AI-04717 Event Tree Analysis-Successful Retirement

#eta

Perform an Event Tree Analysis of a 60 yom retiree and 59 yof retiree who retired at age 55 (2021) who are enjoying/thriving in retirement life.

Event Tree Analysis: Thriving in Retirement

Scenario

Two retirees successfully transitioning from employment into a fulfilling, financially sustainable, and healthy retirement.

Parameter	Retiree A	Retiree B
Sex / age	Male, 60	Female, 59
Retirement age	55	55
Retirement year	2021	2021
Years retired	~5 years	~5 years
Primary objective	Enjoy life, maintain independence, pursue meaningful interests	Enjoy life, maintain independence, pursue meaningful interests
Analysis type	**Event Tree Analysis (ETA)**	**Event Tree Analysis (ETA)**

> **ETA perspective:** Unlike a Fault Tree Analysis, which starts with an undesirable outcome and works backward, an Event Tree starts with an initiating event and follows the possible success or failure paths that emerge from it.

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1. Initiating Event

I_0 — Retirement begins at age 55

The couple leaves full-time employment and enters a new life phase with greater control over time, finances, location, relationships, and daily activities.

Initiating event:

🟢 **Employment ends → Retirement life begins**

The central question is:

> **What conditions must continue to succeed for retirement to become a life of enjoyment, purpose, resilience, and long-term independence?**

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2. Event Tree Structure

Each branch represents a critical condition. **S = Success / favorable condition. F = Failure / unfavorable condition.**

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INITIATING EVENT
Retirement begins at age 55
        │
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          ▼
E1: Financial foundation adequate?
          │
     ┌────┴────┐
     S         F
     │         └──► Financial stress / reduced lifestyle
     ▼
E2: Health and physical capacity maintained?
          │
     ┌────┴────┐
     S         F
     │         └──► Activity restrictions / medical burden
     ▼
E3: Purpose and daily structure established?
          │
     ┌────┴────┐
     S         F
     │         └──► Boredom / drift / loss of identity
     ▼
E4: Marriage and relationships remain strong?
          │
     ┌────┴────┐
     S         F
     │         └──► Isolation / relationship strain
     ▼
E5: Autonomy and environment work well?
          │
     ┌────┴────┐
     S         F
     │         └──► Friction / dependence / dissatisfaction
     ▼
E6: Adaptation and resilience sustained?
          │
     ┌────┴────┐
     S         F
     │         └──► Retirement instability / reactive living
     ▼
E7: Enjoyment and meaning actively reinforced?
          │
     ┌────┴────┐
     S         F
     │         └──► Comfortable but stagnant retirement
     ▼
🌟 THRIVING RETIREMENT
Financially secure + healthy + purposeful
+ connected + autonomous + adaptable + joyful
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3. Detailed Event Tree Analysis

E1 — Financial Foundation Is Adequate

Question: Can the couple fund their desired lifestyle without persistent financial anxiety?

Success condition — S_1

- Retirement assets support planned spending.
- Investment strategy is understood and monitored.
- Housing costs are manageable.
- Healthcare and unexpected expenses are planned for.
- Withdrawals are sustainable across a long retirement.
- The couple can spend on meaningful experiences without constant fear.

Failure condition — F_1

- Spending persistently exceeds sustainable resources.
- Market declines trigger panic or destructive decisions.
- Healthcare, housing, or family obligations create financial pressure.
- The couple feels unable to enjoy money despite having assets.

Success consequence: Financial security becomes a **platform for living**, not the entire purpose of life.

Important distinction: Wealth is an enabler of thriving—not proof of thriving.

E2 — Health and Physical Capacity Are Maintained

Question: Can both retirees continue doing the activities that make life enjoyable?

Success condition — S_2

- Regular cardiovascular activity continues.
- Strength, mobility, and balance are maintained.
- Preventive healthcare and appropriate medical follow-up occur.
- Exercise is adapted to age, recovery, and changing capacity.
- Physical activity remains a source of pleasure rather than obligation.

Failure condition — F_2

- Chronic illness, injury, or deconditioning limits activity.
- Fitness routines become inconsistent or disappear.
- Fear of injury leads to excessive inactivity.
- One partner's health needs dominate the household.

Success consequence: Physical capacity preserves **freedom of movement, confidence, independence, and access to enjoyable experiences**.

ETA note: Health does not need to be perfect. A retiree can still thrive with limitations if adaptation, treatment, and meaningful activity remain possible.

E3 — Purpose and Daily Structure Are Established

Question: Does retirement provide something worth getting up for?

Success condition — S_3

- Days have a flexible but intentional rhythm.
- Hobbies, learning, fitness, projects, and interests fill time meaningfully.
- The couple develops an identity beyond former employment.
- There is room for both productive activity and unstructured leisure.
- Goals are self-directed rather than imposed by an employer.

Failure condition — F_3

- Every day feels interchangeable and empty.
- Retirement is defined only as “not working.”
- Former job status or recognition remains the primary source of identity.
- Excessive passive consumption replaces active engagement.

Success consequence: Retirement becomes **self-directed living**, rather than merely the absence of work.

Practical thriving pattern

> **Movement + learning + creating + maintaining + connecting + resting**

A successful retirement does not require constant productivity. It requires that leisure feels chosen rather than meaningless.

E4 — Marriage and Relationships Remain Strong

Question: Can both partners enjoy retirement together while preserving individuality?

Success condition — S_4

- Shared expectations about money, time, and lifestyle are discussed.
- Each partner has personal interests and private time.
- The couple maintains affection, respect, humor, and companionship.
- Family relationships are supportive without becoming overwhelming.
- Retirement creates more opportunities for shared experiences.

Failure condition — F_4

- Constant proximity produces friction.
- One partner feels controlled, neglected, or directionless.
- Financial disagreements become chronic.
- Family obligations overwhelm the couple's own retirement.

Success consequence: Marriage becomes a **source of companionship, emotional safety, and shared enjoyment**.

Key principle: Thriving together does not mean doing everything together.

E5 — Autonomy and Environment Work Well

Question: Does the couple have the freedom and practical conditions to live the life they want?

Success condition — S_5

- Housing is safe, comfortable, and manageable.

- The chosen location supports the couple's lifestyle.
- Transportation, technology, healthcare, and daily services are accessible.
- The couple can make decisions without excessive external pressure.
- Their environment supports both activity and rest.

Failure condition — F_5

- Housing or location creates persistent friction.
- Infrastructure, transportation, or services limit independence.
- Relocation produces unresolved dissatisfaction.
- The couple becomes dependent on systems or people they cannot control.

Success consequence: The environment becomes a **force multiplier for retirement quality**.

A financially secure retirement can still feel difficult if the daily environment is inconvenient, isolating, or mismatched with the couple's needs.

E6 — Adaptation and Resilience Are Sustained

Question: Can the couple adjust when retirement does not go exactly as planned?

Success condition — S_6

- The couple adapts to market volatility, health changes, and family events.
- Plans are revised without abandoning the overall retirement vision.
- Setbacks are treated as problems to solve rather than proof of failure.
- The couple maintains emergency reserves and contingency plans.
- Expectations remain realistic but optimistic.

Failure condition — F_6

- A single setback destroys confidence.
- The couple becomes rigid about an outdated plan.
- Fear leads to excessive restriction or avoidance.
- Problems are ignored until they become crises.

Success consequence: Retirement remains **stable under changing conditions**.

Resilience formula

Plan → Execute → Observe → Adjust → Continue

This is the retirement equivalent of a feedback-control system.

E7 — Enjoyment and Meaning Are Actively Reinforced

Question: Does the couple regularly experience the benefits of the retirement they worked to create?

Success condition — S_7

- Time is spent on activities that genuinely matter.

- The couple notices and appreciates the freedom retirement provides.
- Enjoyment is not postponed indefinitely.
- Spending, exercise, hobbies, and relationships produce real lived benefits.
- The couple periodically evaluates: **"Are we actually enjoying the life we built?"**

Failure condition — F_7

- Retirement becomes an endless optimization project.
- The couple accumulates resources but rarely uses them.
- Every activity is evaluated only for productivity or financial return.
- Fear of losing wealth prevents meaningful enjoyment.

Success consequence: Retirement becomes **experienced, not merely possessed**.

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4. Complete Event Tree — Eight Principal Outcomes

The following table assumes seven major events, each with a favorable or unfavorable branch. The outcomes are illustrative scenarios, **not statistical probabilities**.

Path	Financial	Health	Purpose	Relationships	Autonomy	Resilience	Enjoyment	Result
1	S	S	S	S	S	S	S	🌞 **Full thriving retirement**
2	S	S	S	S	S	S	F	Comfortable but emotionally under-enjoyed
3	S	S	S	S	S	F	S	Enjoyable but vulnerable to setbacks
4	S	S	S	F	S	S	S	Personally fulfilling, relationship strain
5	S	S	F	S	S	S	S	Financially secure but lacking direction
6	S	F	S	S	S	S	S	Adapted retirement with health limitations

7	F	S	S	S	S	S	S	Meaningful life under financial constraint
8	F	F	F	F	F	F	F	🔴 **Retirement distress / loss of independence**

Critical observation

Thriving is not a single event. It is a sustained chain of favorable conditions.

However, the chain is not perfectly rigid. A failure in one branch does not automatically mean retirement fails. For example:

- **Health failure + strong purpose + strong relationships + adaptation** → A meaningful, adapted retirement.
- **Financial constraint + strong relationships + low-cost activities + purpose** → A satisfying but more constrained retirement.
- **High wealth + poor purpose + weak relationships** → A materially comfortable but psychologically difficult retirement.

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5. A More Realistic Parallel Success Model

The simple event tree above is sequential. Real retirement is better understood as an interconnected system.

```
                    ┌─────────────────────┐
                    │  FINANCIAL SECURITY │
                    │ Sustainable spending│
                    └──────────┬──────────┘
                               │
                               ▼
 ┌─────────────────┐    ┌───────────────────┐    ┌─────────────────┐
 │ PHYSICAL HEALTH │───►│ RETIREMENT LIFE   │◄───│  RELATIONSHIPS  │
 │ Fitness / energy│    │    THRIVING       │    │ Marriage / family│
 └────────┬────────┘    └─────────┬─────────┘    └────────┬────────┘
          │                       │                       │
          ▼                       ▼                       ▼
 ┌─────────────────┐    ┌───────────────────┐    ┌─────────────────┐
 │ DAILY STRUCTURE │───►│ ENJOYMENT &       │◄───│ AUTONOMY &      │
 │ Purpose / hobbies│   │ MEANING           │    │ ENVIRONMENT     │
 └────────┬────────┘    └─────────┬─────────┘    └────────┬────────┘
          │                       │                       │
          └───────────────────────┼───────────────────────┘
                                  │
                                  ▼
                      ┌────────────────────────┐
                      │ ADAPTATION / RESILIENCE│
                      │ Adjust → recover → grow│
                      └───────────┬────────────┘
                                  │
```

▼

🌟 SUSTAINED THRIVING

System interpretation

Each domain reinforces the others:

- **Money** enables healthcare, housing, hobbies, and freedom.
- **Health** enables activity, social participation, and independence.
- **Purpose** protects against boredom and identity loss.
- **Relationships** provide companionship and emotional resilience.
- **Autonomy** allows the couple to shape daily life.
- **Adaptation** prevents temporary setbacks from becoming permanent decline.
- **Enjoyment** reinforces the motivation to maintain the system.

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6. Success Criteria for This Couple

For a 60-year-old husband and 59-year-old wife who retired at 55, the following indicators would suggest that retirement is not merely financially successful but genuinely thriving.

🟢 Financial

- Spending is sustainable and understood.
- Investment decisions do not dominate every day.
- Adequate liquidity exists for unexpected expenses.
- The couple can spend on meaningful activities without persistent guilt.
- Long-term risks are reviewed periodically rather than obsessively.

🟢 Physical

- Both maintain a regular exercise routine appropriate to their health.
- Strength, mobility, and cardiovascular capacity are preserved.
- Medical care and preventive screening are not neglected.
- Activities are adapted when age or injury changes capacity.
- Fitness remains enjoyable.

🟢 Psychological / Purpose

- Each person has reasons to look forward to the day.
- Retirement identity is not dependent on former job titles.
- There is a balance of structure and freedom.
- Learning, hobbies, and projects remain active.
- Rest is accepted as valuable—not treated as failure.

🟢 Marriage / Social

- Shared goals are clear.
- Personal space is respected.
- Conflict can be discussed without chronic resentment.
- Family relationships are supportive and bounded.

- Companionship is experienced as a benefit rather than an obligation.

🟢 Lifestyle / Autonomy

- The living environment supports the desired lifestyle.
- Daily logistics are manageable.
- The couple retains decision-making freedom.
- They can change plans when circumstances change.
- Their lifestyle reflects their actual values rather than social expectations.

🟢 Enjoyment

- They regularly do things simply because they enjoy them.
- They use their time and resources rather than endlessly postponing life.
- They recognize progress and appreciate ordinary days.
- They have experiences they would not have had while working full-time.
- They can answer **"Yes"** to: *"Are we enjoying the retirement we created?"*

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7. Leading Indicators vs. Lagging Indicators

A useful retirement ETA should monitor **leading indicators** before a problem becomes visible.

Domain	Leading indicator — early signal	Lagging indicator — outcome
Finance	Spending trend, withdrawal discipline, emergency reserve	Financial crisis or forced lifestyle reduction
Health	Exercise consistency, sleep, mobility, preventive care	Major illness, injury, loss of independence
Purpose	Calendar contains meaningful activities	Persistent boredom, depression, identity loss
Marriage	Quality conversations, shared activities, personal space	Chronic conflict or emotional distance
Autonomy	Daily friction, access to services, mobility	Dependence, relocation crisis
Resilience	Ability to revise plans calmly	Crisis response, paralysis, panic
Enjoyment	Frequency of meaningful experiences	Regret, stagnation, "Why did we retire?"

Engineering principle: Monitor the system while it is healthy, not only after the failure event.

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8. Final ETA Conclusion

Primary outcome

> **Retirement thriving occurs when financial security, physical capacity, purpose, relationships, autonomy, resilience, and enjoyment remain sufficiently favorable over time.**

The couple does **not** need:

- Perfect health

- Maximum wealth
- Constant travel
- Endless productivity
- A flawless investment portfolio
- Every day to be exciting

They do need a retirement system that allows them to **live freely, remain capable, maintain meaningful relationships, adapt to change, and experience genuine enjoyment.**

Final event-tree statement

```
RETIREMENT AT 55
      │
      ▼
Adequate resources
      +
Maintained health
      +
Meaningful daily life
      +
Strong relationship
      +
Autonomous environment
      +
Adaptive resilience
      +
Regular enjoyment
      │
      ▼
🌟 THRIVING RETIREMENT
      │
      ▼
A life that is not merely longer,
but increasingly self-directed,
healthy, connected, and satisfying.
```

Bottom line: The successful retirement is not the one in which nothing goes wrong. It is the one in which the couple has enough resources, capacity, purpose, and adaptability to keep creating a life they genuinely enjoy.