95	0.206246	12,851	2,651	11,526	43,690	3.4
95–96	0.225991	10,201	2,305	9,048	32,164	3.2
96–97	0.246613	7,895	1,947	6,922	23,116	2.9
97–98	0.267972	5,948	1,594	5,151	16,194	2.7
98–99	0.289905	4,354	1,262	3,723	11,043	2.5
99–100	0.312227	3,092	965	2,609	7,319	2.4
100 and older	1.000000	2,127	2,127	4,710	4,710	2.2

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 4. Life table for the Hispanic population: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table04.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.004804	100,000	480	99,571	7,783,960	77.8
1–2	0.000296	99,520	29	99,505	7,684,390	77.2
2–3	0.000219	99,490	22	99,479	7,584,885	76.2
3–4	0.000155	99,468	15	99,461	7,485,405	75.3
4–5	0.000140	99,453	14	99,446	7,385,945	74.3
5–6	0.000117	99,439	12	99,433	7,286,499	73.3
6–7	0.000106	99,427	11	99,422	7,187,066	72.3
7–8	0.000097	99,417	10	99,412	7,087,643	71.3
8–9	0.000089	99,407	9	99,403	6,988,231	70.3
9–10	0.000083	99,398	8	99,394	6,888,829	69.3
10–11	0.000082	99,390	8	99,386	6,789,434	68.3
11–12	0.000093	99,382	9	99,377	6,690,048	67.3
12–13	0.000124	99,373	12	99,367	6,590,671	66.3
13–14	0.000181	99,360	18	99,351	6,491,304	65.3
14–15	0.000260	99,342	26	99,330	6,391,953	64.3
15–16	0.000349	99,317	35	99,299	6,292,623	63.4
16–17	0.000441	99,282	44	99,260	6,193,324	62.4
17–18	0.000539	99,238	54	99,211	6,094,064	61.4
18–19	0.000641	99,185	64	99,153	5,994,852	60.4
19–20	0.000744	99,121	74	99,084	5,895,700	59.5
20–21	0.000856	99,047	85	99,005	5,796,615	58.5
21–22	0.000972	98,963	96	98,914	5,697,610	57.6
22–23	0.001077	98,866	106	98,813	5,598,696	56.6
23–24	0.001164	98,760	115	98,702	5,499,883	55.7
24–25	0.001235	98,645	122	98,584	5,401,181	54.8
25–26	0.001301	98,523	128	98,459	5,302,597	53.8
26–27	0.001369	98,395	135	98,328	5,204,138	52.9
27–28	0.001436	98,260	141	98,190	5,105,810	52.0
28–29	0.001506	98,119	148	98,045	5,007,620	51.0
29–30	0.001578	97,971	155	97,894	4,909,575	50.1
30–31	0.001652	97,817	162	97,736	4,811,681	49.2
31–32	0.001725	97,655	168	97,571	4,713,945	48.3
32–33	0.001794	97,487	175	97,399	4,616,374	47.4
33–34	0.001858	97,312	181	97,221	4,518,975	46.4
34–35	0.001920	97,131	186	97,038	4,421,754	45.5
35–36	0.001983	96,945	192	96,848	4,324,716	44.6
36–37	0.002054	96,752	199	96,653	4,227,868	43.7
37–38	0.002138	96,554	206	96,450	4,131,214	42.8
38–39	0.002240	96,347	216	96,239	4,034,764	41.9
39–40	0.002358	96,131	227	96,018	3,938,525	41.0
40–41	0.002487	95,905	239	95,786	3,842,507	40.1
41–42	0.002625	95,666	251	95,541	3,746,721	39.2
42–43	0.002777	95,415	265	95,283	3,651,181	38.3
43–44	0.002943	95,150	280	95,010	3,555,898	37.4
44–45	0.003127	94,870	297	94,722	3,460,888	36.5
45–46	0.003331	94,573	315	94,416	3,366,166	35.6
46–47	0.003557	94,258	335	94,091	3,271,750	34.7
47–48	0.003804	93,923	357	93,744	3,177,660	33.8
48–49	0.004069	93,566	381	93,375	3,083,915	33.0
49–50	0.004356	93,185	406	92,982	2,990,540	32.1
50–51	0.004661	92,779	432	92,563	2,897,558	31.2
51–52	0.004998	92,347	462	92,116	2,804,995	30.4
52–53	0.005385	91,885	495	91,638	2,712,879	29.5
53–54	0.005835	91,390	533	91,124	2,621,241	28.7
54–55	0.006341	90,857	576	90,569	2,530,118	27.8
55–56	0.006880	90,281	621	89,970	2,439,549	27.0
56–57	0.007447	89,660	668	89,326	2,349,578	26.2
57–58	0.008068	88,992	718	88,633	2,260,252	25.4
58–59	0.008757	88,274	773	87,888	2,171,619	24.6
59–60	0.009511	87,501	832	87,085	2,083,731	23.8

See footnotes at end of table.

Table 4. Life table for the Hispanic population: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table04.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.010346	86,669	897	86,221	1,996,646	23.0
61–62	0.011226	85,772	963	85,291	1,910,426	22.3
62–63	0.012093	84,809	1,026	84,297	1,825,135	21.5
63–64	0.012907	83,784	1,081	83,243	1,740,838	20.8
64–65	0.013692	82,702	1,132	82,136	1,657,595	20.0
65–66	0.014514	81,570	1,184	80,978	1,575,459	19.3
66–67	0.015435	80,386	1,241	79,766	1,494,481	18.6
67–68	0.016456	79,145	1,302	78,494	1,414,715	17.9
68–69	0.017598	77,843	1,370	77,158	1,336,221	17.2
69–70	0.018857	76,473	1,442	75,752	1,259,063	16.5
70–71	0.020211	75,031	1,516	74,273	1,183,311	15.8
71–72	0.021671	73,515	1,593	72,718	1,109,039	15.1
72–73	0.023303	71,921	1,676	71,083	1,036,321	14.4
73–74	0.025180	70,245	1,769	69,361	965,237	13.7
74–75	0.027363	68,477	1,874	67,540	895,876	13.1
75–76	0.029903	66,603	1,992	65,607	828,336	12.4
76–77	0.032843	64,611	2,122	63,550	762,729	11.8
77–78	0.036219	62,489	2,263	61,358	699,179	11.2
78–79	0.039647	60,226	2,388	59,032	637,822	10.6
79–80	0.043700	57,838	2,528	56,574	578,790	10.0
80–81	0.047881	55,311	2,648	53,986	522,215	9.4
81–82	0.052757	52,662	2,778	51,273	468,229	8.9
82–83	0.058071	49,884	2,897	48,436	416,956	8.4
83–84	0.064052	46,987	3,010	45,482	368,520	7.8
84–85	0.071304	43,978	3,136	42,410	323,038	7.3
85–86	0.078421	40,842	3,203	39,240	280,628	6.9
86–87	0.087569	37,639	3,296	35,991	241,388	6.4
87–88	0.097592	34,343	3,352	32,667	205,397	6.0
88–89	0.108530	30,991	3,363	29,310	172,730	5.6
89–90	0.120412	27,628	3,327	25,964	143,420	5.2
90–91	0.133256	24,301	3,238	22,682	117,456	4.8
91–92	0.147067	21,063	3,098	19,514	94,774	4.5
92–93	0.161832	17,965	2,907	16,511	75,260	4.2
93–94	0.177521	15,058	2,673	13,721	58,748	3.9
94–95	0.194082	12,385	2,404	11,183	45,027	3.6
95–96	0.211444	9,981	2,110	8,926	33,844	3.4
96–97	0.229513	7,871	1,806	6,967	24,918	3.2
97–98	0.248178	6,064	1,505	5,312	17,951	3.0
98–99	0.267305	4,559	1,219	3,950	12,639	2.8
99–100	0.286750	3,341	958	2,862	8,689	2.6
100 and older	1.000000	2,383	2,383	5,828	5,828	2.4

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 5. Life table for Hispanic males: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table05.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.005120	100,000	512	99,542	7,464,667	74.6
1–2	0.000304	99,488	30	99,473	7,365,125	74.0
2–3	0.000198	99,458	20	99,448	7,265,652	73.1
3–4	0.000155	99,438	15	99,430	7,166,204	72.1
4–5	0.000144	99,423	14	99,415	7,066,774	71.1
5–6	0.000121	99,408	12	99,402	6,967,358	70.1
6–7	0.000115	99,396	11	99,391	6,867,956	69.1
7–8	0.000107	99,385	11	99,380	6,768,566	68.1
8–9	0.000094	99,374	9	99,370	6,669,186	67.1
9–10	0.000079	99,365	8	99,361	6,569,816	66.1
10–11	0.000069	99,357	7	99,354	6,470,456	65.1
11–12	0.000078	99,350	8	99,346	6,371,102	64.1
12–13	0.000120	99,342	12	99,336	6,271,756	63.1
13–14	0.000204	99,330	20	99,320	6,172,419	62.1
14–15	0.000323	99,310	32	99,294	6,073,099	61.2
15–16	0.000460	99,278	46	99,255	5,973,805	60.2
16–17	0.000600	99,233	60	99,203	5,874,549	59.2
17–18	0.000747	99,173	74	99,136	5,775,346	58.2
18–19	0.000893	99,099	89	99,055	5,676,210	57.3
19–20	0.001041	99,010	103	98,959	5,577,156	56.3
20–21	0.001197	98,907	118	98,848	5,478,197	55.4
21–22	0.001361	98,789	134	98,722	5,379,349	54.5
22–23	0.001520	98,655	150	98,580	5,280,627	53.5
23–24	0.001669	98,505	164	98,422	5,182,047	52.6
24–25	0.001804	98,340	177	98,252	5,083,625	51.7
25–26	0.001937	98,163	190	98,068	4,985,373	50.8
26–27	0.002065	97,973	202	97,872	4,887,305	49.9
27–28	0.002177	97,770	213	97,664	4,789,434	49.0
28–29	0.002267	97,558	221	97,447	4,691,770	48.1
29–30	0.002343	97,336	228	97,222	4,594,323	47.2
30–31	0.002412	97,108	234	96,991	4,497,100	46.3
31–32	0.002484	96,874	241	96,754	4,400,109	45.4
32–33	0.002558	96,634	247	96,510	4,303,355	44.5
33–34	0.002639	96,386	254	96,259	4,206,845	43.6
34–35	0.002727	96,132	262	96,001	4,110,586	42.8
35–36	0.002815	95,870	270	95,735	4,014,585	41.9
36–37	0.002909	95,600	278	95,461	3,918,850	41.0
37–38	0.003022	95,322	288	95,178	3,823,389	40.1
38–39	0.003162	95,034	300	94,884	3,728,212	39.2
39–40	0.003324	94,733	315	94,576	3,633,328	38.4
40–41	0.003507	94,418	331	94,253	3,538,752	37.5
41–42	0.003698	94,087	348	93,913	3,444,499	36.6
42–43	0.003885	93,739	364	93,557	3,350,586	35.7
43–44	0.004064	93,375	379	93,185	3,257,029	34.9
44–45	0.004244	92,996	395	92,798	3,163,843	34.0
45–46	0.004440	92,601	411	92,395	3,071,045	33.2
46–47	0.004672	92,190	431	91,975	2,978,650	32.3
47–48	0.004952	91,759	454	91,532	2,886,675	31.5
48–49	0.005290	91,305	483	91,063	2,795,143	30.6
49–50	0.005680	90,822	516	90,564	2,704,080	29.8
50–51	0.006097	90,306	551	90,031	2,613,516	28.9
51–52	0.006546	89,755	587	89,461	2,523,485	28.1
52–53	0.007056	89,168	629	88,853	2,434,024	27.3
53–54	0.007645	88,539	677	88,200	2,345,171	26.5
54–55	0.008306	87,862	730	87,497	2,256,971	25.7
55–56	0.009015	87,132	786	86,739	2,169,474	24.9
56–57	0.009762	86,346	843	85,925	2,082,735	24.1
57–58	0.010562	85,504	903	85,052	1,996,810	23.4
58–59	0.011422	84,600	966	84,117	1,911,758	22.6
59–60	0.012345	83,634	1,032	83,118	1,827,640	21.9

See footnotes at end of table.

Table 5. Life table for Hispanic males: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table05.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.013356	82,602	1,103	82,050	1,744,522	21.1
61–62	0.014431	81,498	1,176	80,910	1,662,472	20.4
62–63	0.015522	80,322	1,247	79,699	1,581,562	19.7
63–64	0.016601	79,076	1,313	78,419	1,501,863	19.0
64–65	0.017689	77,763	1,376	77,075	1,423,444	18.3
65–66	0.018858	76,387	1,440	75,667	1,346,368	17.6
66–67	0.020146	74,947	1,510	74,192	1,270,701	17.0
67–68	0.021501	73,437	1,579	72,648	1,196,509	16.3
68–69	0.022893	71,858	1,645	71,036	1,123,862	15.6
69–70	0.024322	70,213	1,708	69,359	1,052,826	15.0
70–71	0.025805	68,505	1,768	67,621	983,467	14.4
71–72	0.027409	66,737	1,829	65,823	915,846	13.7
72–73	0.029217	64,908	1,896	63,960	850,023	13.1
73–74	0.031359	63,012	1,976	62,024	786,063	12.5
74–75	0.033913	61,036	2,070	60,001	724,039	11.9
75–76	0.036911	58,966	2,176	57,878	664,038	11.3
76–77	0.040358	56,789	2,292	55,644	606,160	10.7
77–78	0.044334	54,498	2,416	53,290	550,517	10.1
78–79	0.048321	52,081	2,517	50,823	497,227	9.5
79–80	0.053203	49,565	2,637	48,246	446,404	9.0
80–81	0.057978	46,928	2,721	45,567	398,158	8.5
81–82	0.064010	44,207	2,830	42,792	352,590	8.0
82–83	0.070081	41,377	2,900	39,927	309,798	7.5
83–84	0.077023	38,478	2,964	36,996	269,871	7.0
84–85	0.085469	35,514	3,035	33,996	232,875	6.6
85–86	0.093127	32,479	3,025	30,966	198,879	6.1
86–87	0.103924	29,454	3,061	27,923	167,912	5.7
87–88	0.115699	26,393	3,054	24,866	139,989	5.3
88–89	0.128479	23,339	2,999	21,840	115,123	4.9
89–90	0.142274	20,341	2,894	18,894	93,283	4.6
90–91	0.157078	17,447	2,740	16,077	74,389	4.3
91–92	0.172864	14,706	2,542	13,435	58,312	4.0
92–93	0.189585	12,164	2,306	11,011	44,877	3.7
93–94	0.207169	9,858	2,042	8,837	33,866	3.4
94–95	0.225522	7,816	1,763	6,934	25,029	3.2
95–96	0.244527	6,053	1,480	5,313	18,095	3.0
96–97	0.264045	4,573	1,207	3,969	12,782	2.8
97–98	0.283922	3,365	956	2,888	8,813	2.6
98–99	0.303989	2,410	733	2,044	5,925	2.5
99–100	0.324071	1,677	544	1,406	3,881	2.3
100 and older	1.000000	1,134	1,134	2,476	2,476	2.2

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 6. Life table for Hispanic females: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table06.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.004476	100,000	448	99,600	8,108,756	81.1
1–2	0.000281	99,552	28	99,538	8,009,156	80.5
2–3	0.000238	99,524	24	99,512	7,909,617	79.5
3–4	0.000152	99,501	15	99,493	7,810,105	78.5
4–5	0.000132	99,485	13	99,479	7,710,612	77.5
5–6	0.000111	99,472	11	99,467	7,611,133	76.5
6–7	0.000095	99,461	9	99,457	7,511,666	75.5
7–8	0.000086	99,452	9	99,448	7,412,210	74.5
8–9	0.000082	99,443	8	99,439	7,312,762	73.5
9–10	0.000084	99,435	8	99,431	7,213,323	72.5
10–11	0.000091	99,427	9	99,422	7,113,892	71.5
11–12	0.000105	99,418	10	99,412	7,014,470	70.6
12–13	0.000125	99,407	12	99,401	6,915,058	69.6
13–14	0.000155	99,395	15	99,387	6,815,657	68.6
14–15	0.000192	99,379	19	99,370	6,716,269	67.6
15–16	0.000233	99,360	23	99,349	6,616,900	66.6
16–17	0.000277	99,337	27	99,323	6,517,551	65.6
17–18	0.000325	99,310	32	99,294	6,418,228	64.6
18–19	0.000378	99,277	38	99,259	6,318,934	63.6
19–20	0.000434	99,240	43	99,218	6,219,675	62.7
20–21	0.000496	99,197	49	99,172	6,120,457	61.7
21–22	0.000559	99,148	55	99,120	6,021,285	60.7
22–23	0.000606	99,092	60	99,062	5,922,165	59.8
23–24	0.000630	99,032	62	99,001	5,823,103	58.8
24–25	0.000638	98,970	63	98,938	5,724,102	57.8
25–26	0.000638	98,907	63	98,875	5,625,163	56.9
26–27	0.000645	98,844	64	98,812	5,526,288	55.9
27–28	0.000666	98,780	66	98,747	5,427,477	54.9
28–29	0.000708	98,714	70	98,679	5,328,730	54.0
29–30	0.000767	98,644	76	98,606	5,230,051	53.0
30–31	0.000835	98,569	82	98,527	5,131,444	52.1
31–32	0.000899	98,486	89	98,442	5,032,917	51.1
32–33	0.000956	98,398	94	98,351	4,934,475	50.1
33–34	0.001001	98,304	98	98,254	4,836,124	49.2
34–35	0.001038	98,205	102	98,154	4,737,870	48.2
35–36	0.001078	98,103	106	98,050	4,639,716	47.3
36–37	0.001127	97,998	110	97,942	4,541,665	46.3
37–38	0.001183	97,887	116	97,829	4,443,723	45.4
38–39	0.001249	97,771	122	97,710	4,345,894	44.4
39–40	0.001325	97,649	129	97,584	4,248,184	43.5
40–41	0.001403	97,520	137	97,451	4,150,599	42.6
41–42	0.001493	97,383	145	97,310	4,053,148	41.6
42–43	0.001610	97,238	157	97,159	3,955,838	40.7
43–44	0.001766	97,081	171	96,995	3,858,678	39.7
44–45	0.001953	96,909	189	96,815	3,761,683	38.8
45–46	0.002166	96,720	209	96,615	3,664,868	37.9
46–47	0.002385	96,511	230	96,396	3,568,253	37.0
47–48	0.002594	96,281	250	96,156	3,471,857	36.1
48–49	0.002780	96,031	267	95,897	3,375,701	35.2
49–50	0.002956	95,764	283	95,622	3,279,804	34.2
50–51	0.003138	95,481	300	95,331	3,184,182	33.3
51–52	0.003352	95,181	319	95,022	3,088,851	32.5
52–53	0.003610	94,862	342	94,691	2,993,829	31.6
53–54	0.003923	94,520	371	94,334	2,899,138	30.7
54–55	0.004287	94,149	404	93,947	2,804,804	29.8
55–56	0.004671	93,745	438	93,526	2,710,857	28.9
56–57	0.005077	93,307	474	93,071	2,617,331	28.1
57–58	0.005539	92,834	514	92,577	2,524,260	27.2
58–59	0.006074	92,319	561	92,039	2,431,684	26.3
59–60	0.006677	91,759	613	91,452	2,339,645	25.5

See footnotes at end of table.

Table 6. Life table for Hispanic females: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table06.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.007357	91,146	671	90,811	2,248,192	24.7
61–62	0.008070	90,475	730	90,110	2,157,382	23.8
62–63	0.008757	89,745	786	89,352	2,067,271	23.0
63–64	0.009373	88,959	834	88,542	1,977,919	22.2
64–65	0.009947	88,126	877	87,687	1,889,376	21.4
65–66	0.010537	87,249	919	86,789	1,801,689	20.6
66–67	0.011220	86,330	969	85,845	1,714,900	19.9
67–68	0.012028	85,361	1,027	84,848	1,629,055	19.1
68–69	0.013010	84,334	1,097	83,786	1,544,207	18.3
69–70	0.014158	83,237	1,179	82,648	1,460,421	17.5
70–71	0.015430	82,059	1,266	81,426	1,377,773	16.8
71–72	0.016804	80,792	1,358	80,114	1,296,348	16.0
72–73	0.018334	79,435	1,456	78,707	1,216,234	15.3
73–74	0.020062	77,978	1,564	77,196	1,137,528	14.6
74–75	0.022039	76,414	1,684	75,572	1,060,331	13.9
75–76	0.024330	74,730	1,818	73,821	984,759	13.2
76–77	0.026988	72,912	1,968	71,928	910,938	12.5
77–78	0.030039	70,944	2,131	69,879	839,010	11.8
78–79	0.033190	68,813	2,284	67,671	769,132	11.2
79–80	0.036811	66,529	2,449	65,305	701,461	10.5
80–81	0.040839	64,080	2,617	62,772	636,156	9.9
81–82	0.045249	61,463	2,781	60,073	573,384	9.3
82–83	0.050427	58,682	2,959	57,202	513,312	8.7
83–84	0.056221	55,723	3,133	54,157	456,109	8.2
84–85	0.063280	52,590	3,328	50,926	401,953	7.6
85–86	0.071180	49,262	3,506	47,509	351,027	7.1
86–87	0.079022	45,756	3,616	43,948	303,518	6.6
87–88	0.089153	42,140	3,757	40,262	259,570	6.2
88–89	0.100350	38,383	3,852	36,457	219,308	5.7
89–90	0.112667	34,531	3,891	32,586	182,851	5.3
90–91	0.126142	30,641	3,865	28,708	150,265	4.9
91–92	0.140800	26,776	3,770	24,891	121,557	4.5
92–93	0.156643	23,006	3,604	21,204	96,666	4.2
93–94	0.173651	19,402	3,369	17,717	75,462	3.9
94–95	0.191776	16,033	3,075	14,495	57,745	3.6
95–96	0.210941	12,958	2,733	11,591	43,249	3.3
96–97	0.231041	10,225	2,362	9,044	31,658	3.1
97–98	0.251938	7,862	1,981	6,872	22,614	2.9
98–99	0.273471	5,882	1,608	5,077	15,742	2.7
99–100	0.295455	4,273	1,263	3,642	10,665	2.5
100 and older	1.000000	3,011	3,011	7,023	7,023	2.3

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 7. Life table for the American Indian and Alaska Native, non-Hispanic population: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table07.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1	0.007435	100,000	743	99,371	6,556,120	65.6
1–2	0.000938	99,257	93	99,210	6,456,749	65.1
2–3	0.000548	99,163	54	99,136	6,357,539	64.1
3–4	0.000341	99,109	34	99,092	6,258,403	63.1
4–5	0.000331	99,075	33	99,059	6,159,311	62.2
5–6	0.000272	99,042	27	99,029	6,060,252	61.2
6–7	0.000242	99,016	24	99,004	5,961,223	60.2
7–8	0.000215	98,992	21	98,981	5,862,219	59.2
8–9	0.000185	98,970	18	98,961	5,763,238	58.2
9–10	0.000156	98,952	15	98,944	5,664,277	57.2
10–11	0.000143	98,937	14	98,930	5,565,333	56.3
11–12	0.000167	98,923	16	98,914	5,466,403	55.3
12–13	0.000253	98,906	25	98,894	5,367,489	54.3
13–14	0.000416	98,881	41	98,861	5,268,595	53.3
14–15	0.000642	98,840	63	98,808	5,169,735	52.3
15–16	0.000903	98,777	89	98,732	5,070,927	51.3
16–17	0.001176	98,687	116	98,629	4,972,195	50.4
17–18	0.001459	98,571	144	98,499	4,873,565	49.4
18–19	0.001741	98,427	171	98,342	4,775,066	48.5
19–20	0.002025	98,256	199	98,157	4,676,724	47.6
20–21	0.002330	98,057	228	97,943	4,578,568	46.7
21–22	0.002657	97,829	260	97,699	4,480,625	45.8
22–23	0.002984	97,569	291	97,423	4,382,926	44.9
23–24	0.003299	97,278	321	97,117	4,285,503	44.1
24–25	0.003604	96,957	349	96,782	4,188,386	43.2
25–26	0.003898	96,607	377	96,419	4,091,604	42.4
26–27	0.004203	96,231	404	96,028	3,995,185	41.5
27–28	0.004546	95,826	436	95,608	3,899,156	40.7
28–29	0.004943	95,391	471	95,155	3,803,548	39.9
29–30	0.005381	94,919	511	94,664	3,708,393	39.1
30–31	0.005821	94,408	550	94,134	3,613,730	38.3
31–32	0.006249	93,859	586	93,566	3,519,596	37.5
32–33	0.006697	93,272	625	92,960	3,426,030	36.7
33–34	0.007179	92,648	665	92,315	3,333,070	36.0
34–35	0.007690	91,983	707	91,629	3,240,755	35.2
35–36	0.008296	91,275	757	90,897	3,149,126	34.5
36–37	0.008910	90,518	807	90,115	3,058,229	33.8
37–38	0.009359	89,712	840	89,292	2,968,115	33.1
38–39	0.009538	88,872	848	88,448	2,878,823	32.4
39–40	0.009532	88,024	839	87,605	2,790,375	31.7
40–41	0.009409	87,185	820	86,775	2,702,770	31.0
41–42	0.009407	86,365	812	85,959	2,615,995	30.3
42–43	0.009749	85,552	834	85,135	2,530,036	29.6
43–44	0.010597	84,718	898	84,270	2,444,901	28.9
44–45	0.011839	83,821	992	83,324	2,360,631	28.2
45–46	0.013321	82,828	1,103	82,277	2,277,307	27.5
46–47	0.014720	81,725	1,203	81,123	2,195,030	26.9
47–48	0.015790	80,522	1,271	79,886	2,113,907	26.3
48–49	0.016314	79,250	1,293	78,604	2,034,021	25.7
49–50	0.016452	77,958	1,283	77,316	1,955,417	25.1
50–51	0.016450	76,675	1,261	76,044	1,878,100	24.5
51–52	0.016631	75,414	1,254	74,787	1,802,056	23.9
52–53	0.017131	74,159	1,270	73,524	1,727,269	23.3
53–54	0.018080	72,889	1,318	72,230	1,653,745	22.7
54–55	0.019325	71,571	1,383	70,880	1,581,515	22.1
55–56	0.020584	70,188	1,445	69,466	1,510,635	21.5
56–57	0.021703	68,743	1,492	67,997	1,441,170	21.0
57–58	0.022773	67,251	1,531	66,486	1,373,172	20.4
58–59	0.023773	65,720	1,562	64,939	1,306,687	19.9
59–60	0.024719	64,158	1,586	63,365	1,241,748	19.4

See footnotes at end of table.

Table 7. Life table for the American Indian and Alaska Native, non-Hispanic population: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table07.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.025720	62,572	1,609	61,767	1,178,383	18.8
61–62	0.026718	60,962	1,629	60,148	1,116,616	18.3
62–63	0.027551	59,334	1,635	58,516	1,056,468	17.8
63–64	0.028171	57,699	1,625	56,886	997,952	17.3
64–65	0.028665	56,073	1,607	55,270	941,066	16.8
65–66	0.029089	54,466	1,584	53,674	885,797	16.3
66–67	0.029653	52,882	1,568	52,098	832,123	15.7
67–68	0.030585	51,314	1,569	50,529	780,025	15.2
68–69	0.032062	49,744	1,595	48,947	729,496	14.7
69–70	0.033984	48,149	1,636	47,331	680,550	14.1
70–71	0.036158	46,513	1,682	45,672	633,219	13.6
71–72	0.038385	44,831	1,721	43,971	587,547	13.1
72–73	0.040663	43,110	1,753	42,234	543,576	12.6
73–74	0.042977	41,357	1,777	40,469	501,342	12.1
74–75	0.045466	39,580	1,800	38,680	460,874	11.6
75–76	0.048454	37,780	1,831	36,865	422,194	11.2
76–77	0.052040	35,950	1,871	35,014	385,329	10.7
77–78	0.055916	34,079	1,906	33,126	350,314	10.3
78–79	0.059671	32,173	1,920	31,213	317,188	9.9
79–80	0.063148	30,253	1,910	29,298	285,975	9.5
80–81	0.066423	28,343	1,883	27,402	256,677	9.1
81–82	0.070123	26,460	1,855	25,533	229,275	8.7
82–83	0.074432	24,605	1,831	23,689	203,742	8.3
83–84	0.079379	22,774	1,808	21,870	180,053	7.9
84–85	0.084867	20,966	1,779	20,076	158,183	7.5
85–86	0.089447	19,186	1,716	18,328	138,107	7.2
86–87	0.095841	17,470	1,674	16,633	119,779	6.9
87–88	0.102589	15,796	1,620	14,986	103,146	6.5
88–89	0.109693	14,175	1,555	13,398	88,160	6.2
89–90	0.117151	12,621	1,479	11,881	74,762	5.9
90–91	0.124960	11,142	1,392	10,446	62,881	5.6
91–92	0.133109	9,750	1,298	9,101	52,435	5.4
92–93	0.141585	8,452	1,197	7,854	43,334	5.1
93–94	0.150369	7,255	1,091	6,710	35,480	4.9
94–95	0.159436	6,164	983	5,673	28,771	4.7
95–96	0.168757	5,181	874	4,744	23,098	4.5
96–97	0.178296	4,307	768	3,923	18,353	4.3
97–98	0.188013	3,539	665	3,206	14,430	4.1
98–99	0.197861	2,874	569	2,589	11,224	3.9
99–100	0.207792	2,305	479	2,066	8,634	3.7
100 and older	1.000000	1,826	1,826	6,569	6,569	3.6

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 8. Life table for American Indian and Alaska Native, non-Hispanic males: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table08.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.007531	100,000	753	99,369	6,219,931	62.2
1–2	0.001234	99,247	122	99,186	6,120,563	61.7
2–3	0.000710	99,125	70	99,089	6,021,377	60.7
3–4	0.000457	99,054	45	99,031	5,922,288	59.8
4–5	0.000296	99,009	29	98,994	5,823,256	58.8
5–6	0.000299	98,979	30	98,965	5,724,262	57.8
6–7	0.000251	98,950	25	98,937	5,625,297	56.8
7–8	0.000209	98,925	21	98,915	5,526,360	55.9
8–9	0.000164	98,904	16	98,896	5,427,445	54.9
9–10	0.000121	98,888	12	98,882	5,328,549	53.9
10–11	0.000099	98,876	10	98,871	5,229,667	52.9
11–12	0.000126	98,866	12	98,860	5,130,795	51.9
12–13	0.000234	98,854	23	98,842	5,031,935	50.9
13–14	0.000443	98,831	44	98,809	4,933,093	49.9
14–15	0.000734	98,787	72	98,751	4,834,284	48.9
15–16	0.001071	98,715	106	98,662	4,735,533	48.0
16–17	0.001425	98,609	141	98,539	4,636,871	47.0
17–18	0.001798	98,468	177	98,380	4,538,332	46.1
18–19	0.002177	98,291	214	98,184	4,439,952	45.2
19–20	0.002565	98,077	252	97,952	4,341,768	44.3
20–21	0.002978	97,826	291	97,680	4,243,816	43.4
21–22	0.003421	97,534	334	97,368	4,146,136	42.5
22–23	0.003874	97,201	377	97,013	4,048,768	41.7
23–24	0.004325	96,824	419	96,615	3,951,755	40.8
24–25	0.004767	96,406	460	96,176	3,855,141	40.0
25–26	0.005192	95,946	498	95,697	3,758,965	39.2
26–27	0.005617	95,448	536	95,180	3,663,268	38.4
27–28	0.006057	94,912	575	94,624	3,568,088	37.6
28–29	0.006524	94,337	615	94,029	3,473,464	36.8
29–30	0.007012	93,721	657	93,393	3,379,435	36.1
30–31	0.007498	93,064	698	92,715	3,286,042	35.3
31–32	0.007970	92,366	736	91,998	3,193,327	34.6
32–33	0.008448	91,630	774	91,243	3,101,329	33.8
33–34	0.008945	90,856	813	90,450	3,010,086	33.1
34–35	0.009466	90,043	852	89,617	2,919,636	32.4
35–36	0.010080	89,191	899	88,741	2,830,019	31.7
36–37	0.010716	88,292	946	87,819	2,741,278	31.0
37–38	0.011211	87,346	979	86,856	2,653,459	30.4
38–39	0.011469	86,366	990	85,871	2,566,603	29.7
39–40	0.011566	85,376	987	84,882	2,480,732	29.1
40–41	0.011545	84,388	974	83,901	2,395,850	28.4
41–42	0.011652	83,414	972	82,928	2,311,949	27.7
42–43	0.012149	82,442	1,002	81,942	2,229,020	27.0
43–44	0.013218	81,441	1,076	80,902	2,147,079	26.4
44–45	0.014729	80,364	1,184	79,772	2,066,176	25.7
45–46	0.016542	79,181	1,310	78,526	1,986,404	25.1
46–47	0.018259	77,871	1,422	77,160	1,907,878	24.5
47–48	0.019526	76,449	1,493	75,703	1,830,718	23.9
48–49	0.020062	74,956	1,504	74,204	1,755,016	23.4
49–50	0.020089	73,452	1,476	72,715	1,680,811	22.9
50–51	0.019915	71,977	1,433	71,260	1,608,097	22.3
51–52	0.019996	70,543	1,411	69,838	1,536,837	21.8
52–53	0.020574	69,133	1,422	68,422	1,466,999	21.2
53–54	0.021844	67,710	1,479	66,971	1,398,577	20.7
54–55	0.023582	66,231	1,562	65,450	1,331,606	20.1
55–56	0.025351	64,669	1,639	63,850	1,266,156	19.6
56–57	0.026914	63,030	1,696	62,182	1,202,306	19.1
57–58	0.028406	61,334	1,742	60,463	1,140,124	18.6
58–59	0.029791	59,591	1,775	58,704	1,079,662	18.1
59–60	0.031081	57,816	1,797	56,918	1,020,958	17.7

See footnotes at end of table.

Table 8. Life table for American Indian and Alaska Native, non-Hispanic males: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table08.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.032469	56,019	1,819	55,110	964,040	17.2
61–62	0.033829	54,200	1,834	53,284	908,930	16.8
62–63	0.034840	52,367	1,824	51,455	855,647	16.3
63–64	0.035376	50,542	1,788	49,648	804,192	15.9
64–65	0.035575	48,754	1,734	47,887	754,544	15.5
65–66	0.035568	47,020	1,672	46,184	706,657	15.0
66–67	0.035721	45,347	1,620	44,538	660,473	14.6
67–68	0.036380	43,728	1,591	42,932	615,936	14.1
68–69	0.037856	42,137	1,595	41,339	573,003	13.6
69–70	0.039991	40,542	1,621	39,731	531,664	13.1
70–71	0.042404	38,920	1,650	38,095	491,933	12.6
71–72	0.044790	37,270	1,669	36,435	453,838	12.2
72–73	0.047233	35,601	1,682	34,760	417,402	11.7
73–74	0.049737	33,919	1,687	33,076	382,643	11.3
74–75	0.052470	32,232	1,691	31,387	349,567	10.8
75–76	0.055818	30,541	1,705	29,689	318,180	10.4
76–77	0.059853	28,836	1,726	27,973	288,492	10.0
77–78	0.064144	27,110	1,739	26,241	260,519	9.6
78–79	0.068106	25,371	1,728	24,507	234,278	9.2
79–80	0.071531	23,643	1,691	22,798	209,771	8.9
80–81	0.074599	21,952	1,638	21,133	186,973	8.5
81–82	0.078252	20,314	1,590	19,520	165,840	8.2
82–83	0.082456	18,725	1,544	17,953	146,320	7.8
83–84	0.087406	17,181	1,502	16,430	128,367	7.5
84–85	0.093069	15,679	1,459	14,950	111,937	7.1
85–86	0.097599	14,220	1,388	13,526	96,988	6.8
86–87	0.104251	12,832	1,338	12,163	83,462	6.5
87–88	0.111235	11,494	1,279	10,855	71,298	6.2
88–89	0.118547	10,216	1,211	9,610	60,443	5.9
89–90	0.126180	9,005	1,136	8,437	50,833	5.6
90–91	0.134120	7,868	1,055	7,341	42,397	5.4
91–92	0.142352	6,813	970	6,328	35,056	5.1
92–93	0.150852	5,843	881	5,403	28,728	4.9
93–94	0.159595	4,962	792	4,566	23,325	4.7
94–95	0.168546	4,170	703	3,819	18,759	4.5
95–96	0.177669	3,467	616	3,159	14,941	4.3
96–97	0.186919	2,851	533	2,585	11,781	4.1
97–98	0.196249	2,318	455	2,091	9,197	4.0
98–99	0.205607	1,863	383	1,672	7,106	3.8
99–100	0.214940	1,480	318	1,321	5,434	3.7
100 and older	1.000000	1,162	1,162	4,113	4,113	3.5

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 9. Life table for American Indian and Alaska Native, non-Hispanic females: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table09.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.007412	100,000	741	99,366	6,923,977	69.2
1–2	0.000640	99,259	64	99,227	6,824,612	68.8
2–3	0.000385	99,195	38	99,176	6,725,385	67.8
3–4	0.000223	99,157	22	99,146	6,626,209	66.8
4–5	0.000362	99,135	36	99,117	6,527,063	65.8
5–6	0.000243	99,099	24	99,087	6,427,946	64.9
6–7	0.000230	99,075	23	99,063	6,328,859	63.9
7–8	0.000218	99,052	22	99,041	6,229,795	62.9
8–9	0.000203	99,030	20	99,020	6,130,754	61.9
9–10	0.000187	99,010	19	99,001	6,031,734	60.9
10–11	0.000181	98,992	18	98,983	5,932,733	59.9
11–12	0.000201	98,974	20	98,964	5,833,750	58.9
12–13	0.000266	98,954	26	98,941	5,734,786	58.0
13–14	0.000387	98,928	38	98,908	5,635,845	57.0
14–15	0.000552	98,889	55	98,862	5,536,937	56.0
15–16	0.000743	98,835	73	98,798	5,438,075	55.0
16–17	0.000938	98,761	93	98,715	5,339,277	54.1
17–18	0.001134	98,669	112	98,613	5,240,562	53.1
18–19	0.001319	98,557	130	98,492	5,141,949	52.2
19–20	0.001499	98,427	148	98,353	5,043,457	51.2
20–21	0.001697	98,279	167	98,196	4,945,104	50.3
21–22	0.001911	98,112	187	98,019	4,846,908	49.4
22–23	0.002108	97,925	206	97,822	4,748,890	48.5
23–24	0.002279	97,719	223	97,607	4,651,068	47.6
24–25	0.002436	97,496	237	97,377	4,553,461	46.7
25–26	0.002582	97,258	251	97,133	4,456,084	45.8
26–27	0.002755	97,007	267	96,874	4,358,951	44.9
27–28	0.002989	96,740	289	96,595	4,262,078	44.1
28–29	0.003307	96,451	319	96,291	4,165,482	43.2
29–30	0.003689	96,132	355	95,955	4,069,191	42.3
30–31	0.004077	95,777	390	95,582	3,973,236	41.5
31–32	0.004455	95,387	425	95,174	3,877,654	40.7
32–33	0.004874	94,962	463	94,730	3,782,480	39.8
33–34	0.005348	94,499	505	94,246	3,687,749	39.0
34–35	0.005865	93,994	551	93,718	3,593,503	38.2
35–36	0.006478	93,442	605	93,140	3,499,785	37.5
36–37	0.007088	92,837	658	92,508	3,406,645	36.7
37–38	0.007504	92,179	692	91,833	3,314,137	36.0
38–39	0.007614	91,487	697	91,139	3,222,304	35.2
39–40	0.007509	90,791	682	90,450	3,131,165	34.5
40–41	0.007289	90,109	657	89,780	3,040,715	33.7
41–42	0.007184	89,452	643	89,131	2,950,935	33.0
42–43	0.007375	88,809	655	88,482	2,861,804	32.2
43–44	0.008011	88,154	706	87,801	2,773,322	31.5
44–45	0.008993	87,448	786	87,055	2,685,521	30.7
45–46	0.010157	86,662	880	86,222	2,598,466	30.0
46–47	0.011251	85,782	965	85,299	2,512,244	29.3
47–48	0.012134	84,816	1,029	84,302	2,426,945	28.6
48–49	0.012649	83,787	1,060	83,257	2,342,643	28.0
49–50	0.012898	82,727	1,067	82,194	2,259,386	27.3
50–51	0.013065	81,660	1,067	81,127	2,177,192	26.7
51–52	0.013345	80,594	1,076	80,056	2,096,065	26.0
52–53	0.013783	79,518	1,096	78,970	2,016,009	25.4
53–54	0.014444	78,422	1,133	77,856	1,937,039	24.7
54–55	0.015251	77,289	1,179	76,700	1,859,184	24.1
55–56	0.016060	76,110	1,222	75,499	1,782,484	23.4
56–57	0.016797	74,888	1,258	74,259	1,706,985	22.8
57–58	0.017512	73,630	1,289	72,986	1,632,725	22.2
58–59	0.018202	72,341	1,317	71,682	1,559,740	21.6
59–60	0.018879	71,024	1,341	70,354	1,488,058	21.0

See footnotes at end of table.

Table 9. Life table for American Indian and Alaska Native, non-Hispanic females: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table09.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.019580	69,683	1,364	69,001	1,417,704	20.3
61–62	0.020303	68,319	1,387	67,625	1,348,703	19.7
62–63	0.021033	66,932	1,408	66,228	1,281,078	19.1
63–64	0.021785	65,524	1,427	64,810	1,214,850	18.5
64–65	0.022598	64,096	1,448	63,372	1,150,040	17.9
65–66	0.023462	62,648	1,470	61,913	1,086,667	17.3
66–67	0.024437	61,178	1,495	60,431	1,024,754	16.8
67–68	0.025629	59,683	1,530	58,918	964,324	16.2
68–69	0.027088	58,154	1,575	57,366	905,405	15.6
69–70	0.028774	56,578	1,628	55,764	848,039	15.0
70–71	0.030660	54,950	1,685	54,108	792,275	14.4
71–72	0.032673	53,266	1,740	52,395	738,167	13.9
72–73	0.034770	51,525	1,792	50,629	685,772	13.3
73–74	0.036955	49,734	1,838	48,815	635,142	12.8
74–75	0.039343	47,896	1,884	46,954	586,327	12.2
75–76	0.042182	46,011	1,941	45,041	539,374	11.7
76–77	0.045562	44,071	2,008	43,067	494,333	11.2
77–78	0.049256	42,063	2,072	41,027	451,266	10.7
78–79	0.052941	39,991	2,117	38,932	410,239	10.3
79–80	0.056489	37,874	2,139	36,804	371,307	9.8
80–81	0.059947	35,734	2,142	34,663	334,503	9.4
81–82	0.063767	33,592	2,142	32,521	299,840	8.9
82–83	0.068331	31,450	2,149	30,375	267,319	8.5
83–84	0.073541	29,301	2,155	28,224	236,944	8.1
84–85	0.079268	27,146	2,152	26,070	208,720	7.7
85–86	0.084707	24,994	2,117	23,936	182,650	7.3
86–87	0.090510	22,877	2,071	21,842	158,714	6.9
87–88	0.097724	20,807	2,033	19,790	136,872	6.6
88–89	0.105385	18,773	1,978	17,784	117,082	6.2
89–90	0.113498	16,795	1,906	15,842	99,298	5.9
90–91	0.122062	14,889	1,817	13,980	83,457	5.6
91–92	0.131072	13,071	1,713	12,215	69,477	5.3
92–93	0.140516	11,358	1,596	10,560	57,262	5.0
93–94	0.150376	9,762	1,468	9,028	46,702	4.8
94–95	0.160625	8,294	1,332	7,628	37,674	4.5
95–96	0.171230	6,962	1,192	6,366	30,046	4.3
96–97	0.182150	5,770	1,051	5,244	23,680	4.1
97–98	0.193336	4,719	912	4,263	18,436	3.9
98–99	0.204730	3,806	779	3,417	14,173	3.7
99–100	0.216269	3,027	655	2,700	10,756	3.6
100 and older	1.000000	2,372	2,372	8,057	8,057	3.4

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 10. Life table for the Asian, non-Hispanic population: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table10.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.003678	100,000	368	99,665	8,347,653	83.5
1–2	0.000230	99,632	23	99,621	8,247,988	82.8
2–3	0.000113	99,609	11	99,604	8,148,367	81.8
3–4	0.000141	99,598	14	99,591	8,048,764	80.8
4–5	0.000080	99,584	8	99,580	7,949,173	79.8
5–6	0.000092	99,576	9	99,571	7,849,593	78.8
6–7	0.000086	99,567	9	99,563	7,750,021	77.8
7–8	0.000079	99,558	8	99,554	7,650,459	76.8
8–9	0.000072	99,550	7	99,547	7,550,904	75.8
9–10	0.000065	99,543	6	99,540	7,451,357	74.9
10–11	0.000061	99,537	6	99,534	7,351,817	73.9
11–12	0.000063	99,531	6	99,528	7,252,283	72.9
12–13	0.000077	99,524	8	99,521	7,152,756	71.9
13–14	0.000107	99,517	11	99,511	7,053,235	70.9
14–15	0.000149	99,506	15	99,499	6,953,724	69.9
15–16	0.000191	99,491	19	99,482	6,854,225	68.9
16–17	0.000235	99,472	23	99,461	6,754,743	67.9
17–18	0.000293	99,449	29	99,434	6,655,282	66.9
18–19	0.000367	99,420	36	99,402	6,555,848	65.9
19–20	0.000449	99,383	45	99,361	6,456,446	65.0
20–21	0.000538	99,339	53	99,312	6,357,085	64.0
21–22	0.000617	99,285	61	99,255	6,257,773	63.0
22–23	0.000662	99,224	66	99,191	6,158,519	62.1
23–24	0.000663	99,158	66	99,125	6,059,327	61.1
24–25	0.000635	99,093	63	99,061	5,960,202	60.1
25–26	0.000599	99,030	59	99,000	5,861,141	59.2
26–27	0.000574	98,970	57	98,942	5,762,141	58.2
27–28	0.000561	98,914	56	98,886	5,663,199	57.3
28–29	0.000568	98,858	56	98,830	5,564,313	56.3
29–30	0.000586	98,802	58	98,773	5,465,483	55.3
30–31	0.000608	98,744	60	98,714	5,366,710	54.3
31–32	0.000626	98,684	62	98,653	5,267,995	53.4
32–33	0.000643	98,622	63	98,591	5,169,342	52.4
33–34	0.000656	98,559	65	98,527	5,070,752	51.4
34–35	0.000670	98,494	66	98,461	4,972,225	50.5
35–36	0.000687	98,428	68	98,394	4,873,764	49.5
36–37	0.000711	98,361	70	98,326	4,775,370	48.5
37–38	0.000743	98,291	73	98,254	4,677,044	47.6
38–39	0.000784	98,218	77	98,179	4,578,790	46.6
39–40	0.000835	98,141	82	98,100	4,480,611	45.7
40–41	0.000898	98,059	88	98,015	4,382,511	44.7
41–42	0.000971	97,971	95	97,923	4,284,496	43.7
42–43	0.001055	97,876	103	97,824	4,186,573	42.8
43–44	0.001150	97,772	112	97,716	4,088,749	41.8
44–45	0.001253	97,660	122	97,599	3,991,033	40.9
45–46	0.001359	97,538	133	97,471	3,893,435	39.9
46–47	0.001476	97,405	144	97,333	3,795,963	39.0
47–48	0.001617	97,261	157	97,183	3,698,630	38.0
48–49	0.001791	97,104	174	97,017	3,601,448	37.1
49–50	0.001993	96,930	193	96,833	3,504,431	36.2
50–51	0.002227	96,737	215	96,629	3,407,597	35.2
51–52	0.002470	96,521	238	96,402	3,310,968	34.3
52–53	0.002693	96,283	259	96,153	3,214,566	33.4
53–54	0.002879	96,024	276	95,885	3,118,413	32.5
54–55	0.003043	95,747	291	95,601	3,022,528	31.6
55–56	0.003212	95,456	307	95,302	2,926,926	30.7
56–57	0.003421	95,149	325	94,986	2,831,624	29.8
57–58	0.003690	94,824	350	94,649	2,736,637	28.9
58–59	0.004041	94,474	382	94,283	2,641,989	28.0
59–60	0.004463	94,092	420	93,882	2,547,706	27.1

See footnotes at end of table.

Table 10. Life table for the Asian, non-Hispanic population: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table10.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.004922	93,672	461	93,442	2,453,824	26.2
61–62	0.005407	93,211	504	92,959	2,360,382	25.3
62–63	0.005948	92,707	551	92,431	2,267,423	24.5
63–64	0.006550	92,156	604	91,854	2,174,992	23.6
64–65	0.007209	91,552	660	91,222	2,083,138	22.8
65–66	0.007915	90,892	719	90,532	1,991,916	21.9
66–67	0.008662	90,173	781	89,782	1,901,383	21.1
67–68	0.009460	89,392	846	88,969	1,811,601	20.3
68–69	0.010313	88,546	913	88,089	1,722,632	19.5
69–70	0.011226	87,633	984	87,141	1,634,543	18.7
70–71	0.012221	86,649	1,059	86,120	1,547,402	17.9
71–72	0.013292	85,590	1,138	85,021	1,461,282	17.1
72–73	0.014440	84,452	1,219	83,843	1,376,261	16.3
73–74	0.015715	83,233	1,308	82,579	1,292,418	15.5
74–75	0.017205	81,925	1,409	81,220	1,209,839	14.8
75–76	0.018985	80,516	1,529	79,751	1,128,619	14.0
76–77	0.021229	78,987	1,677	78,149	1,048,868	13.3
77–78	0.024006	77,310	1,856	76,382	970,719	12.6
78–79	0.026950	75,454	2,033	74,437	894,337	11.9
79–80	0.030422	73,421	2,234	72,304	819,900	11.2
80–81	0.033977	71,187	2,419	69,978	747,596	10.5
81–82	0.038086	68,768	2,619	67,459	677,618	9.9
82–83	0.042795	66,149	2,831	64,734	610,159	9.2
83–84	0.048211	63,318	3,053	61,792	545,425	8.6
84–85	0.054930	60,266	3,310	58,611	483,633	8.0
85–86	0.061675	56,955	3,513	55,199	425,023	7.5
86–87	0.070545	53,443	3,770	51,558	369,824	6.9
87–88	0.080502	49,673	3,999	47,673	318,266	6.4
88–89	0.091627	45,674	4,185	43,581	270,593	5.9
89–90	0.103991	41,489	4,314	39,332	227,012	5.5
90–91	0.117652	37,174	4,374	34,988	187,680	5.0
91–92	0.132651	32,801	4,351	30,625	152,692	4.7
92–93	0.149004	28,450	4,239	26,330	122,067	4.3
93–94	0.166701	24,211	4,036	22,193	95,737	4.0
94–95	0.185698	20,175	3,746	18,301	73,544	3.6
95–96	0.205918	16,428	3,383	14,737	55,243	3.4
96–97	0.227246	13,045	2,965	11,563	40,506	3.1
97–98	0.249532	10,081	2,516	8,823	28,943	2.9
98–99	0.272593	7,565	2,062	6,534	20,120	2.7
99–100	0.296219	5,503	1,630	4,688	13,586	2.5
100 and older	1.000000	3,873	3,873	8,898	8,898	2.3

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 11. Life table for Asian, non-Hispanic males: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table11.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1	0.004015	100,000	401	99,637	8,115,184	81.2
1–2	0.000284	99,599	28	99,584	8,015,546	80.5
2–3	0.000109	99,570	11	99,565	7,915,962	79.5
3–4	0.000150	99,559	15	99,552	7,816,397	78.5
4–5	0.000052	99,544	5	99,542	7,716,845	77.5
5–6	0.000100	99,539	10	99,534	7,617,303	76.5
6–7	0.000097	99,529	10	99,524	7,517,769	75.5
7–8	0.000092	99,520	9	99,515	7,418,245	74.5
8–9	0.000086	99,510	9	99,506	7,318,730	73.5
9–10	0.000079	99,502	8	99,498	7,219,224	72.6
10–11	0.000074	99,494	7	99,490	7,119,726	71.6
11–12	0.000075	99,487	7	99,483	7,020,235	70.6
12–13	0.000087	99,479	9	99,475	6,920,752	69.6
13–14	0.000114	99,470	11	99,465	6,821,278	68.6
14–15	0.000153	99,459	15	99,452	6,721,813	67.6
15–16	0.000193	99,444	19	99,434	6,622,361	66.6
16–17	0.000238	99,425	24	99,413	6,522,927	65.6
17–18	0.000301	99,401	30	99,386	6,423,514	64.6
18–19	0.000387	99,371	38	99,352	6,324,128	63.6
19–20	0.000485	99,333	48	99,309	6,224,776	62.7
20–21	0.000592	99,285	59	99,255	6,125,467	61.7
21–22	0.000688	99,226	68	99,192	6,026,212	60.7
22–23	0.000753	99,158	75	99,120	5,927,020	59.8
23–24	0.000776	99,083	77	99,044	5,827,900	58.8
24–25	0.000771	99,006	76	98,968	5,728,856	57.9
25–26	0.000759	98,930	75	98,892	5,629,888	56.9
26–27	0.000754	98,855	74	98,817	5,530,996	56.0
27–28	0.000756	98,780	75	98,743	5,432,178	55.0
28–29	0.000771	98,705	76	98,667	5,333,436	54.0
29–30	0.000794	98,629	78	98,590	5,234,768	53.1
30–31	0.000819	98,551	81	98,511	5,136,178	52.1
31–32	0.000842	98,470	83	98,429	5,037,667	51.2
32–33	0.000865	98,388	85	98,345	4,939,238	50.2
33–34	0.000889	98,302	87	98,259	4,840,893	49.2
34–35	0.000915	98,215	90	98,170	4,742,634	48.3
35–36	0.000946	98,125	93	98,079	4,644,464	47.3
36–37	0.000985	98,032	97	97,984	4,546,385	46.4
37–38	0.001033	97,936	101	97,885	4,448,401	45.4
38–39	0.001093	97,835	107	97,781	4,350,516	44.5
39–40	0.001167	97,728	114	97,671	4,252,734	43.5
40–41	0.001256	97,614	123	97,553	4,155,063	42.6
41–42	0.001361	97,491	133	97,425	4,057,511	41.6
42–43	0.001481	97,358	144	97,286	3,960,086	40.7
43–44	0.001611	97,214	157	97,136	3,862,800	39.7
44–45	0.001748	97,058	170	96,973	3,765,664	38.8
45–46	0.001888	96,888	183	96,797	3,668,691	37.9
46–47	0.002044	96,705	198	96,606	3,571,894	36.9
47–48	0.002235	96,508	216	96,400	3,475,288	36.0
48–49	0.002475	96,292	238	96,173	3,378,888	35.1
49–50	0.002761	96,054	265	95,921	3,282,716	34.2
50–51	0.003090	95,788	296	95,640	3,186,795	33.3
51–52	0.003430	95,492	328	95,329	3,091,154	32.4
52–53	0.003749	95,165	357	94,986	2,995,826	31.5
53–54	0.004022	94,808	381	94,617	2,900,839	30.6
54–55	0.004269	94,427	403	94,225	2,806,222	29.7
55–56	0.004515	94,024	425	93,811	2,711,997	28.8
56–57	0.004814	93,599	451	93,374	2,618,186	28.0
57–58	0.005201	93,148	484	92,906	2,524,812	27.1
58–59	0.005710	92,664	529	92,399	2,431,906	26.2
59–60	0.006322	92,135	583	91,844	2,339,507	25.4

See footnotes at end of table.

Table 11. Life table for Asian, non-Hispanic males: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table11.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.006990	91,552	640	91,232	2,247,663	24.6
61–62	0.007681	90,912	698	90,563	2,156,431	23.7
62–63	0.008406	90,214	758	89,835	2,065,867	22.9
63–64	0.009156	89,456	819	89,046	1,976,032	22.1
64–65	0.009937	88,637	881	88,196	1,886,986	21.3
65–66	0.010764	87,756	945	87,284	1,798,790	20.5
66–67	0.011647	86,811	1,011	86,306	1,711,506	19.7
67–68	0.012577	85,800	1,079	85,261	1,625,201	18.9
68–69	0.013559	84,721	1,149	84,147	1,539,940	18.2
69–70	0.014599	83,572	1,220	82,962	1,455,793	17.4
70–71	0.015722	82,352	1,295	81,705	1,372,831	16.7
71–72	0.016933	81,058	1,373	80,371	1,291,126	15.9
72–73	0.018255	79,685	1,455	78,958	1,210,755	15.2
73–74	0.019753	78,230	1,545	77,458	1,131,797	14.5
74–75	0.021516	76,685	1,650	75,860	1,054,339	13.7
75–76	0.023580	75,035	1,769	74,150	978,479	13.0
76–77	0.026146	73,266	1,916	72,308	904,329	12.3
77–78	0.029361	71,350	2,095	70,303	832,021	11.7
78–79	0.032783	69,255	2,270	68,120	761,718	11.0
79–80	0.036947	66,985	2,475	65,747	693,598	10.4
80–81	0.040915	64,510	2,639	63,190	627,850	9.7
81–82	0.045743	61,871	2,830	60,456	564,660	9.1
82–83	0.050935	59,040	3,007	57,537	504,204	8.5
83–84	0.056985	56,033	3,193	54,437	446,668	8.0
84–85	0.064493	52,840	3,408	51,136	392,231	7.4
85–86	0.071431	49,432	3,531	47,667	341,095	6.9
86–87	0.081409	45,901	3,737	44,033	293,428	6.4
87–88	0.092535	42,165	3,902	40,214	249,395	5.9
88–89	0.104872	38,263	4,013	36,256	209,181	5.5
89–90	0.118470	34,250	4,058	32,221	172,925	5.0
90–91	0.133360	30,193	4,026	28,179	140,703	4.7
91–92	0.149547	26,166	3,913	24,210	112,524	4.3
92–93	0.167010	22,253	3,716	20,395	88,314	4.0
93–94	0.185693	18,537	3,442	16,815	67,920	3.7
94–95	0.205506	15,094	3,102	13,543	51,104	3.4
95–96	0.226324	11,992	2,714	10,635	37,561	3.1
96–97	0.247987	9,278	2,301	8,128	26,925	2.9
97–98	0.270305	6,977	1,886	6,034	18,798	2.7
98–99	0.293064	5,091	1,492	4,345	12,763	2.5
99–100	0.316036	3,599	1,137	3,031	8,418	2.3
100 and older	1.000000	2,462	2,462	5,387	5,387	2.2

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 12. Life table for Asian, non-Hispanic females: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table12.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1	0.003320	100,000	332	99,695	8,559,441	85.6
1–2	0.000172	99,668	17	99,659	8,459,746	84.9
2–3	0.000117	99,651	12	99,645	8,360,087	83.9
3–4	0.000132	99,639	13	99,633	8,260,442	82.9
4–5	0.000110	99,626	11	99,621	8,160,809	81.9
5–6	0.000081	99,615	8	99,611	8,061,189	80.9
6–7	0.000070	99,607	7	99,604	7,961,578	79.9
7–8	0.000063	99,600	6	99,597	7,861,974	78.9
8–9	0.000059	99,594	6	99,591	7,762,377	77.9
9–10	0.000058	99,588	6	99,585	7,662,786	76.9
10–11	0.000060	99,582	6	99,579	7,563,201	75.9
11–12	0.000066	99,576	7	99,573	7,463,622	75.0
12–13	0.000077	99,570	8	99,566	7,364,049	74.0
13–14	0.000092	99,562	9	99,557	7,264,483	73.0
14–15	0.000111	99,553	11	99,547	7,164,926	72.0
15–16	0.000131	99,542	13	99,535	7,065,378	71.0
16–17	0.000152	99,529	15	99,521	6,965,843	70.0
17–18	0.000176	99,513	18	99,505	6,866,322	69.0
18–19	0.000203	99,496	20	99,486	6,766,818	68.0
19–20	0.000231	99,476	23	99,464	6,667,332	67.0
20–21	0.000261	99,453	26	99,440	6,567,867	66.0
21–22	0.000288	99,427	29	99,413	6,468,428	65.1
22–23	0.000306	99,398	30	99,383	6,369,015	64.1
23–24	0.000311	99,368	31	99,352	6,269,632	63.1
24–25	0.000308	99,337	31	99,322	6,170,280	62.1
25–26	0.000305	99,306	30	99,291	6,070,958	61.1
26–27	0.000304	99,276	30	99,261	5,971,667	60.2
27–28	0.000303	99,246	30	99,231	5,872,406	59.2
28–29	0.000304	99,216	30	99,201	5,773,176	58.2
29–30	0.000306	99,186	30	99,170	5,673,975	57.2
30–31	0.000308	99,155	31	99,140	5,574,805	56.2
31–32	0.000313	99,125	31	99,109	5,475,665	55.2
32–33	0.000325	99,094	32	99,078	5,376,555	54.3
33–34	0.000348	99,061	34	99,044	5,277,478	53.3
34–35	0.000378	99,027	37	99,008	5,178,434	52.3
35–36	0.000414	98,990	41	98,969	5,079,425	51.3
36–37	0.000451	98,949	45	98,926	4,980,456	50.3
37–38	0.000486	98,904	48	98,880	4,881,530	49.4
38–39	0.000517	98,856	51	98,830	4,782,650	48.4
39–40	0.000547	98,805	54	98,778	4,683,819	47.4
40–41	0.000581	98,751	57	98,722	4,585,042	46.4
41–42	0.000623	98,694	62	98,663	4,486,319	45.5
42–43	0.000677	98,632	67	98,599	4,387,657	44.5
43–44	0.000742	98,565	73	98,529	4,289,058	43.5
44–45	0.000818	98,492	81	98,452	4,190,529	42.5
45–46	0.000898	98,412	88	98,367	4,092,077	41.6
46–47	0.000983	98,323	97	98,275	3,993,710	40.6
47–48	0.001080	98,227	106	98,174	3,895,435	39.7
48–49	0.001195	98,120	117	98,062	3,797,262	38.7
49–50	0.001324	98,003	130	97,938	3,699,200	37.7
50–51	0.001475	97,873	144	97,801	3,601,261	36.8
51–52	0.001633	97,729	160	97,649	3,503,460	35.8
52–53	0.001775	97,570	173	97,483	3,405,811	34.9
53–54	0.001891	97,396	184	97,304	3,308,328	34.0
54–55	0.001992	97,212	194	97,115	3,211,024	33.0
55–56	0.002100	97,018	204	96,917	3,113,908	32.1
56–57	0.002240	96,815	217	96,706	3,016,992	31.2
57–58	0.002418	96,598	234	96,481	2,920,286	30.2
58–59	0.002646	96,364	255	96,237	2,823,804	29.3
59–60	0.002921	96,109	281	95,969	2,727,568	28.4

See footnotes at end of table.

Table 12. Life table for Asian, non-Hispanic females: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table12.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.003221	95,829	309	95,674	2,631,599	27.5
61–62	0.003552	95,520	339	95,350	2,535,925	26.5
62–63	0.003952	95,181	376	94,993	2,440,574	25.6
63–64	0.004436	94,804	421	94,594	2,345,582	24.7
64–65	0.004995	94,384	471	94,148	2,250,988	23.8
65–66	0.005596	93,912	526	93,650	2,156,839	23.0
66–67	0.006231	93,387	582	93,096	2,063,190	22.1
67–68	0.006928	92,805	643	92,484	1,970,094	21.2
68–69	0.007693	92,162	709	91,808	1,877,610	20.4
69–70	0.008526	91,453	780	91,063	1,785,802	19.5
70–71	0.009446	90,673	857	90,245	1,694,739	18.7
71–72	0.010430	89,817	937	89,348	1,604,494	17.9
72–73	0.011458	88,880	1,018	88,371	1,515,146	17.0
73–74	0.012562	87,862	1,104	87,310	1,426,775	16.2
74–75	0.013827	86,758	1,200	86,158	1,339,465	15.4
75–76	0.015364	85,558	1,315	84,901	1,253,307	14.6
76–77	0.017329	84,244	1,460	83,514	1,168,406	13.9
77–78	0.019760	82,784	1,636	81,966	1,084,892	13.1
78–79	0.022361	81,148	1,815	80,241	1,002,926	12.4
79–80	0.025368	79,334	2,013	78,327	922,685	11.6
80–81	0.028741	77,321	2,222	76,210	844,358	10.9
81–82	0.032491	75,099	2,440	73,879	768,148	10.2
82–83	0.037016	72,659	2,690	71,314	694,269	9.6
83–84	0.042196	69,969	2,952	68,493	622,955	8.9
84–85	0.048660	67,017	3,261	65,386	554,462	8.3
85–86	0.056076	63,756	3,575	61,968	489,076	7.7
86–87	0.063613	60,181	3,828	58,266	427,107	7.1
87–88	0.073583	56,352	4,147	54,279	368,841	6.5
88–89	0.084882	52,206	4,431	49,990	314,562	6.0
89–90	0.097614	47,774	4,663	45,443	264,572	5.5
90–91	0.111871	43,111	4,823	40,700	219,129	5.1
91–92	0.127727	38,288	4,890	35,843	178,430	4.7
92–93	0.145225	33,398	4,850	30,973	142,587	4.3
93–94	0.164376	28,547	4,693	26,201	111,614	3.9
94–95	0.185147	23,855	4,417	21,647	85,413	3.6
95–96	0.207458	19,438	4,033	17,422	63,766	3.3
96–97	0.231180	15,406	3,561	13,625	46,344	3.0
97–98	0.256129	11,844	3,034	10,327	32,719	2.8
98–99	0.282079	8,811	2,485	7,568	22,392	2.5
99–100	0.308759	6,325	1,953	5,349	14,824	2.3
100 and older	1.000000	4,372	4,372	9,475	9,475	2.2

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 13. Life table for the Black, non-Hispanic population: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table13.xlsx.

Age (years)	Probability of dying between ages x and $x+1$ q_x	Number surviving to age x l_x	Number dying between ages x and $x+1$ d_x	Person-years lived between ages x and $x+1$ L_x	Total number of person-years lived above age x T_x	Expectation of life at age x e_x
0–1	0.010514	100,000	1,051	99,100	7,124,446	71.2
1–2	0.000854	98,949	85	98,906	7,025,346	71.0
2–3	0.000483	98,864	48	98,840	6,926,439	70.1
3–4	0.000380	98,816	38	98,798	6,827,599	69.1
4–5	0.000350	98,779	35	98,761	6,728,802	68.1
5–6	0.000293	98,744	29	98,730	6,630,040	67.1
6–7	0.000272	98,715	27	98,702	6,531,311	66.2
7–8	0.000249	98,688	25	98,676	6,432,609	65.2
8–9	0.000216	98,664	21	98,653	6,333,933	64.2
9–10	0.000176	98,642	17	98,634	6,235,280	63.2
10–11	0.000145	98,625	14	98,618	6,136,646	62.2
11–12	0.000151	98,611	15	98,603	6,038,028	61.2
12–13	0.000222	98,596	22	98,585	5,939,424	60.2
13–14	0.000377	98,574	37	98,555	5,840,839	59.3
14–15	0.000597	98,537	59	98,507	5,742,284	58.3
15–16	0.000849	98,478	84	98,436	5,643,776	57.3
16–17	0.001098	98,394	108	98,340	5,545,340	56.4
17–18	0.001335	98,286	131	98,221	5,447,000	55.4
18–19	0.001541	98,155	151	98,080	5,348,779	54.5
19–20	0.001718	98,004	168	97,920	5,250,699	53.6
20–21	0.001897	97,836	186	97,743	5,152,779	52.7
21–22	0.002077	97,650	203	97,549	5,055,036	51.8
22–23	0.002226	97,447	217	97,339	4,957,488	50.9
23–24	0.002336	97,230	227	97,117	4,860,149	50.0
24–25	0.002415	97,003	234	96,886	4,763,032	49.1
25–26	0.002480	96,769	240	96,649	4,666,146	48.2
26–27	0.002548	96,529	246	96,406	4,569,497	47.3
27–28	0.002626	96,283	253	96,157	4,473,091	46.5
28–29	0.002721	96,030	261	95,899	4,376,935	45.6
29–30	0.002832	95,769	271	95,633	4,281,035	44.7
30–31	0.002946	95,498	281	95,357	4,185,402	43.8
31–32	0.003060	95,216	291	95,071	4,090,045	43.0
32–33	0.003185	94,925	302	94,774	3,994,974	42.1
33–34	0.003328	94,623	315	94,465	3,900,200	41.2
34–35	0.003491	94,308	329	94,143	3,805,735	40.4
35–36	0.003678	93,979	346	93,806	3,711,592	39.5
36–37	0.003885	93,633	364	93,451	3,617,786	38.6
37–38	0.004104	93,269	383	93,078	3,524,335	37.8
38–39	0.004324	92,886	402	92,685	3,431,258	36.9
39–40	0.004541	92,485	420	92,275	3,338,572	36.1
40–41	0.004776	92,065	440	91,845	3,246,297	35.3
41–42	0.005030	91,625	461	91,395	3,154,453	34.4
42–43	0.005282	91,164	482	90,923	3,063,058	33.6
43–44	0.005535	90,683	502	90,432	2,972,135	32.8
44–45	0.005806	90,181	524	89,919	2,881,703	32.0
45–46	0.006113	89,657	548	89,383	2,791,784	31.1
46–47	0.006469	89,109	576	88,821	2,702,401	30.3
47–48	0.006871	88,533	608	88,228	2,613,580	29.5
48–49	0.007312	87,924	643	87,603	2,525,352	28.7
49–50	0.007786	87,281	680	86,942	2,437,749	27.9
50–51	0.008277	86,602	717	86,243	2,350,807	27.1
51–52	0.008814	85,885	757	85,507	2,264,564	26.4
52–53	0.009434	85,128	803	84,727	2,179,057	25.6
53–54	0.010160	84,325	857	83,897	2,094,331	24.8
54–55	0.010976	83,468	916	83,010	2,010,434	24.1
55–56	0.011806	82,552	975	82,065	1,927,424	23.3
56–57	0.012659	81,578	1,033	81,061	1,845,359	22.6
57–58	0.013627	80,545	1,098	79,996	1,764,298	21.9
58–59	0.014740	79,447	1,171	78,862	1,684,302	21.2
59–60	0.015966	78,276	1,250	77,651	1,605,440	20.5

See footnotes at end of table.

Table 13. Life table for the Black, non-Hispanic population: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table13.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.017255	77,026	1,329	76,362	1,527,789	19.8
61–62	0.018548	75,697	1,404	74,995	1,451,427	19.2
62–63	0.019849	74,293	1,475	73,556	1,376,432	18.5
63–64	0.021164	72,819	1,541	72,048	1,302,876	17.9
64–65	0.022532	71,278	1,606	70,475	1,230,827	17.3
65–66	0.024022	69,672	1,674	68,835	1,160,353	16.7
66–67	0.025626	67,998	1,743	67,127	1,091,518	16.1
67–68	0.027188	66,255	1,801	65,355	1,024,391	15.5
68–69	0.028766	64,454	1,854	63,527	959,037	14.9
69–70	0.030315	62,600	1,898	61,651	895,510	14.3
70–71	0.031771	60,702	1,929	59,738	833,859	13.7
71–72	0.033710	58,774	1,981	57,783	774,121	13.2
72–73	0.035640	56,792	2,024	55,780	716,338	12.6
73–74	0.037658	54,768	2,062	53,737	660,557	12.1
74–75	0.040010	52,706	2,109	51,651	606,820	11.5
75–76	0.043349	50,597	2,193	49,500	555,169	11.0
76–77	0.046176	48,404	2,235	47,286	505,668	10.4
77–78	0.050980	46,169	2,354	44,992	458,382	9.9
78–79	0.054689	43,815	2,396	42,617	413,390	9.4
79–80	0.059597	41,419	2,468	40,185	370,773	9.0
80–81	0.063739	38,950	2,483	37,709	330,589	8.5
81–82	0.069773	36,468	2,544	35,195	292,880	8.0
82–83	0.074481	33,923	2,527	32,660	257,684	7.6
83–84	0.080832	31,397	2,538	30,128	225,025	7.2
84–85	0.088261	28,859	2,547	27,585	194,897	6.8
85–86	0.096531	26,312	2,540	25,042	167,312	6.4
86–87	0.105296	23,772	2,503	22,520	142,270	6.0
87–88	0.114696	21,269	2,439	20,049	119,750	5.6
88–89	0.124750	18,829	2,349	17,655	99,701	5.3
89–90	0.135468	16,480	2,233	15,364	82,046	5.0
90–91	0.146858	14,248	2,092	13,202	66,682	4.7
91–92	0.158919	12,155	1,932	11,189	53,481	4.4
92–93	0.171643	10,224	1,755	9,346	42,291	4.1
93–94	0.185015	8,469	1,567	7,685	32,945	3.9
94–95	0.199010	6,902	1,374	6,215	25,259	3.7
95–96	0.213594	5,528	1,181	4,938	19,044	3.4
96–97	0.228725	4,348	994	3,850	14,106	3.2
97–98	0.244348	3,353	819	2,943	10,256	3.1
98–99	0.260405	2,534	660	2,204	7,312	2.9
99–100	0.276825	1,874	519	1,615	5,109	2.7
100 and older	1.000000	1,355	1,355	3,494	3,494	2.6

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 14. Life table for Black, non-Hispanic males: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table14.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.011512	100,000	1,151	99,017	6,758,074	67.6
1–2	0.000739	98,849	73	98,812	6,659,057	67.4
2–3	0.000514	98,776	51	98,750	6,560,245	66.4
3–4	0.000415	98,725	41	98,705	6,461,494	65.4
4–5	0.000330	98,684	33	98,668	6,362,790	64.5
5–6	0.000306	98,652	30	98,636	6,264,122	63.5
6–7	0.000298	98,621	29	98,607	6,165,486	62.5
7–8	0.000278	98,592	27	98,578	6,066,879	61.5
8–9	0.000227	98,565	22	98,553	5,968,301	60.6
9–10	0.000155	98,542	15	98,535	5,869,747	59.6
10–11	0.000093	98,527	9	98,522	5,771,213	58.6
11–12	0.000091	98,518	9	98,513	5,672,691	57.6
12–13	0.000203	98,509	20	98,499	5,574,177	56.6
13–14	0.000464	98,489	46	98,466	5,475,679	55.6
14–15	0.000840	98,443	83	98,402	5,377,213	54.6
15–16	0.001270	98,360	125	98,298	5,278,811	53.7
16–17	0.001686	98,235	166	98,153	5,180,514	52.7
17–18	0.002067	98,070	203	97,968	5,082,361	51.8
18–19	0.002374	97,867	232	97,751	4,984,393	50.9
19–20	0.002617	97,635	256	97,507	4,886,642	50.1
20–21	0.002855	97,379	278	97,240	4,789,135	49.2
21–22	0.003097	97,101	301	96,951	4,691,894	48.3
22–23	0.003291	96,801	319	96,641	4,594,943	47.5
23–24	0.003427	96,482	331	96,317	4,498,302	46.6
24–25	0.003518	96,151	338	95,982	4,401,986	45.8
25–26	0.003586	95,813	344	95,641	4,306,003	44.9
26–27	0.003655	95,469	349	95,295	4,210,362	44.1
27–28	0.003734	95,121	355	94,943	4,115,067	43.3
28–29	0.003836	94,765	363	94,584	4,020,124	42.4
29–30	0.003956	94,402	373	94,215	3,925,541	41.6
30–31	0.004079	94,028	383	93,837	3,831,325	40.7
31–32	0.004201	93,645	393	93,448	3,737,489	39.9
32–33	0.004345	93,251	405	93,049	3,644,041	39.1
33–34	0.004522	92,846	420	92,636	3,550,992	38.2
34–35	0.004733	92,426	437	92,208	3,458,355	37.4
35–36	0.004979	91,989	458	91,760	3,366,148	36.6
36–37	0.005247	91,531	480	91,291	3,274,388	35.8
37–38	0.005515	91,051	502	90,800	3,183,097	35.0
38–39	0.005759	90,549	521	90,288	3,092,297	34.2
39–40	0.005982	90,027	539	89,758	3,002,009	33.3
40–41	0.006222	89,489	557	89,210	2,912,251	32.5
41–42	0.006493	88,932	577	88,643	2,823,041	31.7
42–43	0.006775	88,354	599	88,055	2,734,398	30.9
43–44	0.007078	87,756	621	87,445	2,646,343	30.2
44–45	0.007417	87,135	646	86,812	2,558,897	29.4
45–46	0.007804	86,488	675	86,151	2,472,086	28.6
46–47	0.008249	85,813	708	85,460	2,385,935	27.8
47–48	0.008757	85,106	745	84,733	2,300,475	27.0
48–49	0.009317	84,360	786	83,967	2,215,742	26.3
49–50	0.009917	83,574	829	83,160	2,131,775	25.5
50–51	0.010540	82,746	872	82,309	2,048,615	24.8
51–52	0.011213	81,873	918	81,414	1,966,305	24.0
52–53	0.011974	80,955	969	80,471	1,884,891	23.3
53–54	0.012847	79,986	1,028	79,472	1,804,420	22.6
54–55	0.013824	78,958	1,091	78,413	1,724,948	21.8
55–56	0.014813	77,867	1,153	77,290	1,646,536	21.1
56–57	0.015840	76,713	1,215	76,106	1,569,246	20.5
57–58	0.017029	75,498	1,286	74,855	1,493,140	19.8
58–59	0.018425	74,213	1,367	73,529	1,418,284	19.1
59–60	0.019985	72,845	1,456	72,117	1,344,755	18.5

See footnotes at end of table.

Table 14. Life table for Black, non-Hispanic males: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table14.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.021624	71,389	1,544	70,618	1,272,638	17.8
61–62	0.023267	69,846	1,625	69,033	1,202,020	17.2
62–63	0.024939	68,221	1,701	67,370	1,132,987	16.6
63–64	0.026661	66,519	1,774	65,633	1,065,617	16.0
64–65	0.028483	64,746	1,844	63,824	999,985	15.4
65–66	0.030509	62,902	1,919	61,942	936,161	14.9
66–67	0.032676	60,983	1,993	59,986	874,219	14.3
67–68	0.034743	58,990	2,049	57,965	814,232	13.8
68–69	0.036749	56,940	2,093	55,894	756,267	13.3
69–70	0.038621	54,848	2,118	53,789	700,373	12.8
70–71	0.040243	52,730	2,122	51,669	646,584	12.3
71–72	0.042670	50,608	2,159	49,528	594,916	11.8
72–73	0.044877	48,448	2,174	47,361	545,388	11.3
73–74	0.047144	46,274	2,182	45,183	498,027	10.8
74–75	0.049960	44,092	2,203	42,991	452,844	10.3
75–76	0.053920	41,890	2,259	40,760	409,852	9.8
76–77	0.057001	39,631	2,259	38,501	369,092	9.3
77–78	0.062479	37,372	2,335	36,204	330,591	8.8
78–79	0.067019	35,037	2,348	33,863	294,386	8.4
79–80	0.072595	32,689	2,373	31,502	260,524	8.0
80–81	0.077055	30,316	2,336	29,148	229,021	7.6
81–82	0.083101	27,980	2,325	26,817	199,874	7.1
82–83	0.087958	25,655	2,257	24,526	173,056	6.7
83–84	0.096312	23,398	2,254	22,271	148,530	6.3
84–85	0.106636	21,145	2,255	20,017	126,259	6.0
85–86	0.115873	18,890	2,189	17,795	106,242	5.6
86–87	0.125730	16,701	2,100	15,651	88,446	5.3
87–88	0.136218	14,601	1,989	13,607	72,795	5.0
88–89	0.147343	12,612	1,858	11,683	59,189	4.7
89–90	0.159104	10,754	1,711	9,898	47,506	4.4
90–91	0.171494	9,043	1,551	8,267	37,607	4.2
91–92	0.184497	7,492	1,382	6,801	29,340	3.9
92–93	0.198093	6,110	1,210	5,505	22,539	3.7
93–94	0.212249	4,900	1,040	4,380	17,034	3.5
94–95	0.226926	3,860	876	3,422	12,654	3.3
95–96	0.242079	2,984	722	2,623	9,233	3.1
96–97	0.257650	2,261	583	1,970	6,610	2.9
97–98	0.273577	1,679	459	1,449	4,640	2.8
98–99	0.289791	1,220	353	1,043	3,191	2.6
99–100	0.306218	866	265	733	2,148	2.5
100 and older	1.000000	601	601	1,415	1,415	2.4

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 15. Life table for Black, non-Hispanic females: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table15.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.009486	100,000	949	99,186	7,496,018	75.0
1–2	0.000878	99,051	87	99,008	7,396,832	74.7
2–3	0.000391	98,964	39	98,945	7,297,824	73.7
3–4	0.000295	98,926	29	98,911	7,198,879	72.8
4–5	0.000330	98,896	33	98,880	7,099,968	71.8
5–6	0.000246	98,864	24	98,852	7,001,088	70.8
6–7	0.000217	98,839	21	98,829	6,902,236	69.8
7–8	0.000194	98,818	19	98,808	6,803,407	68.8
8–9	0.000176	98,799	17	98,790	6,704,599	67.9
9–10	0.000164	98,781	16	98,773	6,605,809	66.9
10–11	0.000159	98,765	16	98,757	6,507,035	65.9
11–12	0.000169	98,749	17	98,741	6,408,278	64.9
12–13	0.000197	98,733	19	98,723	6,309,537	63.9
13–14	0.000248	98,713	24	98,701	6,210,814	62.9
14–15	0.000318	98,689	31	98,673	6,112,113	61.9
15–16	0.000400	98,658	39	98,638	6,013,439	61.0
16–17	0.000488	98,618	48	98,594	5,914,802	60.0
17–18	0.000586	98,570	58	98,541	5,816,207	59.0
18–19	0.000692	98,512	68	98,478	5,717,666	58.0
19–20	0.000802	98,444	79	98,405	5,619,188	57.1
20–21	0.000919	98,365	90	98,320	5,520,784	56.1
21–22	0.001037	98,275	102	98,224	5,422,464	55.2
22–23	0.001140	98,173	112	98,117	5,324,240	54.2
23–24	0.001221	98,061	120	98,001	5,226,123	53.3
24–25	0.001286	97,941	126	97,878	5,128,122	52.4
25–26	0.001345	97,815	132	97,749	5,030,244	51.4
26–27	0.001411	97,684	138	97,615	4,932,494	50.5
27–28	0.001489	97,546	145	97,473	4,834,879	49.6
28–29	0.001585	97,401	154	97,323	4,737,406	48.6
29–30	0.001696	97,246	165	97,164	4,640,083	47.7
30–31	0.001814	97,081	176	96,993	4,542,919	46.8
31–32	0.001932	96,905	187	96,812	4,445,926	45.9
32–33	0.002049	96,718	198	96,619	4,349,114	45.0
33–34	0.002168	96,520	209	96,415	4,252,495	44.1
34–35	0.002295	96,311	221	96,200	4,156,080	43.2
35–36	0.002435	96,090	234	95,973	4,059,880	42.3
36–37	0.002595	95,856	249	95,731	3,963,907	41.4
37–38	0.002779	95,607	266	95,474	3,868,176	40.5
38–39	0.002986	95,341	285	95,199	3,772,702	39.6
39–40	0.003205	95,057	305	94,904	3,677,503	38.7
40–41	0.003443	94,752	326	94,589	3,582,599	37.8
41–42	0.003688	94,426	348	94,252	3,488,010	36.9
42–43	0.003919	94,077	369	93,893	3,393,758	36.1
43–44	0.004134	93,709	387	93,515	3,299,865	35.2
44–45	0.004348	93,321	406	93,119	3,206,350	34.4
45–46	0.004589	92,916	426	92,702	3,113,232	33.5
46–47	0.004870	92,489	450	92,264	3,020,529	32.7
47–48	0.005182	92,039	477	91,800	2,928,265	31.8
48–49	0.005517	91,562	505	91,309	2,836,465	31.0
49–50	0.005876	91,057	535	90,789	2,745,155	30.1
50–51	0.006246	90,522	565	90,239	2,654,366	29.3
51–52	0.006656	89,956	599	89,657	2,564,127	28.5
52–53	0.007149	89,358	639	89,038	2,474,470	27.7
53–54	0.007745	88,719	687	88,375	2,385,432	26.9
54–55	0.008424	88,032	742	87,661	2,297,056	26.1
55–56	0.009120	87,290	796	86,892	2,209,396	25.3
56–57	0.009829	86,494	850	86,069	2,122,503	24.5
57–58	0.010611	85,644	909	85,190	2,036,434	23.8
58–59	0.011485	84,735	973	84,249	1,951,245	23.0
59–60	0.012433	83,762	1,041	83,241	1,866,996	22.3

See footnotes at end of table.

Table 15. Life table for Black, non-Hispanic females: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table15.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.013431	82,721	1,111	82,165	1,783,755	21.6
61–62	0.014441	81,609	1,178	81,020	1,701,590	20.9
62–63	0.015455	80,431	1,243	79,809	1,620,570	20.1
63–64	0.016478	79,188	1,305	78,535	1,540,760	19.5
64–65	0.017539	77,883	1,366	77,200	1,462,225	18.8
65–66	0.018681	76,517	1,429	75,802	1,385,025	18.1
66–67	0.019926	75,088	1,496	74,340	1,309,223	17.4
67–68	0.021186	73,591	1,559	72,812	1,234,883	16.8
68–69	0.022513	72,032	1,622	71,221	1,162,071	16.1
69–70	0.023885	70,411	1,682	69,570	1,090,850	15.5
70–71	0.025301	68,729	1,739	67,859	1,021,280	14.9
71–72	0.026949	66,990	1,805	66,087	953,421	14.2
72–73	0.028770	65,185	1,875	64,247	887,333	13.6
73–74	0.030679	63,309	1,942	62,338	823,086	13.0
74–75	0.032790	61,367	2,012	60,361	760,748	12.4
75–76	0.035795	59,355	2,125	58,292	700,387	11.8
76–77	0.038604	57,230	2,209	56,125	642,095	11.2
77–78	0.043057	55,021	2,369	53,836	585,969	10.6
78–79	0.046379	52,652	2,442	51,431	532,133	10.1
79–80	0.051011	50,210	2,561	48,929	480,702	9.6
80–81	0.055215	47,649	2,631	46,333	431,773	9.1
81–82	0.061438	45,018	2,766	43,635	385,440	8.6
82–83	0.066199	42,252	2,797	40,853	341,805	8.1
83–84	0.071620	39,455	2,826	38,042	300,952	7.6
84–85	0.078598	36,629	2,879	35,190	262,910	7.2
85–86	0.085155	33,750	2,874	32,313	227,720	6.7
86–87	0.093816	30,876	2,897	29,428	195,407	6.3
87–88	0.103201	27,979	2,888	26,536	165,979	5.9
88–89	0.113339	25,092	2,844	23,670	139,443	5.6
89–90	0.124254	22,248	2,764	20,866	115,773	5.2
90–91	0.135962	19,484	2,649	18,159	94,907	4.9
91–92	0.148471	16,835	2,499	15,585	76,748	4.6
92–93	0.161779	14,335	2,319	13,176	61,163	4.3
93–94	0.175876	12,016	2,113	10,959	47,988	4.0
94–95	0.190738	9,903	1,889	8,958	37,028	3.7
95–96	0.206327	8,014	1,653	7,187	28,070	3.5
96–97	0.222594	6,360	1,416	5,653	20,883	3.3
97–98	0.239476	4,945	1,184	4,353	15,231	3.1
98–99	0.256899	3,760	966	3,277	10,878	2.9
99–100	0.274773	2,794	768	2,411	7,601	2.7
100 and older	1.000000	2027	2027	5190	5190	2.6

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 16. Life table for the White, non-Hispanic population: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table16.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.004376	100,000	438	99,615	7,665,146	76.7
1–2	0.000352	99,562	35	99,545	7,565,532	76.0
2–3	0.000224	99,527	22	99,516	7,465,987	75.0
3–4	0.000173	99,505	17	99,497	7,366,470	74.0
4–5	0.000131	99,488	13	99,481	7,266,974	73.0
5–6	0.000124	99,475	12	99,469	7,167,492	72.1
6–7	0.000113	99,463	11	99,457	7,068,024	71.1
7–8	0.000103	99,451	10	99,446	6,968,567	70.1
8–9	0.000094	99,441	9	99,436	6,869,120	69.1
9–10	0.000086	99,432	9	99,427	6,769,684	68.1
10–11	0.000084	99,423	8	99,419	6,670,257	67.1
11–12	0.000094	99,415	9	99,410	6,570,838	66.1
12–13	0.000125	99,406	12	99,399	6,471,427	65.1
13–14	0.000182	99,393	18	99,384	6,372,028	64.1
14–15	0.000257	99,375	26	99,362	6,272,644	63.1
15–16	0.000342	99,349	34	99,332	6,173,282	62.1
16–17	0.000429	99,315	43	99,294	6,073,949	61.2
17–18	0.000518	99,273	51	99,247	5,974,655	60.2
18–19	0.000606	99,221	60	99,191	5,875,408	59.2
19–20	0.000695	99,161	69	99,127	5,776,217	58.3
20–21	0.000790	99,092	78	99,053	5,677,090	57.3
21–22	0.000890	99,014	88	98,970	5,578,037	56.3
22–23	0.000988	98,926	98	98,877	5,479,067	55.4
23–24	0.001081	98,828	107	98,775	5,380,190	54.4
24–25	0.001171	98,721	116	98,663	5,281,415	53.5
25–26	0.001259	98,606	124	98,544	5,182,752	52.6
26–27	0.001350	98,482	133	98,415	5,084,208	51.6
27–28	0.001449	98,349	143	98,277	4,985,793	50.7
28–29	0.001558	98,206	153	98,130	4,887,516	49.8
29–30	0.001672	98,053	164	97,971	4,789,386	48.8
30–31	0.001788	97,889	175	97,802	4,691,415	47.9
31–32	0.001900	97,714	186	97,621	4,593,613	47.0
32–33	0.002006	97,528	196	97,430	4,495,992	46.1
33–34	0.002105	97,333	205	97,230	4,398,562	45.2
34–35	0.002201	97,128	214	97,021	4,301,331	44.3
35–36	0.002301	96,914	223	96,803	4,204,310	43.4
36–37	0.002408	96,691	233	96,575	4,107,508	42.5
37–38	0.002520	96,458	243	96,337	4,010,933	41.6
38–39	0.002635	96,215	254	96,088	3,914,596	40.7
39–40	0.002757	95,962	265	95,829	3,818,508	39.8
40–41	0.002899	95,697	277	95,558	3,722,679	38.9
41–42	0.003056	95,420	292	95,274	3,627,120	38.0
42–43	0.003215	95,128	306	94,975	3,531,847	37.1
43–44	0.003374	94,822	320	94,662	3,436,872	36.2
44–45	0.003545	94,502	335	94,335	3,342,210	35.4
45–46	0.003748	94,167	353	93,991	3,247,875	34.5
46–47	0.003997	93,814	375	93,627	3,153,884	33.6
47–48	0.004280	93,439	400	93,239	3,060,258	32.8
48–49	0.004587	93,039	427	92,826	2,967,018	31.9
49–50	0.004910	92,613	455	92,385	2,874,192	31.0
50–51	0.005239	92,158	483	91,916	2,781,807	30.2
51–52	0.005599	91,675	513	91,418	2,689,891	29.3
52–53	0.006014	91,162	548	90,888	2,598,473	28.5
53–54	0.006504	90,613	589	90,319	2,507,585	27.7
54–55	0.007061	90,024	636	89,706	2,417,266	26.9
55–56	0.007630	89,388	682	89,047	2,327,560	26.0
56–57	0.008215	88,706	729	88,342	2,238,512	25.2
57–58	0.008869	87,978	780	87,588	2,150,170	24.4
58–59	0.009599	87,197	837	86,779	2,062,583	23.7
59–60	0.010380	86,360	896	85,912	1,975,804	22.9

See footnotes at end of table.

Table 16. Life table for the White, non-Hispanic population: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table16.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.011206	85,464	958	84,985	1,889,891	22.1
61–62	0.012031	84,506	1,017	83,998	1,804,906	21.4
62–63	0.012819	83,490	1,070	82,955	1,720,908	20.6
63–64	0.013566	82,419	1,118	81,860	1,637,954	19.9
64–65	0.014323	81,301	1,164	80,719	1,556,093	19.1
65–66	0.015127	80,137	1,212	79,531	1,475,374	18.4
66–67	0.016144	78,925	1,274	78,288	1,395,844	17.7
67–68	0.017264	77,650	1,341	76,980	1,317,556	17.0
68–69	0.018573	76,310	1,417	75,601	1,240,576	16.3
69–70	0.020031	74,893	1,500	74,142	1,164,975	15.6
70–71	0.021501	73,392	1,578	72,603	1,090,832	14.9
71–72	0.023169	71,814	1,664	70,982	1,018,229	14.2
72–73	0.025089	70,151	1,760	69,271	947,246	13.5
73–74	0.027461	68,390	1,878	67,451	877,976	12.8
74–75	0.029784	66,512	1,981	65,522	810,524	12.2
75–76	0.033839	64,531	2,184	63,440	745,003	11.5
76–77	0.037193	62,348	2,319	61,188	681,563	10.9
77–78	0.041351	60,029	2,482	58,788	620,375	10.3
78–79	0.045160	57,547	2,599	56,247	561,587	9.8
79–80	0.050063	54,948	2,751	53,572	505,340	9.2
80–81	0.054779	52,197	2,859	50,767	451,768	8.7
81–82	0.060136	49,338	2,967	47,854	401,000	8.1
82–83	0.066359	46,371	3,077	44,832	353,146	7.6
83–84	0.073373	43,294	3,177	41,705	308,314	7.1
84–85	0.081888	40,117	3,285	38,474	266,609	6.6
85–86	0.090253	36,832	3,324	35,170	228,135	6.2
86–87	0.101008	33,508	3,385	31,815	192,965	5.8
87–88	0.112794	30,123	3,398	28,424	161,149	5.3
88–89	0.125651	26,725	3,358	25,046	132,725	5.0
89–90	0.139603	23,367	3,262	21,736	107,679	4.6
90–91	0.154661	20,105	3,109	18,550	85,942	4.3
91–92	0.170818	16,996	2,903	15,544	67,392	4.0
92–93	0.188042	14,093	2,650	12,768	51,848	3.7
93–94	0.206281	11,443	2,360	10,262	39,080	3.4
94–95	0.225455	9,082	2,048	8,058	28,818	3.2
95–96	0.245462	7,035	1,727	6,171	20,760	3.0
96–97	0.266172	5,308	1,413	4,601	14,588	2.7
97–98	0.287438	3,895	1,120	3,335	9,987	2.6
98–99	0.309091	2,775	858	2,347	6,652	2.4
99–100	0.330952	1,918	635	1,600	4,305	2.2
100 and older	1.000000	1,283	1,283	2,705	2,705	2.1

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 17. Life table for White, non-Hispanic males: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table17.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.004675	100,000	468	99,589	7,400,310	74.0
1–2	0.000401	99,532	40	99,513	7,300,721	73.4
2–3	0.000273	99,493	27	99,479	7,201,209	72.4
3–4	0.000228	99,466	23	99,454	7,101,730	71.4
4–5	0.000166	99,443	17	99,435	7,002,276	70.4
5–6	0.000156	99,426	15	99,419	6,902,841	69.4
6–7	0.000140	99,411	14	99,404	6,803,422	68.4
7–8	0.000127	99,397	13	99,391	6,704,019	67.4
8–9	0.000114	99,384	11	99,379	6,604,628	66.5
9–10	0.000102	99,373	10	99,368	6,505,249	65.5
10–11	0.000098	99,363	10	99,358	6,405,882	64.5
11–12	0.000112	99,353	11	99,348	6,306,524	63.5
12–13	0.000154	99,342	15	99,334	6,207,176	62.5
13–14	0.000232	99,327	23	99,315	6,107,842	61.5
14–15	0.000337	99,304	33	99,287	6,008,526	60.5
15–16	0.000454	99,270	45	99,248	5,909,240	59.5
16–17	0.000575	99,225	57	99,197	5,809,992	58.6
17–18	0.000700	99,168	69	99,133	5,710,795	57.6
18–19	0.000829	99,099	82	99,058	5,611,662	56.6
19–20	0.000962	99,016	95	98,969	5,512,605	55.7
20–21	0.001102	98,921	109	98,867	5,413,636	54.7
21–22	0.001248	98,812	123	98,750	5,314,769	53.8
22–23	0.001390	98,689	137	98,620	5,216,019	52.9
23–24	0.001522	98,552	150	98,477	5,117,399	51.9
24–25	0.001648	98,402	162	98,321	5,018,922	51.0
25–26	0.001770	98,239	174	98,152	4,920,601	50.1
26–27	0.001894	98,066	186	97,973	4,822,449	49.2
27–28	0.002025	97,880	198	97,781	4,724,476	48.3
28–29	0.002163	97,682	211	97,576	4,626,696	47.4
29–30	0.002305	97,470	225	97,358	4,529,120	46.5
30–31	0.002447	97,246	238	97,127	4,431,762	45.6
31–32	0.002584	97,008	251	96,882	4,334,635	44.7
32–33	0.002708	96,757	262	96,626	4,237,753	43.8
33–34	0.002818	96,495	272	96,359	4,141,126	42.9
34–35	0.002921	96,223	281	96,083	4,044,767	42.0
35–36	0.003027	95,942	290	95,797	3,948,685	41.2
36–37	0.003140	95,652	300	95,501	3,852,888	40.3
37–38	0.003259	95,351	311	95,196	3,757,386	39.4
38–39	0.003385	95,041	322	94,880	3,662,190	38.5
39–40	0.003522	94,719	334	94,552	3,567,311	37.7
40–41	0.003683	94,385	348	94,211	3,472,759	36.8
41–42	0.003861	94,038	363	93,856	3,378,547	35.9
42–43	0.004042	93,675	379	93,485	3,284,691	35.1
43–44	0.004221	93,296	394	93,099	3,191,206	34.2
44–45	0.004414	92,902	410	92,697	3,098,107	33.3
45–46	0.004647	92,492	430	92,277	3,005,410	32.5
46–47	0.004936	92,062	454	91,835	2,913,133	31.6
47–48	0.005276	91,608	483	91,366	2,821,298	30.8
48–49	0.005654	91,124	515	90,867	2,729,931	30.0
49–50	0.006057	90,609	549	90,335	2,639,065	29.1
50–51	0.006467	90,060	582	89,769	2,548,730	28.3
51–52	0.006912	89,478	618	89,169	2,458,960	27.5
52–53	0.007429	88,860	660	88,530	2,369,792	26.7
53–54	0.008045	88,199	710	87,845	2,281,262	25.9
54–55	0.008748	87,490	765	87,107	2,193,417	25.1
55–56	0.009472	86,725	821	86,314	2,106,310	24.3
56–57	0.010213	85,903	877	85,464	2,019,996	23.5
57–58	0.011033	85,026	938	84,557	1,934,532	22.8
58–59	0.011935	84,088	1,004	83,586	1,849,975	22.0
59–60	0.012891	83,084	1,071	82,549	1,766,389	21.3

See footnotes at end of table.

Table 17. Life table for White, non-Hispanic males: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table17.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.013890	82,013	1,139	81,444	1,683,840	20.5
61–62	0.014889	80,874	1,204	80,272	1,602,397	19.8
62–63	0.015853	79,670	1,263	79,038	1,522,125	19.1
63–64	0.016788	78,407	1,316	77,749	1,443,087	18.4
64–65	0.017746	77,091	1,368	76,406	1,365,338	17.7
65–66	0.018771	75,722	1,421	75,012	1,288,932	17.0
66–67	0.020074	74,301	1,492	73,555	1,213,920	16.3
67–68	0.021440	72,810	1,561	72,029	1,140,364	15.7
68–69	0.022987	71,249	1,638	70,430	1,068,335	15.0
69–70	0.024626	69,611	1,714	68,754	997,906	14.3
70–71	0.026262	67,896	1,783	67,005	929,152	13.7
71–72	0.028129	66,113	1,860	65,184	862,147	13.0
72–73	0.030344	64,254	1,950	63,279	796,964	12.4
73–74	0.033075	62,304	2,061	61,274	733,685	11.8
74–75	0.035690	60,243	2,150	59,168	672,411	11.2
75–76	0.040445	58,093	2,350	56,918	613,243	10.6
76–77	0.044157	55,744	2,461	54,513	556,325	10.0
77–78	0.049028	53,282	2,612	51,976	501,812	9.4
78–79	0.053414	50,670	2,706	49,317	449,836	8.9
79–80	0.059387	47,963	2,848	46,539	400,520	8.4
80–81	0.064619	45,115	2,915	43,657	353,980	7.8
81–82	0.071103	42,200	3,001	40,699	310,323	7.4
82–83	0.078135	39,199	3,063	37,668	269,624	6.9
83–84	0.086198	36,136	3,115	34,579	231,956	6.4
84–85	0.096029	33,021	3,171	31,436	197,377	6.0
85–86	0.104962	29,850	3,133	28,284	165,941	5.6
86–87	0.117575	26,717	3,141	25,147	137,658	5.2
87–88	0.131350	23,576	3,097	22,028	112,511	4.8
88–89	0.146308	20,479	2,996	18,981	90,483	4.4
89–90	0.162453	17,483	2,840	16,063	71,502	4.1
90–91	0.179764	14,643	2,632	13,327	55,439	3.8
91–92	0.198194	12,011	2,380	10,820	42,113	3.5
92–93	0.217669	9,630	2,096	8,582	31,292	3.2
93–94	0.238086	7,534	1,794	6,637	22,710	3.0
94–95	0.259311	5,740	1,489	4,996	16,073	2.8
95–96	0.281187	4,252	1,196	3,654	11,077	2.6
96–97	0.303534	3,056	928	2,592	7,423	2.4
97–98	0.326154	2,129	694	1,781	4,831	2.3
98–99	0.348840	1,434	500	1,184	3,050	2.1
99–100	0.371383	934	347	761	1,865	2.0
100 and older	1.000000	587	587	1,105	1,105	1.9

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 18. Life table for White, non-Hispanic females: United States, 2021

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table18.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
0–1	0.004060	100,000	406	99,642	7,945,833	79.5
1–2	0.000295	99,594	29	99,579	7,846,191	78.8
2–3	0.000172	99,565	17	99,556	7,746,612	77.8
3–4	0.000117	99,547	12	99,542	7,647,056	76.8
4–5	0.000095	99,536	9	99,531	7,547,514	75.8
5–6	0.000092	99,526	9	99,522	7,447,983	74.8
6–7	0.000084	99,517	8	99,513	7,348,462	73.8
7–8	0.000078	99,509	8	99,505	7,248,949	72.8
8–9	0.000073	99,501	7	99,497	7,149,444	71.9
9–10	0.000069	99,494	7	99,490	7,049,946	70.9
10–11	0.000069	99,487	7	99,483	6,950,456	69.9
11–12	0.000077	99,480	8	99,476	6,850,972	68.9
12–13	0.000096	99,472	10	99,468	6,751,496	67.9
13–14	0.000129	99,463	13	99,456	6,652,029	66.9
14–15	0.000174	99,450	17	99,441	6,552,572	65.9
15–16	0.000224	99,433	22	99,422	6,453,131	64.9
16–17	0.000275	99,410	27	99,397	6,353,709	63.9
17–18	0.000324	99,383	32	99,367	6,254,313	62.9
18–19	0.000370	99,351	37	99,333	6,154,946	62.0
19–20	0.000414	99,314	41	99,294	6,055,613	61.0
20–21	0.000462	99,273	46	99,250	5,956,320	60.0
21–22	0.000514	99,227	51	99,202	5,857,069	59.0
22–23	0.000567	99,176	56	99,148	5,757,868	58.1
23–24	0.000619	99,120	61	99,089	5,658,720	57.1
24–25	0.000672	99,059	67	99,025	5,559,631	56.1
25–26	0.000724	98,992	72	98,956	5,460,605	55.2
26–27	0.000782	98,920	77	98,882	5,361,649	54.2
27–28	0.000850	98,843	84	98,801	5,262,768	53.2
28–29	0.000931	98,759	92	98,713	5,163,967	52.3
29–30	0.001020	98,667	101	98,617	5,065,254	51.3
30–31	0.001111	98,566	110	98,512	4,966,637	50.4
31–32	0.001201	98,457	118	98,398	4,868,125	49.4
32–33	0.001289	98,339	127	98,275	4,769,728	48.5
33–34	0.001376	98,212	135	98,144	4,671,452	47.6
34–35	0.001463	98,077	144	98,005	4,573,308	46.6
35–36	0.001557	97,933	152	97,857	4,475,303	45.7
36–37	0.001657	97,781	162	97,700	4,377,446	44.8
37–38	0.001759	97,619	172	97,533	4,279,746	43.8
38–39	0.001863	97,447	182	97,356	4,182,213	42.9
39–40	0.001971	97,265	192	97,170	4,084,857	42.0
40–41	0.002093	97,074	203	96,972	3,987,688	41.1
41–42	0.002228	96,871	216	96,763	3,890,716	40.2
42–43	0.002366	96,655	229	96,540	3,793,953	39.3
43–44	0.002504	96,426	241	96,305	3,697,413	38.3
44–45	0.002652	96,185	255	96,057	3,601,107	37.4
45–46	0.002827	95,929	271	95,794	3,505,050	36.5
46–47	0.003034	95,658	290	95,513	3,409,256	35.6
47–48	0.003261	95,368	311	95,213	3,313,743	34.7
48–49	0.003495	95,057	332	94,891	3,218,531	33.9
49–50	0.003734	94,725	354	94,548	3,123,640	33.0
50–51	0.003980	94,371	376	94,183	3,029,092	32.1
51–52	0.004251	93,996	400	93,796	2,934,908	31.2
52–53	0.004565	93,596	427	93,382	2,841,113	30.4
53–54	0.004934	93,169	460	92,939	2,747,730	29.5
54–55	0.005352	92,709	496	92,461	2,654,791	28.6
55–56	0.005779	92,213	533	91,946	2,562,331	27.8
56–57	0.006220	91,680	570	91,395	2,470,384	26.9
57–58	0.006721	91,110	612	90,803	2,378,989	26.1
58–59	0.007291	90,497	660	90,167	2,288,186	25.3
59–60	0.007906	89,837	710	89,482	2,198,019	24.5

See footnotes at end of table.

Table 18. Life table for White, non-Hispanic females: United States, 2021—Con.

Spreadsheet version available from: https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/NVSR/72-12/Table18.xlsx.

Age (years)	Probability of dying between ages x and $x+1$	Number surviving to age x	Number dying between ages x and $x+1$	Person-years lived between ages x and $x+1$	Total number of person-years lived above age x	Expectation of life at age x
	q_x	l_x	d_x	L_x	T_x	e_x
60–61	0.008568	89,127	764	88,745	2,108,536	23.7
61–62	0.009233	88,364	816	87,956	2,019,791	22.9
62–63	0.009861	87,548	863	87,116	1,931,835	22.1
63–64	0.010445	86,684	905	86,232	1,844,719	21.3
64–65	0.011033	85,779	946	85,306	1,758,488	20.5
65–66	0.011654	84,833	989	84,338	1,673,182	19.7
66–67	0.012446	83,844	1,043	83,322	1,588,844	19.0
67–68	0.013373	82,800	1,107	82,247	1,505,522	18.2
68–69	0.014496	81,693	1,184	81,101	1,423,275	17.4
69–70	0.015818	80,509	1,273	79,872	1,342,174	16.7
70–71	0.017156	79,235	1,359	78,556	1,262,302	15.9
71–72	0.018683	77,876	1,455	77,149	1,183,747	15.2
72–73	0.020390	76,421	1,558	75,642	1,106,598	14.5
73–74	0.022486	74,863	1,683	74,021	1,030,956	13.8
74–75	0.024578	73,179	1,799	72,280	956,935	13.1
75–76	0.028072	71,381	2,004	70,379	884,655	12.4
76–77	0.031177	69,377	2,163	68,296	814,276	11.7
77–78	0.034821	67,214	2,340	66,044	745,980	11.1
78–79	0.038238	64,874	2,481	63,633	679,937	10.5
79–80	0.042388	62,393	2,645	61,071	616,303	9.9
80–81	0.046834	59,748	2,798	58,349	555,233	9.3
81–82	0.051479	56,950	2,932	55,484	496,884	8.7
82–83	0.057258	54,018	3,093	52,472	441,399	8.2
83–84	0.063707	50,925	3,244	49,303	388,928	7.6
84–85	0.071541	47,681	3,411	45,975	339,625	7.1
85–86	0.080280	44,270	3,554	42,493	293,649	6.6
86–87	0.088925	40,716	3,621	38,906	251,156	6.2
87–88	0.100054	37,095	3,712	35,239	212,251	5.7
88–89	0.112305	33,384	3,749	31,509	177,011	5.3
89–90	0.125724	29,635	3,726	27,772	145,502	4.9
90–91	0.140340	25,909	3,636	24,091	117,731	4.5
91–92	0.156164	22,273	3,478	20,534	93,640	4.2
92–93	0.173186	18,795	3,255	17,167	73,106	3.9
93–94	0.191367	15,540	2,974	14,053	55,939	3.6
94–95	0.210642	12,566	2,647	11,242	41,886	3.3
95–96	0.230916	9,919	2,290	8,774	30,644	3.1
96–97	0.252063	7,628	1,923	6,667	21,870	2.9
97–98	0.273928	5,706	1,563	4,924	15,203	2.7
98–99	0.296335	4,143	1,228	3,529	10,279	2.5
99–100	0.319085	2,915	930	2,450	6,750	2.3
100 and older	1.000000	1,985	1,985	4,300	4,300	2.2

NOTE: This life table is based on death rates that have been adjusted for Hispanic-origin and race misclassification on death certificates; see Technical Notes in this report.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Table 19. Estimated life expectancy at birth, in years, by Hispanic origin and race and sex: Death-registration states, 1900–1928, and United States, 1929–2021

[For selected years, life table values shown are estimates; see Technical Notes in this report. Beginning in 1970, excludes death of nonresidents of the United States; see Technical Notes]

Area and year	All races and origins			Hispanic[1]			Non-Hispanic											
							American Indian and Alaska Native[1]			Asian[1]			Black[1,2]			White[1]		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
United States[3]									Single race[4]									
2021[5]	76.4	73.5	79.3	77.8	74.6	81.1	65.6	62.2	69.2	83.5	81.2	85.6	71.2	67.6	75.0	76.7	74.0	79.5
2020[5]	77.0	74.2	79.9	77.9	74.6	81.3	67.1	63.8	70.7	83.6	81.1	85.9	71.5	67.8	75.4	77.4	74.8	80.1
2019[5]	78.8	76.3	81.4	81.9	79.1	84.4	71.8	68.6	75.0	85.6	83.5	87.4	74.8	71.3	78.1	78.8	76.3	81.3
2018[5]	78.7	76.2	81.2	81.8	79.1	84.3	---	---	---	---	---	---	74.7	71.3	78.0	78.6	76.2	81.1
									Bridged race[4]									
2020[5]	…	…	…	…	…	…	---	---	---	---	---	---	71.9	68.1	75.6	77.5	74.9	80.2
2019[5]	…	…	…	…	…	…	---	---	---	---	---	---	75.0	71.6	78.2	78.8	76.4	81.3
2018[5]	…	…	…	…	…	…	---	---	---	---	---	---	74.9	71.5	78.1	78.7	76.2	81.1
2017[5]	78.6	76.1	81.1	81.8	79.1	84.3	---	---	---	---	---	---	74.9	71.5	78.1	78.5	76.1	81.0
2016[5]	78.7	76.2	81.1	81.8	79.1	84.3	---	---	---	---	---	---	74.9	71.6	78.0	78.6	76.2	81.0
2015[5]	78.7	76.3	81.1	81.9	79.3	84.3	---	---	---	---	---	---	75.1	71.9	78.1	78.7	76.3	81.0
2014[5]	78.9	76.5	81.3	82.1	79.4	84.5	---	---	---	---	---	---	75.3	72.2	78.2	78.8	76.5	81.2
2013[5]	78.8	76.4	81.2	81.9	79.2	84.2	---	---	---	---	---	---	75.1	71.9	78.1	78.8	76.5	81.2
2012[5]	78.8	76.4	81.2	81.9	79.3	84.3	---	---	---	---	---	---	75.1	71.9	78.1	78.9	76.5	81.2
2011[5]	78.7	76.3	81.1	81.8	79.2	84.2	---	---	---	---	---	---	75.0	71.8	77.8	78.7	76.4	81.1
2010[5]	78.7	76.2	81.0	81.7	78.8	84.3	---	---	---	---	---	---	74.7	71.5	77.7	78.8	76.4	81.1
2009[5,6]	78.5	76.0	80.9	81.1	78.4	83.5	---	---	---	---	---	---	74.4	71.0	77.4	78.7	76.3	81.0
2008[5,6]	78.2	75.6	80.6	80.8	78.0	83.3	---	---	---	---	---	---	73.9	70.5	77.0	78.4	76.0	80.7
2007[5,6]	78.1	75.5	80.6	80.7	77.8	83.2	---	---	---	---	---	---	73.5	69.9	76.7	78.4	75.9	80.8
2006[5,6]	77.8	75.2	80.3	80.3	77.5	82.9	---	---	---	---	---	---	73.1	69.5	76.4	78.2	75.7	80.6
2005[5,6]	77.6	75.0	80.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2004[5,6]	77.6	75.0	80.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2003[5,6]	77.2	74.5	79.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2002[5,6]	77.0	74.4	79.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2001[5,6]	77.0	74.3	79.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2000	76.8	74.1	79.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1999	76.7	73.9	79.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1998	76.7	73.8	79.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1997	76.5	73.6	79.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1996	76.1	73.1	79.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1995	75.8	72.5	78.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1994	75.7	72.4	79.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1993	75.5	72.2	78.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1992	75.8	72.3	79.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1991	75.5	72.0	78.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1990	75.4	71.8	78.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1989	75.1	71.7	78.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1988	74.9	71.4	78.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1987	74.9	71.4	78.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1986	74.7	71.2	78.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1985	74.7	71.1	78.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1984	74.7	71.1	78.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1983	74.6	71.0	78.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1982	74.5	70.8	78.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1981	74.1	70.4	77.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1980	73.7	70.0	77.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1979	73.9	70.0	77.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1978	73.5	69.6	77.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1977	73.3	69.5	77.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1976	72.9	69.1	76.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1975	72.6	68.8	76.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1974	72.0	68.2	75.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1973	71.4	67.6	75.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1972[7]	71.2	67.4	75.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1971	71.1	67.4	75.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

See footnotes at end of table.

Table 19. Estimated life expectancy at birth, in years, by Hispanic origin and race and sex: Death-registration states, 1900–1928, and United States, 1929–2021—Con.

[For selected years, life table values shown are estimates; see Technical Notes in this report. Beginning in 1970, excludes death of nonresidents of the United States; see Technical Notes]

Area and year	All races and origins			Hispanic[1]			Non-Hispanic											
							American Indian and Alaska Native[1]			Asian[1]			Black[1,2]			White[1]		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
United States[3]—Con.							Bridged race[4]—Con.											
1970	70.8	67.1	74.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1969	70.5	66.8	74.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1968	70.2	66.6	74.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1967	70.5	67.0	74.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1966	70.2	66.7	73.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1965	70.2	66.8	73.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1964	70.2	66.8	73.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1963[8]	69.9	66.6	73.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1962[8]	70.1	66.9	73.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1961	70.2	67.1	73.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1960	69.7	66.6	73.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1959	69.9	66.8	73.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1958	69.6	66.6	72.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1957	69.5	66.4	72.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1956	69.7	66.7	72.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1955	69.6	66.7	72.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1954	69.6	66.7	72.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1953	68.8	66.0	72.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1952	68.6	65.8	71.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1951	68.4	65.6	71.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1950	68.2	65.6	71.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1949	68.0	65.2	70.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1948	67.2	64.6	69.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1947	66.8	64.4	69.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1946	66.7	64.4	69.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1945	65.9	63.6	67.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1944	65.2	63.6	66.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1943	63.3	62.4	64.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1942	66.2	64.7	67.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1941	64.8	63.1	66.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1940	62.9	60.8	65.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1939	63.7	62.1	65.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1938	63.5	61.9	65.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1937	60.0	58.0	62.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1936	58.5	56.6	60.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1935	61.7	59.9	63.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1934	61.1	59.3	63.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1933	63.3	61.7	65.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1932	62.1	61.0	63.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1931	61.1	59.4	63.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1930	59.7	58.1	61.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1929	57.1	55.8	58.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Death-registration states																		
1928	56.8	55.6	58.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1927	60.4	59.0	62.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1926	56.7	55.5	58.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1925	59.0	57.6	60.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1924	59.7	58.1	61.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1923	57.2	56.1	58.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1922	59.6	58.4	61.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1921	60.8	60.0	61.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1920	54.1	53.6	54.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1919	54.7	53.5	56.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1918	39.1	36.6	42.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

See footnotes at end of table.

Table 19. Estimated life expectancy at birth, in years, by Hispanic origin and race and sex: Death-registration states, 1900–1928, and United States, 1929–2021—Con.

[For selected years, life table values shown are estimates; see Technical Notes in this report. Beginning in 1970, excludes death of nonresidents of the United States; see Technical Notes]

Area and year	All races and origins			Hispanic[1]			Non-Hispanic											
							American Indian and Alaska Native[1]			Asian[1]			Black[1,2]			White[1]		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Death-registration states—Con.							Bridged race[4]—Con.											
1917	50.9	48.4	54.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1916	51.7	49.6	54.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1915	54.5	52.5	56.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1914	54.2	52.0	56.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1913	52.5	50.3	55.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1912	53.5	51.5	55.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1911	52.6	50.9	54.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1910	50.0	48.4	51.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1909	52.1	50.5	53.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1908	51.1	49.5	52.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1907	47.6	45.6	49.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1906	48.7	46.9	50.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1905	48.7	47.3	50.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1904	47.6	46.2	49.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1903	50.5	49.1	52.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1902	51.5	49.8	53.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1901	49.1	47.6	50.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1900	47.3	46.3	48.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

--- Data not available.
… Category not applicable.
[1]Life tables are based on death rates that have been adjusted for race and Hispanic-origin misclassification on death certificates; see Technical Notes.
[2]Before 1970, data for the Black population are not available. Data shown for 1900–1969 are for the non-White population. See Technical Notes.
[3]Includes Alaska in 1959 and Hawaii in 1960.
[4]Life expectancies by single-race categories are not completely comparable with life expectancies by bridged-race categories and should be interpreted accounting for the change from bridged- to single-race categories.
[5]Life expectancies for 2001–2021 were calculated using a revised methodology described in Technical Notes.
[6]Life expectancies for 2001–2009 have been re-estimated using new intercensal population estimates and may differ from data previously published; see Technical Notes.
[7]Deaths based on a 50% sample.
[8]Figures by race exclude data for residents of New Jersey; see Technical Notes.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Technical Notes

The life table program

The National Center for Health Statistics prepares complete period life tables for the U.S. population annually. Annual final life tables are based on a complete count of all reported deaths and postcensal population estimates. Beginning with the first decennial census (1900) to the 2010 census, decennial life tables were produced for every decade. These were complete period life tables based on decennial census data and final deaths for a 3-year period around the census year. From 1900 through 1945, the decennial series was the only set of official life tables produced. This series also included state-level complete life tables for the decennial periods 1939–1941 to 1999–2001. The decennial life tables series was discontinued due to the development of new methodologies that improved estimation of mortality at the older ages in the annual life tables series and the addition of an annual series of complete state-level life tables (16). The annual complete state-level life tables series was begun with data year 2018 (17).

Available since 1945, the annual life tables are based on deaths occurring during the calendar year and on midyear postcensal population estimates provided by the U.S. Census Bureau. From 1945 to 1996, the annual life tables were abridged life tables, closed at age 85 and older, and were constructed by reference to a standard table (4). Beginning with 1997 mortality data, the annual abridged life tables were replaced with complete life tables expanded to age 100 and older based on a methodology similar to that of the 1989–1991 decennial life tables. The methodology was revised for data years 2000–2007 using a methodology similar to that of the 1999–2001 decennial life tables (18). Beginning with data year 2008, the life table methodology was revised with a new smoothing technique applied to death rates in the oldest ages (19).

The methodology used to estimate the 2008–2021 life tables is different from that used to estimate the 2000–2007 life tables with respect to the technique used to estimate the probabilities of death for ages older than 65. The methodology used to produce the life tables for 2008–2021 does not model the probabilities of death beginning at age 66, as was done for data years 2000–2007, but rather at ages above 85 or so (the exact ages at which smoothing techniques are used depends on the specific racial and ethnic population). Research into the methodology developed and used for the 1999–2001 decennial life tables and applied to the annual life tables has revealed that it is not necessary to model (or smooth) the probabilities of death beginning at age 66. The observed blended vital statistics and Medicare data for ages 66–85 are robust enough and do not require additional smoothing (18). A full description of the methodology used to estimate the 2021 life tables is provided below. See "United States Life Tables, 2005" (18) for a detailed description of the methodology used for data years 2000–2007.

Beginning with 2006 mortality data, life tables by Hispanic origin and race, including Hispanic (irrespective of race), Black non-Hispanic, and White non-Hispanic, were added to the annual life table program. Before this time, concerns over data limitations such as racial and ethnic misclassification on U.S. death certificates, and lack of Medicare data for older populations other than the White and Black populations (regardless of Hispanic origin), prevented the estimation of life tables for the Hispanic-origin population. Research that identified and quantified these data limitations resulted in reliable methodological strategies to address these data problems (8–10,19). Beginning with 2019 mortality data, the annual life table program was expanded to include the American Indian and Alaska Native non-Hispanic and Asian non-Hispanic populations.

Revised intercensal life table values

Life table values for 1960–1969, 1970–1979, and 1980–1989 were constructed using the U.S. decennial life tables for 1959–1961, 1969–1971, and 1979–1981, respectively, as the standard tables. The life table values for years before 1989 appearing in this report are based on revised intercensal estimates of the populations for those years. As a result, the life table values for these years may differ from the life table values for those years published in Vital Statistics of the United States for 1989 and earlier years (https://www.cdc.gov/nchs/products/vsus.htm).

Life table values for 1991–1999 presented in this report are based on postcensal population estimates enumerated in the 1990 decennial census. Life table values for 2001–2009 presented in this report are based on revised intercensal population estimates based on the 2010 decennial census and the revised methodology used to estimate the 2008–2021 life tables. As a result, the values may differ from those previously published in annual final mortality and life table reports. The revised intercensal life tables for 2001–2009 can be accessed by links provided under each of the annual life table reports at: https://www.cdc.gov/nchs/products/life_tables.htm.

Geographic coverage

The geographic areas covered in life tables before 1929–1931 were limited to death-registration areas. Life tables for 1900–1902 and 1909–1911 were constructed using mortality data from the 1900 death-registration states (10 states and the District of Columbia), and tables for 1919–1921 used mortality data from the 1920 death-registration states (34 states and the District of Columbia). The tables for 1929–1931 through 1958 cover the coterminous United States. Decennial life table values for the 3-year period 1959–1961 were calculated from data that include both Alaska and Hawaii for each year. Data for each year shown in Table 19 include Alaska beginning in 1959 and Hawaii beginning in 1960. However, the inclusion of these two states does not materially affect life table values.

New Jersey data, 1962–1964

The life tables for 1962 and 1963 for the six population groups involving race (White and Black, regardless of Hispanic origin) do not include data from New Jersey, which omitted the item on race from its certificates of live birth, death, and fetal death in use at the beginning of 1962. The item was restored during the latter part of 1962. However, the certificate revision

without this item was used for most of 1962, as well as for 1963. For computing vital rates, populations by age, race, and sex (excluding New Jersey) were estimated to obtain comparable denominators. About 7% of the New Jersey death records for 1964 did not contain the race designation. When the records were being electronically processed for this state, the "race not stated" deaths were allocated proportionally to either White or Black (regardless of Hispanic origin).

Nonresidents

Beginning in 1970, the deaths of nonresidents of the United States have been excluded from the life table statistics.

Data for calculating life table functions

The data used to prepare the U.S. life tables include final death counts from the National Vital Statistics System, population estimates from the U.S. Census Bureau, and death and population counts for Medicare beneficiaries ages 66–99 from the Centers for Medicare & Medicaid Services.

Vital statistics data

Death counts used for computing the life tables presented in this report are final numbers of deaths for 2021 collected from death certificates filed in state vital statistics offices and reported to the National Center for Health Statistics as part of the National Vital Statistics System. Hispanic origin and race are reported separately on the death certificate.

Beginning with the 2018 data year, all 50 states and the District of Columbia reported deaths based on the 2003 revision of the U.S. Standard Certificate of Death for the entire year (20). The revision is based on the 1997 Office of Management and Budget standards (5). The 1997 standards allow people to report more than one race and increased the race choices from four to five by separating the Asian and Pacific Islander groups. The Hispanic category did not change, remaining consistent with previous reports.

The Hispanic-origin and race groups in this report follow the 1997 standards and differ from the race categories used in previous reports. The new categories are Hispanic, American Indian and Alaska Native non-Hispanic single race, Asian non-Hispanic single race, Black non-Hispanic single race, and White non-Hispanic single race. From 2003 through 2017, some deaths were reported using the 1989 certificate revision that allowed the reporting of only one race (6). During those years, multiple-race data were bridged to single-race categories. Use of the bridged-race process was discontinued in 2018 when all states collected data on race according to 1997 Office of Management and Budget guidelines for the full data year. The Hispanic-origin category was not affected by the revised standards.

Census population data

The population data used to estimate the life tables shown in this report are postcensal population estimates based on the Blended Base created by the U.S. Census Bureau to produce post-2020 census population estimates. The Blended Base consists of the blend of Vintage 2020 postcensal population estimates, based on the April 1, 2010, decennial census; 2020 Demographic Analysis Estimates; and the 2020 Census PL 94-171 Redistricting File (see https://www2.census.gov/programs-surveys/popest/technical-documentation/methodology/2020-2021/methods-statement-v2021.pdf).

To produce death rates for 2000–2017, the reported population data for multiple-race people had to be bridged back to single-race categories. Additionally, the 2010 census counts were modified for consistency with the 1977 Office of Management and Budget race categories, that is, to report the data for Asian people and Native Hawaiian or Other Pacific Islander people as a combined category (Asian or Pacific Islander) and to reflect age as of the census reference date (6). The procedures used to produce the bridged-race populations are described elsewhere (21).

Medicare data

Medicare data are considered more accurate than vital statistics and census data at the oldest ages because Medicare enrollees must have proof of age to enroll (22,23). However, the reliability of Medicare data beyond age 100 declines because of the small percentage of people who enrolled in the early years of the Medicare program and for whom it was not possible to verify exact age (22,23). Further, the Medicare race and ethnicity classification system makes it impossible to correctly identify the Hispanic (irrespective of race), American Indian and Alaska Native, Asian, or Native Hawaiian and Other Pacific Islander populations (regardless of Hispanic origin) (23). It is, however, possible to use Medicare data to estimate old-age mortality for both the White and Black race groups, regardless of Hispanic origin, as has been done traditionally, and to estimate old-age mortality for the non-Hispanic segments of these populations (16). As a result, data from the Medicare program are used to supplement vital statistics and census data for ages 66–99 for the total population and the Black non-Hispanic and White non-Hispanic populations presented here (16).

To estimate death rates for the Medicare total, Black non-Hispanic, and White non-Hispanic populations in 2021, age-specific numbers of deaths and population counts by sex and race for the population ages 66–99 from the 2021 Medicare file were used. The Centers for Medicare & Medicaid Services creates this data file for the Social Security Administration, which shares the data with the National Center for Health Statistics under a special agreement. The 2021 file contains 2021 midyear Medicare population counts (June 30, 2021) and calendar-year Medicare death counts (January 1 through December 31, 2021). Age for both deaths and midyear population counts is calculated as age at last birthday.

Preliminary adjustment of the data

Adjustments for unknown age

An adjustment is made to account for the small proportion of deaths each year for which age is not reported on the death certificate. The number of deaths in each age category is adjusted proportionally to account for those with not-stated

ages. The following factor (F) is used to make the adjustment. F is calculated for the total and for each sex group within a racial and ethnic population for which life tables are constructed:

$$F = \frac{D}{D^a} \quad [1]$$

where D is the total number of deaths and D^a is the total number of deaths for which age is stated. F is then applied by multiplying it by the number of deaths in each age group. Table I shows values for F by sex used to adjust mortality data for the total, Hispanic, American Indian and Alaska Native non-Hispanic, Asian non-Hispanic, Black non-Hispanic, and White non-Hispanic populations in 2021.

Adjustment for misclassification of Hispanic origin and race on death certificates

Two data sources were used to adjust for Hispanic origin and race misclassification on death certificates. For the Hispanic, Asian non-Hispanic, Black non-Hispanic, and White non-Hispanic populations, the National Longitudinal Mortality Study was used to produce classification ratios (or correction factors) to adjust observed sex and age-specific death rates for misclassification on death certificates (8). The National Longitudinal Mortality Study consists of a series of Current Population Surveys (1979–2011) linked to vital statistics mortality data through the National Death Index (8). For the American Indian and Alaska Native non-Hispanic population, an extract of the 2010 Census Edited File–Census Unedited File Match File containing records for people classified by race as American Indian and Alaska Native alone or in combination with another race in the 2010 decennial census was linked to the National Death Index to identify decedents for the period April 1, 2010, to December 31, 2011. The resulting 34,366 Census Edited File–Census Unedited File Match American Indian and Alaska Native Extract—Mortality Linked Data decedent records were used to estimate classification ratios to correct for race and Hispanic-origin misclassification on death certificates for the American Indian and Alaska Native non-Hispanic population (10).

Table I. Values for *F* used to adjust for not-stated age based on 2021 mortality data

Hispanic origin and race and sex	Total deaths	Total deaths for which age was not stated	*F*
Total	3,464,231	93	1.00002685
Male	1,838,108	70	1.00003808
Female	1,626,123	23	1.00001414
Hispanic	315,664	4	1.00001267
Male	181,195	4	1.00002208
Female	134,469	–	1.00000000
Non-Hispanic:			
American Indian and Alaska Native	26,972	1	1.00003708
Male	14,724	1	1.00006792
Female	12,248	–	1.00000000
Asian	92,432	1	1.00001082
Male	48,386	1	1.00002067
Female	44,046	–	1.00000000
Black	449,764	9	1.00002001
Male	238,599	6	1.00002515
Female	211,165	3	1.00001421
White	2,548,809	36	1.00001412
Male	1,337,385	26	1.00001944
Female	1,211,424	10	1.00000825

– Quantity zero.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

The classification ratios consist of a comparison of self-reported Hispanic origin and race on Current Population Surveys or the decennial census, with Hispanic origin and race reported on the death certificates of the samples of decedents in the National Longitudinal Mortality Study who died during 1999–2011 and decedents in the Census Edited File–Census Unedited File Match American Indian and Alaska Native Extract who died between April 1, 2010, and December 31, 2011 (8,10). Linked records are used to estimate sex-age-specific ratios of survey or census Hispanic-origin and race counts to death certificate counts (8,10).

The survey or census death certificate ratio, or "classification ratio," is the ratio of the count (weighted in the case of Current Population Surveys) of self-reported race and ethnicity on the survey or census to the count (weighted in the case of Current Population Surveys) of the same racial or ethnic category on the death certificates of the sample of the National Longitudinal Mortality Study (Census Edited File–Census Unedited File Match American Indian and Alaska Native Extract) decedents described previously. It can be interpreted as the net difference in assignment of a specific Hispanic-origin and race category between the two classification systems and can be used as a correction factor for Hispanic-origin and race misclassification (8,10). It is assumed that the race and ethnicity reported by a survey or census respondent is more reliable than proxy reporting of race and ethnicity by a funeral director who has little personal knowledge of the decedent. Also, the 1997 Office of Management and Budget standards mandate that self-identification should be the standard used for the collection and recording of race and ethnicity information (5).

Classification ratios discussed previously are used to adjust the age-specific number of deaths for ages 1–95 and older for the total Hispanic, American Indian and Alaska Native non-Hispanic, Asian non-Hispanic, Black non-Hispanic, and White non-Hispanic populations, and by sex for each group, as follows:

$$_nD_x = {}_nD_x^F \bullet {}_nCR_x \quad [2]$$

where ${}_nD_x^F$ is the age-specific number of deaths adjusted for unknown age as described previously, ${}_nCR_x$ are the sex- and age-specific classification ratios used to correct for the misclassification of Hispanic origin and race on death certificates, and ${}_nD_x$ are the final age-specific counts of death adjusted for age and Hispanic-origin and race misclassification. Table II shows values of the sex- and age-specific classification ratios, ${}_nCR_x$, by Hispanic origin and race.

Because classification ratios for infant deaths are unreliable due to small sample sizes or counts, corrections for racial and ethnic misclassification of infant deaths are addressed by using

infant death counts and live birth counts from the 2020 and 2021 linked birth/infant death data files rather than the traditional birth and death data files (24,25). In the linked file, each infant death record is linked to its corresponding birth record so that the race and ethnicity of the mother reported on the birth record can be ascribed to the infant death record. As a result, race- and ethnicity-specific infant mortality rates estimated with the linked file do not have racial and ethnic discrepancies between the numerator and denominator of the rate. A ratio of infant mortality rates based on the traditional birth and death data files to infant mortality rates based on the linked birth/infant death data file shows that using the traditional files overestimates the infant mortality rate by 5.0% for Hispanic infants and 4.0% for Black non-Hispanic infants and underestimates the infant mortality rate by 20.3% for Asian non-Hispanic infants and 3.7% for White non-Hispanic infants (see ratios for age 0 in Table II). Because the probability of death at age 0 used to calculate the life table uses live births in the denominator (procedure described in the following section, "Calculation of q_x at age 0"), it is preferable to use the linked birth/infant death data file.

Interpolation of P_x and D_x

Anomalies—both random and those associated with reporting age at death—can be problematic when using vital statistics and census data by single years of age to estimate the probability of death (1,3). Graduation techniques are often used to eliminate these anomalies and to derive a smooth curve by age. Beers' ordinary minimized fifth difference formula is used to obtain smoothed values of population counts (P_x) and death counts (D_x) from 5-year age groupings of ${}_nP_x$ from age 0 to 99 and ${}_nD_x$ from age 5 to 99, and where ${}_nD_x$ has first been adjusted for not-reported age and Hispanic-origin and race misclassification on the death certificate (see reference 26 for details on the application of Beers' method).

Calculation of the probability of dying (q_x)

The first step in calculating a complete period life table is the estimation of the age-specific probability of dying, q_x, which is derived from the age-specific death rate, m_x (3,16). In the life table cohort,

$$m_x = \frac{d_x}{L_x}$$

where d_x is the number of deaths occurring between ages x and $x+1$, and L_x is the number of person-years lived by the life table cohort between ages x and $x+1$. The conversion of the age-specific death rate, m_x, to the age-specific probability of death, q_x, is as follows:

$$q_x = \frac{m_x}{1+(1-a_x)m_x} \qquad [3]$$

where a_x is the fraction of the number of person-years lived in the age interval by members of the life table cohort who died in the interval. When the age interval is 1 year, except at infancy, $a_x = 1/2$; in other words, deaths occur on average midway through the age interval. As a result,

$$q_x = \frac{m_x}{1+\frac{1}{2}m_x} \qquad [4]$$

Table II. Classification ratios, by Hispanic origin and race, age, and sex

				Non-Hispanic											
	Hispanic[1]			American Indian and Alaska Native[1]			Asian[1,2]			Black[1]			White[1]		
Age (years)	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
All ages	1.0329	1.0362	1.0294	1.3354	1.3488	1.3197	1.0331	1.0480	1.0117	1.0047	1.0041	1.0053	0.9995	0.9993	0.9997
0[3]	1.0501	1.0509	1.0447	1.0000	1.0396	0.9475	0.7967	0.7960	0.7988	1.0398	1.0390	1.0421	0.9633	0.9571	0.9679
1–14	0.9905	0.9659	*1.0299	1.1243	1.1546	1.0833	*0.8655	*0.8426	*1.0000	1.0266	0.9379	*1.1751	0.9918	1.0755	0.8770
15–24	0.9668	0.9325	1.0604	1.1462	1.1201	1.2190	1.2285	*1.4276	*0.9721	1.0248	1.0215	1.0343	0.9976	1.0019	0.9869
25–34	1.0354	1.0401	1.0232	1.1375	1.1557	1.1033	1.1527	1.0967	*1.2648	0.9855	0.9770	1.0008	1.0021	1.0034	0.9994
35–44	1.0434	1.0645	1.0066	1.1799	1.1815	1.1772	1.0338	1.0459	1.0125	1.0062	1.0073	1.0048	0.9980	0.9997	0.9951
45–54	1.0584	1.0372	1.0953	1.3915	1.3913	1.3916	1.0699	1.1123	1.0113	1.0002	1.0019	0.9982	0.9969	0.9965	0.9976
55–64	1.0571	1.0517	1.0659	1.4281	1.4547	1.3917	1.0274	1.0694	0.9784	1.0003	0.9965	1.0046	0.9994	0.9992	0.9997
65–74	1.0295	1.0485	1.0072	1.3654	1.4244	1.2980	1.0845	1.0841	1.0850	1.0062	1.0055	1.0070	0.9967	0.9967	0.9966
75–84	1.0192	1.0188	1.0196	1.3099	1.3367	1.2852	1.0305	1.0328	1.0281	1.0057	1.0057	1.0058	1.0004	1.0003	1.0004
85–94	1.0208	1.0313	1.0137	1.3845	1.3807	1.3870	0.9962	0.9983	0.9944	1.0110	1.0155	1.0086	1.0008	1.0007	1.0009
95 and over	1.0732	1.0509	1.0842	1.3951	1.3043	1.4240	0.9755	1.0238	0.9405	0.9980	0.9872	0.9954	1.0005	0.9995	1.0008

* Ratio is unreliable because either the unweighted number of Current Population Survey deaths, the unweighted number of death certificate deaths, or both are based on fewer than 20 deaths.
[1]Classification ratios for the Hispanic, Asian non-Hispanic, Black non-Hispanic, and White non-Hispanic populations are based on the National Longitudinal Mortality Study data (see https://www.cdc.gov/nchs/data/series/sr_02/sr02_172.pdf). Classification ratios for the American Indian and Alaska Native non-Hispanic population are based on the census American Indian and Alaska Native-Extract Mortality Linked Data (see https://www.cdc.gov/nchs/data/nvsr/nvsr70/NVSR70-12.pdf).
[2]Classification ratios for the Asian non-Hispanic population were estimated based on data for the Asian non-Hispanic and Pacific Islander non-Hispanic populations combined due to data availability. However, the ratios reflect misclassification predominantly among the Asian non-Hispanic population because it makes up more than 95% of the Asian non-Hispanic and Pacific Islander non-Hispanic populations combined.
[3]Ratios for age 0 are estimated as the ratio of infant mortality rates based on the traditional death and birth files to the infant mortality rates based on the 2021 linked birth/infant death data file. They are only shown for illustrative purposes; see report text for details.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Because the complete period life table is based on the age-specific death rates of a current population observed for a specific calendar year, the life table death rate is equivalent to the observed death rates of the current population:

$$m_x = \frac{d_x}{L_x} = M_x = \frac{D_x}{P_x}$$

where D_x is the Beers' smoothed number of deaths adjusted for not-stated age and Hispanic-origin and race misclassification on the death certificate (for the Hispanic, American Indian and Alaska Native non-Hispanic, Asian non-Hispanic, Black non-Hispanic, and White non-Hispanic populations), and P_x is the Beers' smoothed population at risk of dying between ages x and $x + 1$. Then,

$$q_x = \frac{M_x}{1+\frac{1}{2}M_x} = \frac{D_x}{P_x+\frac{1}{2}D_x} \quad [5]$$

This procedure is used to estimate vital statistics age-specific probabilities of death for ages 1–99.

Calculation of q_x at age 0

The higher mortality observed in infancy is associated with a high concentration of deaths occurring at the beginning of the age interval rather than in the middle. As a result, it is best to assign deaths to the appropriate birth cohorts whenever possible. Consequently, the probability of death at birth, q_0, is calculated using a birth cohort method that uses a separation factor (f) defined as the proportion of infant deaths in year t occurring to infants born in the previous year ($t - 1$). The value f is estimated by categorizing infant deaths by date of birth. The probability of death is then calculated as:

$$q_0 = \frac{D_0(1-f)}{B^t} + \frac{D_0(f)}{B^{t-1}} \quad [6]$$

where D_0 is the number of infant deaths adjusted for not-stated age in 2021, B^t is the number of live births in 2021, and B^{t-1} is the number of live births in 2020. Table III shows separation factors and numbers of births for 2020 and 2021.

Probabilities of dying at the oldest ages for the total, Black non-Hispanic, and White non-Hispanic populations

Medicare data are used to supplement vital statistics data for the estimation of q_x at the oldest ages. These data are more accurate because proof of age is required for enrollment in the Medicare program. Medicare data are used here to estimate the probability of dying for ages 66 and older for the total, Black non-Hispanic, and White non-Hispanic populations.

The method to estimate this probability is as follows: First, vital statistics and Medicare death rates are blended for the age range 66–99. Second, a logistic model is used to smooth the blended death rates in the 85–99 age range and predict death rates for ages 100–120. Third, final resulting death rates, M_x, are converted to q_x.

For ages 66–94, vital statistics death rates, M_x^V, and Medicare death rates, M_x^M, are blended with a weighting process that gives gradually declining weight to vital statistics data and gradually increasing weight to Medicare data. For ages 95–99, M_x^M is used exclusively. The blended M_x is obtained as follows:

$$M_x = \frac{1}{30}[(95-x)M_x^V + (x-65)M_x^M] \quad [7]$$

when $x = 66,\ldots,94$ and

$$\text{and } M_x = M_x^M$$

when $x = 95,\ldots,99$. M_x^M is estimated as:

$$M_x^M = \frac{D_x^M}{P_x^M}$$

where D_x^M is the age-specific Medicare death count, and P_x^M is the age-specific Medicare midyear population count.

A logistic model proposed by Kannisto is then used to smooth M_x in the age range 85–99 and predict M_x in the age range 100–120 (27). The start of the modeled age range varies by race- and ethnicity-specific population because it is a function of the age at which the rate of change in the age-specific death rates peaks. Currently, the rate of change in the age-specific death rate rises steadily up to about ages 80–85 and then begins to decline. As a result, it is difficult to model a large age span, such as 65–100, with one simple model without over smoothing and consequently altering the underlying mortality pattern observed in the population of interest (28). Further, the observed data for the age range 65–85 or so is reliable and robust, as indicated by the very close similarity between vital statistics and Medicare death rates, so it is unnecessary to model (smooth) the entire age span (65–100).

The Kannisto model is a simple form of a logistic model in which the logit of u_x (or the natural log of the odds of u_x) is a linear function of age, x (27). It is expressed as:

$$\ln\left[\frac{u_x}{1-u_x}\right] = \ln(\alpha) + \beta x \quad [8]$$

where u_x, the force of mortality (or the instantaneous death rate), is defined as:

$$u_x = \frac{\alpha e^{\beta x}}{1+\alpha e^{\beta x}}$$

Because u_x is not directly observed but is closely approximated by m_x, and $m_x = M_x$, then the logit of M_x is modeled instead. A maximum-likelihood generalized linear-model estimation procedure is used to fit the following model in the age range 85–99:

$$\ln\left[\frac{M_x}{1-M_x}\right] = \ln(\alpha) + \beta x \quad [9]$$

Then, the estimated parameters are used to predict $\bar{M}_x$ as follows:

$$\bar{M}_x = \frac{e^a e^{bx}}{1+e^a e^{bx}} \text{ or, equivalently, } \bar{M}_x = \frac{e^{a+bx}}{1+e^{a+bx}} \quad [10]$$

Table III. Births in 2020 and 2021, deaths in 2021 of infants born in 2020 and 2021, and separation factors, by Hispanic origin and race and sex: United States

Births, deaths, and separation factors	Total			Hispanic			Non-Hispanic											
							American Indian and Alaska Native			Asian			Black			White		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Births																		
2020	3,613,647	1,848,092	1,765,555	866,713	441,401	425,312	26,813	13,779	13,034	219,068	112,795	106,273	529,811	269,341	260,470	1,843,432	945,464	897,968
2021	3,664,292	1,873,416	1,790,876	885,916	450,807	435,109	26,124	13,343	12,781	213,813	110,083	103,730	517,889	262,679	255,210	1,887,656	968,370	919,286
Deaths in 2021																		
Infants born in 2020	2,438	1,351	1,087	471	255	216	30	17	13	56	34	22	818	460	358	949	524	425
Infants born in 2021	17,481	9,557	7,924	3,982	2,166	1,816	165	88	77	572	318	254	4,864	2,693	2,171	6,971	3,792	3,179
Separation factor, *f*	0.122	0.124	0.121	0.106	0.105	0.106	0.154	0.162	0.144	0.089	0.097	0.080	0.144	0.146	0.142	0.120	0.121	0.118

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

where *a* and *b* are the predicted values of parameters ln(α) and ß, respectively, given by fitting model [9]. Estimated parameters and the starting age for the modeled age span by population in 2021 are presented in Table IV.

Finally, the predicted probability of death, $\bar{q}_x$, for ages 85–120 is estimated by converting $\bar{M}_x$ as:

$$\bar{q}_x = \frac{\bar{M}_x}{1+\frac{1}{2}\bar{M}_x} \qquad [11]$$

The probability of death is extrapolated to age 120 to estimate the life table population until no survivors remain. This information is then used to estimate L_x for ages 100–120, which is used to close the table with the age category 100 and older, combined (discussed in the following section).

Probabilities of dying at the oldest ages for the Hispanic, American Indian and Alaska Native non-Hispanic, and Asian non-Hispanic populations

As previously noted, Medicare data are unreliable for the Hispanic (regardless of race) and American Indian and Alaska Native and Asian (regardless of Hispanic origin) populations due to inconsistencies in the Medicare race and ethnicity classification system. As a result, other methods had to be used to estimate mortality at the oldest ages for these populations. Beyond age 80, mortality estimates based strictly on vital statistics for these three populations are too low, despite correction for ethnicity and race misclassification on the death certificate.

A consistent finding across diverse studies has been that Hispanic mortality in the adult and advanced ages varies between about 80% and 89% relative to that of the White non-Hispanic population (19,29,30). The Brass relational logit model takes advantage of the relationship between Hispanic and White non-Hispanic mortality previously identified and has been widely and successfully used to predict the mortality of one population relative to another at the older ages (31,32). Using the age-specific mortality pattern of the White non-Hispanic population as the "standard," the Brass relational logit model is used to predict Hispanic mortality in the older ages. The standard is fit to Hispanic data in the age interval 45–80, and the predicted parameters are used to estimate the probabilities of death for ages 76–100. This method allows the relationship between the two populations in the younger ages to be extended to the older ages (19,31,32).

Although similar information is not available for the American Indian and Alaska Native non-Hispanic and Asian non-Hispanic populations, with a slight modification, the Brass relational logit model was successfully used to produce reliable complete period life tables for the American Indian and Alaska Native non-Hispanic population in Indian Health Service Contract Health Service Delivery Area counties (33). The choice of the White non-Hispanic population as the standard population is based on several factors. First, it is the most widely used comparison population in the study of racial and ethnic disparities given its social and economic privilege. Second, it is the largest population in the United States and has the most reliable mortality data. Third, the relationship between the age-specific mortality patterns of the American Indian and Alaska Native non-Hispanic and Asian non-Hispanic populations and the White non-Hispanic population remains constant throughout the age span 45–80 (45–84 for the American Indian and Alaska Native non-Hispanic population). The assumption that this pattern continues to the oldest ages is reasonable because the final results are consistent with expected age-specific mortality patterns at the oldest ages (Figures I and II).

The Brass relational logit model expresses the age-specific mortality pattern of a population of interest as a function of the age-specific mortality pattern of a standard population and is expressed as:

$$\bar{Y}_x = \alpha + \beta Y_x^S \qquad [12]$$

where $\bar{Y}_x$ is the predicted logit of the probability of death, q_x, in the population of interest, that is,

$$\text{logit}\,[q_x] = \ln\left[\frac{q_x}{1-q_x}\right]$$

Y_x^S is the logit of the probability of death in the standard population, q_x^S, that is,

$$\text{logit}\,[q_x^S] = \ln\left[\frac{q_x^S}{1-q_x^S}\right]$$

α is the predicted parameter that measures the level of mortality of the population of interest relative to the standard population, and ß is the predicted parameter that measures the slope of the mortality function of the population of interest relative to the standard population (3,16,32). Table V shows values of predicted α and ß and their standard errors.

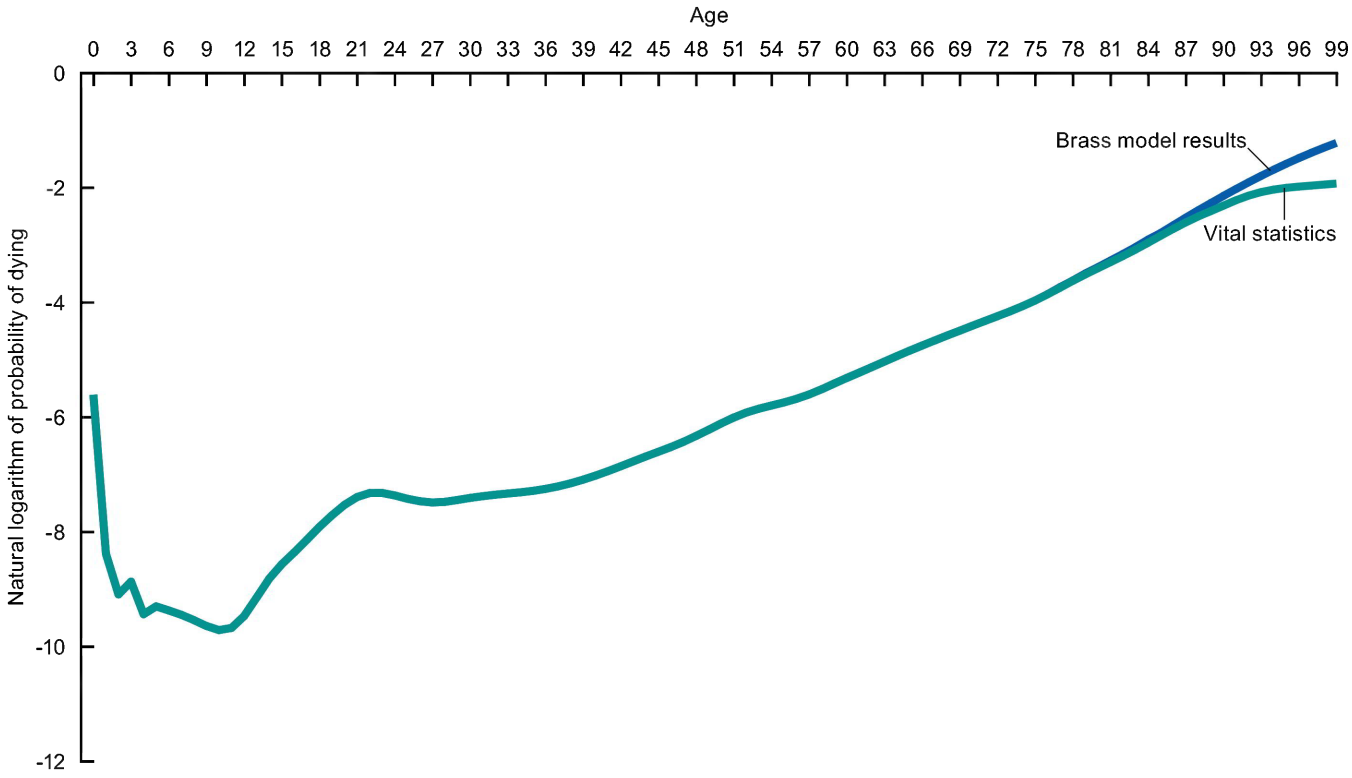
A maximum-likelihood generalized linear-model estimation procedure was used to fit equation [12] in the age range 45–80

Table IV. Estimated parameters α and β used for predicting m_x and starting age of modeled age span: U.S. Life Tables, 2021

Parameter	Total			Black, non-Hispanic			White, non-Hispanic		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Starting age	85	85	86	85	84	85	85	85	86
ln(α) (standard error)	-13.24527 (0.054)	-13.27525 (0.119)	-13.92228 (0.073)	-10.88583 (0.093)	-10.43890 (0.209)	-11.83517 (0.129)	-13.43067 (0.750)	-13.65909 (0.102)	-14.09049 (0.095)
β (standard error)	0.1290736 (0.001)	0.1315896 (0.001)	0.1352526 (0.001)	0.1024042 (0.001)	0.0997008 (0.002)	0.1118653 (0.001)	0.1314234 (0.001)	0.1361912 (0.001)	0.1373686 (0.001)

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Figure I. Age pattern of mortality for the Asian, non-Hispanic population: United States, 2021



SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

(45–84 for the American Indian and Alaska Native non-Hispanic population). The resulting predicted parameters α and ß were then used to estimate the predicted probability of death for ages 76–120 (80–120 for the American Indian and Alaska Native non-Hispanic population). The value q_x was predicted to age 120 to estimate the life table population until no survivors remain, as was done for the other population groups. This information was then used to estimate L_x for ages 100–120, which was used to close the table with the age category 100 and older, combined (discussed in the next section).

Predicted $\bar{q}_x$ is estimated by transforming its logit, $\bar{Y}_x$, back as follows:

$$\bar{q}_x = \frac{\exp[\bar{Y}_x]}{1+\exp[\bar{Y}_x]} = \frac{\exp[\alpha+\beta Y_x^s]}{1+\exp[\alpha+\beta Y_x^s]} \qquad [13]$$

To ensure a smooth transition from vital q_x^v and predicted $\bar{q}_x$, the two were blended from ages 76 to 80 (80 to 84 for the American Indian and Alaska Native non-Hispanic population) with a graduating process as follows:

$$q_x = \frac{1}{6}[(81-x)q_x^v + (x-75)\bar{q}_x] \qquad [14]$$

when $x = 76,...,80$, and

$$q_x = \frac{1}{6}[(85-x)q_x^v + (x-79)\bar{q}_x]$$

when $x = 80,...,84$.

Finally, to close the table at age 100 and older (combined), ${}_\infty q_{100}$ is set equal to 1.0 because all survivors to this age will die at some point in the open-ended age interval. Once q_x is obtained for each single year of age, the other life table functions are easily calculated.

Calculation of remaining life table functions for all groups

Survivor function (l_x)

The life table radix, l_0, is set at 100,000. For ages greater than 0, the number of survivors remaining at exact age x is calculated as:

$$l_x = l_{x-1}(1-q_{x-1}) \qquad [15]$$

Decrement function (d_x)

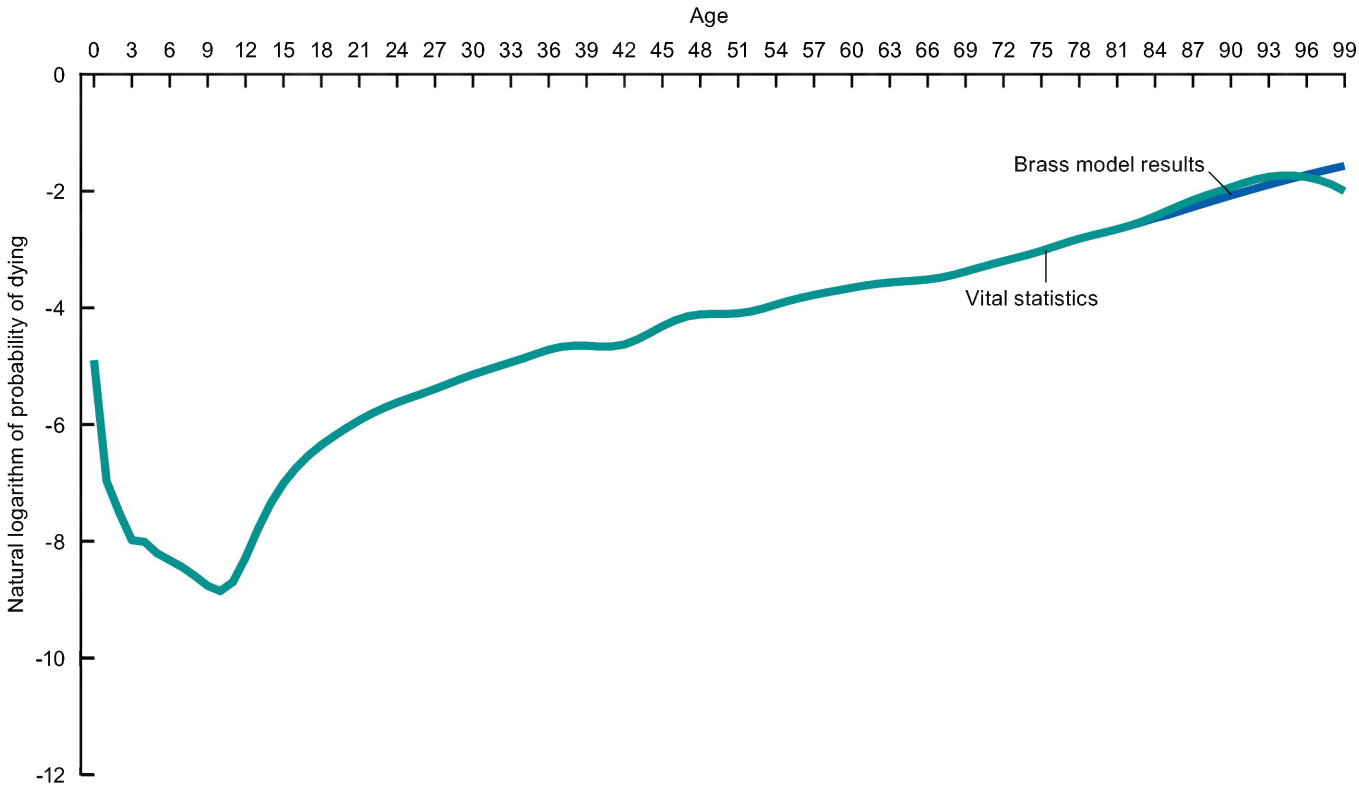
The number of deaths occurring between ages x and $x+1$ is calculated from the survivor function:

$$d_x = l_x - l_{x+1} = l_x q_x \qquad [16]$$

Note that

$${}_\infty d_{100} = {}_\infty l_{100} \text{ because } {}_\infty q_{100} = 1.0.$$

Figure II. Age pattern of mortality for the American Indian and Alaska Native, non-Hispanic population: United States, 2021



SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Person-years lived (L_x)

Person-years lived for ages 1–99 is calculated assuming that the survivor function declines linearly between ages x and $x+1$. This gives the formula:

$$L_x = \frac{1}{2}(l_x + l_{x+1}) = l_x - \frac{1}{2}d_x \qquad [17]$$

For $x = 0$, the separation factor f is used to calculate L_0:

$$L_0 = fl_0 + (1-f)l_1 \qquad [18]$$

Finally, ${}_{\infty}L_{100}$ is estimated as the sum of the extrapolated L_x values for ages 100–120.

Person-years lived at and above age x (T_x)

T_x is calculated by summing L_x values at and above age x:

$$T_x = \sum_{x=0}^{\infty} L_x \qquad [19]$$

Life expectancy at age x (e_x)

Life expectancy at exact age x is calculated as:

$$e_x = \frac{T_x}{l_x} \qquad [20]$$

Causes of death contributing to changes in life expectancy

To measure changes in mortality, a discrete method, developed by Arriaga (34–36), was used to estimate the contribution of mortality change by causes of death based on changes in life expectancy, which is described as a procedure that "estimates the number of years added to or removed from life expectation because of the decrease or increase (respectively) of the central mortality rates of life tables" (35). With this method one can partition the change in life expectancy over time or between two separate groups of populations. In this report, Arriaga's technique is used to partition by cause of death changes in life expectancy at birth in the United States from 2020 to 2021.

The method partitions changes into component additive parts and identifies the causes of death having the greatest influence, positive or negative, on changes in life expectancy based on rankable causes of death (34–36). This method is used by the National Center for Health Statistics annually to analyze changes in life expectancy (13).

Abridging the complete life table

An abridged or collapsed version of the complete life table can be calculated in which life table functions are shown for 5-year rather than single-year age intervals. It is often desirable

Table V. Estimated Brass relational logit model parameters α and β for the Hispanic, American Indian and Alaska Native, and Asian populations: U.S. Life Tables, 2021

Parameter	Hispanic			Non-Hispanic					
				American Indian and Alaska Native			Asian		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
α (standard error)	-0.2309524	-0.2335958	-0.1024503	-0.9080195	-0.9931060	-0.7947916	-0.0518879	-0.1885180	0.1039675
	(0.036)	(0.039)	(0.039)	(0.025)	(0.018)	(0.030)	(0.036)	(0.033)	(0.053)
β (standard error)	0.9664515	0.9529551	1.0113570	0.6112784	0.5743968	0.6500818	1.1557070	1.1087700	1.2004230
	(0.009)	(0.010)	(0.009)	(0.007)	(0.006)	(0.008)	(0.010)	(0.009)	(0.014)

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

to summarize the life table and save space when publishing life table data by single years of age. The abridgement of the complete life table is simplified by an important property of three of the six life table functions. The l_x, T_x, and e_x functions describe exact age x, that is, the beginning of the age interval x to $x + n$ (where n denotes the length of the age interval; for 5-year age intervals, $n = 5$). Life expectancy at age 20 (e_{20}), for example, has the same value regardless of whether the age interval is 20–21 or 20–25. Consequently, the values l_x, T_x, and e_x can be extracted at 5-year intervals from the complete life table and placed into the abridged life table (compare l_x, T_x, and e_x in Table VI with the same functions in Table 1). It is also illustrative to compare values for e_x and l_x in Tables A and B with their corresponding values presented in Tables 1–18.

The q_x, d_x, and L_x functions, in contrast, describe the age interval x to $x + n$. In fact, for abridged life tables, the notation for these functions is different (${}_nq_x$, ${}_nd_x$, and ${}_nL_x$, respectively). As a result, ${}_5q_{20}$ is the probability of dying between ages 20 and 25 and will be somewhat larger than q_{20}, the probability of dying between ages 20 and 21. Considering this, ${}_nq_x$, ${}_nd_x$, and ${}_nL_x$ must be recalculated in the abridged life table. It is simplest to begin with ${}_nd_x$. The calculations are made for all but the final age interval as:

$$ {}_nd_x = l_x - l_{x+n} $$

$$ {}_nq_x = \frac{{}_nd_x}{l_x} $$

$$ {}_nL_x = T_x - T_{x+n} $$

Note that for the open-ended interval, ages 100 and older, ${}_\infty d_{100} = l_{100}$, ${}_\infty q_{100} = 1.0$, and ${}_\infty L_{100} = T_{100}$. Table VI shows each of the life table functions for the 2021 U.S. total population abridged from Table 1.

Table VI. Life table for the total population: United States, 2021

Age (years)	Probability of dying between ages x and $x+n$	Number surviving to age x	Number dying between ages x and $x+n$	Person-years lived between ages x and $x+n$	Total number of person-years lived above age x	Expectation of life at age x
	${}_nq_x$	l_x	${}_nd_x$	${}_nL_x$	T_x	e_x
0–1	0.005446	100,000	545	99,522	7,637,023	76.4
1–5	0.001010	99,455	100	397,582	7,537,501	75.8
5–10	0.000594	99,355	59	496,616	7,139,919	71.9
10–15	0.000829	99,296	82	496,326	6,643,303	66.9
15–20	0.003105	99,214	308	495,405	6,146,977	62.0
20–25	0.005764	98,906	570	493,197	5,651,572	57.1
25–30	0.007820	98,336	769	489,837	5,158,376	52.5
30–35	0.010138	97,566	989	485,444	4,668,539	47.8
35–40	0.012579	96,577	1,215	479,954	4,183,095	43.3
40–45	0.016130	95,363	1,538	473,116	3,703,141	38.8
45–50	0.021540	93,824	2,021	464,324	3,230,025	34.4
50–55	0.030536	91,803	2,803	452,400	2,765,701	30.1
55–60	0.044758	89,000	3,983	435,593	2,313,301	26.0
60–65	0.064049	85,017	5,445	412,019	1,877,709	22.1
65–70	0.086724	79,571	6,901	381,294	1,465,690	18.4
70–75	0.121931	72,671	8,861	342,142	1,084,396	14.9
75–80	0.189749	63,810	12,108	290,135	742,254	11.6
80–85	0.290795	51,702	15,035	221,952	452,119	8.7
85–90	0.448486	36,667	16,445	142,083	230,167	6.3
90–95	0.641008	20,223	12,963	66,156	88,084	4.4
95–100	0.808564	7,260	5,870	18,924	21,928	3.0
100 and over	1.000000	1,390	1,390	3,004	3,004	2.2

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

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DOI: https://dx.doi.org/10.15620/cdc:132418.

Exhibit “E”

AFFIDAVIT OF FACTS

STATE OF TEXAS §
§
§
§
§

COUNTY OF Dallas §

BEFORE ME, the undersigned authority, personally appeared **Ruby Acosta** who being by me duly sworn, deposed as follows:

- My name is Ruby Acosta. I am of sound mind and capable of making this affidavit.
- I am the daughter of Jose and Carmen Acosta.
- Jose Acosta passed away as a result of a collision which occurred on April 5th, 2022.
- The loss of my dad had a profound impact on my mom, Carmen Acosta. She no longer does many of the activities that she used to do like going out on the weekends and working outside on her property. She has dealt with a lot of grief which has affected her daily life to a significant degree.
- My mom often expresses that she misses my dad, and I have personally observed the pain his death has caused her.

Ruby Acosta
AFFIANT

SWORN TO AND SUBSCRIBED before me on the 19 day of March, 2025.

Sarah Balderson
Notary Public, in and for the
State of Texas

My Commission Expires:
10-28-2027

SARAH BALDERSON
NOTARY PUBLIC
STATE OF TEXAS
ID 130422345
EXP. 10-28-2027

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Jimmy Brashear on behalf of Aidan Moffatt
Bar No. 24136001
jimmy@tedlyon.com
Envelope ID: 98705793
Filing Code Description: Ody - Motion - Default Judgment
Filing Description: MOTION FOR DEFAULT JUDGMENT ON DAMAGES
Status as of 3/24/2025 9:11 AM CST

Case Contacts

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